



**SUMMARY REPORT:
AUTOMOTIVE LABOUR SUPPLY AND DEMAND PROJECT - EMPLOYER SURVEY
COMPONENT**

Prepared for
BC AUTOMOTIVE SECTOR COUNCIL

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EXECUTIVE SUMMARY

Highlighted in this report are the key findings of the *Automotive Labour Supply and Demand Project - Employer Survey Component*, initiated by the BC Automotive Sector Council with funding provided by Human Resources and Skills Development Canada (HRSDC). The employer survey and subsequent analysis of the information obtained from this research was completed by R.A. Malatest & Associates Ltd.

The purpose of this study was to gain an accurate understanding of existing or potential human resource issues for automotive businesses in BC in terms of meeting future skills and human resource requirements. Employment estimates and forecasts were prepared on a provincial and regional basis, as well as for the three occupations of interest to the current project.

Information in this report is based on the results of an extensive survey (754 completions and an overall valid response rate of 40.0%) of automotive service and repair establishments from across BC that directly employed individuals in related occupations. It is estimated that the employers who responded to this survey represent approximately one-third of BC's automotive sector workforce. It should be noted that, although this study has been commissioned by the Automotive Sector Council, the recommendations provided in this report simply reflect the research findings.

Survey results suggest that human resource issues are a major concern for most of BC automotive employers.

There is substantial evidence to suggest that human resource issues are a major concern for most BC automotive employers. For example:

- Approximately three-quarters of employers noted that the insufficient supply of qualified staff to hire was an issue for their organization. This lack of staff was a greater concern than issues associated with training, retirement and/or lack of skill with respect to new technologies;
- At the time of the survey, a considerable proportion of employers noted that labour shortages were already affecting their organization. For example, among employers who employed Automotive Service Technicians, almost one-half (44.8%) noted that labour shortages in 2005 were an issue or a major issue for that organization. Survey data suggests that labour shortages will become ever more problematic for employers in 2006;
- Labour shortages are a reality for many employers, as a high proportion of employers reported unfilled positions as of the summer of 2005. For example, among employers who employed or who would like to employ an AST, 34.7% reported that they had one or more unfilled AST positions. Similarly, a high proportion (34.8%) of employers who employed Automotive Collision Repair Technicians (ACRTs) reported vacant positions;

- Based on survey data, there are a significant number of vacancies in all trades across the industry. For example:
 - for every nine employed ASTs, there is one unfilled vacancy
 - for every seven employed ARTs, there is one unfilled vacancy
 - for every seven employed ACRTs, there is one unfilled vacancy.

Employers anticipate significant increases in the total number of staff required over the next five years.

Employers have identified that they expect a significant expansion in the size of the automotive workforce, as annual average employment growth for the three occupations of interest is projected to range between 5.3%/year (ARTs) to 5.9%/year (ACRTs).

Based on estimated employment in 2005, these growth rates translate into sizeable employment requirements across the industry. Over the next five years, it is estimated that the sector will require the following:

- an additional 2,596 ASTs
- an additional 816 ACRTs
- an additional 452 ARTs

It should be emphasized that employers may be overoptimistic in their assessment of likely employment growth in the sector, however, as some occupations (i.e., ACRT – 34.0%) have a high proportion of older workers (i.e., workers aged 46 years of age or older), it would appear that the demand for workers could be a long-term issue for BC's automotive sector.

Apprentices are predominantly employed by businesses in the Lower Mainland.

At the time of the survey, more than one-half (52%) of companies overall employed at least one apprentice. However, the majority (54.3%) of apprentices are employed by businesses in the Lower Mainland, while only 16.4% and 9.0% of companies in the Central Interior and Northern regions of BC (respectively) had one or more apprentices on staff. The more remote regions of the province, therefore, may lack the necessary numbers of replacement staff to account for retirement among older workers/journeymen in the next 5 to 10 years.



Overall, employers are generally satisfied with the skills of certified journeymen.

Overall, the majority of employers surveyed noted that they were satisfied or very satisfied with the skills of their certified journeymen. For example, 96.5% of employers noted that they were satisfied/very satisfied with the skills of certified journeymen with respect to brakes. More than 90% of employers also expressed satisfaction with the skills of their certified journeypersons in the area of mechanical suspension (94.0%), safety (93.1%) and repair technologies (91.0%).

There were only two areas in which less than two-thirds of employers were satisfied with the skill sets of their certified journeymen: aluminum/welding (60.3%) and electronics (59.6%).

Table of Contents

SECTION 1: INTRODUCTION AND RESEARCH OVERVIEW	1
1.1 Project Background and Objectives	1
1.1.1 Research Focus	2
1.2 Scope of Work	2
1.2.1 Research Methodology	2
1.2.2 Survey Completions and Response Rates	3
1.3 Survey Coverage	4
1.4 Challenges and Potential Limitations of the Project	6
 SECTION 2: BC AUTOMOTIVE SECTOR PROFILE AND BUSINESS INFORMATION	 7
2.1 Main Activity of Respondents	7
2.2 Type of Occupations	8
 SECTION 3: WORKFORCE CHARACTERISTICS	 11
3.1 Number of Employees	11
3.1.1 Employment of Apprentices	12
3.2 Employment Growth	14
3.2.1 Recent Growth	15
3.2.2 Future Growth	15
3.2.3 Regional Growth	16
3.3 Estimated Provincial and Regional Employment Projections	18
3.4 Labour Shortages	19
3.5 Vacant/Unfilled Positions	21
 SECTION 4: HIRING PRACTICES AND HUMAN RESOURCE ISSUES	 23
4.1 Primary Hiring Practice	23
4.2 Human Resource Issues	24
4.3 Skills of Certified Journeymen	26
 SECTION 5: CONCLUSIONS AND OBSERVATIONS	 28

SECTION 1. INTRODUCTION AND RESEARCH OVERVIEW

The report provides information as to the key human resource issues faced by the automotive service and repair industry in BC. This report is presented in five sections:

Section 1: Introduction and Research Overview

Section 2: BC Automotive Sector Profile and Business Information

Section 3: Workforce Characteristics

Section 4: Hiring Practices and Human Resource Issues

Section 5: Conclusions and Observations

The remainder of this section provides a description of the project background and its objectives, and an overview of the scope of work undertaken for the research.

1.1 Project Background and Objectives

It has been suggested by a number of sources that many trade industries are facing, or will soon face, labour shortages in BC and Canada.¹ Under the leadership of the newly formed BC Automotive Sector Council, a committee has been formed to examine the extent to which automotive/autobody repair businesses are or will soon face labour shortages in certain key automotive occupations. The *Automotive Labour Supply and Demand Project - Employer Survey Component* has been developed to gain an accurate understanding of existing or potential human resource issues for automotive businesses in BC in terms of meeting current and future skills and human resource requirements.

The BC Automotive Sector Council feels that ensuring an adequate supply of trained workers is crucial to securing long-term growth in BC's automotive industry. To that end, with funding provided by Human Resources and Skills Development Canada (HRSDC), the Council commissioned the current research study, the findings of which will be used to form the basis of a five-year human resource strategic plan for the industry. The *Automotive Labour Supply and Demand Project - Employer Survey Component* was designed to identify key human resource issues. The objectives of the study include the following:

- Identifying the current and future human resource needs of organizations in BC's automotive service and repair sector; and
- Identifying existing skill gaps and needs in the industry from the perspective of employers and education/training providers in the automotive repair sector².

¹ R.A. Malatest & Associates Ltd. *Prospecting the Future*. MITAC, 2005; R.A. Malatest & Associates Ltd. *A Catalyst for Change – A Draft Human Resource Strategy for the British Columbia Manufacturing Industry*. Canadian Manufacturers and Exporters, BC Division. 2003.

R.A. Malatest & Associates Ltd. *Charting the Course - A Human Resource Strategy for the Shore-Based Operations for the British Columbia Marine Transportation Industry – Shore-based Operations of the Shipowners, Managers and Shipping Agencies Sub-sector*. Marine Sector Human Resources Planning Committee. 2003.

² Research undertaken in the initial stages of the project has focused on employers only. Education and training providers will be targeted in future phases of the project.

The results of this research will assist both the Automotive Sector Council and educational/training providers in determining the number of workers and types of skill sets required for a strong automotive service and repair industry in BC.

1.1.1 Research Focus

The project targets specific industry sub-sectors and specific occupations, as identified by the BC Automotive Sector Council. The industry sub-sectors and occupations of interest to the current project are presented in Table 1-1.

**Table 1-1
Target Industry Sectors and Occupations**

SECTOR	NAICS CODE
Repair & Maintenance	811
OCCUPATION	NOC CODE
Automotive Service Technicians	7321
Automotive Refinishing Technicians, Automotive Collision Repair Technicians	7322

It should be noted that the intention of the Automotive Sector Council is to gather input from all businesses in the industry that undertake automotive service and repair activities. Therefore, the survey also focused on specific types of business and, while services provided by individual businesses may not be entirely discrete, respondents were asked to indicate the business type that most accurately described their main business activity. The specific types of businesses included the following:

- New Car Dealer
- Automotive Collision Shop
- General Automotive Repair
- Retailer (i.e., Canadian Tire, Wal-Mart, etc.)
- Specialty Shop
- Other

1.2 Scope of Work

The *Automotive Labour Supply and Demand Project - Employer Survey Component* gathered the data contained and analyzed in the remainder of this report through a survey of automotive service and repair businesses across BC. The survey instrument was developed in close consultation with the BC Automotive Sector Council to ensure that it aligned with the project objectives. Research activities completed for the employer survey component of the research are described below.

1.2.1 Research Methodology

The *Automotive Labour Supply and Demand Project - Employer Survey Component* collected information through a survey of industry employers. The employer survey is key to fully understanding the needs and requirements of the automotive service and repair

industry. The survey provided business owners/managers with an opportunity to state the current and anticipated human resource needs of their business, as well as their perspectives on the industry as a whole. Survey topics included:

- BC Automotive sector profile and business information;
- Industry and employee profiles;
- Staff recruitment/hiring practices and issues;
- Staff training and skills; and
- Other issues as identified.

A mixed-mode survey approach was used whereby businesses were mailed a paper copy of the questionnaire and telephone follow-up calls were made to encourage completion of the survey. Completion targets were set to ensure that the four regions of the province (i.e., Lower Mainland, Vancouver Island, Central/Interior and Northern BC) were appropriately represented.

1.2.2 Survey Completions and Response Rates

A total of 1,033 companies responded to the survey. Businesses that did not currently employ, nor plan in the next year to employ, individuals in any of the three occupations of interest were deemed “non-qualifiers” (including sole-operated businesses where the owner/manager was the only person employed at the company). Of the total completions returned, 279 (27.0%) were considered “non-qualifiers”. As such, a total of 754 businesses (i.e., “qualifiers”) comprised the final survey sample. The final completion status of the survey is shown in Table 1-2.

**Table 1-2
Survey Completions by Region**

Region	Estimated Gross Universe	% of total Universe	Valid Survey Sample ⁽¹⁾	Valid Completions	Valid Response Rate
Lower Mainland (e.g., GVRD, Fraser Valley, etc.)	1,722	53.0%	1,086	397	37.0%
Vancouver Island	456	14.0%	272	132	49.0%
Interior/Central BC (e.g., Cranbrook, Okanagan, etc.)	649	20.0%	331	147	44.4%
Northern BC (i.e., North of Kamloops)	425	13.0%	196	78	40.0%
TOTAL	3,252	100.0%	1,885	754	40.0%

⁽¹⁾ The valid sample excludes not-in-service, fax/modem lines, and business not in service and/or erroneous businesses, and non-qualifiers.

The estimated gross universe of automotive businesses of interest to the current study was developed using information provided by the BC Automotive Sector Council and from the database developed for the national automotive sector study, also being completed by R.A. Malatest & Associates Ltd. The final universe used for the survey consisted of 3,252

businesses. Note, however, that not all of these businesses would qualify as a participant in the current study.³

1.3 Survey Coverage

A critical consideration in developing estimates of total industry employment and projected human resource needs is the extent to which survey respondents are representative of the provincial industry as a whole. To determine the adequacy of the coverage of survey responses relative to the actual automotive repair industry in British Columbia, survey coverage was examined in three ways. As described below, results for this study can be viewed with considerable confidence given the low sample error and high coverage:

Coverage of Establishments by Region

Estimated coverage of establishments in the industry provides an indication of how representative the information collected in the survey is relative to the industry as a whole. Shown in Table 1-3 is the regional breakdown of establishments for the estimated gross and adjusted universe of BC automotive repair establishments in BC (as defined by the parameters set for the current study) as well as for the final sample of survey completions. The sampling error overall and by region are also shown.

**Table 1-3
Distribution and Sample Error by Region
(Estimated Gross Universe and Valid Completions)**

Region	Estimated Gross Universe (% of total)	Adjusted Universe ⁽¹⁾ (% of total)	Final Survey Sample ⁽²⁾ (% of total)	Sample Error (95% CI)
Lower Mainland (e.g., GVRD, Fraser Valley, etc.)	1,722 (53.0%)	1,275 (53.7%)	397 (52.7%)	±4.1%
Vancouver Island	456 (14.0%)	391 (16.5%)	132 (17.5%)	±7.0%
Interior/Central BC (e.g., Cranbrook, Okanagan, etc.)	649 (19.9%)	422 (17.8%)	147 (19.5%)	±6.5%
Northern BC (i.e., North of Kamloops)	425 (13.1%)	283 (11.9%)	78 (10.3%)	±9.5%
TOTAL	3,252 (100.0%)	2,374 (100.0%)	754 (100.0%)	±2.9%

¹ The adjusted universe reflects the gross universe adjusted for the estimated number of non-qualifiers by region, based on survey results.

² Includes qualifiers only.

As can be seen in the above table, the final sample of survey completions is reasonably representative of the total universe of automotive and collision repair businesses in British Columbia. That is, the distribution of survey respondents by region is similar to that of the

³ Businesses that did not currently employ, nor plan in the next year to employ, individuals in any of the three occupations of interests were deemed non-qualifiers (including sole-operated businesses where the owner/manager is the only person employed at the company). Similarly, businesses that did not provide automotive or collision services were considered non-qualifiers.

total universe of businesses in the province. In addition, the overall sample error⁴ is low indicating that the information provided in the survey can be generalized to the total universe of qualifying businesses with a high level of confidence. Therefore, estimations of current and future human resource needs for the entire BC industry on a regional basis can be reliably extrapolated from the survey data.

Coverage of Establishments by Type of Service

The representativeness of the survey completions in terms of type of establishment (automotive or collision) is another aspect that was examined to ensure appropriate coverage. Table 1-4 provides a summary of coverage by type of service provided, mechanical or autobody repair.

**Table 1-4
Distribution and Sample Error by Type of Activity
(Estimated Gross Universe and Valid Completions)**

Business Type	Estimated # Gross Universe	Adjusted Universe (% total)	Final Survey Sample (% total)	Sample Error (95% CI)
Mechanical Repair Shops	2,395 (73.6%)	1,750 (73.7%)	554 (73.5%)	±3.4%
Collision Repair Shops	858 (26.4%)	624 (26.3%)	200 (26.5%)	±5.7%
TOTAL	3,253	2,374	754	±2.9%

Here again, the survey sample is sufficiently representative of the full universe to consider the results and extrapolations with relative certainty.

Coverage of Employment by Occupation

In addition to being representative of automotive business establishments in British Columbia by region and the proportion of the total workforce covered by survey respondents is also an important consideration in extrapolating the survey information to the provincial industry, as a whole. Labour force coverage by occupation is summarized in Table 1-5.

**Table 1-5
Labour Force Coverage by Occupation
(2005 workforce estimates)**

Occupation	Estimated # Workers in BC	% of BC Total	Total Workers Covered by Survey	% of Survey Total	% Total Workforce Covered
Automotive Service Technician (NOC 7321)	8,246	67.4%	2,967	70.9%	36.0%
Automotive Collision Repair Technician, Automotive Refinishing Technician (NOC 7322)	3,994	32.6%	1,220	29.1%	30.5%
TOTAL	12,240	100%	4,187	100%	34.2%

⁴ ±2.9% at the 95% level of confidence.

As is evident in the table, the distribution of employees by occupation is similar for the estimated total workforce and total survey completions. Overall, survey respondents account for more than one-third (34.2%) of the total estimated 2005 workforce employed by automotive repair businesses in British Columbia.

1.4 Challenges and Potential Limitations of the Project

Employment estimates, forecasts and survey results presented in this report are subject to the following research caveats:

- Most questions had high levels of response (in terms of the proportion of the total sample universe responding) and therefore are likely to have good statistical reliability. However, if respondent characteristics and information differ significantly from the characteristics and information of non-respondents, survey results for respondents may differ from the actual results (opinions or data) for all BC automotive service and repair companies. Low statistical reliability is most likely for survey questions with low levels of response. However, statistical testing and determination of sampling error was undertaken, the results of which indicate that the findings presented throughout the Summary Report can be viewed with a high level of confidence;
- It is not clear whether or not employers included in their projections the number of workers needed to replace departing/retiring workers as well as new employees to handle increased volume(s) of work. In addition, while the survey asked employers to provide an estimate of permanent full-time workers, some employers may also have included additional part-time staff. Finally, it should be recognized that employment growth projections for the industry as a whole will be tempered by employment “losses” associated with establishments that will go out of business between 2005 and 2010;
- While every effort was made to include all automotive service and repair companies in the survey sample and appropriately identify companies for inclusion, it is possible that some automotive service and repair companies were not included, or not appropriately identified as qualified to participate;
- This research assumes companies accurately reported their own employment and forecasts and classified their employees appropriately. Respondents were furnished with descriptions of occupations and other information to assist them in understanding and filling out survey forms. The Consultant made efforts to clarify information with respondents if responses seemed inconsistent or ambiguous;
- Statistics obtained from other sources on BC automotive service and repair employment or may differ from those presented in this report due to different industry or data definitions; and
- Actual employment for forecast years may be subject to market fluctuations and changes in business operations that were not foreseen by respondents who provided forecasts.

SECTION 2. BC AUTOMOTIVE SECTOR PROFILE AND BUSINESS INFORMATION

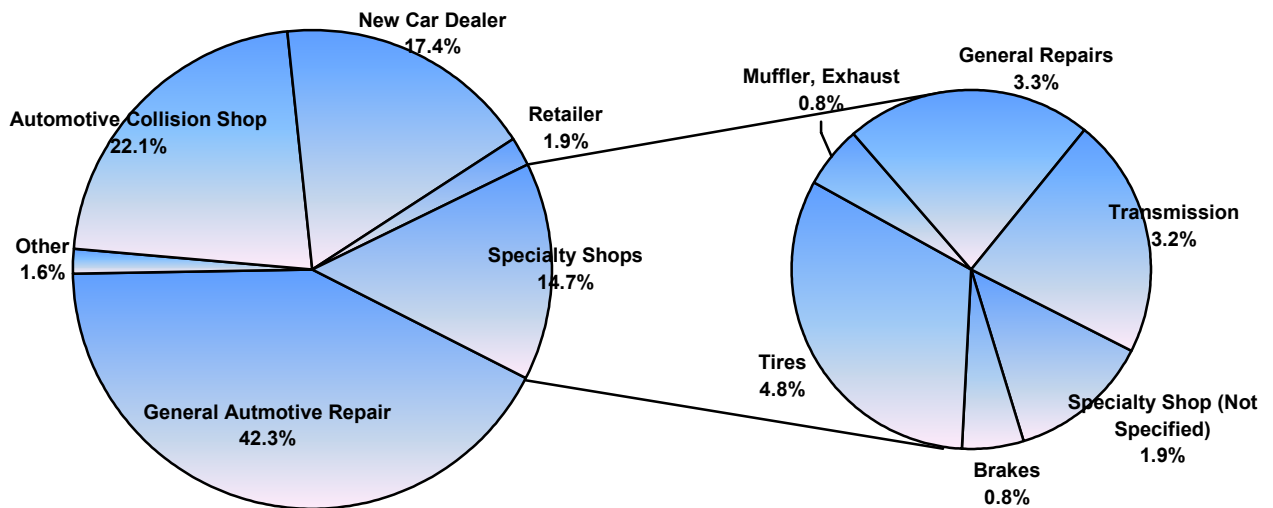
The characteristics of the companies/organizations that participated in the employer survey are described in the following section.

As previously described, of the 1,033 companies that responded to the survey, 279 did not currently, and did not plan in the next year to employ individuals in any of the target occupations and were, therefore, considered “non-qualifiers”. Among these, approximately 163 companies (15.8%) were self-operated businesses (i.e., the respondent was the owner and *only* person currently employed in the business) and were, therefore, also considered “non-qualifiers”. However, 12 self-operated businesses (7.4%) indicated the intent to employ one or more individuals in the key occupations within the next year and, as such, were included among the survey participants. As such, a total of 754 businesses (i.e., “qualifiers”) comprised the valid sample upon which analysis has been conducted in the remainder of the report.

2.1 Main Activity of Respondents

As illustrated in Chart 2-1, of the 754 automotive service and repair companies that qualified for the survey, the majority (64.4%) were General Automotive Repair Shops (42.3%) or Automotive Collision Shops (22.1%) such as Maaco, Collision Plus etc. Specialty shops accounted for 14.7% of the survey sample. The main activity of specialty shops is also clearly demarcated in the chart.

**Chart 2-1
Survey Participants’ Main Activity**



The majority of companies surveyed were independent businesses, either single branch (69.4%) or multiple branch (9.8%). Multiple branch business most frequently (32.9%) operated two shops, another 24.7% operated between three and ten shops, 28.7% had between 11 and 49 shops, and 13.7% had more than 50 shops across BC. The remaining 20.7% of overall survey participants were franchises.

2.2 Type of Occupations

As described previously, the *Automotive Labour Supply and Demand Project - Employer Survey Component* focused on human resource issues affecting three specific occupations. Survey results show that the majority (80.4%) of companies surveyed currently employed, or intended to employ in the next year, one or more ASTs, while about one-quarter employed or would employ one or more ARTs and/or ACRTs (27.5% and 27.2%, respectively).

As highlighted in Table 2-1, whereas AST employees were distributed across a range of establishments (i.e., 21.4% were employed by New Car Dealerships, 52.6% in General Automotive Repair, and 18.4% in Specialty Shops – Brakes), ARTs and ACRTs were generally concentrated in Automotive Collision Shops (76.8% and 79.5% were employed in such shops respectively).

Table 2-1
% of Respondents With One or More Employees in Occupations of Interest
by Type of Business

Main Activity	Automotive Service Technicians	Automotive Refinishing Technicians	Automotive Collision Repair Technicians
New Car Dealer (n=131)	21.4%	16.4%	13.7%
Automotive Collision Shop (n=166)	3.5%	76.8%	79.5%
General Automotive Repair (n=318)	52.6%	5.3%	5.4%
Retailer (n=14)	2.3%	0.5%	0.5%
Specialty Shop (n=111)	18.4%	0.5%	0.5%
Other (n=12)	1.8%	0.5%	0.5%
Total (n=752)	100%	100%	100%

Don't Know/No Response have been excluded.
Source: Employer Survey

As illustrated in Table 2-2, nearly one-half of companies surveyed (42.8%) had between one and five employees overall and 68.6% employed between one and five employees working in automotive service and repair.

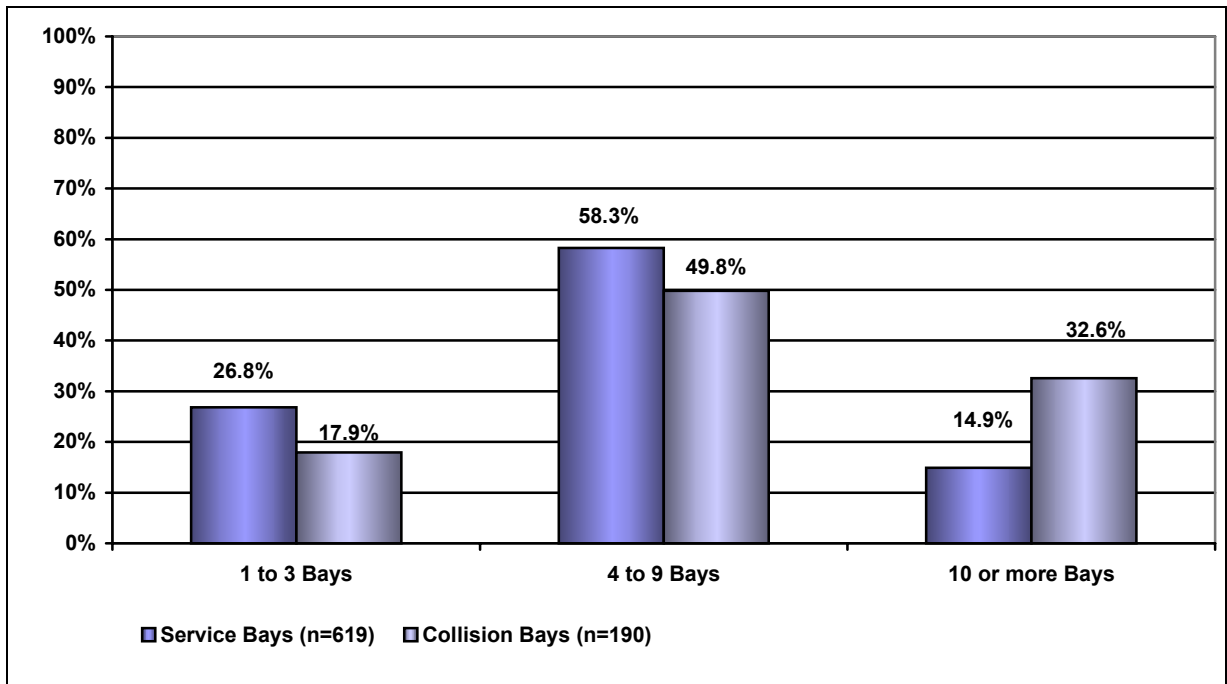
Table 2-2
Number of Employees at Location of Survey Completion

Number	% of Employees in Automotive Service and Repairs (n=752)	# of Employees <u>Not</u> in Automotive Service and Repairs (n=750)	Industry Total (n=750)
None	0.0%	19.9%	0.0%
1 - 5	68.6%	54.3%	42.8%
6 - 9	19.5%	6.7%	25.5%
10 - 19	9.6%	8.7%	16.8%
20 or more	2.3%	10.5%	14.9%
Total	100%	100%	100%

Don't Know/No Response have been excluded.
 Source: Employer Survey

As depicted in Chart 2-2, the majority of businesses operated four or more service and/or collision bays. The average number of bays operated by each business was 7.51, with most businesses operating 4 bays.

Chart 2-2
Number of Bays



Note: Includes only those businesses with at least one service bay and/or at least one collision bay.
 Source: Employer Survey

As highlighted in Table 2-5, the characteristics of employers who participated in the survey were generally similar across all four regions. For example, all regions had a representative mix of new car dealers, automotive collision shops, general automotive repair and specialty

shops. Similarly, while the Lower Mainland and Vancouver Island had higher proportions of shops with 10 or more service bays relative to that of the Central Interior or Northern BC, all regions included representation in terms of small, medium and large shops (as measured by number of service bays).

**Table 2-5
Selected Demographic Characteristics by Region**

	Lower Mainland	Vancouver Island	Central/Interior BC	Northern BC	BC Total
Sample Size	397	132	147	78	754
Distribution by Sector					
- New Car Dealer	12.7%	25.0%	20.4%	23.1%	17.4%
- Automotive Collision Shop	24.6%	20.5%	19.0%	17.9%	22.1%
- General Automotive Repair	46.3%	35.6%	40.8%	35.9%	42.3%
- Specialty Shops/Other	16.5%	18.9%	19.7%	23.1%	14.7%
Average Number of Employees	6	6	5	4	5
Distribution by Number of Bays					
- 1-3	17.1%	16.7%	27.2%	25.6%	19.9%
- 4-9	55.9%	53.8%	52.4%	55.1%	54.8%
- 10+	22.4%	27.3 %	18.4%	15.4%	21.8%
- N/A	4.5%	2.3%	2.0%	3.8%	3.6%

Source: Employer Survey

SECTION 3: WORKFORCE CHARACTERISTICS

A critical element to understanding the human resource situation in the automotive service and repair industry is the current and projected need of employers. This section examines respondents' current and forecasted number of employees in each of the occupational categories, including an analysis of projected growth rates. Also examined are the ages and training/certification levels of current and future employees.

Secondary sources (i.e., data from Statistics Canada's 2001 Census and 2003 LFS, information) were used in conjunction with the survey data to develop the profile of the industry. Where Statistics Canada data sources do not provide information pertaining to certain characteristics (e.g., NOC by region in BC), employer survey data collected for the *Automotive Labour Supply and Demand Project - Employer Survey Component* were used. While survey information provides a reasonable indication of characteristics in the industry's labour force overall, the reader is cautioned that survey data provide only a partial picture of provincial labour force conditions.

3.1 Number of Employees

Survey participants reported the number of employees currently employed at their establishment according to three specified levels of certification: journeymen, apprentice and non-certified journeymen/non-registered apprentice. As can be seen in Table 3-1, considerably more journeymen were employed by respondent businesses than were apprentices and/or non-certified journeymen/non-registered apprentices.

**Table 3-1
Individuals Currently Employed by Certification Level**

	Number	Percent of Total
Journeymen	3,003	71.7%
Apprentices	637	15.2%
Non-Certified Journeymen/Non-Registered Apprentices	547	13.1%
Total	4,187	100.0%

Source: Employer Survey

The number of individuals employed in each of the occupations of interest was also examined by age group for each certification level. The age and certification level of employees by trade group are highlighted in Table 3-2.

**Table 3-2
Age and Certification Level of Employees by Trade Group**

JOURNEYMEN (n=3,003)					
	< 30	30-45	46-55	Over 55	Total Number
Automotive Service Technicians	18.1%	52.6%	20.8%	8.6%	2,022
Automotive Refinishing Technicians	22.0%	58.1%	17.3%	2.6%	382
Automotive Collision Repair Technicians	14.5%	51.4%	27.0%	7.0%	599
APPRENTICES (n=637)					
	< 30	30-45	46-55	Over 55	Total Number
Automotive Service Technicians	86.1%	12.4%	1.5%	0.0%	476
Automotive Refinishing Technicians	87.3%	11.1%	1.6%	0.0%	63
Automotive Collision Repair Technicians	82.7%	15.3%	1.0%	1.0%	98
NON-CERTIFIED JOURNEYMEN/NON-REGISTERED APPRENTICES (n=547)					
	< 30	30-45	46-55	Over 55	Total Number
Automotive Service Technicians	52.2%	26.9%	15.4%	5.5%	469
Automotive Refinishing Technicians	70.3%	24.3%	0.0%	5.4%	37
Automotive Collision Repair Technicians	51.2%	36.6%	12.2%	0.0%	41

Source: Employer Survey

Not surprisingly, due in part to the number of years of training involved in becoming certified, journeymen tended to be older on average than apprentices and non-certified journeymen/non-registered apprentices. The majority of journeymen in all three occupations of interest were between the ages of 30 and 45. More than eight in ten apprentices were less than 30 years of age, and most non-certified journeymen and non-registered apprentices spanned the two age groups (i.e., less than 30 and 30 to 45). Few employees in any of the key occupations were over the age of 55, although those who were tended to be certified journeymen. Close to one-third (29.1%) of journeymen are over 45 years of age, suggesting that these individuals will be leaving the workforce in the next 10 to 15 years.

3.1.1 Employment of Apprentices

Of the 754 companies that participated in the survey, 52% (n=391) currently employed at least one apprentice.⁵ More than one-half (54.2%) of businesses employing apprentices were located in the Lower Mainland, and were most frequently general automotive repair shops (37.1%) or new car dealerships (26.1%). In Table 3-3 are shown selected demographics of firms that currently employ at least one apprentice.

⁵ It should be noted that this figure represents only those companies that indicated having at least one apprentice in any of the three occupations of interest according to specific age distributions. It does not account for Don't Know/No Response/Not Applicable survey responses. As such, the actual proportion of companies employing an apprentice is likely higher.

**Table 3-3
Selected Demographics of Businesses with Apprentices**

		Distribution of Apprentices	% of Respondents	Proportion of Firms who Employ Apprentices
Region	Lower Mainland (n=212)	54.2%	52.7%	53.4%
	Vancouver Island (n=80)	20.5%	17.5%	60.6%
	Central Interior BC (n=64)	16.4%	19.5%	43.5%
	Northern BC (n=35)	9.0%	10.3%	44.8%
Total		100%	100.0%	
Business Type	New Car Dealer (n=102)	26.1%	17.4%	77.8%
	Automotive Collision Shop (n=85)	21.7%	22.1%	51.2%
	General Automotive Repair Shop (n=145)	37.1%	42.3%	45.6%
	Retailer (n=11)	2.8%	1.9%	78.5%
	Specialty Shop (n=41)	10.5%	14.7%	37.0%
	Other (n=7)	1.8%	1.6%	58.3%
Total		100%	100%	
Business Size	1-5 Employees (n=104)	26.8%	42.8%	32.4%
	6-9 Employees (n=111)	28.6%	25.5%	58.1%
	10- 19 Employees (n=77)	19.8%	16.8%	61.1%
	20+ Employees (n=96)	24.7%	14.9%	85.7%
Total		100%	100%	
Number of Bays	1-3 Bays (n=56)	14.6%	20.6%	37.3%
	4-9 Bays (n=203)	53.0%	56.8%	49.1%
	10+ Bays (n=124)	32.4%	22.6%	76.0%
Total		100%	100%	

Source: Employer Survey

As can be seen in the table, just over one half (53.0%) of businesses with apprentices operate between four and nine bays altogether. However, apprentices tended to be employed considerably more by companies with service bays compared to collision bays. That is, 85.6% of companies employing an apprentice had at least one service bay, while only 30% had at least one collision bay. In Table 3-3 is also illustrated that employment of apprentices is not representative across all demographic categories. That is, employment of apprentices is under-represented in small companies (1-5 employees) and over-represented in large firms (20+ employees). Similarly, employment of apprentices is under-represented among businesses with a small number of bays (1-3 bays) and over-represented in those with many bays (10+ bays).

3.2 Employment Growth

For each of the occupational categories of interest, respondents were asked to report the following information⁶:

- the total number of permanent employees employed at their location in 2003;
- the current total number of permanent employees employed at their location in 2005;
- the forecast number of permanent employees estimated for 2006; and
- the forecast number of permanent employees estimated for 2010.

As demonstrated in Table 3-4, there is an increasing trend in the number of employees needed by businesses. Respondents reported higher average numbers of ASTs on staff over the 7-year time frame (2003 – 2010) than the other occupational categories. Overall increases in the number of employees were anticipated for all three occupations, however, slightly higher increases were projected for ASTs.

**Table 3-4
Average Number of Employees over Seven Year Period
by Occupational Category**

	# of Employees (2003)	Current # of Employees (2005)	Forecast # of Employees (2006)	Forecast # of Employees (2010)
Automotive Service Technicians	4.95	5.37	6.00	7.06
Automotive Refinishing Technicians	2.21	2.50	2.77	3.23
Automotive Collision Repair Technicians	3.69	3.92	4.48	5.22

Source: Employer Survey

The reader is cautioned when interpreting these survey results as only those surveys where the number of employees was provided for each of the four years were used to calculate the average. Therefore, the total number of survey respondents is lower, thereby reducing the overall reliability of these estimates.

It should be emphasized that the growth figures presented in this section are estimates based on forecasts provided by a proportion of all BC companies, and are predicated on the assumption that companies with similar characteristics will experience similar average levels of growth. Should the actual growth for non-respondent companies differ significantly from that of respondent companies which provided forecasts, actual net gains in employment may differ from those presented here.

⁶ Respondents were to include Registered and Non-registered Apprentices, and Certified and Non-Certified Journeymen for each occupation.

3.2.1 Recent Growth

Analysis of historical survey data shows the highest employment growth for ART occupations to be between 2003 and 2005, as compared to the other two trade groups. That is, the employment growth for ART positions between 2003 and 2005 was 13.2%, while ASTs saw an 8.5% increase and ACRTs saw a 6.3% increase. ART occupations also had the highest growth across all regions between 2003 and 2005. Employment growth across BC was the lowest for ACRTs over the last two years.

3.2.2 Future Growth

Over the next year, from 2005 to 2006, businesses are projecting more than 10% employment growth for all three occupational groups. By the year 2010, according to respondents' projections, businesses will require an estimated 30% more ASTs, ARTs, and ACRTs in BC. These figures translate to between a 5% and 6% average annual increase by trade group. The projected employment growth between 2005 and 2010 for each of the target occupations is shown in Table 3-5, along with the average annual increase for each of the target occupations.⁷

**Table 3-5
Projected Employment Growth for 2005 – 2010
by Trade Group**

	Employment Growth		
	2005-2006	2005-2010	Average Annual Increase ⁽¹⁾
Automotive Service Technicians (n=457)	11.6%	31.5%	5.63%
Automotive Refinishing Technicians (n=155)	11.1%	29.2%	5.26%
Automotive Collision Repair Technicians (n=156)	14.4%	33.4%	5.93%

Source: Employer Survey

⁽¹⁾ 2005 – 2010 – Average Annual Compound Growth.

Caution should be exercised in the analysis of employer projections. For example, it is not clear whether or not employers included in their projections the number of workers needed to replace departing/retiring workers as well as new employees to handle increased volume(s) of work. In addition, while the survey asked employers to provide an estimate of permanent full-time workers, some employers may also have included additional part-time staff. Finally, it should be recognized that employment growth projections for the industry as a whole will be tempered by employment “losses” associated with establishments that will go out of business between 2005 and 2010.

Notwithstanding the aforementioned considerations, it appears that BC employers are positive in their assessment of future labour requirements, as the expected number of employees needed in all three occupational categories are expected to grow by more than 5.2% per year between 2005 to 2010. Over the next five years, employers expect to

⁷ It should be noted that while the table suggests dramatic percentage change in employment in a number of regions, this growth may translate into only small growth in terms of the absolute number of new positions created.

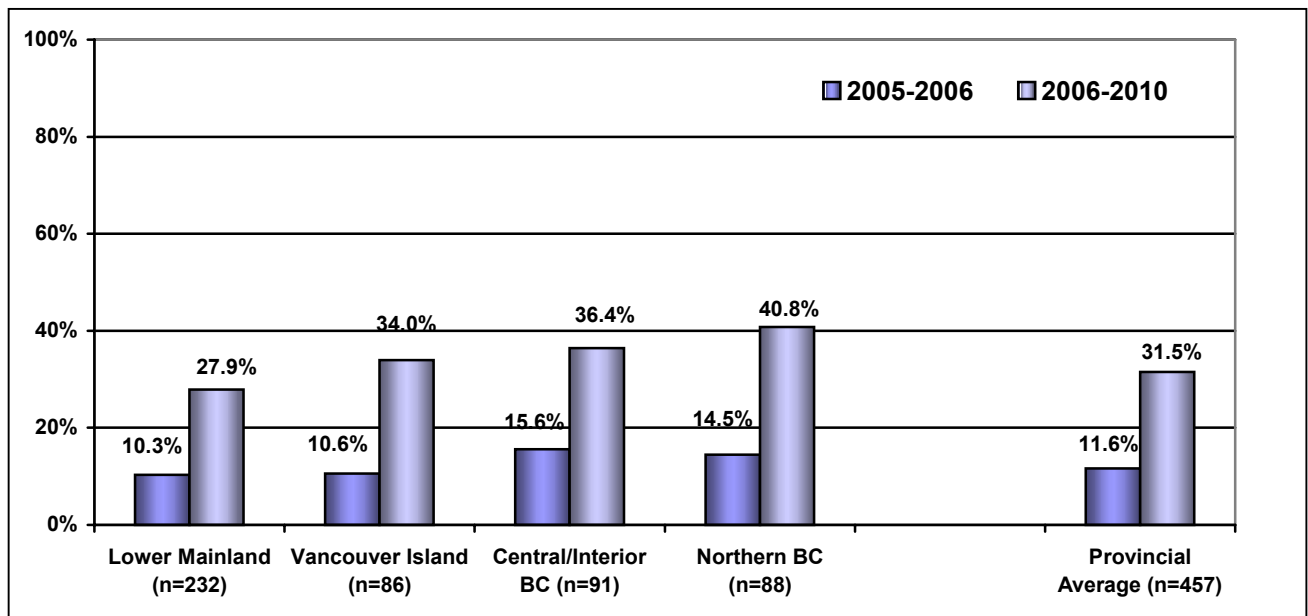
witness annual employment growth of 6.68% per year for automotive collision repair technicians, 6.3% per year for automotive service technicians and 5.8% per year for Automotive refinishing technicians.

3.2.3 Regional Growth

As evident in the following series of charts, businesses in the Central/Interior and Northern BC projected higher employment growth across all trade groups than those in the Lower Mainland or on Vancouver Island. The vigorous growth projections for these regions suggest intense business development activity in those areas of the province. The charts also illustrate that businesses anticipate the highest growth for ACRT occupations across all regions. It should be emphasized, however, that while the percentage growth for the Central Interior and Northern BC regions are high, the absolute number of workers required will be much lower due to the smaller employment base.

Chart 3-1a highlights that the greatest AST employment growth will occur in areas outside of the Lower Mainland, with the highest increase occurring in Northern BC. Businesses in the Lower Mainland expect a 27.9% increase in AST employment by 2010, slightly lower than the provincial average. Businesses on Vancouver Island also anticipate a below average increase in employment for AST occupations, although, in this case, only for the 2005 to 2006 period. Above average employment growth for ASTs was projected by businesses on Vancouver Island, in the Central/Interior and the Northern regions of the province over the next 5 years.

Chart 3-1a
Projected Employment Growth for ASTs by Region
2005 – 2010

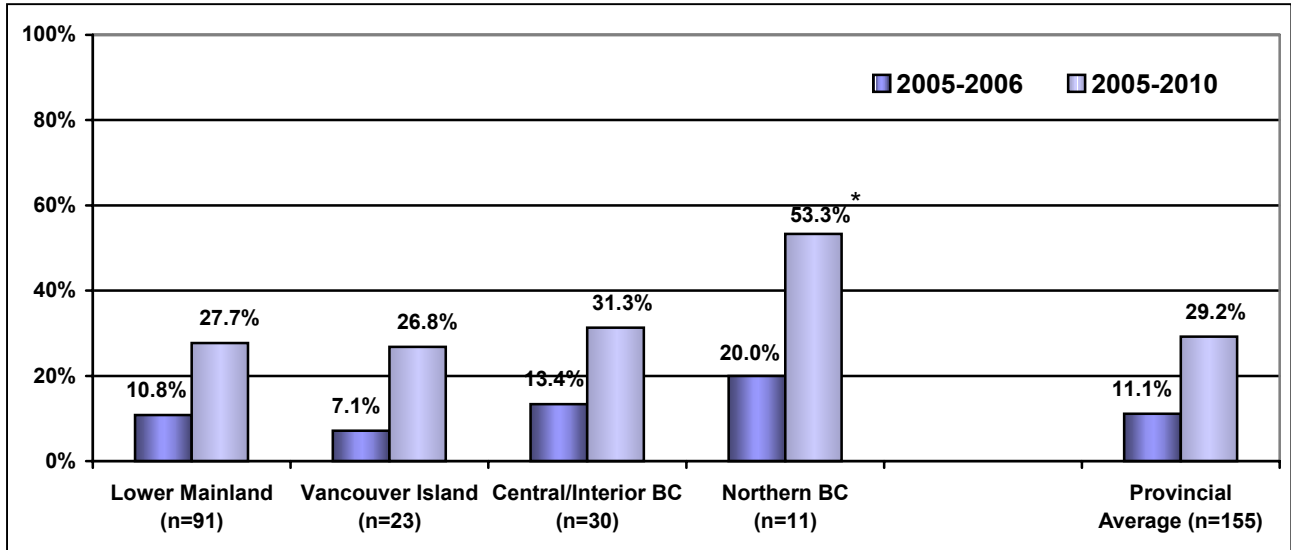


Source: Employer Survey

In Chart 3-1b (following page) is shown that businesses in the Lower Mainland and on Vancouver Island predicted below average employment growth for ART occupations between 2005 and 2010. Central/Interior and Northern companies had above average

expectations for ARTs, especially in the North, where increases in ART employment was nearly double the provincial average.

Chart 3-1b
Projected Employment Growth for ARTs by Region
2005 – 2010

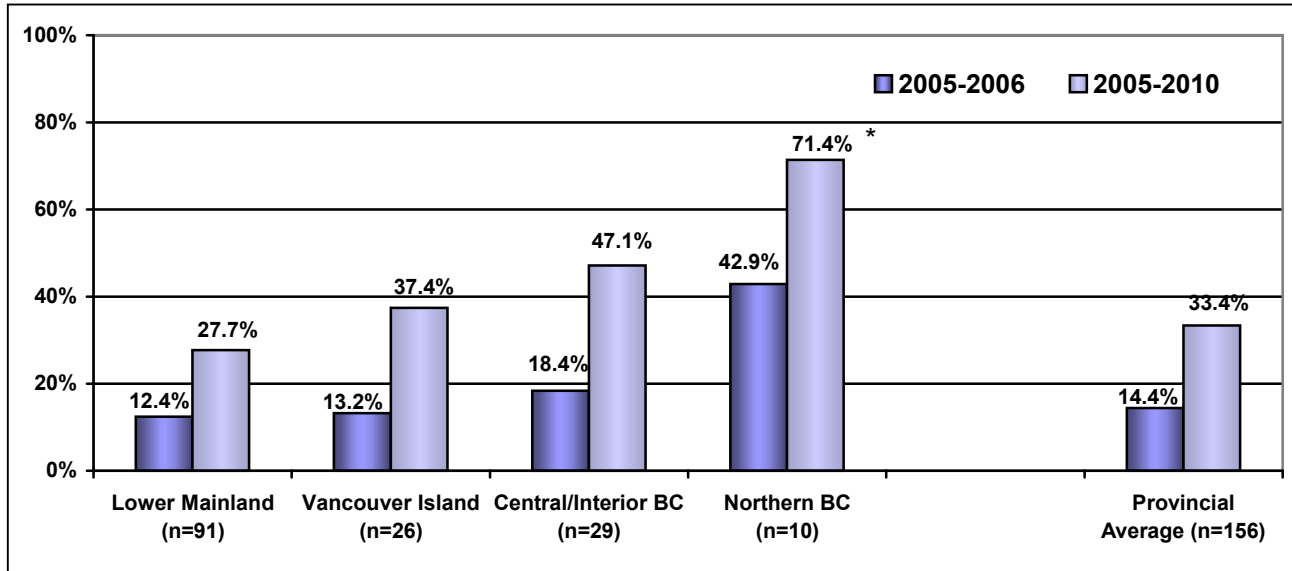


Source: Employer Survey

* Note that the actual number of ARTs needed in Northern BC would be 12.

As depicted in Chart 3-1c, employment in ACRT occupations is expected by respondents to have the highest growth of the three target occupations. In fact, businesses in the North predict increases in ACRT employment three times the provincial average between 2005 and 2006, and more than twice the provincial average over the next 5 years. It should be emphasized that due to the small employment base, the actual number of staff needed in Northern BC is much lower than that of other regions. Companies in the Central/Interior had similarly high projections by 2010. The Lower Mainland once again anticipated below average employment increases.

Chart 3-1c
Projected Employment Growth for ACRTs by Region
2005 – 2010



Source: Employer Survey

*Note that the actual number of ACRTs needed in Northern BC would be 36.

3.3 Estimated Provincial and Regional Employment Projections

The total number of employees across the AST (NOC 7321) and ART/ACRT (NOC 7322) occupations was estimated using a forecast of total provincial employment for the repair and maintenance industry (NAICS 811). This industry was selected because a high proportion of these occupations are classified into this industry: based on 2001 Census data, 53.9% of ASTs and 81.8% of ARTs/ACRTs are employed in the repair and maintenance industry. According to Statistics Canada’s Labour Force Survey, total employment for this industry was approximately 32,900 in 2004. This figure was extrapolated to 2005 using a forecast of total provincial employment growth of 2.5%. From the Census data, it was possible to determine the proportion of total provincial employment in the repair and maintenance industry that is comprised of ASTs and ARTs/ACRTs. According to the data, ASTs and ARTs/ACRTs comprise 24.5% and 11.8% of the provincial employment in this industry, respectively. These proportions were applied to the forecasted 2005 figure to generate estimates of total provincial employment for ASTs and ARTs/ACRTs. Furthermore, employment shares obtained from the survey data were applied to the ART/ACRT estimate to generate the number of ARTs and ACRTs employed in the province.

As demonstrated in Table 3-6, an estimated 1,482 employees will be required in the three trades for 2005 to 2006, most of which will come from ASTs. By 2010, the estimated need rises to 3,865 automotive trade workers in BC.

Table 3-6
Estimated Provincial Demand

BC	Estimated Employment 2005	Estimated Employment 2006	Estimated Employment 2010	Estimated Growth (2005-06)	Estimated Growth (2005-10)
ASTs	8,246	9,204	10,843	957	2,596
ARTs	1,549	1,721	2,001	172	452
ACRTs	2,445	2,797	3,262	352	816
Total	12,240	13,722	16,105	1,482	3,865

Source: Employer Survey, Statistics Canada, National CARS survey data.

Table 3-7 illustrates the numbers of ASTs, ARTs and ACRTs that will be required on a regional level to meet respondent businesses' projected demand.

Table 3-7
Estimated Regional Demand

	Estimated Employment 2005	Estimated Employment 2006	Estimated Employment 2010	Estimated Growth (2005-06)	Estimated Growth (2006-10)
Lower Mainland					
ASTs	4,582	5,055	5,858	474	1,276
ARTs	997	1,105	1,273	108	276
ACRTs	1,649	1,853	2,105	204	456
Total	7,227	8,013	9,236	786	2,009
Vancouver Island					
ASTs	1,622	1,794	2,173	171	551
ARTs	224	240	284	16	60
ACRTs	364	412	500	48	136
Total	2,211	2,446	2,958	235	747
Central/Interior BC					
ASTs	1,441	1,666	1,965	225	524
ARTs	268	304	352	36	84
ACRTs	348	412	512	64	164
Total	2,057	2,382	2,829	325	772
Northern BC					
ASTs	601	689	846	87	245
ARTs	60	72	92	12	32
ACRTs	84	120	144	36	60
Total	745	881	1,083	135	337

Source: Source: Employer Survey, Statistics Canada, National CARS survey data.

3.4 Labour Shortages

Survey respondents were asked to describe the extent to which labour shortages have/will be an issue for their business(s) in BC for 2005 and 2006. In support of the labour force demand projections, it appears that labour issues are at the forefront for a significant

proportion of employers. As highlighted in Table 3-8, more than one-half (57.9%) of respondents who employed ACRTs indicated that, in 2005, labour shortages were an issue (20.8%) or a major issue (37.1%). Similarly, a high proportion of establishments that employed ASTs (44.8%) and/or ARTs (44.1%) noted labour shortages as an issue/major issue for their organization.

**Table 3-8
Extent to Which Labour Shortages Have Been an Issue in 2005 and 2006
(Province Wide)**

	Not at all an Issue	Somewhat of an Issue	An Issue	A Major Issue	Don't Know
2005					
Automotive Service Technicians (n=595)	30.3%	22.4%	17.6%	27.2%	2.5%
Automotive Refinishing Technicians (n=195)	34.9%	20.0%	19.0%	25.1%	1.0%
Automotive Collision Repair Technicians (n=197)	24.4%	16.2%	20.8%	37.1%	1.5%
2006					
Automotive Service Technicians (n=579)	21.8%	21.2%	18.8%	27.3%	10.9%
Automotive Refinishing Technicians (n=186)	23.7%	14.0%	17.2%	31.7%	13.4%
Automotive Collision Repair Technicians (n=186)	17.7%	10.2%	19.9%	39.2%	12.9%

Table 3-8 also shows that many employers anticipate labour shortages in ART and ACRT occupations to become more problematic for their company over the next year. Conversely, a shortage of automotive service technicians was not thought by respondents to pose a greater threat to their staffing requirements in the next year, as the proportions changed little between 2005 and 2006. Of note is that the proportion of respondents who were not able to indicate the extent to which they anticipated shortages increased considerably for 2006, suggesting a high level of uncertainty in employers as to their ability to meet their staffing needs in the near future. In addition, many employers felt that labour shortages would be only a moderate issue, if at all.

Labour shortages were also examined according to businesses that employ apprentices. As highlighted in Table 3-9, the majority (59.5%) of respondents with at least one apprentice on staff reported that labour shortages in ACRT positions were an issue (22.4%) or a major issue (37.1%) in 2005. Similarly high proportions of establishments that employed apprentices also noted labour shortages in ART (44.4%) and AST (48.9%) occupations to be an issue/major issue for their organization in 2005. Of note is that shortages in all three occupational groups were thought to pose a greater threat to staffing levels by businesses that employ apprentices than the survey average (44.8%).

**Table 3-9
Extent to Which Labour Shortages Have Been an Issue in 2005 and 2006
(Companies Employing Apprentices)**

	Not at all an Issue	Somewhat of an Issue	An Issue	A Major Issue	Don't Know
2005					
Automotive Service Technicians (n=315)	28.3%	21.3%	20.0%	28.9%	1.6%
Automotive Refinishing Technicians (n=117)	32.5%	21.4%	20.5%	23.9%	1.7%
Automotive Collision Repair Technicians (n=116)	25.9%	12.9%	22.4%	37.1%	1.7%
2006					
Automotive Service Technicians (n=308)	21.4%	19.5%	21.1%	28.2%	9.7%
Automotive Refinishing Technicians (n=114)	20.2%	16.7%	17.5%	28.9%	16.7%
Automotive Collision Repair Technicians (n=108)	15.7%	11.1%	19.4%	37.0%	16.7%

Also shown in Table 3-9 is that, while employers anticipate labour shortages in AST occupations to become more problematic for their company over the next year, the degree to which shortages in ART and ACRTs were predicted to be an issue declined by 2006. It should be noted, however, that this difference is due to higher proportions of respondents expressing uncertainty (i.e., proportion reporting Don't Know) about shortages in these two occupational groups, and is not an indication of fewer anticipated shortages. As with the survey average, these figures suggest considerable ambiguity from employers with respect to their staffing requirements for these occupations over the next year.

As depicted in Table 3-10, it appears that labour shortages will become an even more pressing issue in 2006, as there is a significant increase in the proportion of employers in all regions who expect labour shortages to be an issue/major issue in 2006.

**Table 3-10
Proportion of Employees Reporting Labour Shortages to be an Issue/Major Issue – ASTs & ARTs
2005 & 2006, by Region**

Region	AST		ART	
	2005	2006	2005	2006
Lower Mainland	42.5%	43.7%	41.0%	42.9%
Vancouver Island	39.8%	47.1%	36.4%	58.8%
Central/Interior BC	50.4%	47.4%	54.0%	58.8%
Northern BC	53.7%	53.0%	55.0%	45.0%
Provincial Average	44.8%	44.1%	46.1%	48.9%

3.5 Vacant/Unfilled Positions

As indicated in Table 3-11, employers reported a higher incidence of unfilled positions for journeymen relative to apprentices across all occupations. Overall, the proportion of employers indicating that they had at least one unfilled position was highest for AST and

ACRT occupations at 34.7% and 34.8%, respectively. Slightly more than one-quarter (25.4%) of ART employers indicated that they had at least one unfilled position.

Table 3-11
Proportion of Employers Reporting Unfilled Positions – 2005

Occupation	Apprentices	Journeyman	Total
Automotive Service Technicians (n=602)	18.3%	27.6%	34.7%
Automotive Refinishing Technicians (n=205)	13.2%	16.6%	25.4%
Automotive Collision Repair Technicians (n=204)	15.2%	30.4%	34.8%

Note: Not Applicable/Don't Know/No Response have been excluded.

As illustrated by Table 3-12, it is projected that there are approximately be 1,504 unfilled positions across the AST, ART, and ACRT occupations in 2005. The majority of the vacancies will be attributed to ASTs, comprising 63.1% of the provincial total. For ASTs, there will be one unfilled position for every nine filled positions. The ratio of unfilled to filled positions will be one to seven for both ARTs and ACRTs in 2005.

Table 3-12
Total Number of Unfilled Positions by Occupation – 2005

Occupation	Apprentices	Journeyman	Unfilled Positions – Survey Data	Unfilled Positions – BC*	Ratio of Unfilled to Filled Positions	% of BC Total
Automotive Service Technicians (n=602)	130	209	339	949	1 : 9	63.1%
Automotive Refinishing Technicians (n=205)	29	39	68	218	1 : 7	14.5%
Automotive Collision Repair Technicians (n=204)	33	69	102	337	1 : 7	22.4%
Total Unfilled Positions	192	317	509	1,504	1 : 8	100.0%

* These figures were calculated by applying a scale factor to the total number of unfilled positions from the survey data. The scale factor for each occupation was calculated by dividing the total estimated provincial employment by the total number of employees from the survey data. Scale factors were 2.8 for ASTs; 3.2 for ARTs; and 3.3 for ACRTs.

Note: Not Applicable/Don't Know/No Response have been excluded.

SECTION 4: HIRING PRACTICES AND HUMAN RESOURCE ISSUES

This section describes the methods utilized by respondents to hire apprentices/entry-level employees in each of the trades of interest. Also discussed are the human resource issues affecting businesses provincially, regionally and by trade. Finally, satisfaction with the skills of certified journeymen are analyzed.

4.1 Primary Hiring Practices

Survey respondents reported their primary hiring practice for potential apprentices (entry level employees) entering into the three target occupations. According to survey results, an entry-level program or college program was the main hiring method utilized by employers for apprentices entering into AST and ACRT occupations (32.8% and 33.3% respectively). For the same occupations, the second most common hiring practice was word of mouth or a reference from another employee (27.4% and 27.1% respectively). Conversely, for ART occupations, word of mouth or an employee reference (32.5%) was used slightly more frequently than an entry level or college program (29.9%). Walk-in applications (i.e., individuals with no industry experience) was the least common practice for all three occupations. In Table 4-1 are illustrated the top three hiring practices identified by respondents.

**Table 4-1
Top Three Hiring Practices**

Occupation	Top Hiring Practice	2 nd Hiring Practice	3 rd Hiring Practice
AST (n=583)	<ul style="list-style-type: none"> Entry level/ College Program (32.8%) 	<ul style="list-style-type: none"> Word of mouth or Other employee reference (27.4%) 	<ul style="list-style-type: none"> High school trade program (17.5%)
ART (n=194)	<ul style="list-style-type: none"> Word of mouth or Other employee reference (32.5%) 	<ul style="list-style-type: none"> Entry level/ College Program (29.9%) 	<ul style="list-style-type: none"> Some industry experience with no college (17.5%)
ACRT (n=192)	<ul style="list-style-type: none"> Entry level/ College Program (33.3%) 	<ul style="list-style-type: none"> Word of mouth or Other employee reference (27.1%) 	<ul style="list-style-type: none"> Some industry experience with no college (19.8%)

Not Applicable/No Response have been excluded.

On a regional level, survey results show that companies in the Northern regions of BC rely slightly more heavily on word of mouth/employee references (35.4%) as their primary hiring practice of AST apprentices, while businesses in the Lower Mainland, Vancouver Island and the Central/Interior tend to hire graduates of an entry level or college program as apprentice ASTs most often (30.0%, 40.4% and 32.5% respectively).

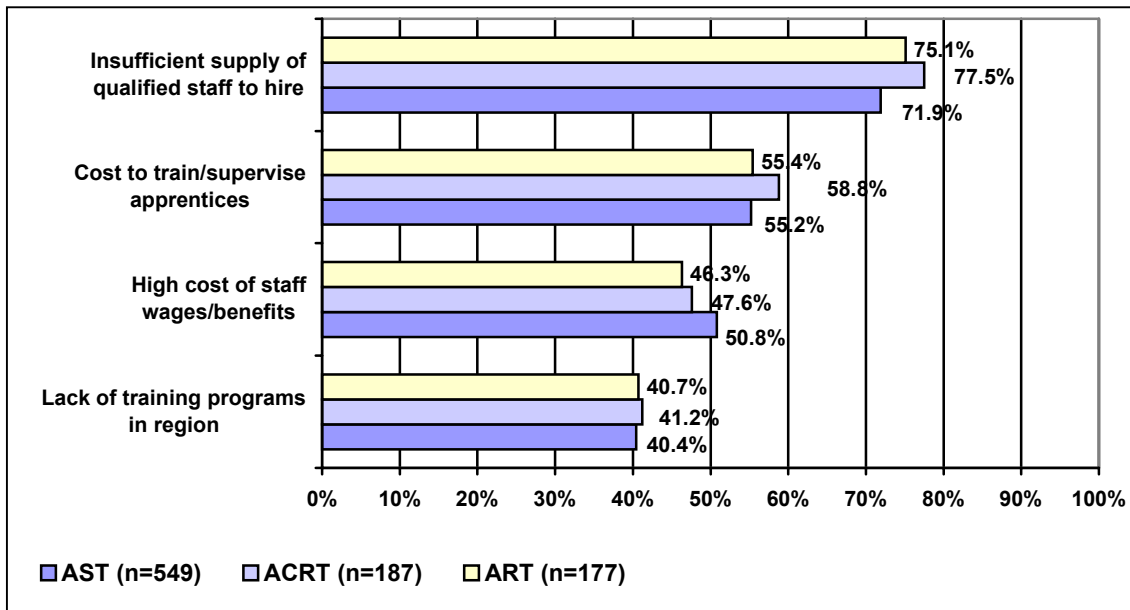
Potential ART apprentices tend to be drawn from entry level/college programs by nearly one-half (45.9%) of businesses in Central/Interior BC, yet in the other regions of BC, ARTs tend to be hired most often through word of mouth or references from another employee.

For apprentice ACRT positions, businesses on Vancouver Island tend to hire individuals with some industry experience but with no formal college training, whereas in the Lower Mainland, the Central Interior and Northern regions of BC, ACRTs were most frequently hired from entry level or college programs.

4.2 Human Resource Issues

Survey respondents were asked to indicate whether a variety of human resource issues affected the company’s ability to meet the needs of the establishment. Analysis of survey data shows that all three trades share similar human resource issues. For example, for businesses throughout BC, an insufficient supply of qualified staff to hire was a concern for approximately three-quarters of businesses for all three trade groups. The top four human resource issues identified by respondents are illustrated in Chart 4-1.

**Chart 4-1
Top Four Human Resources Affecting Businesses Overall**



Note: Proportions reflect companies that employ at least one employee in any of the three occupations. Not Applicable/No Response have been excluded. Totals do not sum to 100% due to multiple response.

It should be noted that a considerable proportion of companies indicated responses of “Don’t Know” for several human resource issues, suggesting that the degree to which such issues are affecting or will soon affect businesses in BC is not well known to many automotive sector businesses. The top five human resource concerns about which participants were unable to report the effect on their company were:

- Competition for staff from other provinces/territories (15.0%);
- Staff making the transition to management positions (14.3%);
- Retirement (13.3%);
- Competition for staff from other industry sectors in BC (12.3%); and
- Inadequate literacy and/or numeracy skills in available workforce (12.2%).

From a regional perspective, the number one human resource issue across all regions and for all occupations was an insufficient supply of qualified staff to hire. In the Northern regions of BC, the cost to train and/or supervise apprentices in ART and ACRT trades was also highly problematic for some businesses.

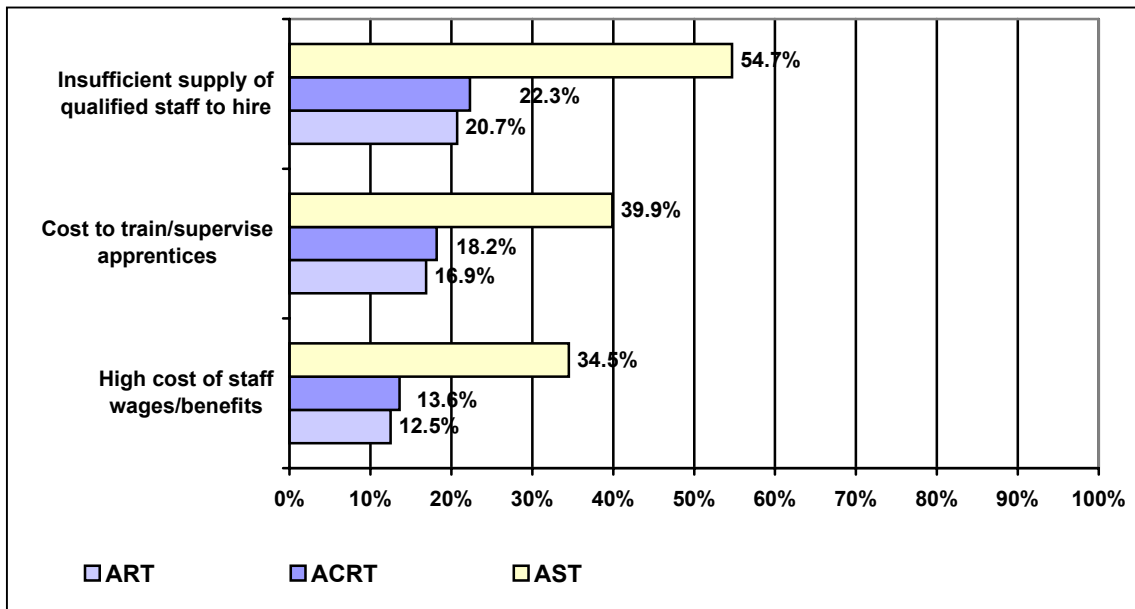
The cost to train and/or supervise apprentices was identified as the second most challenging human resource issue by businesses across all regions, although certain occupations posed unique human resource concerns. The top two problems affecting companies' ability to meet their human resource needs are depicted in Table 4-2.

**Table 4-2
Top Two Human Resource Issues by Trade and by Region**

AST	Top Issue	2 nd Issue
Lower Mainland	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (68.5%) 	<ul style="list-style-type: none"> High cost of wages and benefits (58.8%)
Vancouver Island	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (69.4%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (59.0%)
Central Interior	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (80.7%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (55.9%)
Northern	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (77.1%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (65.2%)
ART		
Lower Mainland	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (75.3%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (51.2%)
Vancouver Island	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (65.3%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (62.2%) Lack of training programs in region (62.2%)
Central Interior	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (82.8%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (51.5%)
Northern	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (76.1%) Cost to train/supervise apprentices (76.1%) 	<ul style="list-style-type: none"> Lack of training programs in region (58.4%)
ACRT		
Lower Mainland	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (78.8%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (54.7%)
Vancouver Island	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (73.8%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (63.8%) Lack of training programs in region (63.8%)
Central Interior	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (76.3%) 	<ul style="list-style-type: none"> Cost to train/supervise apprentices (58.7%)
Northern	<ul style="list-style-type: none"> Insufficient supply of qualified staff to hire (80.0%) Cost to train/supervise apprentices (80.0%) 	<ul style="list-style-type: none"> Lack of training programs in region (60.0%)

When examined from the perspective of firms that currently employ apprentices, survey data show that, while the top human resource issues were the same for all three occupations, there seems to be greater concern among employers about AST occupations as compared to ART and ACRT occupations. For example, as shown in Chart 4-2, an insufficient supply of qualified staff to hire was the number one human resource issue reported by respondents for each occupation, yet considerably more employers considered this to affect their company’s staffing requirements for ASTs positions than for ARTs and ACRTs.

Chart 4-2
Top Three Human Resources Affecting Businesses that Employ Apprentices



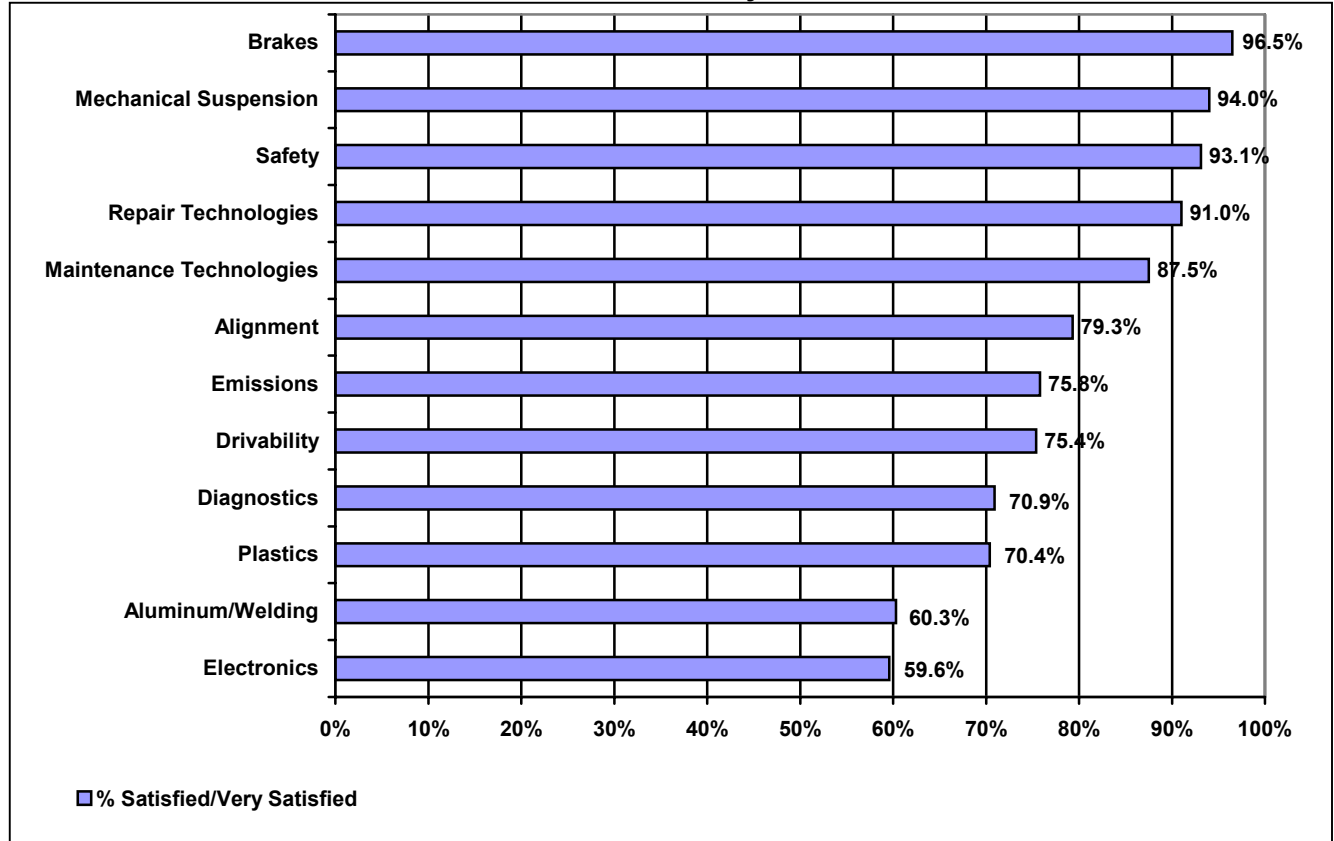
n=391

Note: Proportions reflect companies that employ at least one apprentice in any of the three occupations. Totals do not sum to 100% due to multiple response.

4.3 Skills of Certified Journeymen

Overall, employers reported very high levels of satisfaction with the skills of certified journeymen. As shown in Chart 4-3, the vast majority of respondents indicated being satisfied or very satisfied with the brakes, mechanical suspension and safety skills of certified journeymen. Electronics skills garnered the lowest satisfaction rating, yet respondents were still satisfied/very satisfied in the majority of cases.

**Chart 4-3
 Employer Satisfaction with Skills of
 Certified Journeymen**



n= 396 to 690

SECTION 5: CONCLUSIONS AND OBSERVATIONS

Based on the results of the survey results and the projection models developed as part of the current research, a number of preliminary observations and conclusions can be made.

- The results of the research suggest that human resource issues are, and will likely remain, a major concern for employers in this sector. Almost three quarters of employers noted that the insufficient supply of qualified staff to hire was a major issue for their organization. This concern was voiced by employers across all sectors and in all regions of the province.
- The lack of qualified staff is the current reality for a number of employers. Almost one half of employers surveyed felt that labour shortages was an issue or major issue for their organization in 2005. At the time of the survey, a significant proportion of employers reported unfilled vacancies for ASTs (34.7% of employers), ACRTs (34.8%) and ARTs (25.4%). Most employers anticipate that this situation will remain a challenge in 2006.
- Overall, BC employers identified that they see robust employment growth for all three trades of interest – as average annual growth is expected to range between 5.3% for ARTs to 5.9% for ACRTs. In terms of absolute numbers, these projections translate into significant employment requirements, as the sector is projected to require an additional 2,596 ASTs over the next five years, as well as an additional 816 ACRTs and 452 ARTs.
- In the Northern regions of the province, the increased need for skilled labour may be affected and/or exacerbated by factors associated with the mining, and oil and gas industries in those regions.
- More work needs to be done to understand if the number of apprentices currently in the system is sufficient to replace retiring members of the workforce. Reporting by employers that there are factors that cause employers to not participate in apprenticeship training may cause low representation of apprentices in the workforce that could make it difficult to address projected labour needs/shortages, especially in the short-term. In addition, that the majority of apprentices are employed by businesses in the Lower Mainland suggests that companies located elsewhere in the province may face shortages of the necessary numbers of apprentices to replace retiring older workers/journeymen over the next five to ten years.
- The human resource challenge facing BC's automotive sector appears to be both a "supply" and a "skills" challenge. Therefore it is important to understand the balance necessary to supply the province's labour situation for the next five years to meet the increasing demand of employers as well as ensuring that the necessary training is available to the workforce to keep up with technological changes.