BC Student Outcomes
Shaping Post-Secondary Education

2015 APPRENTICESHIP STUDENT OUTCOMES SURVEY

report of findings

ita
YOUR TICKET.

BRITISH COLUMBIA

The 2015 Appenticeship Student Outcomes Survey: Report of Findings has been prepared by BC Stats for the BC Student Outcomes Research Forum.

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Contents

Acknowledgments

The Apprenticeship Student Outcomes (APPSO) Survey, which targets former apprenticeship students who have completed the final level of their technical training, is one of three annual surveys that make up BC Student Outcomes.

The BC Student Outcomes surveys are conducted with funding from the Ministry of Advanced Education and the participating British Columbia post-secondary institutions. Additional funding for the APPSO Survey is provided by the Industry Training Authority.

The BC Student Outcomes Research Forum oversees all aspects of the project, from data collection to the reporting of survey results. The Forum represents a longstanding partnership among the Ministry of Advanced Education, participating post-secondary institutions, and system-wide organizations, such as the BC Council on Admissions and Transfer, the BC Registrars' Association, and the Council of Senior Student Affairs Leaders.

BC Stats acts as steward of the Student Outcomes data and is responsible for providing operational support, day-to-day management, advice, and reports, as directed by the Forum.

Highlights

The 2015 Apprenticeship Student Outcomes (APPSO) Survey was aimed at former students who completed the final year of their apprenticeship training in a B.C. post-secondary institution between July 1, 2013 and June 30, 2014. A total of 2,211 former traditional apprenticeship students completed the survey by telephone or online between January and May 2015. The APPSO response rate for traditional apprentices was 51 percent. The following are highlights from the survey findings for former traditional apprenticeship students only.[1] As a result of possible changes to the list of programs defined as traditional apprenticeship, comparisons to results from previous years are not recommended.

Former traditional apprenticeship students

- 92% were male
- 29 was the median age
- 49% were in one of three program groups: Electrician, Welding & Precision Production, or Industrial & Heavy Duty Mechanics & Other Repair Trades
- 77% took their in-school apprenticeship training in public post-secondary institutions

In-school experiences of former traditional apprentices

- 94% said they were *very satisfied* or *satisfied* with their in-school training
- Former traditional apprenticeship students generally found that their courses were *very helpful* or *helpful* in developing the following skills:
  - Reading comprehension: 93%
  - Math: 92%
  - Analysis and critical thinking: 92%
- 86% said the quality of their instruction was *very good* or *good*
- 78% rated the content of their training *very good* or *good* at covering relevant topics
- 87% said they had received their British Columbia Certificate of Qualification
- 92% reported that their training was *very* or *somewhat useful* to them in preparing to write the certification exam

Workplace experiences of former traditional apprentices

- 93% with workplace experience said they were *very satisfied* or *satisfied* with their overall workplace training
- 89% said their in-school technical training was *very* or *somewhat related* to their workplace experience
- 88% had a trade-related job to return to after completing their program; 67% were still working for the same employer at the time of the survey

1 Traditional apprenticeship programs are programs with multiple levels of in-school technical training taken during block release periods from work. These programs result in certification only upon completion of all levels of the program.

Employment of former traditional apprenticeship students

- 97% were in the labour force (employed or looking for work)
- 6.2% of those in the labour force were unemployed
- 91% of former traditional apprenticeship students were employed
- Of the former traditional apprenticeship students who were employed:
  - 98% were working full-time
  - 5% were self-employed
  - 92% said their employment was *very* or *somewhat related* to their in-school training
  - 94% said the knowledge and skills they gained through their training had been *very* or *somewhat useful* in performing their job
  - $31 was the median hourly wage

Introduction

Preparing for the opportunities of tomorrow is a cornerstone of the BC Jobs Plan. In British Columbia, these opportunities include an anticipated one million job openings by 2022. Part of this preparation involves training and education for high-demand occupations. Armed with the needed training, British Columbians will be well-prepared to fill the numerous technical and trades jobs that will be available.

The apprenticeship training system in B.C. includes the Industry Training Authority, public post-secondary institutions, private training institutions, and employers. Currently, in B.C., apprenticeship training is available in more than 100 trades, offering career opportunities in a wide range of occupations. The majority of apprenticeship training is provided on-the-job, and approximately 20 percent is delivered as in-class technical training through a post-secondary institution or private training provider.

The majority of apprenticeships require a minimum of four years to complete, though they vary by occupation, ranging from one to five years. A successful apprentice is one who completes the in-school technical training and the required work hours, passes examinations, and is recommended for certification by their sponsoring employer to earn a "ticket" in a skilled trade. That credential, a Certificate of Qualification (C of Q), is issued by the Industry Training Authority on behalf of the Province of British Columbia; about 50 trades are endorsed by the Interprovincial (IP) Red Seal program, which is recognized across Canada as a signal that the apprentice passed a standardized national exam.

The ministries of Advanced Education (AVED) and Jobs, Tourism and Skills Training (JTST), the Industry Training Authority (ITA), and the institutions that provide technical training share a commitment to expand and improve delivery of apprenticeship training in British Columbia. Information provided by the annual Apprenticeship Student Outcomes Survey is an important part of that process.

About the 2015 Apprenticeship Survey

The 2015 Apprenticeship Student Outcomes (APPSO) Survey is the eleventh annual survey of former apprenticeship students. A total of 4,308 traditional apprentices who completed their apprenticeship training at a B.C. post-secondary institution between July 1, 2013 and June 30, 2014 were eligible for this survey.[2] The survey was conducted by telephone and online from January to May 2015; there were 2,211 traditional apprenticeship respondents, making the response rate 51 percent. The respondents had completed apprenticeship programs from 37 post-secondary or training institutions (14 public and 23 private). (For more information on the survey, see Appendix A: Apprenticeship Survey Methodology.)

2 In total, 5,616 former apprenticeship students were eligible. Of these, 4,308 were traditional apprentices. The remainder (n = 1,308) were in progressive credential programs and are not included in the main body of this report. There were 137 former ACE IT students who responded to the survey—26 traditional apprentices and 111 progressive credential apprentices.

To provide insight into the apprenticeship experience, former students were asked to:

- rate aspects of their in-school and workplace training;
- evaluate the usefulness of the knowledge and skills they gained;
- quantify their level of satisfaction with their training; and
- describe their post-training employment.

Data from the Apprenticeship Student Outcomes Survey are currently used by AVED and ITA for policy development and to monitor the effectiveness of the training system. Participating B.C. post-secondary institutions use information from the annual survey for program and curriculum reviews, for marketing and recruitment, and to assist prospective students with career decisions.

Feedback from former foundation or pre-apprenticeship trades training students is currently collected in the annual Diploma, Associate Degree, and Certificate Student Outcomes (DACSO) Survey, which provides AVED and the institutions with pertinent and valuable outcomes information for non-apprenticeship and pre-apprenticeship trades programs.

The 2015 APPSO Survey included 678 respondents from progressive credential programs. The ITA now offers apprenticeship completion and certification following each sequential training course for certain programs, and starting in 2010, the cohort selection criteria for APPSO were changed to include former students from these progressive credential programs.[3] See the Progressive Credential Apprenticeship section for an overview of the results for these former students.

For the 2015 survey, the list of traditional apprenticeship and progressive credential programs was refined, leading to a more accurate picture of these two groups of former students. As a result of these changes, comparisons to previous years were not possible.

About this report

This report presents a summary of the findings for the 2015 APPSO Survey. The results presented in the first section of the report are for respondents who took **traditional apprenticeship training**. Traditional apprenticeship programs are programs with multiple levels of in-school technical training taken during block release periods from work. These programs result in certification only upon completion of all levels of the program. In the second section, results for **progressive credential programs** are presented.

Please see Appendix A: Apprenticeship Survey Methodology for the number of former students eligible for the survey, the number of respondents, and the response rate by program group.

When the terms *former students* or *former apprentices* are used in the first section of the report, they refer only to the former traditional apprenticeship students who responded to the 2015 Apprenticeship Student Outcomes Survey. When former progressive credential students are discussed, they are referred to as *progressive credential respondents* or *former progressive credential students* or *progressive program apprentices*.

3 Progressive credential programs are those that provide both on-the-job training and in-school technical training, which now result in certification upon completion of what was once a level of training for a traditional apprenticeship.

The report is organized into the following sections for both former traditional apprenticeship students and former progressive program apprentices:

- details about the former students who were surveyed and what they studied;
- their in-school experiences;
- their workplace training experiences; and
- their subsequent labour force participation, employment, and occupations.

Survey respondents had apprenticed in a variety of trades. The trade programs named in this report have been organized according to the Classification of Instructional Programs (CIP) coding and grouped into nine categories to simplify reporting. To see how these program groups relate to institutions' program names, see the Excel file in Appendix B: Apprenticeship Program Groups and Institutions' Programs.

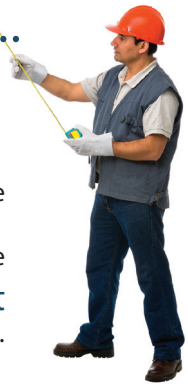
Former Traditional Apprentices

Former traditional apprenticeship students (n = 2,211) who responded to the 2015 Apprenticeship Student Outcomes Survey were asked about their previous education, including other trades training and credentials already completed. They were also asked about their citizenship or immigration status and Aboriginal identity. Age and gender information was collected from administrative records.

Who were former traditional apprenticeship students?

THE TYPICAL FORMER APPRENTICE surveyed in 2015 was...

...a **29** year old male



who lived in the **Mainland/Southwest** region.

He likely did his in-school training at a **public post-secondary institution,** most likely in an **Electrician** or **Welding & Precision Production** program.

He was employed **FULL-TIME** and earning about

$31 per hour.

He had completed the requirements to receive his **TICKET** as a certified tradesperson and was working at a job **RELATED** to his training.

Former traditional apprentices were predominantly men, and men made up the majority in each program group. Women who completed traditional apprenticeships were typically in Culinary Arts & Personal Services programs.

Gender

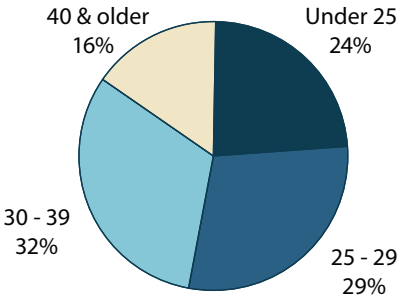
Program Group	Female Traditional Apprenticeship Respondents	% of Program Group
Automotive & Other Mechanics	#	#
Carpentry	9	4%
Culinary Arts & Personal Services	71	37%
Electrician	16	4%
Industrial & Heavy Duty Mechanics & Other Repair Trades	9	3%
Plumbing	#	#
Welding & Precision Production	29	7%
Other Construction Trades	#	#
Other Trades	26	15%
Total	**168**	**8%**

Note: Low numbers have been masked to preserve confidentiality. Results shown are for former traditional apprentices.

Though most former traditional apprentices were men, more than one-third of those from Culinary Arts & Personal Services programs were women.

At the time of the survey, respondents' median age was 29 and ages ranged from 17 to 68.

Age group

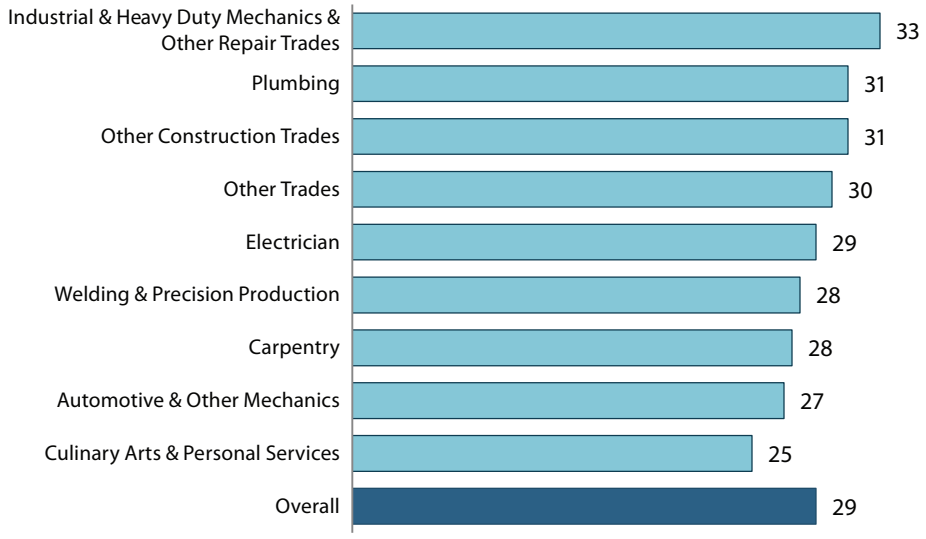


Note: Age is at the time of the survey.

Almost half of traditional apprentices were over 30.

The median age of respondents from different program groups varied. Those from Industrial & Heavy Duty Mechanics & Other Repair Trades programs tended to be older, while those who took Culinary Arts & Personal Services programs were likely to be younger.

Median age

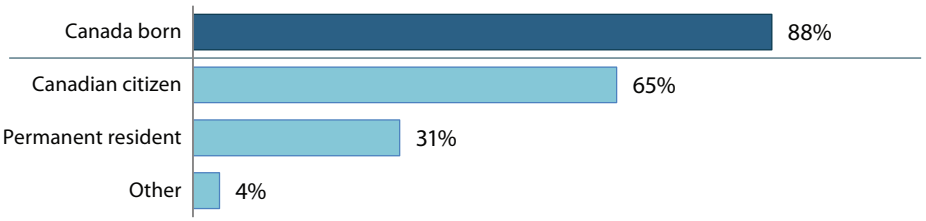


Note: Age is at the time of the survey. Median ages for former traditional apprentices are shown.

Median age varied by eight years across program groups.

The majority of former traditional apprentices were born in Canada. Of those whose country of origin was not Canada, almost two-thirds were citizens and almost one-third were permanent residents at the time of their training.

Country of origin & immigration status



Note: Percentage of Canadian-born is based on former traditional apprentices. Percentages for immigration status are based on those former traditional apprentices who said they were born outside of Canada.

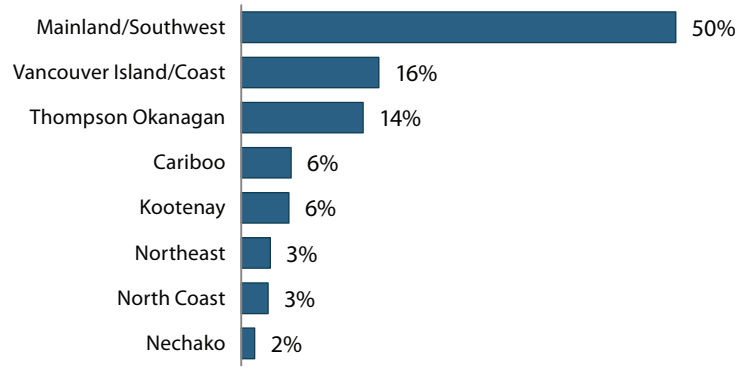
Almost 9 out of 10 former traditional apprentices were born in Canada.

Of the Canadian-born respondents who identified themselves as Aboriginal (7 percent), almost three-quarters (73 percent) said they were First Nations and approximately one-third (30 percent) identified themselves as Métis.[4]

At the time of the survey, former traditional apprentices' region of residence was predominantly in the Mainland/Southwest.

4 Respondents were allowed to provide multiple responses. As a result, the percentages total to more than 100.

Current region of residence



Note: Based on former traditional apprentices who were in B.C. at the time of the survey and gave a valid postal code. Respondents whose location was unknown (6%) or who were living outside of B.C. (3%) at the time of the survey were not included in the calculation of percentages for region of residence.

Half of former traditional apprentices were living in the Mainland/Southwest region at the time of the survey.

What traditional apprenticeship programs did respondents take?

Apprenticeship programs have been organized into nine program groups, most of which are self-explanatory.[5,6] In 2015, almost half of the traditional apprenticeship respondents were in Electrician, Welding & Precision Production, or Industrial & Heavy Duty Mechanics & Other Repair Trades programs.

Program group

Program Group	Former Traditional Apprentices	%
Electrician	402	18%
Welding & Precision Production	397	18%
Industrial & Heavy Duty Mechanics & Other Repair Trades	274	12%
Carpentry	240	11%
Plumbing	237	11%
Automotive & Other Mechanics	198	9%
Culinary Arts & Personal Services	192	9%
Other Trades	170	8%
Other Construction Trades	101	5%
Total	**2,211**	**100%**

Note: Low numbers have been masked to preserve confidentiality. Results shown are for former traditional apprentices.

Electrician and Welding & Precision Production programs were the most popular in 2015.

5 The hundreds of courses offered by institutions have been grouped using their CIP codes into nine program categories for reporting. The category of "Other Construction Trades" included programs such as Roofer and Glazier. Another category, called "Other Trades," included Arborists, Utility Arborists, Landscape Horticulturalists, Dairy Production Technicians, Mobile Crane Operators, Piledrivers and Bridgeworkers, and Heavy Equipment Operators. To see which courses from each institution are included in each program group, refer to Appendix B: Apprenticeship Program Groups and Institutions' Programs.

6 In 2015, a review of the apprenticeship programs was done to report more accurately on the traditional apprenticeship and progressive credential programs. As a result of this review, some programs were reclassified. Comparisons across years are not recommended.

Did apprentices study in public or private institutions?

The former traditional apprenticeship students who were interviewed had completed technical training in 37 different institutions across British Columbia.

They were more likely to have attended public institutions than private.

Attendance at public institutions

Over three-quarters of traditional apprentices attended public institutions.

Public Institutions	Respondents	% of Traditional Apprenticeship Respondents
B.C. Institute of Technology	574	26%
Okanagan College	186	8%
Vancouver Community College	159	7%
Camosun College	147	7%
Thompson Rivers University	119	5%
College of New Caledonia	91	4%
Kwantlen Polytechnic University	85	4%
Vancouver Island University	84	4%
Northwest Community College	55	2%
College of the Rockies	48	2%
Northern Lights College	47	2%
North Island College	38	2%
Selkirk College	34	2%
University of the Fraser Valley	34	2%
Total	**1,701**	**77%**

Attendance at private institutions

Twenty-three private institutions were represented in the 2015 survey.

Private Institutions	Respondents	% of Traditional Apprenticeship Respondents
Pacific Vocational College	92	4%
Joint Apprentice Refrigeration Trade School	54	2%
UA Piping Industry College of B.C.	50	2%
RCABC Training Centre	43	2%
The Finishing Trades Institute of BC	38	2%
IUOE Local 115 Training Association	37	2%
Sheet Metal Workers Training Centre	25	1%
BC Hydro	24	1%
Sprott-Shaw College	24	1%
Enform Canada	14	1%
Trowel Trades Training Association	13	1%
VanAsep Training Society	13	1%
Electrical Industry Training Institute	12	1%
Funeral Service Association of BC	11	<1%
Greenbelt Veterinary Services	9	<1%
Pacific Horticulture College	9	<1%
Taylor Pro Training	9	<1%
BC Floor Covering Joint Conference Society	7	<1%
Piledrivers, Divers, Bridge, Dock, Loc. 2404	7	<1%
Christian Labour Association of Canada	6	<1%
Fenestration Education Society of BC	6	<1%
BC Wall & Ceiling Association	#	#
Salvation Army Cascade Culinary Arts School	#	#
Total	**510**	**23%**

Note: Low numbers have been masked to preserve confidentiality.

What other education did traditional apprentices have?

Just over one out of ten former traditional apprentices (12 percent) reported having participated in a high school apprenticeship program. Six percent said that they took preparatory courses (including upgrading, access, and bridging courses; i.e., Adult Basic Education or English as a Second Language courses) during or prior to their traditional apprenticeship schooling. Of those who reported having taken preparatory courses, the majority (87 percent) took Adult Basic Education (ABE) courses.

Respondents were also asked if they had enrolled in further studies after their traditional apprenticeship program—14 percent had.

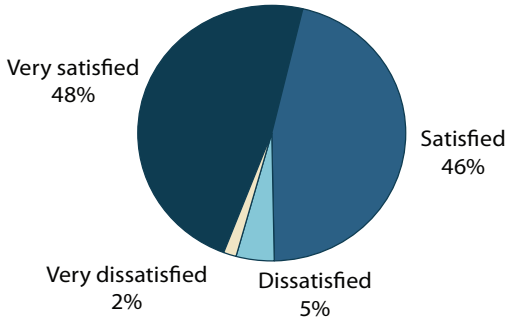
In-School Experiences

Former apprenticeship students were asked to evaluate several aspects of their in-school training. They evaluated the availability of courses, the quality of their instruction, the content of their program, and the opportunities they were given to develop skills.

How satisfied were respondents with their in-school training?

Most former traditional apprenticeship students said they were *very satisfied* or *satisfied* with the in-school training they received as part of their program.

Satisfaction with in-school training - overall

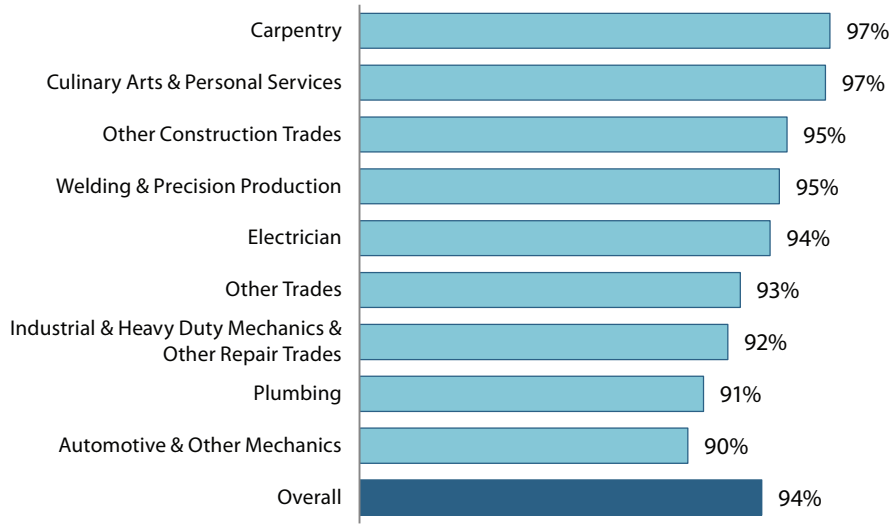


Note: Based on all traditional apprenticeship respondents.

Most reported satisfaction with in-school training.

Levels of overall satisfaction with in-school training were high across program groups. Almost all former Carpentry and Culinary Arts & Personal Services apprentices were satisfied.

Satisfaction with in-school training



Note: Percentages are for former traditional apprentices who were *very satisfied* or *satisfied* with their in-school training. Excludes those who said *not applicable*.

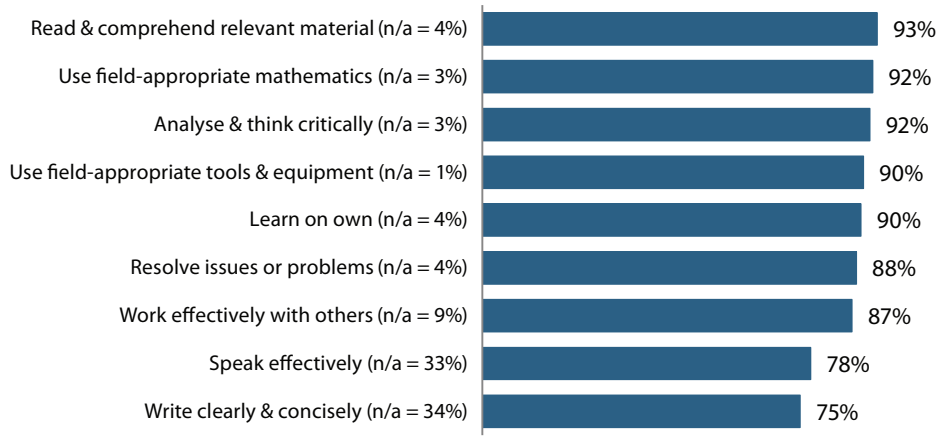
High satisfaction with in-school training was common across program groups.

Did in-school training help former traditional apprentices to develop skills?

Respondents were asked to indicate how helpful their program was in developing various professional skills.[7] If a particular skill was not relevant to their training, it was deemed *not applicable*.

The majority of respondents said that their program was *very helpful* or *helpful* in their development of a number of important skills, such as reading and comprehending relevant material, analysis and critical thinking, and using mathematics appropriate to their field.

Skill development



Note: Percentages are for former traditional apprentices who said their training was *very helpful* or *helpful* in developing the referenced skill, excluding those who said *not applicable*. Therefore, the percentages presented for each skill may exceed 100 if added together.

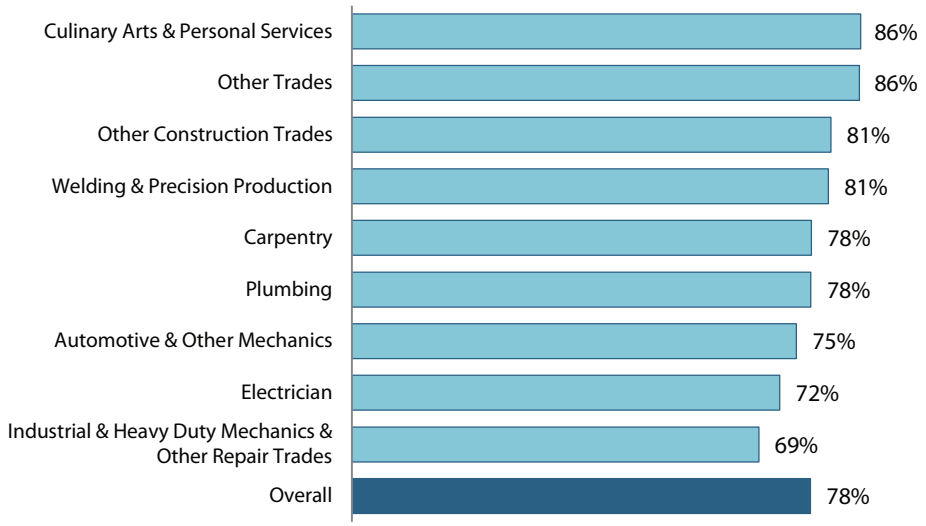
The majority of former traditional apprentices said their training was helpful in developing skills.

Former students' ratings of how helpful their program was in developing effective speaking skills varied across program groups. Former Culinary Arts & Personal Services students and those from Other Trades were most likely to report that their program helped them develop effective speaking skills, while former Industrial & Heavy Duty Mechanics & Other Repair Trades students were least likely to report that their training helped them develop this skill.

7 In 2015 the wording of the skills development questions changed. Until 2014, respondents were asked to indicate the extent to which their in-school training provided them with opportunities to develop various professional skills, using the scale: 1 = Very poorly, 2 = Poorly, 3 = Adequately, 4 = Well, and 5 = Very well. Starting in 2015, respondents were asked how helpful their program was at developing a number of professional skills. The scale used in 2015 was as follows: 1 = Not at all helpful, 2 = Not very helpful, 3 = Helpful, and 4 = Very helpful.

As a result of these changes, comparisons to previous years are not possible.

Effective speaking skills

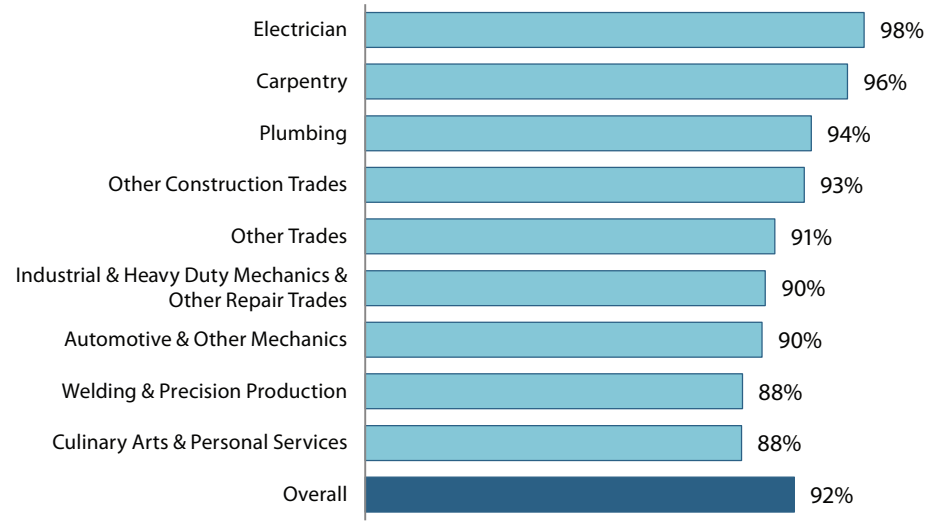


Note: Percentages are for former traditional apprentices who said their training was *very helpful* or *helpful* in developing **effective speaking skills**, excluding those who said *not applicable*.

Training in effective speaking skills was rated highest among Culinary Arts & Personal Services and Other Trades program groups.

When asked the extent to which their programs helped them develop field-appropriate mathematics skills, former Electrician and Carpentry apprentices were most likely to say that they had, while those from Culinary Arts & Personal Services and Welding & Precision Production were least likely to report that their programs were helpful in this area.

Field-appropriate mathematics skills

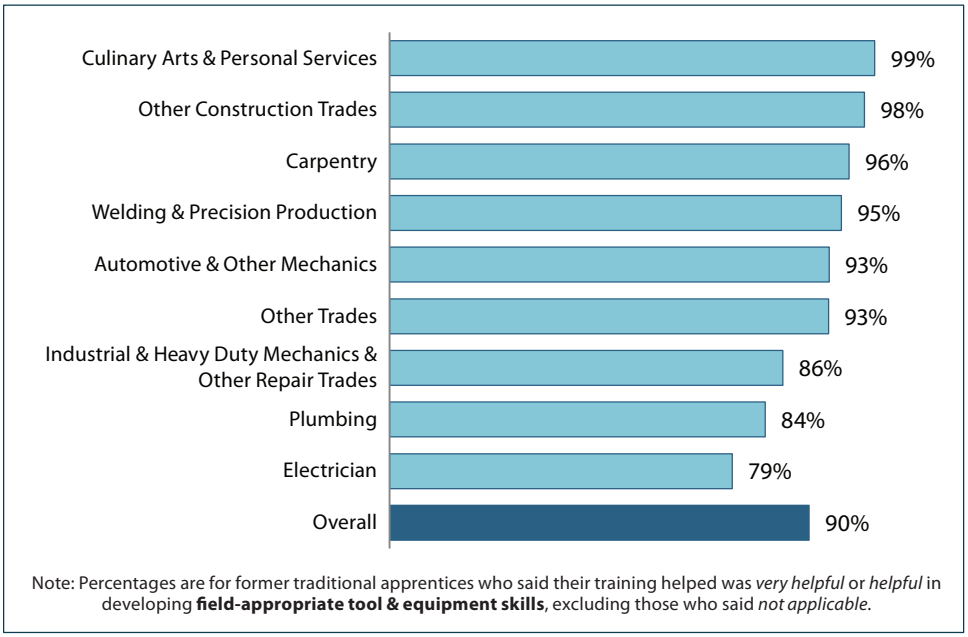


Note: Percentages are for former traditional apprentices who said their training was *very helpful* or *helpful* in developing **field-appropriate mathematics skills**, excluding those who said *not applicable*.

Electrician and Carpentry programs were most likely to help apprentices develop field-appropriate mathematics skills.

Almost all respondents from Culinary Arts & Personal Services, Other Construction Trades, and Carpentry said their programs helped them learn how to use tools and equipment appropriate to their field.

Field-appropriate tool & equipment skills



Note: Percentages are for former traditional apprentices who said their training helped was *very helpful* or *helpful* in developing **field-appropriate tool & equipment skills**, excluding those who said *not applicable*.

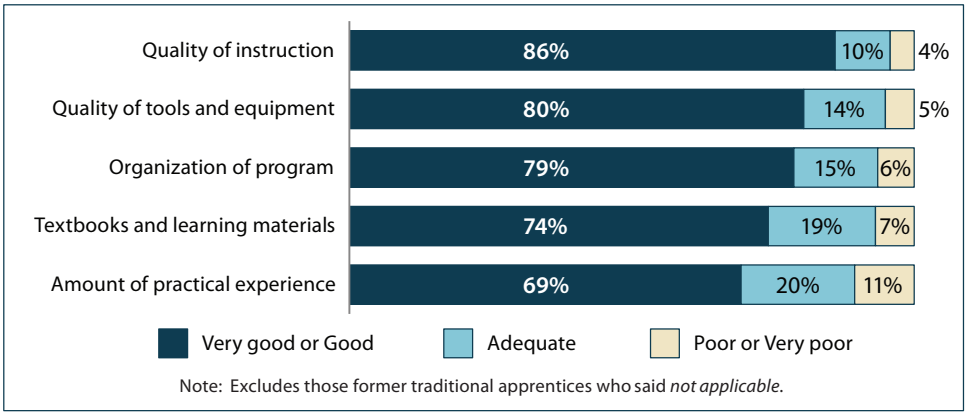
More than 9 out of 10 former apprentices in most program groups said their training helped them develop tool and equipment skills.

How did respondents rate the quality of their in-school training?

Former traditional apprenticeship students were asked to rate aspects of their in-school training using a 5-point scale: *very good, good, adequate, poor,* or *very poor*. Very few respondents indicated that these items were *not applicable*.

The quality of instruction was rated the highest by former traditional apprentices, followed by quality of tools and equipment. Just over two-thirds of respondents said the amount of practical experience was *very good* or *good*.

Quality of in-school training



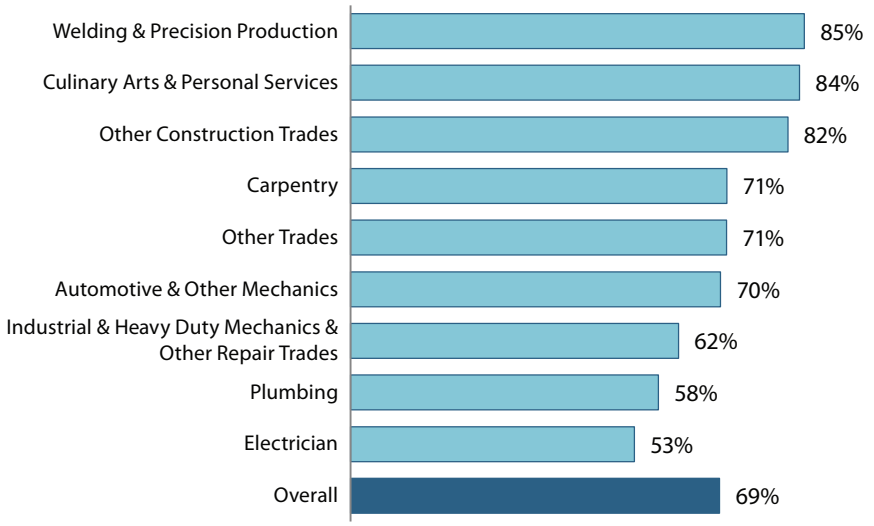
Note: Excludes those former traditional apprentices who said *not applicable*.

Quality of instruction was rated highly by former traditional apprentices.

When asked about the amount of practical experience they received and the quality of tools and equipment used in their program, respondents from different program groups had varying things to say.

More than eight out of ten former apprentices from programs in Welding & Precision Production, Culinary Arts & Personal Services, and Other Construction Trades said that the amount of practical experience they received was *very good* or *good*, while well over half of those from programs for Electricians and Plumbing gave positive ratings for this aspect of their in-school training.

Amount of practical experience

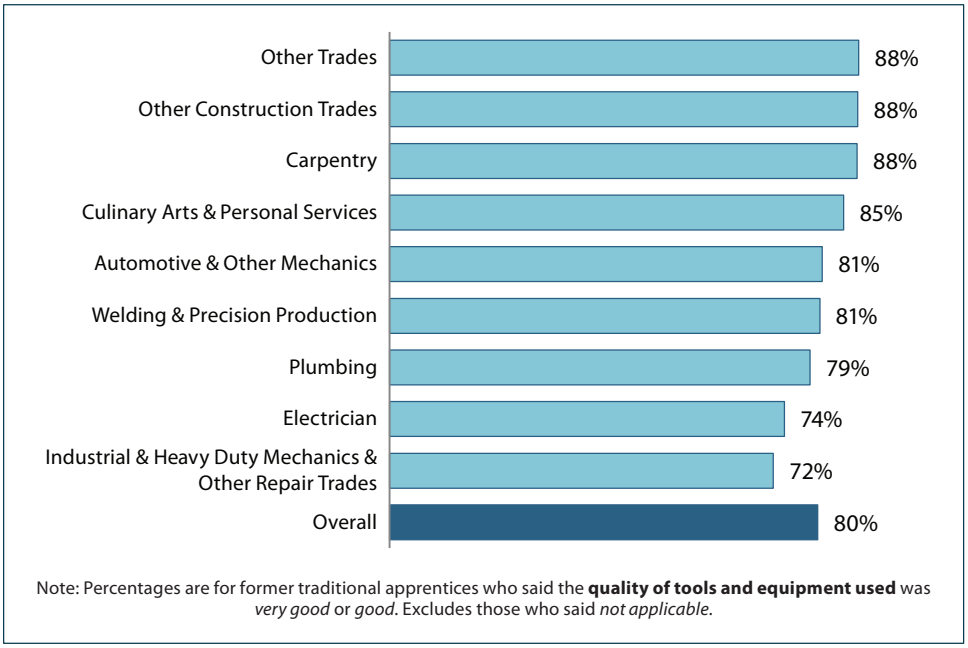


Note: Percentages are for former traditional apprentices who said the **amount of practical experience** was *very good* or *good*. Excludes those who said *not applicable*.

Ratings of the amount of practical experience received ranged widely across the program groups.

Ratings of the quality of tools and equipment also varied across program groups. Almost nine out of ten respondents from Other Trades, Other Construction Trades, and Carpentry programs gave positive ratings to this aspect of their training. The lowest ratings were from former Industrial & Heavy Duty Mechanics & Other Repair Trades apprentices.

Quality of tools and equipment used



Note: Percentages are for former traditional apprentices who said the **quality of tools and equipment used** was *very good* or *good*. Excludes those who said *not applicable*.

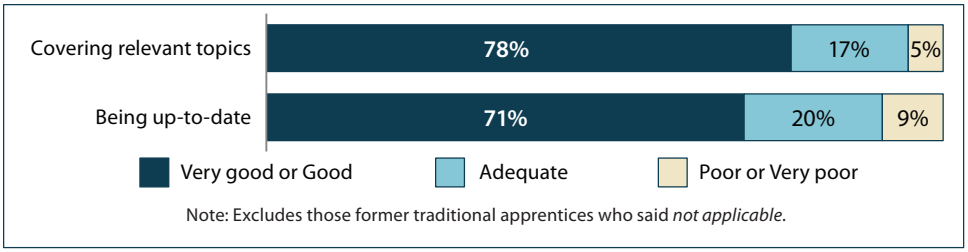
Former apprentices from Other Trades, Other Construction Trades, and Carpentry programs gave the highest ratings to the quality of tools and equipment.

How did respondents rate the content of their in-school training?

Former traditional apprenticeship students were asked to rate the content of their in-school training in two areas: covering the topics most relevant to their field and being up-to-date. These areas were rated using the same 5-point scale, from *very good* to *very poor*. The majority of respondents gave either a *very good* or *good* rating to each content area.

More than three-quarters of former traditional apprenticeship students said that their program's coverage of relevant topics was *very good* or *good*.

Content of in-school training

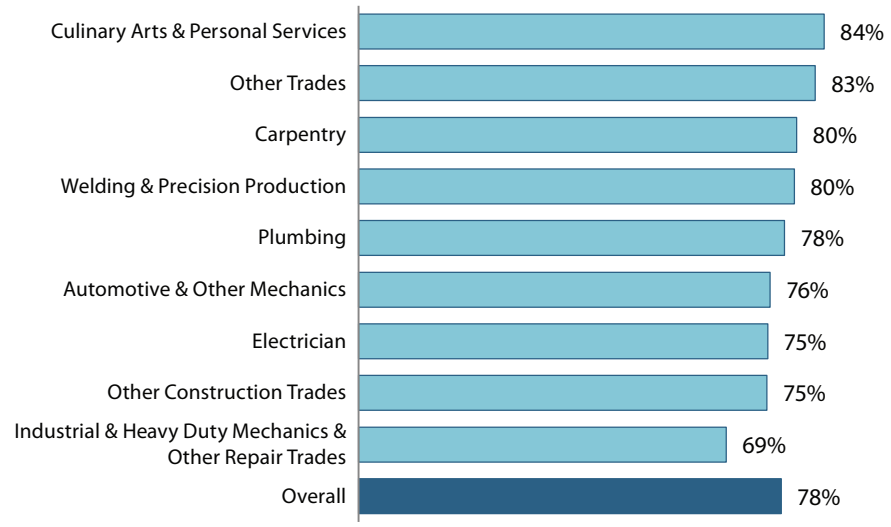


Note: Excludes those former traditional apprentices who said *not applicable*.

Former apprentices typically gave high ratings to the content of their in-school training.

In most program groups, at least three-quarters of the former apprentices said that the courses were *very good* or *good* at covering relevant topics. Former Industrial & Heavy Duty Mechanics & Other Repair Trades apprentices were least likely to report that relevant topics were addressed by their program.

Coverage of relevant topics

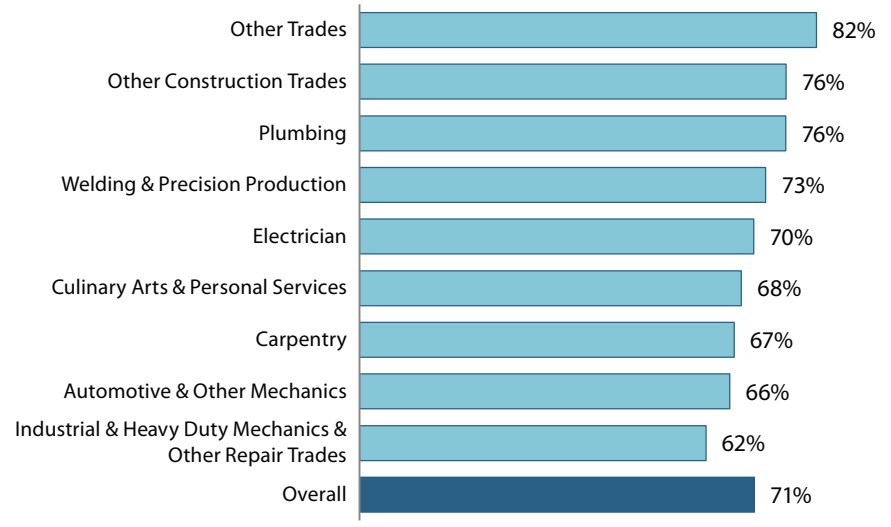


Note: Percentages are for former traditional apprentices who said their program's **coverage of relevant topics** was *very good* or *good*. Excludes those who said *not applicable*.

The greatest room for improvement in the coverage of relevant topics was reported by former Industrial & Heavy Duty Mechanics & Other Repair Trades apprentices.

Just over seven out of ten former apprentices thought their program was up-to-date. While more than eight out of ten respondents from Other Trades programs said that their program did a *very good* or *good* job of staying current, fewer than two-thirds of Industrial & Heavy Duty Mechanics & Other Repair Trades thought this was true.

Up-to-date coursework



Note: Percentages are for former traditional apprentices who said the degree to which their program was **up-to-date** was *very good* or *good*. Excludes those who said *not applicable*.

Former apprentices from mechanics and repair trade programs were most likely to say that their programs needed updating.

How could in-school training be improved?

Former traditional apprentices were asked how the training in their programs could be improved. The majority of respondents (86 percent) answered the question, and of those who provided a response, 24 percent said the program was fine or needed no improvement. Many of the respondents who made suggestions for improvement commented on more than one topic.

The 1,441 respondents generated 2,132 suggestions which were categorized into eight themes.[8]

Suggestions to improve in-school training

Theme	Number of responses	Percentage of respondents
Increase hands-on experience	366	25%
Improve instruction	337	23%
Update textbooks, content, & learning materials	330	23%
Improve length of program	320	22%
Improve course - general	261	18%
Improve examination preparation	235	16%
Improve facilities, tools, equipment, technology	199	14%
Improve program organization	84	6%
Total	**2,132**	

Note: Percentages are based on the 1,441 traditional apprenticeship respondents who provided a suggestion. Many gave responses that included more than one suggestion, therefore percentages total to more than 100.

Suggestions for improving in-school training focussed on the need for more practical experience, updated materials, and improved program length.

One quarter of the former traditional apprentices who gave a suggestion believed that the in-school training needed to incorporate more hands-on and practical experience. Suggestions also included how to improve the transfer of knowledge to the job environment.

INCREASE HANDS-ON EXPERIENCE **25%**	*More hands on instead of being in the classroom… and more shop time. Hands on instead of all book knowledge.*
	More hands on and practical experience.…more hands-on training, not just studying on a computer or through a book.
	More hands-on work….more working with the actual equipment we will be working on.

In total, there were 443 comments referring to instruction—24 percent were positive, with respondents using words such as *knowledgeable, satisfactory, great, best teachers,* and *pleased with* when referring to the teaching. The remaining 337 suggestions—coming from almost one-quarter of respondents—asserted that instruction was not up-to-par or noted improvements that were needed.

8 The comments shown in this section are representative of the comments given by respondents; however, for reasons of confidentiality, they are not direct quotations from individuals.

IMPROVE INSTRUCTION 23%	*Instructors…should spend time in the field and stay current ….train instructors on the latest technologies.*
	Smaller class sizes and more attention to each student would be beneficial.
	Some teachers were better in the shop and some in the classroom … a more rounded teacher would be good….Better consistency between instructors.

Almost one-quarter of respondents who made a suggestion commented on outdated textbooks and the range of resources that apprentices may access (e.g., textbooks versus modules created by individual teachers). There were also a number of suggestions regarding access to online materials and programs.

UPDATE TEXTBOOKS, CONTENT & LEARNING MATERIALS 23%	*I would like to see better and updated materials. The videos are in need of a serious update…*
	It does not make sense to teach modern techniques with outdated technology…. I think some kind of digital format for us to get the same information [rather than paper] would be better.
	…help students who can't always attend classes. More access to online programs…

Of those who made reference to the length of the program, almost all wanted to see the program time lengthened.

IMPROVE PROGRAM LENGTH 22%	*We need to better cover material. I feel rushed and I am cramming through subjects just to try and get it all done…*
	...they keep throwing in new topics…if they want us to learn then they need to give us more time. Improve the length of the course by at least 1 to 2 weeks.
	Longer course time. Have a couple more weeks to do the program each year. …it would benefit everyone greatly so it doesn't feel so rushed.

Approximately two out of ten respondents who made a suggestion noted course improvements were needed. Many of these suggestions were program-specific, or noted the need to make programs more relevant, to bring programs up to current industry standards, or to improve job placement assistance.

IMPROVE COURSE - GENERAL 18%	*Make it more relevant to the work.*
	...[cover subjects] in…more depth…more time during each unit to work on projects….different teaching methods.
	Have more [X]-industry based training.

A number of respondents noted they could have been better prepared for their examinations, which included those for their Red Seal designation.

IMPROVE EXAMINATION PREPARATION 16%	*…more information provided on the government exam….More complete curriculum…there were questions on the exam that we hadn't learned yet.*
	Have better communication with the ITA.…exams were not comparable to what we were taught in class…
	Better prep for the Red Seal.

Just over one out of ten former traditional apprentices who gave a suggestion noted the need for improved facilities, tools, or access to new technologies.

IMPROVE FACILITIES, TOOLS, EQUIPMENT, TECHNOLOGY 14%	*We need access to better shops and building spaces…newer products/technologies and tools…*
	More focus on modernized methods…the building and tools that were used were very old.
	…don't show us old systems that are obsolete.When I got into... the industry, they were using more up to date tools.

A number of former traditional apprentices who provided suggestions mentioned improvements to the organization of the program.

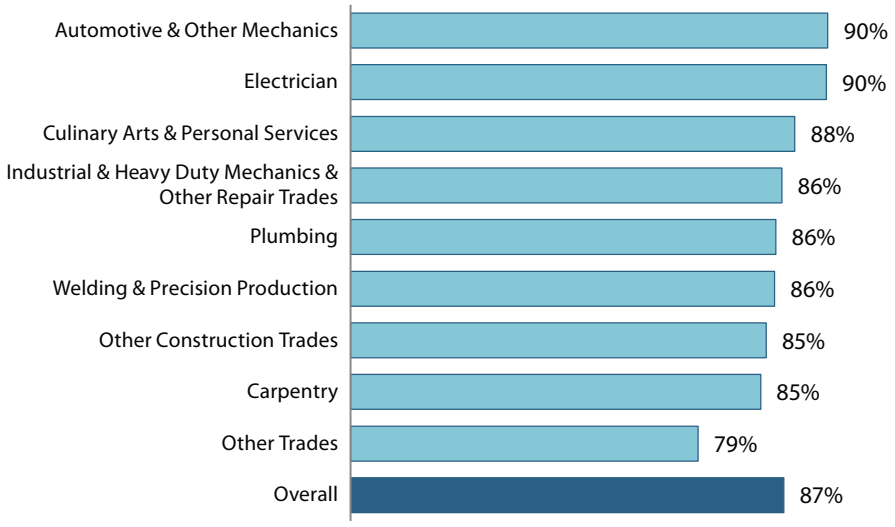
IMPROVE PROGRAM ORGANIZATION 6%	*A little more organization with the instructors…it was very inconsistent.*
	Some apprentices are getting more rounded training than others…
	The wait list is too long and the processes need to be more streamlined.

How many had received certification?

At the time of the survey, the majority of former traditional apprenticeship students said they had received their British Columbia Certificate of Qualification (C of Q), which may include Interprovincial or Red Seal endorsement. To receive certification, apprentices must successfully complete a number of work-based training hours, complete or successfully challenge all required levels of technical training, pass examinations, and be recommended for certification by their employer-sponsors (also referred to as employer sign-off).

Certification rates were fairly consistent across program groups. Almost nine out of ten former apprentices had received their C of Q by the time of the survey.

Received Certificate of Qualification

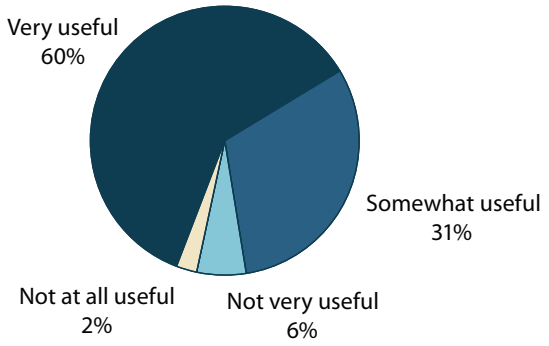


Note: Percentages are for traditional apprenticeship respondents who had received their C of Q by the time of the survey.

Overall, almost nine out of ten apprentices had received their C of Q by the time of the survey.

Respondents were asked how useful the knowledge and skills they gained from in-school training were in preparing them to write their certification examinations (whether they had written them yet or not). Most (92 percent) said that their training was *very useful* or *somewhat useful* when they were preparing to write their certification exam. Very few said the question was *not applicable*.

In-school training useful in certification exam preparation - overall

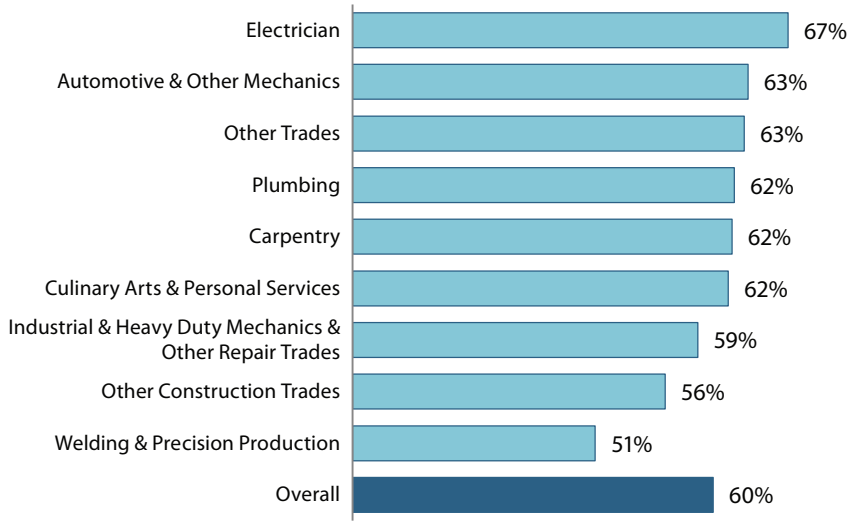


Note: Excludes those former traditional apprentices who said *not applicable* (<1% of total).

Most former apprentices said their in-school training was useful in their certification exam preparation.

Across program groups, the proportion who said the knowledge and skills they gained were *very useful* in their certification exam preparation ranged from just over two-thirds of Electrician respondents to just over half of those from Welding & Precision Production.

In-school training very useful in certification exam preparation

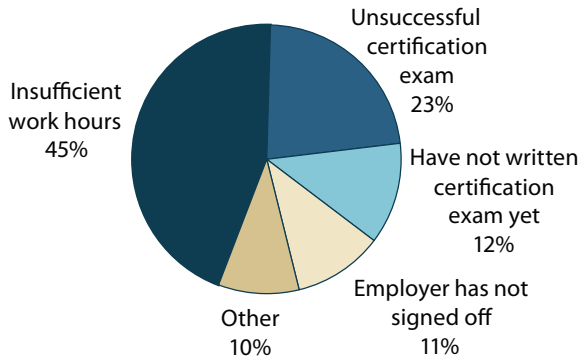


Note: Percentages are for former traditional apprenticeship students who said the knowledge and skills they gained were *very useful* to them in preparing for their certification exams. Excludes those who said *not applicable*.

About half to two-thirds said their in-school training was very useful in preparing for their C of Q exam.

Of those who had **not** received their C of Q by the time of the survey, almost half said that they had insufficient work hours to receive their certification and almost one-quarter said they had not passed their exam.

Reasons for not receiving certification



Note: Percentages are based on those former traditional apprentices who did **not** receive certification.

*Almost half of those who did **not** receive their C of Q said they had insufficient work hours.*

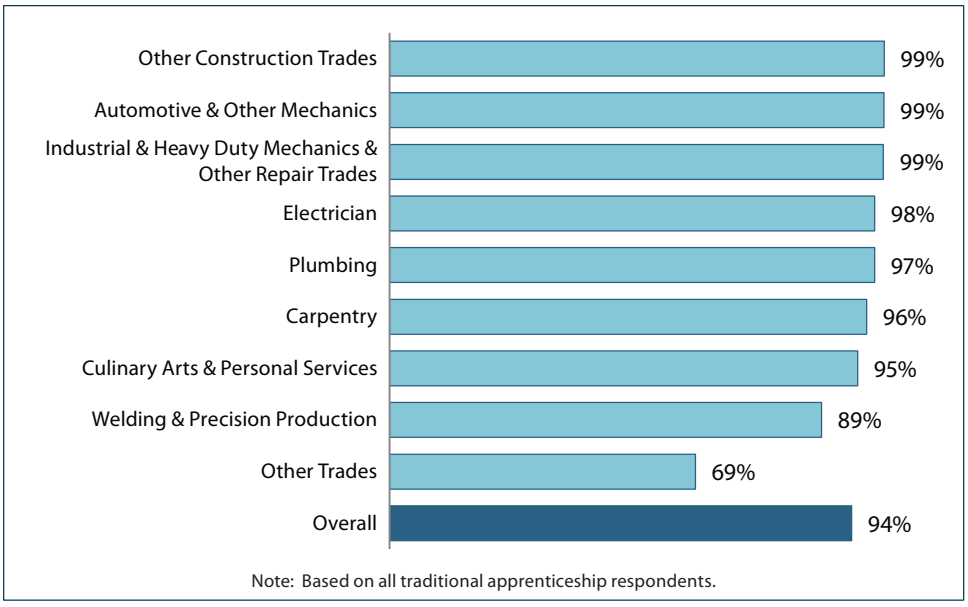
Workplace Experiences

How many were employed as an apprentice or had a work placement outside their institution?

Former students were asked if they had been employed as an apprentice or had a work placement outside their institution. Those who had workplace experiences were asked to rate their overall satisfaction with their workplace experience and to say how related their workplace experience was to their in-school training.

Most said they had been employed as an apprentice or had a work placement outside of the institution where they took their training. Workplace participation rates varied by program group. While work placements were very common in most program groups, just over two-thirds of those from Other Trades reported this workplace experience. More than half of the respondents in Heavy Equipment Operator programs, which are in the Other Trades program group, were not employed as an apprentice nor did they have a work placement outside of their institution.

Employment as apprentice or work placement outside institution



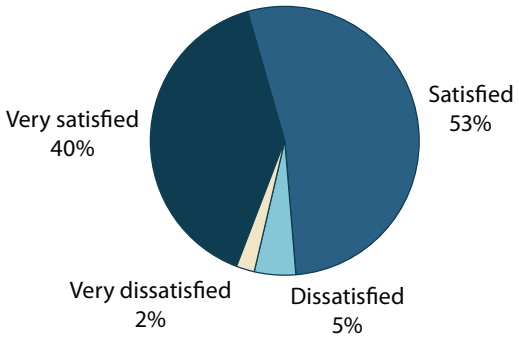
Note: Based on all traditional apprenticeship respondents.

Most had been employed as an apprentice or had a work placement outside their institution.

How satisfied were respondents with their workplace training?

Most former traditional apprenticeship students were *very satisfied* or *satisfied* with their overall workplace training experience.

Satisfaction with workplace training experience - overall

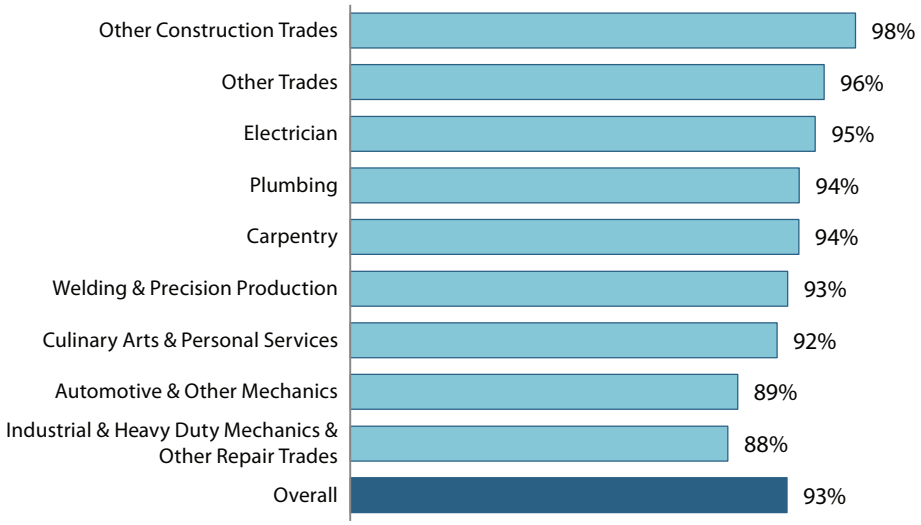


Note: Percentages are based on those former traditional apprenticeship students who were employed as an apprentice or had a work placement outside of their institution.

Former students were typically satisfied with their overall workplace training experience.

Levels of satisfaction with overall workplace experiences were high in all program groups.

Satisfaction with overall workplace experiences

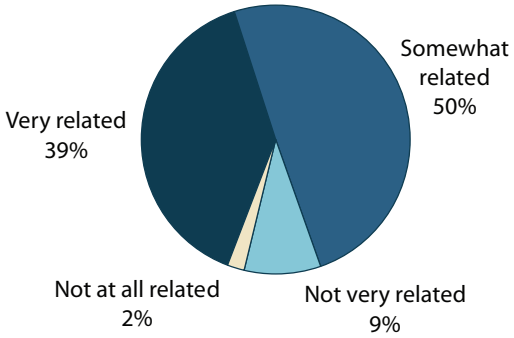


Note: Percentages are for former traditional apprenticeship students who said they were *very satisfied* or *satisfied* with their workplace training experience. Based on those who indicated they were employed as an apprentice or had an external workplace training experience.

Satisfaction levels were high across program groups.

The majority of respondents said their in-school training was *very related* or *somewhat related* to their workplace experience. Very few said their in-school and workplace training were *not at all related*.

In-school training related to workplace experience - overall

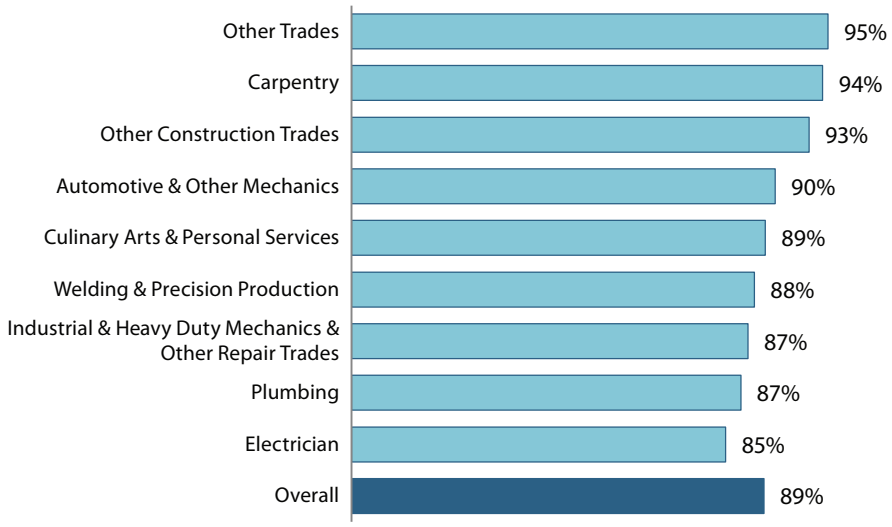


Note: Based on those former traditional apprenticeship students who indicated they were employed as an apprentice or had an external workplace training experience.

In-school training and workplace experiences were generally seen as related.

The extent to which respondents rated their in-school training as related to their workplace experience varied by program group. Former apprentices from Other Trades, Carpentry, and Other Construction Trades programs were the most likely to say that their in-school training was *very related* or *somewhat related* to their workplace experience.

In-school training related to workplace experiences



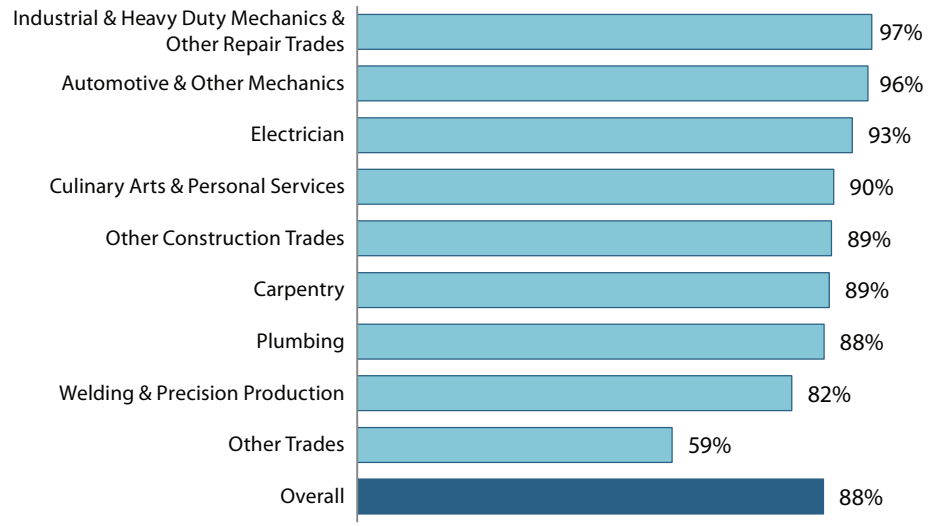
Note: Percentages are for former traditional apprenticeship students who said their in-school training and workplace experience were *very related* or *somewhat related*. Based on those who indicated they were employed as an apprentice or had an external workplace training experience.

The relationship between in-school training and workplace experience was strongest for former apprentices from Other Trades, Carpentry, and Other Construction Trades.

Did former traditional apprentices return to a job in their trade after finishing school?

Overall, almost nine out of ten former students had a job in their trade to go back to after their final in-school training. Almost all former apprentices from Industrial & Heavy Duty Mechanics & Other Repair Trades and Automotive & Other Mechanics programs returned to a job in their trade. The rate was much lower for those from Other Trades programs; the majority (71 percent) of respondents who were in Heavy Equipment Operator programs did not go back to a trade-related job.

Returned to a trade-related job after finishing school

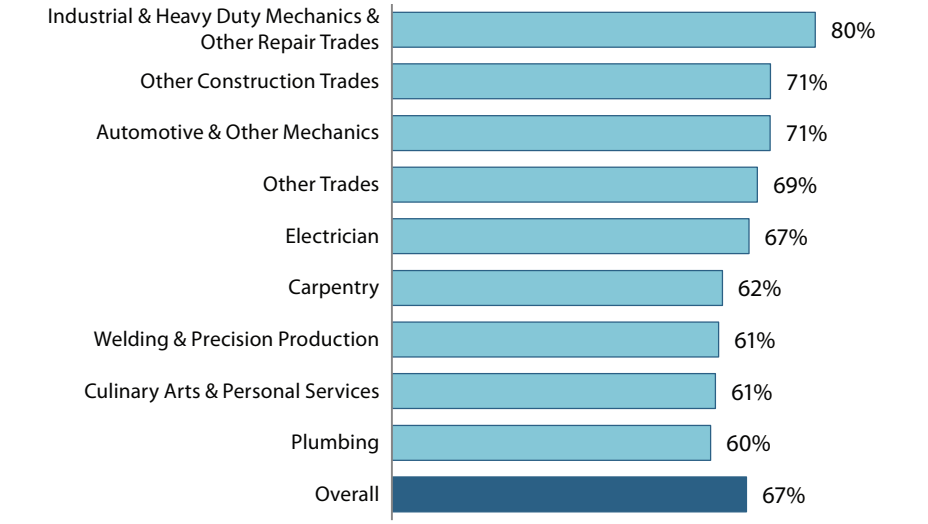


Note: Based on all traditional apprenticeship respondents.

In most program groups, eight or nine out of ten had a job in their trade to go back to after they completed their in-school training.

Two-thirds of the former students who said they had a job to return to after their training were still working for the same employer at the time of the survey. Continuing with the same employer varied by program group. Respondents from Industrial & Heavy Duty Mechanics & Other Repair Trades programs were the most likely to remain with their previous employer, while those from Plumbing programs were the least likely.

Working for the same employer

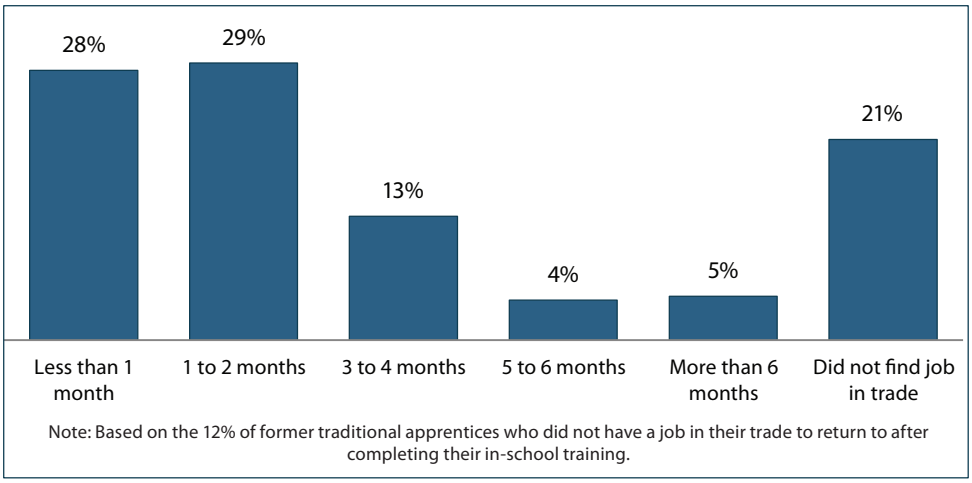


Note: Percentages are based on those former traditional apprenticeship students who had a job in their trade to return to after their training.

The majority who had a job to return to after their training were still working for the same employer at the time of the survey.

Of those who did **not** have a job in their trade to return to after completing their in-school training, almost six out of ten found a job in their trade within two months.

Length of time to find job if no job to return to after training



Note: Based on the 12% of former traditional apprentices who did not have a job in their trade to return to after completing their in-school training.

*Almost six out of ten of those who did **not** return to a job in their trade found one within two months.*

Employment

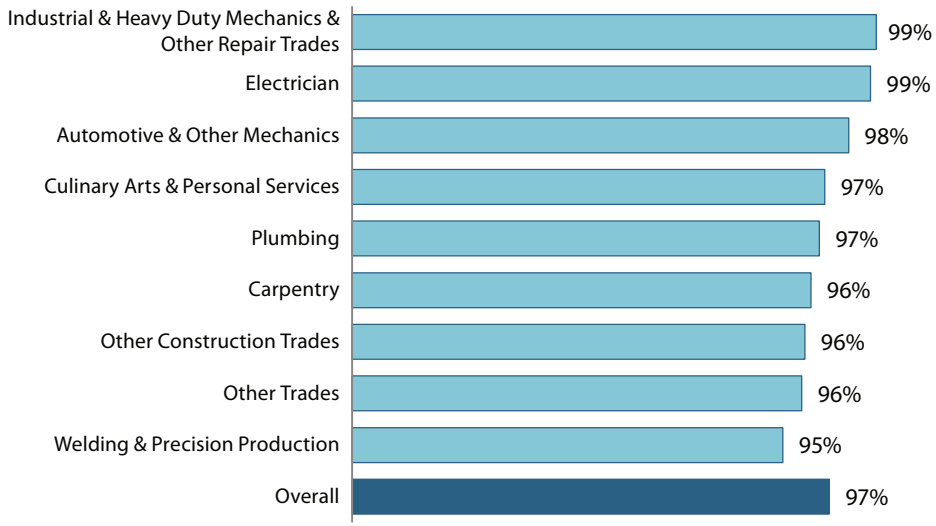
Former apprenticeship students were asked a number of questions to determine their labour force status at the time of the survey. Employed respondents were asked about their occupation, hours of work, earnings, and the relationship of their current employment to their apprenticeship training.

What was the labour force participation of respondents?

Almost all (97 percent) of the former traditional apprenticeship students surveyed were in the labour force—that is, they were either employed or looking for work. In comparison, the labour force participation rate (unadjusted) for the B.C. population aged 20 to 54 was 82 percent, in March of 2015.[9]

The labour force participation rate did not vary by region[10] and was high across program groups.

Labour force participation



Note: Labour force participation rate refers to those who are employed or looking for work as a percentage of all former traditional apprenticeship respondents.

Almost all former traditional apprentices surveyed were in the labour force.

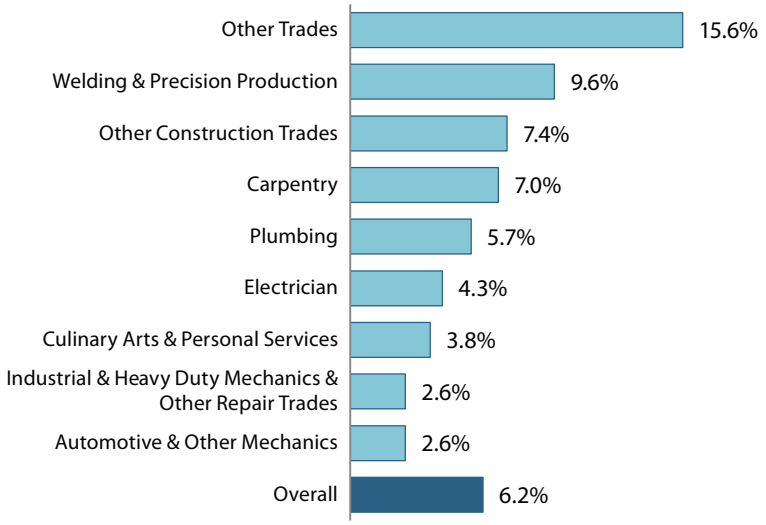
9 Source: Statistics Canada, Labour Force Survey, 2015.

10 The rates were compared by the B.C. Development Regions, which are described here: http://www.bcstats.gov.bc.ca/StatisticsBySubject/Geography/ReferenceMaps/DRs.aspx.

The unemployment rate—the number unemployed as a percentage of traditional apprentice respondents in the labour force—was 6.2 percent.

The unemployment rate varied significantly by program group, ranging from 15.6 percent for respondents from Other Trades programs to 2.6 percent for those from Industrial & Heavy Duty Mechanics & Other Repair Trades and Automotive & Other Mechanics programs.

Unemployment rate

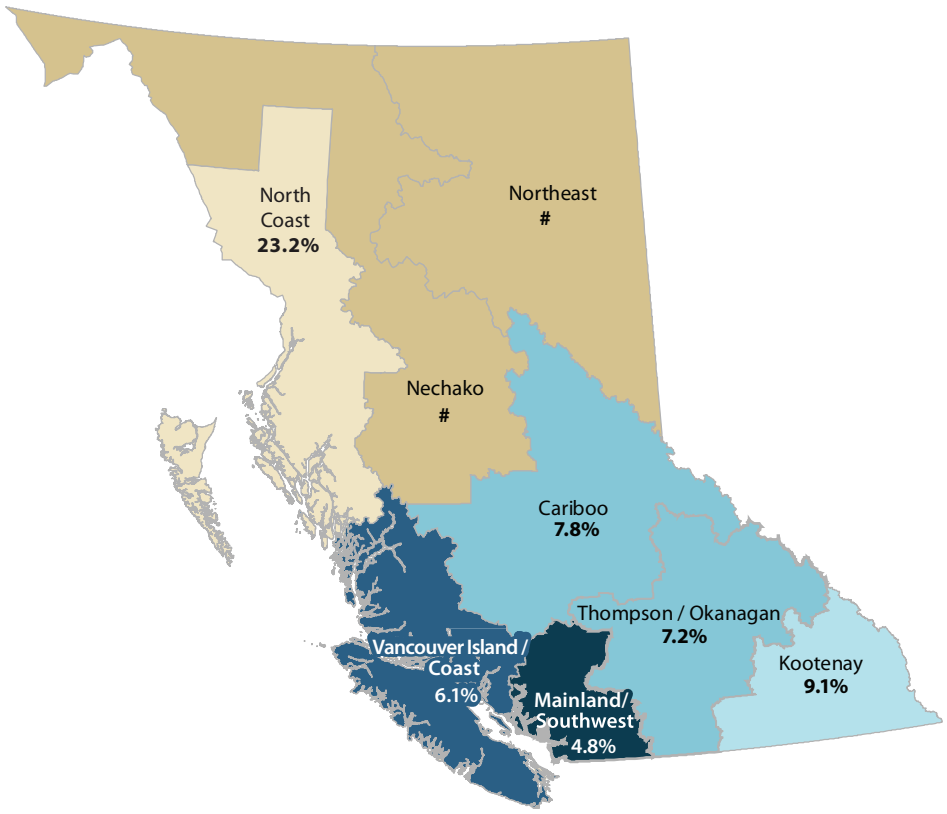


Note: The unemployment rate is the number of unemployed former traditional apprenticeship students as a percentage of former traditional apprenticeship students in the labour force.

Unemployment rates varied widely across program groups.

The unemployment rate also varied by region, with the highest rate being in the North Coast and the lowest in the Mainland/Southwest region.[11,12]

Regional unemployment rates



Note: Percentages are 2015 unemployment rates for each B.C. Development Region. Coding into regions was based on respondents' postal codes at the time of the survey. Respondents whose location was unknown or outside of B.C. at the time of the survey were not included in the analysis. The unemployment rate is the number of unemployed former traditional apprenticeship students as a percentage of traditional apprenticeship students in the labour force. Percentages based on low numbers have been masked (#) to preserve confidentiality.

There were large regional variations in unemployment rates among former traditional apprentices.

What were former students' employment outcomes?

At the time of the survey, more than nine out of ten (91 percent) former traditional apprentices were employed. In approximately the same time period, March 2015, the employment rate (unadjusted) for the B.C. population aged 20 to 54 was 77 percent.[13]

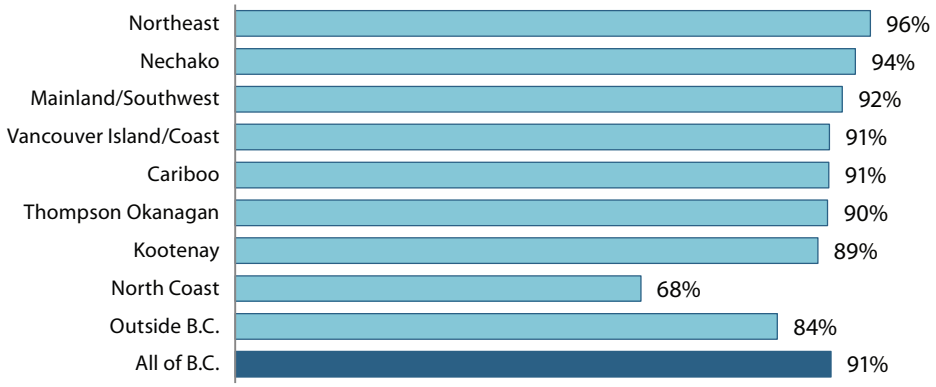
11 The regions are the B.C. Development Regions, described here: http://www.bcstats.gov.bc.ca/StatisticsBySubject/Geography/ReferenceMaps/DRs.aspx.

12 Cariboo: n = 115; Kootenay: n = 110; Mainland/Southwest: 982; Nechako: n = 31; North Coast: n = 56; Northeast: n = 64; Thompson Okanagan: n = 276; Vancouver Island/Coast: n = 311. Percentages based on small n's should be interpreted with caution.

13 Source: Statistics Canada, Labour Force Survey, 2015.

The employment rate—the number of employed individuals expressed as a percentage of all traditional apprenticeship respondents—varied by region.[14] The greatest variability was seen in the northern regions, with the highest employment rate in the Northeast and the lowest in the North Coast region.[15]

Regional employment rates



Note: The employment rate is the number of employed individuals expressed as a percentage of all traditional apprenticeship respondents. The regions shown are the B.C. Development Regions. Coding into regions was based on traditional apprenticeship respondents' postal code at the time of the survey. Only 3% of traditional apprenticeship respondents were in other Canadian provinces or the U.S.A. at the time of the survey. Students who remained in B.C. might have been easier to locate to participate in the survey.

Regional employment rates varied.

Most employed respondents held just one job,[16] and this job tended to be a permanent position, as opposed to a temporary one. Further, almost all employed respondents were working full-time, and most were salaried employees (that is, not self-employed).

Employment attributes

Note: Based on employed traditional apprenticeship respondents.

Employed former traditional apprentices were typically salaried employees working full-time, in a permanent position, at a single job.

14 The location of 6 percent of respondents was unknown and, as such, these respondents were not included in the calculation of percentages for region of residence.

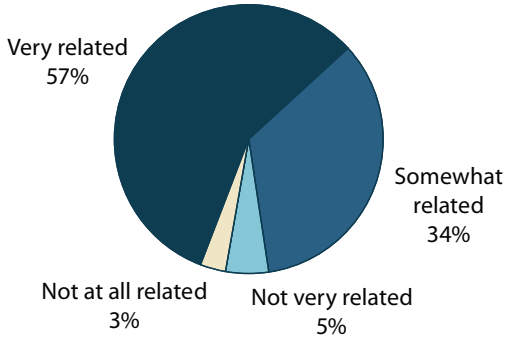
15 Cariboo: n = 117; Kootenay: n = 112; Mainland/Southwest: 1,014; Nechako: n = 32; North Coast: n = 63; Northeast: n = 67; Thompson Okanagan: n = 283; Vancouver Island/Coast: n = 322. Percentages based on small n's should be interpreted with caution. Students who remained in B.C. might have been easier to locate to participate in the survey.

16 Approximately 7 percent of employed respondents had two jobs, and only 1 percent had three or more jobs.

How related were former apprentices' jobs to their in-school training?

Employed respondents' in-school training and their employment was highly related—more than nine out of ten employed former traditional apprentices said their job was *very* or *somewhat related* to their in-school training. Those who had more than one job were asked to think about their main job—that is, the one at which they worked the most hours.

In-school training related to job - overall

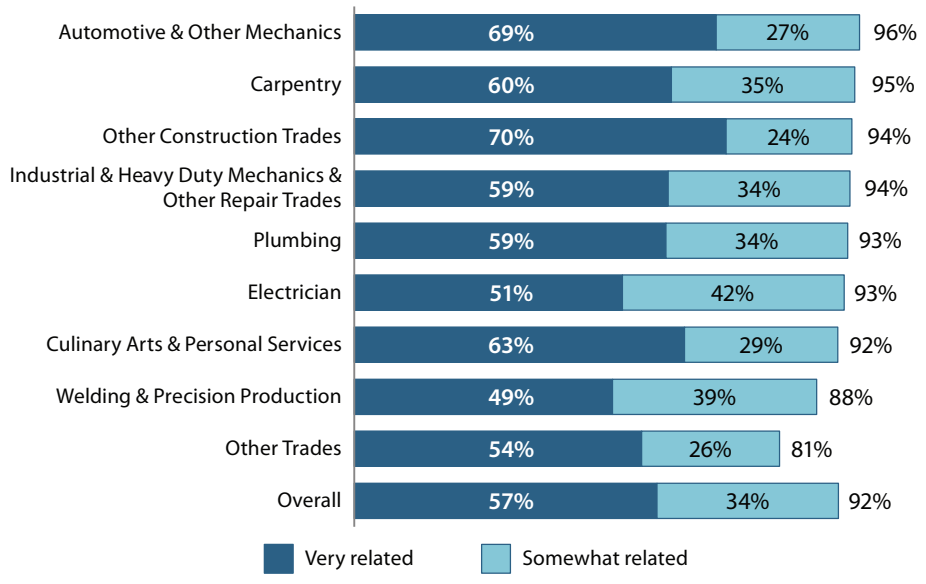


Note: Percentages are based on employed former traditional apprenticeship students.

Jobs and in-school training were highly related.

The extent to which jobs were related to training varied by program area. Automotive & Other Mechanics were most likely to report doing work that was related to their training, while former apprentices from Other Trades programs were least likely to say there was a relationship. Even though almost all Automotive & Other Mechanics indicated a relationship between their job and education, just over one-quarter said the two were *very related*, a similar proportion was found among Other Trades respondents.

In-school training related to job



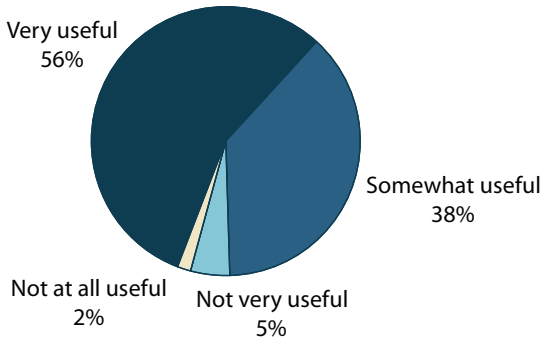
Note: Percentages are based on employed former traditional apprenticeship students.

Automotive & Other Mechanics were most likely to say their job was related to their training.

How useful were the knowledge and skills gained by former students?

When employed former traditional apprentices were asked how useful the knowledge and skills they gained through their training had been in performing their job, a very large majority said their studies had been *very* or *somewhat useful.*

Usefulness of knowledge and skills - overall

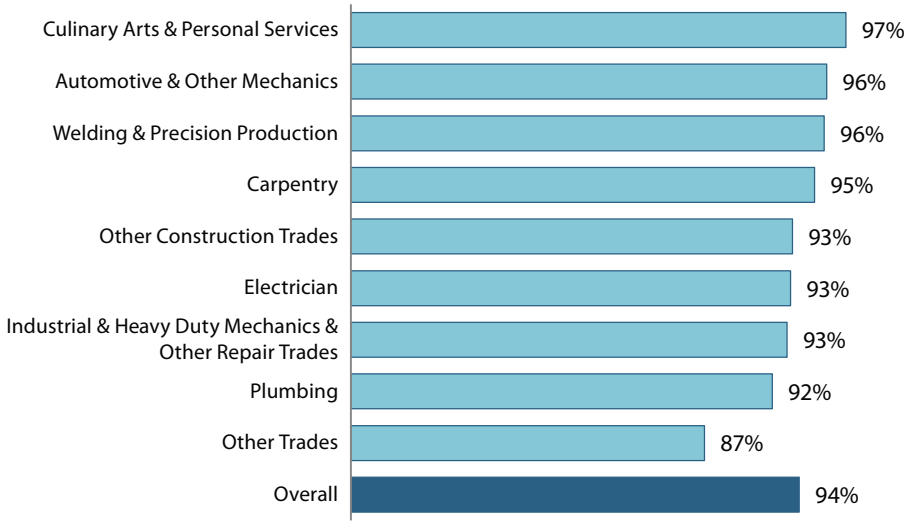


Note: Percentages are based on employed former traditional apprenticeship students.

Knowledge and skills gained by former traditional apprentices were useful for employment.

Across all program groups, former traditional apprentices regarded the knowledge and skills they gained through their studies as useful in the performance of their jobs.

Usefulness of knowledge and skills



Note: Percentages are for those who indicated the knowledge and skills they gained through their training was *very useful* or *somewhat useful* in the performance of their jobs. Based on employed former traditional apprenticeship students.

The belief that the knowledge and skills gained were useful was shared by all program groups.

What occupations did former apprenticeship students have?

Former students' apprenticeship programs and their subsequent occupations were strongly related.

More than eight out of ten of the employed respondents were working in Trades, Transport, and Equipment Operators and Related Occupations.[17] The remainder of the respondents were spread across the other occupational categories, although almost one out of ten was in Sales and Service Occupations.[18]

There was a strong relationship between former students' apprenticeship programs and their occupations at the time of the survey. For example, eight out of ten of those who apprenticed in Electrician programs were employed as Electrical Trades and Electrical Power Line and Telecommunications Workers.[19] (For detailed results see Appendix C: Common Occupations by Program Group.)

How much were former traditional apprentices earning?

Median hourly wage for employed former traditional apprentices was $31.

The employed former apprentices were asked to report their gross salary or wage before deductions. If they had more than one job, they were asked to report the wage from their main job (the one at which they worked the most hours). Respondents could report their wage by whatever time period they wished (hour, day, week, and so on); an *hourly* wage was derived from the information provided and confirmed by the respondent during the interview.

At the time of the survey, former traditional apprentices were earning a median hourly wage of $31.

Among the 10 most common occupations for former traditional apprenticeship students, the median hourly wage ranged from $38 for Machinery & transportation equipment mechanics (except motor vehicle) to $15 for Chefs & Cooks.

Median hourly wage for top occupations

Median hourly wage ranged from $15 to $38 among the top ten occupations.

Occupation	Traditional Apprenticeship Respondents	Median Hourly Wage
Machinery & transportation equipment mechanics (exc. motor vehicle)	178	$38
Electrical trades & electrical power line & telecommunications workers	259	$35
Contractors & supervisors, industrial, electrical, & construction trades & related workers	137	$33
Machining, metal forming, shaping & erecting trades	222	$33
Plumbers, pipefitters & gas fitters	131	$32
Other construction trades	36	$29
Carpenters & cabinetmakers	145	$27
Automotive service technicians	111	$27
Technical occupations in life sciences	24	$25
Chefs & cooks	88	$15

Note: Wages shown are medians; the occupation groups are at the NOC 3-digit level. The occupations shown are the top ten, accounting for 85% of the employed traditional apprenticeship respondents who supplied occupation and income information.

17 The National Occupational Classification (NOC) system, which is a taxonomy of occupations in the Canadian labour market, was used to assign codes (4-digit codes) to the occupations former students had at the time of the survey. The codes and their associated names are used to describe occupations and to aggregate them into occupational categories. The grouping of occupations called "Trades, Transport, and Equipment Operators and Related Occupations" is at the highest or most aggregated level (1-digit). The respondents who had more than one job were asked to describe their main job.

18 Most of the respondents who were employed in Sales and Service Occupations were from Culinary Arts & Personal Services programs.

19 This grouping of occupations is at the 3-digit NOC level.

Conclusion

Trades occupations are a key part of the BC Jobs Plan and British Columbia's economy. Trades training programs and sufficient spaces in these programs will help ensure that the province can meet its goals in this area. A third component—evaluation—is also required. The Apprenticeship Student Outcomes (APPSO) Survey provides former students' training evaluations and labour market outcomes, which are used for policy and program development and accountability.

The 2015 APPSO Survey collected information from former apprenticeship students who completed the final level of technical training offered by public post-secondary institutions and private training providers. This report focusses on former traditional apprenticeship students, but also includes a separate section with results for those in progressive credential programs.

In 2015, traditional apprentices, who were predominantly men, usually completed their studies in a public post-secondary institution. Women who took apprenticeship programs typically did so in Culinary Arts & Personal Services.

Former traditional apprentices were satisfied with their in-school training, and their programs were helpful in the development of key skills, especially reading and comprehending relevant materials, using field-appropriate mathematics, and analysing and thinking critically. Most also said that their training had been useful in preparing to write their certification exams, and a substantial majority had achieved their Certificate of Qualification at the time of the survey.

While former traditional apprentices generally gave high ratings to the quality of the instruction they received, some program groups were happier than others when asked to comment on the amount of practical experience and the quality of tools and equipment.

Although largely satisfied, the majority of respondents offered suggestions as to how to improve their in-school training. The bulk of the suggestions focussed on increasing hands-on experience, improving instruction, updating materials, and improving the length of the program.

Work placement outside of their institution was common among former traditional apprentices. Most respondents were satisfied with their workplace training experience, and a sizable majority said their in-school training was related to their workplace experience. To a large extent, former traditional apprentices had a job in their trade to return to after their training, with two-thirds of them still working for the same employer at the time of the survey.

When they were contacted, nearly all of the former traditional apprentices were in the labour force, and the unemployment rate was 6.2 percent. Unemployment rate varied widely across regions and across program groups.

Respondents who were working at the time of the survey enjoyed good employment conditions—most were employed full-time in a single, salaried, permanent position, and half earned an hourly wage of $31 or more. Most also said that their job was related to their apprenticeship training, and that the knowledge and skills they gained were useful to them in their work. This may be due to the strong relationship between their training and occupation at the time of the survey.

Positive evaluations of their training and strong employment outcomes characterize the traditional apprenticeship class of 2015. The success of these apprentices and their programs suggest that B.C. is well-positioned to meet its economic goals in the trades and technical fields.

Former Progressive Credential Apprentices

Introduction

Progressive credential programs provide both on-the-job and in-school technical training, and have multiple stages, called progressions, at which students are eligible to write the Certificate of Qualification (C of Q) exam. Examples of these programs include: Welding, Professional Cook, and Parts and Warehousing/Partsperson (see Appendix B for a full program list).

Many apprentices in progressive credential trades enter the system through what is known as institutional entry. This pathway, which is available for professional cooks, means that they complete considerably longer in-school, up-front technical training than do direct workplace entry apprentices.

Progressive credential programs are not delivered like traditional apprenticeship programs, but are designated as apprenticeable by the Industry Training Authority (ITA) and are included in the APPSO cohort.

For the 2015 survey, the list of progressive credential programs was refined, leading to a more accurate picture of former progressive credential students. Comparisons with previous years are not possible.

Who were former progressive credential apprentices?

The 2015 APPSO Survey included 678 respondents from progressive credential programs.[20] Most of these respondents were in Culinary Arts & Personal Services programs or Welding & Precision Production programs.

Progressive credential program group response rates

Program Group	Eligible for Survey	Progressive Credential Respondents	Response Rate
	n	n	%
Automotive & Other Mechanics	9	6	67%
Culinary Arts & Personal Services	527	297	56%
Industrial & Heavy Duty Mechanics & Other Repair Trades	22	11	50%
Welding & Precision Production	750	364	49%
Overall	**1,308**	**678**	**52%**

Note: Low numbers have been masked to preserve confidentiality.

20 This included 111 respondents from the ACE IT program. This program allows high school students to take first level technical training, giving them credit for both high school courses and apprenticeship or industry training programs. The ACE IT program is a partnership between the ITA and the BC Ministry of Education.

Just over one-quarter of former progressive credential apprentices were women. In all program areas except Culinary Arts & Personal Services, men made up the majority of progressive credential students.

Gender

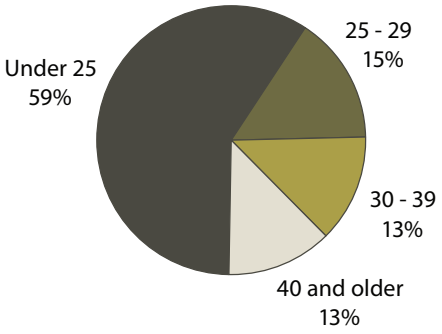
Program Group	Female Progressive Credential Respondents	% of Program Group
Automotive & Other Mechanics	#	#
Culinary Arts & Personal Services	145	49%
Industrial & Heavy Duty Mechanics & Other Repair Trades	#	#
Welding & Precision Production	31	9%
Total	**182**	**27%**

Note: Low numbers have been masked to preserve confidentiality.

Almost half of former progressive credential students from Culinary Arts & Personal Services programs were women.

At the time of the survey, progressive credential respondents' median age was 23 and ranged from 17 to 63.

Age group

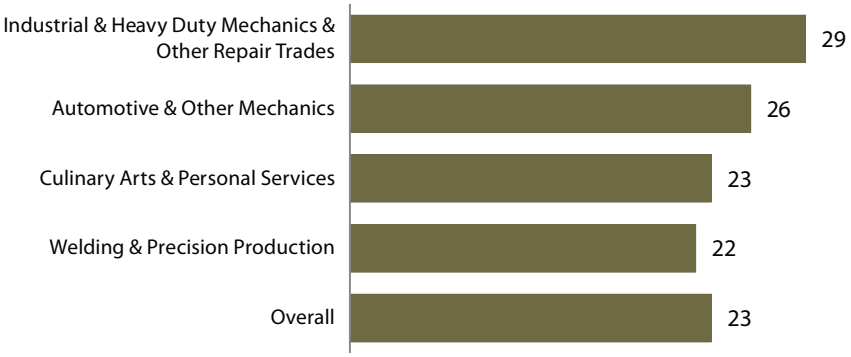


Note: Age is at the time of the survey.

More than half of progressive credential apprentices were under 25.

Welding & Precision Production respondents were the youngest.

Median age

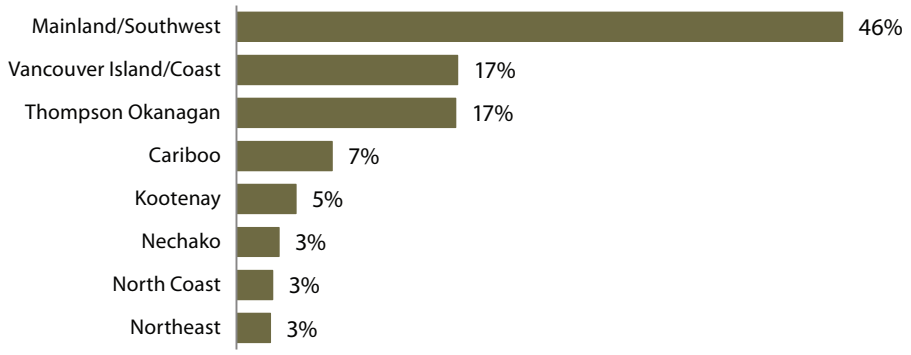


Note: Age is at the time of the survey. Median ages for former progressive credential apprentices are shown.

Progressive credential respondents' median age was 23.

At the time of the survey, former progressive credential apprentices' region of residence was predominantly in the Mainland/Southwest region. Almost one-fifth lived in each of the Vancouver Island/Coast and Thompson Okanagan regions.

Current region of residence



Note: Based on former progressive credential apprentices who were in B.C. at the time of the survey and gave a valid postal code. Respondents whose location was unknown at the time of the survey (5%) were not included in the calculation of percentages for region of residence; 4% of progressive credential respondents were living outside B.C. at the time of the survey.

Almost half of former progressive credential apprentices were living in the Mainland/ Southwest region at the time of the survey.

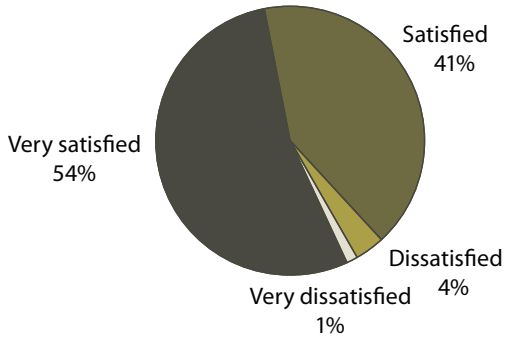
In-School Experiences

Like their traditional apprenticeship counterparts, former progressive credential students were asked to evaluate aspects of their in-school training, including the availability of courses, the quality of their instruction, the content of their program, and the opportunities they were given to develop skills.

How satisfied were progressive credential respondents with their in-school training?

Most former progressive credential students said they were *very satisfied* or *satisfied* with the in-school training they received as part of their apprenticeship program.

Satisfaction with in-school training - overall



Note: Based on all progressive credential apprenticeship respondents.

Most progressive credential respondents reported satisfaction with in-school training.

Did in-school training help former progressive credential apprentices to develop skills?

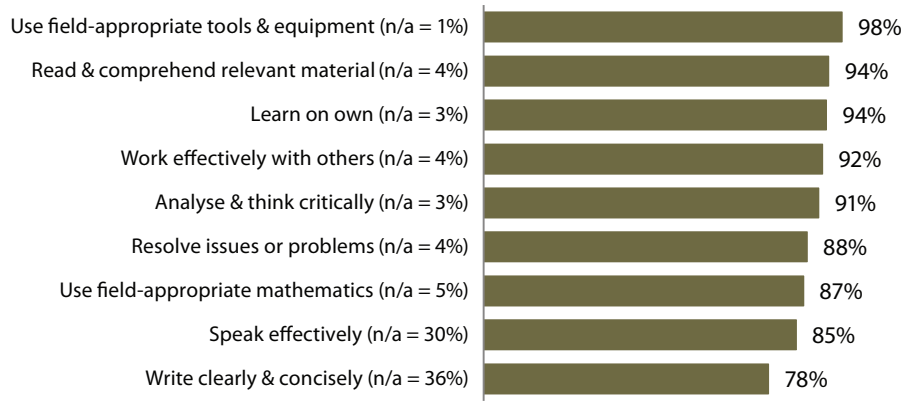
Progressive credential respondents were also asked to indicate how helpful their program was in developing various professional skills.[21] If a particular skill was not relevant to their training, it was deemed *not applicable*.

21 In 2015 the wording of the skills development questions changed. Until 2014, respondents were asked to indicate the extent to which their in-school training provided them with opportunities to develop various professional skills, using the scale: 1 = Very poorly, 2 = Poorly, 3 = Adequately, 4 = Well, and 5 = Very well. Starting in 2015, respondents were asked how helpful their program was at developing a number of professional skills. The scale used in 2015 was as follows: 1 = Not at all helpful, 2 = Not very helpful, 3 = Somewhat helpful, and 4 = Very helpful.

As a result of these changes, comparisons with previous years are not possible.

The majority said that their program was *very helpful* or *somewhat helpful* in their development of skills, such as using field-appropriate tools and equipment, reading and comprehending relevant material, and learning on their own.

Skill development



Note: Percentages are for former progressive credential apprentices who said their training was *very helpful* or *helpful* in developing the referenced skill, excluding those who said *not applicable*. Therefore, the percentages presented for each skill may exceed 100 if added together.

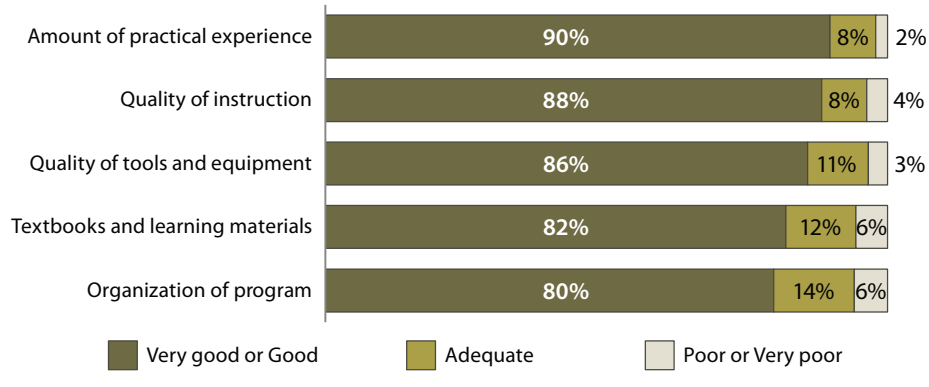
The training former progressive credential apprentices received was helpful in developing their skills.

How did progressive credential respondents rate the quality of their in-school training?

When asked to rate aspects of their in-school training, the majority gave high ratings; few progressive credential respondents indicated that these items were *not applicable*.

The amount of practical experience was rated the highest by former progressive credential apprentices, followed by quality of instruction and the quality of tools and equipment.

Quality of in-school training



Note: Excludes those former progressive credential apprentices who said *not applicable*.

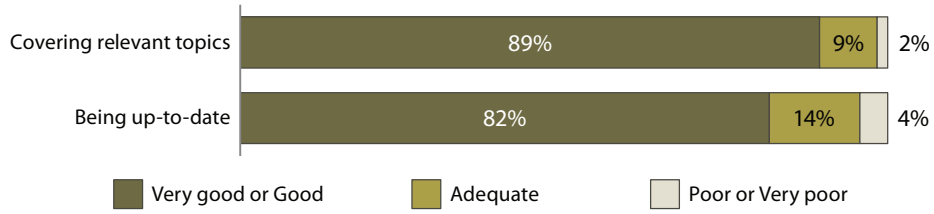
The quality of in-school training was rated highly by former progressive credential apprentices.

How did progressive credential respondents rate the content of their in-school training?

When asked to rate the content of their in-school training—that is, the coverage of topics most relevant to their field and being up-to-date—the majority of respondents gave either a *very good* or *good* rating to each content area.

Almost nine out of ten former progressive credential students said that their program's coverage of relevant topics was *very good* or *good*.

Content of in-school training



Note: Excludes those former progressive credential apprentices who said *not applicable*.

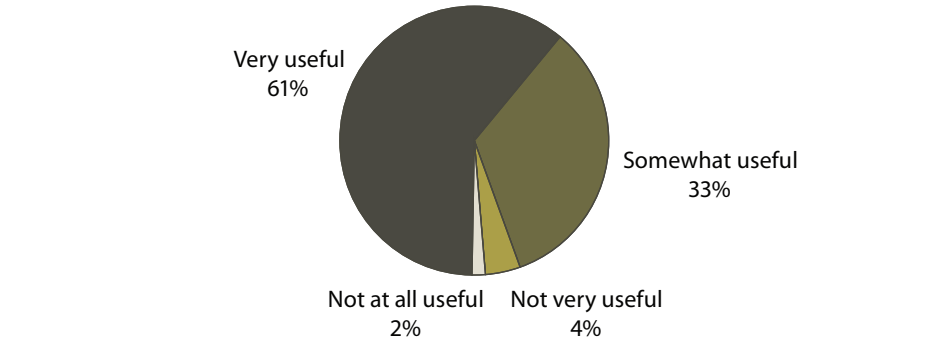
Former progressive credential students gave high ratings to the content of their in-school training.

How many had received certification?

At the time of the survey, the majority of former progressive credential students (85 percent) said they received their British Columbia Certificate of Qualification (C of Q).[22]

Most (94 percent) former progressive credential students said that their training was *very useful* or *somewhat useful* when they were preparing to write their certification exam (whether they had written them yet or not).

In-school training useful in certification exam preparation - overall



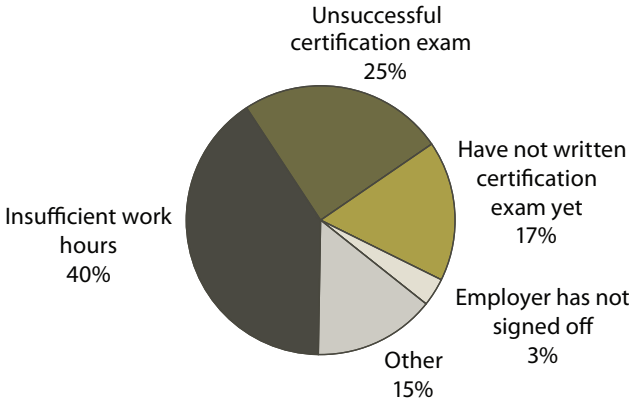
Note: Excludes those former progressive credential apprentices who said *not applicable* (6% of total).

In-school training was useful to progressive credential respondents when preparing for their certification exam.

22 To receive certification, apprentices must successfully complete a number of work-based training hours, complete or successfully challenge all required levels of technical training, pass examinations, and be recommended for certification by their employer-sponsors (also referred to as employer sign-off).

Of those who had **not** received their C of Q, four out of ten said that they had insufficient work hours to receive their certification and one-quarter said they had not passed their exam.

Reasons for not receiving certification



Note: Percentages are based on those former progressive credential apprentices who did **not** receive certification.

*A common reason progressive credential respondents did **not** receive their C of Q was insufficient work hours.*

Workplace Experiences

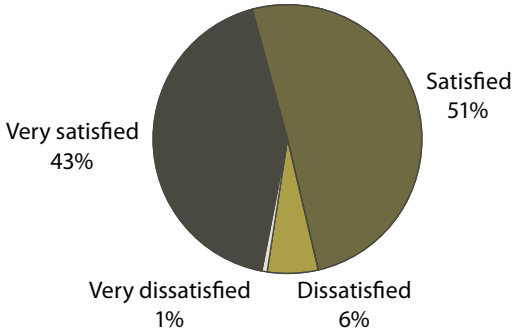
How many were employed as an apprentice or had a work placement outside their institution?

Almost three-quarters (73 percent) of former progressive credential students were employed as an apprentice or had a work placement outside their institution.

How satisfied were respondents with their workplace training?

Those who had workplace training were asked to rate their overall satisfaction with this experience and to say how related their workplace experience was to their in-school training. Most former progressive credential students were *very satisfied* or *satisfied* with their overall workplace training experience.

Satisfaction with workplace training experience - overall

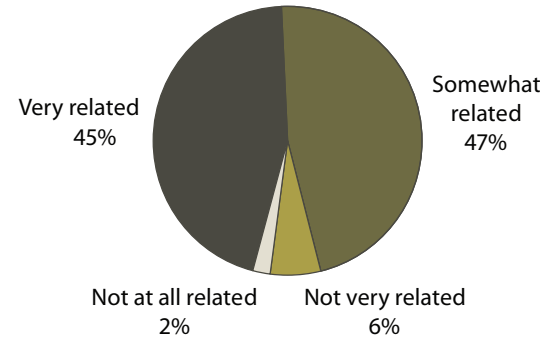


Note: Percentages are based on those former progressive credential apprentices who were employed as an apprentice or had a work placement outside of their insitution.

Satisfaction with the overall workplace training experience was common among progressive credential respondents.

Most progressive credential respondents said their in-school training was *very related* or *somewhat related* to their workplace experience. Very few said their in-school and workplace training were *not at all related*.

In-school training related to workplace experience - overall



Note: Percentages are based on those former progressive credential apprentices who indicated they were employed as an apprentice or had an external workplace training experience.

In-school training and workplace experiences were seen as related by most of those from progressive credential programs.

Employment

Former progressive credential students were asked questions to determine their labour force status at the time of the survey. Those who were employed were asked about their occupation, hours of work, earnings, and the relationship of their current employment to their apprenticeship training.

What was the labour force participation of respondents?

Nine out of ten (91 percent) former progressive credential students surveyed were in the labour force—that is, they were either employed or looking for work. In comparison, the labour force participation rate (unadjusted) for the B.C. population aged 20 to 54 was 82 percent, in March of 2014.[23]

The unemployment rate—the number unemployed as a percentage of progressive credential respondents in the labour force—was 13.9 percent.

What were former progressive credential students' employment outcomes?

At the time of the survey, 78 percent of former students from progressive credential programs were employed. This is close to the unadjusted employment rate (77 percent) for the B.C. population aged 20 to 54 for approximately the same time period, March 2014.[24]

Most employed respondents from progressive credential programs were salaried employees. The majority held just one job, and this job tended to be a full-time, permanent position.

Employment attributes

Note: Percentages are based on employed former progressive credential respondents.

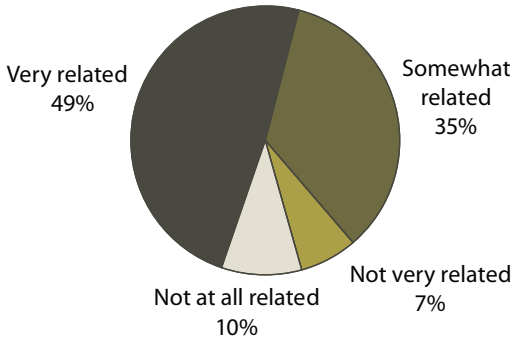
Employed progressive credential respondents tended to be salaried employees working in a single, full-time, permanent position.

23 Source: Statistics Canada, Labour Force Survey, 2014.
24 Source: Statistics Canada, Labour Force Survey, 2014.

How related were former progressive credential students' jobs to their in-school training?

Most employed progressive credential respondents' in-school training and employment was related.[25]

In-school training related to job - overall



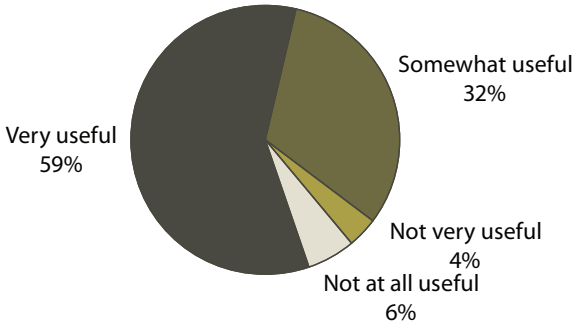
Note: Percentages are based on employed former progressive credential respondents.

Jobs and in-school training were highly related.

How useful were the knowledge and skills gained by former progressive credential students?

Most former students from progressive credential programs said that the knowledge and skills they gained through their studies had been *very* or *somewhat useful* in performing their jobs.

Usefulness of knowledge and skills - overall



Note: Percentages are based on employed former progressive credential respondents.

Knowledge and skills gained by former progressive credential students were useful for performing their jobs.

25 Those with more than one job (10 percent of employed respondents had two jobs and 2 percent had three or more jobs) were asked to think about their main job—that is, the one at which they worked the most hours.

What occupations did former progressive credential students have?

Former students' apprenticeship programs and their subsequent occupations were strongly related.

Among the former students from Culinary Arts & Personal Services and Welding & Precision Production programs, there was a fairly strong relationship between former students' apprenticeship programs and their occupations at the time of the survey. Among those from Welding & Precision Production programs, almost three-quarters (72 percent) were employed in Machining, Metal Forming, Shaping & Erecting Trades. More than two-thirds (69 percent) of those from Culinary Arts & Personal Services programs were employed as Chefs & Cooks.[26]

How much were former progressive credential apprentices earning?

Median hourly wage for former progressive credential students was $18.

The employed former students from progressive credential programs were asked to report their gross salary or wage before deductions. If they had more than one job, they were asked to report the wage from their main job (the one at which they worked the most hours). Respondents could report their wages by whatever time period they wished (hour, day, week, and so on); an *hourly* wage was derived from the information provided and confirmed by the respondent during the interview.

At the time of the survey, former progressive credential students were earning a median hourly wage of $18.

Among the five most common occupations for employed former students from progressive credential programs, the median hourly wage ranged from $24 for Labourers in Processing, Manufacturing & Utilities to $13 for Chefs & Cooks.

Median hourly wage for top occupations

Median hourly wage ranged from $13 to $24 among the top five occupations.

Occupation	Progressive Credential Respondents	Median Hourly Wage
Labourers in processing, manufacturing & utilities	7	$24
Machining, metal forming, shaping & erecting trades	162	$23
Trades helpers & labourers	8	$23
Automotive service technicians	7	$20
Food counter attendants, kitchen helpers & related support occupations	9	$14
Chefs & cooks	120	$13

Note: Wages shown are medians; the occupation groups are at the NOC 3-digit level. The occupations shown are the top five, accounting for 80% of the employed progressive credential respondents who supplied occupation and income information.

26 This grouping of occupations is at the 3-digit NOC level.

Conclusion

In addition to traditional apprentices, the 2015 APPSO Survey collected information from former progressive credential apprenticeship students who had completed the stage or progression at which they were eligible to write the Certificate of Qualification (C of Q) exam. These students are eligible for a C of Q earlier than they would have been in a multi-level, multi-year traditional program. Almost all of the respondents from progressive credential programs were from culinary arts or welding programs.

Compared with the former traditional apprentices, former progressive credential apprentices were more likely to be women. They also tended to be younger than traditional former apprentices—partly reflecting the fact that they were not in apprenticeships that needed several years to complete. At the time of the survey, the percentage of those who had received their Certificate of Qualification was similar to that of the traditional apprentices.

Former progressive credential apprentices gave high ratings to the help they received to develop skills and to satisfaction with their studies. They were more likely than traditional apprentices to say the quality of their in-school training was *very good* or *good*; they were much more likely to say that of the content of their training.

The labour force participation rate among former progressive credential apprentices was high, although somewhat lower than that of traditional apprentices, and their employment rate compared favourably with the rate of the B.C. population for the period. Employed former progressive credential apprentices had jobs with favourable conditions—they tended to be salaried employees working in a single, full-time, permanent position.

Appendices

Appendix A: Apprenticeship Survey Methodology

Cohort

The following criteria were used to define the survey cohort: all apprenticeship students who were enrolled in and had completed the final year of their program (regardless its length) between July 1, 2013 and June 30, 2014 at a B.C. public post-secondary institution or at a B.C. private training institution.

Since students may take different parts of their apprenticeship programs at different institutions, the *last* institution that the student attended was considered the institution of record and was asked to submit the name in their cohort file. The cohort extract included demographic and program-related elements.

There were 45 B.C. post-secondary institutions that participated in this project—14 of them were public. These public institutions provided 80 percent of the cohort. The cohort of students from private institutions was provided by the Industry Training Authority. The full list of institutions (both public and private) can be found in the *Data Collection* section of this appendix.

The cohort extracts were assembled and reviewed for completeness and then passed to the survey contractor for data collection.

Data Collection

Field testing of the survey instrument was done January 5 to January 9, 2015. The survey was conducted from January 19 to May 14, 2015. The average administration time of the survey was 13 minutes. Of the 2,889 survey completions, 937 were done online. The online response rate was 17 percent; the telephone rate was 35 percent—the overall response rate was 51 percent.

The following tables list the program groups, the participating institutions, the number of former apprentices *(both traditional and progressive credential)* from each who were eligible for the survey, the number who responded to the survey, and the response rates.

Response rates by program group

Apprenticeship Program Group	Eligible for Survey	Respondents	Response Rate
Automotive & Other Mechanics	367	204	56%
Carpentry	484	240	50%
Culinary Arts & Personal Services	896	489	55%
Electrician	800	402	50%
Industrial & Heavy Duty Mechanics & Other Repair Trades	508	285	56%
Plumbing	468	237	51%
Welding & Precision Production	1,596	761	48%
Other Construction Trades	194	101	52%
Other Trades	303	170	56%
Overall	**5,616**	**2,889**	**51%**

Participating public institutions
Former traditional & progressive credential apprentices

Public Institutions	Former Apprentices Eligible for Survey	Former Apprentice Respondents	Response Rate
British Columbia Institute of Technology	1,251	629	50%
Okanagan College	582	269	46%
Vancouver Community College	420	226	54%
Camosun College	390	195	50%
Thompson Rivers University	339	150	44%
College of New Caledonia	287	148	52%
Kwantlen Polytechnic University	278	141	51%
Vancouver Island University	261	131	50%
Northwest Community College	134	76	57%
College of the Rockies	133	67	50%
North Island College	132	71	54%
Northern Lights College	115	61	53%
University of the Fraser Valley	91	40	44%
Selkirk College	81	47	58%
Public Institutions Total	**4,493**	**2,251**	**50%**

Participating private institutions
Former traditional & progressive credential apprentices

Private Institutions	Former Apprentices Eligible for Survey	Former Apprentice Respondents	Response Rate
Pacific Vocational College	154	92	60%
UA Piping Industry College of B.C.	130	70	54%
RCABC Training Centre	93	43	46%
Joint Apprentice Refrigeration Trade School	74	54	73%
The Finishing Trades Institute of B.C.	60	38	63%
IUOE Local 115 Training Association	59	37	63%
Pacific Institute of Culinary Arts (PICA)	53	27	51%
Sprott -Shaw College	47	24	51%
BC Hydro	43	24	56%
Salvation Army Cascade Culinary Arts School	40	20	50%
Sheet Metal Workers Training Centre	40	25	63%
Northwest Culinary Academy of Vancouver Inc.	38	24	63%
Electrical Industry Training Institute	32	12	38%
White Spot Ltd.	26	12	46%
Trowel Trades Training Association	25	13	52%
Enform Canada	21	14	67%
School District 43 (Coquitlam)	21	15	71%
VanAsep Training Society	20	13	65%
Taylor Pro Training	19	9	47%
School District 41 (Burnaby)	18	10	56%
Funeral Service Association of BC	17	11	65%
Piledrivers, Divers, Bridge, Dock, Loc. 2404	16	7	44%
Christian Labour Association of Canada	15	6	40%
Pacific Horticulture College	14	9	64%
BC Wall & Ceiling Association	11	#	#
Greenbelt Veterinary Services	11	9	82%
BC Floor Covering Joint Conference Society	9	7	78%
Fenestration Education Society of BC	9	6	67%
School District 37 (Delta)	#	#	#
Secwepemc Cultural Education Society	#	#	#
The Art Institute of Vancouver	#	#	#
Private Institutions Total	**1,123**	**638**	**57%**

Note: Low numbers have been masked to preserve confidentiality.

Analysis and Reporting

BC Stats was responsible for cleaning and validating the data received from the data collection contractor. Based on these data—the responses to the survey questionnaire—the necessary variables were derived for analysis and reporting. Data from the 2015 survey were first released to the institutions in Excel pivot tables and flat files. Then, the data were released to a wider audience through the BC Student Outcomes Dashboard. The Dashboard provides an at-a-glance graphical snapshot of high-level results. Information from the past three years is available by survey, by institution, by program group, and by individual program.

Analyses for this report included frequencies, crosstabs, and comparison of means; in addition, statistical tests were used to determine if the observed differences between groups were statistically significant. A statistically significant result is one that cannot reasonably be explained by chance alone.

Limitations

The former apprenticeship students who were responded to the survey—51 percent of those who were eligible—were those from the cohort who could be located and who agreed to be surveyed. They may not be representative of all former students.

Percentages

For consistency and ease of presentation, most percentages in the report text, tables, and charts have been rounded and may not always add to 100.

Unless otherwise noted, each percentage is based on the number of students who gave a valid response to the question—those who refused the question, or said *don't know*, were not included in the calculations.

Appendix B:
Apprenticeship Program Groups and Institutions' Programs

Appendix C:
Common Occupations by Program Group

See Excel file: 2015 APPSO Report of Findings Appendices B & C *(attached)*