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Trends in Registered Apprenticeship Training in Canada, 1991 to 2009



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- ... not applicable
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- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- ^P preliminary
- ^r revised
- X suppressed to meet the confidentiality requirements of the *Statistics Act*
- ^E use with caution
- F too unreliable to be published
- * significantly different from reference category ($p < 0.05$)

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This article examines trends in registered apprenticeship training in Canada over the 1991 to 2009 period, using information from the **Registered Apprenticeship Information System (RAIS)**. Recently, the classification structure used to group trades into major trade groups was updated to better reflect the range of apprenticeable trades in Canada and to align that classification system with the national classification of occupations, thus allowing a more integrated analysis of trends in apprenticeship as the key supplier of skilled workers in the apprenticeable trades. The result is that the number of major trade groups reported by RAIS has been expanded from the previous 7 to 22 currently.

Though data are available for all 22 major trade groups, for ease of presentation this article focuses on the top four in terms of total number of apprentices in 2009—electricians, carpenters, automotive service technicians, and plumbers, pipefitters and steamfitters. (**Appendix Table A1** provides a complete list of the 22 major trade groups and the total number of registrations in each in 1991 and 2009.)

The analysis first looks at trends in the total number of apprenticeship registrations for each of these four major trade groups and then discusses trends in new registrations, completions and discontinuers.

Box 1: Improvements to the Classification of Major Trade Groups in the Registered Apprenticeship Information System (RAIS)

The major trade groups designed for the RAIS information system have recently been expanded from the previous 7 major trade groups to the current 22 major trade groups. The new major trade groups provide detail on more specific trade groups compared to the previous classification system. The source for the new, more detailed classification system is the National Occupational Classification (NOC). The data have been revised historically, providing comparable information for the years 1991 to 2009. Some major trade groups, such as early childhood educators and assistants and user support technicians, did not become apprenticeable trades until the mid 1990s, and in the case of oil and gas well drillers, servicers, testers and related workers, not until 2005.

Trends in the total number of registered apprentices in Canada, 1991 to 2009

Total registered apprenticeship numbers in Canada more than doubled between 1991 and 2009, rising from 192,945 to reach 409,038 registrations.¹ New registrations in 2009, at 84,885, were also well over twice the number of new registrations in 1991, at 32,307, while completions increased by 56.6%, rising from 19,722 in 1991 to 30,888 in 2009. The total number of both registrations and completions underwent a period of decrease after 1991, due to the economic recession at that time. The total number of registered apprentices began to recover after 1996, while completions started to increase in 1999, moderating since 2006. Strong increases in the total number of registrations occurred between 2005 and 2008, with a somewhat lesser increase in 2009.

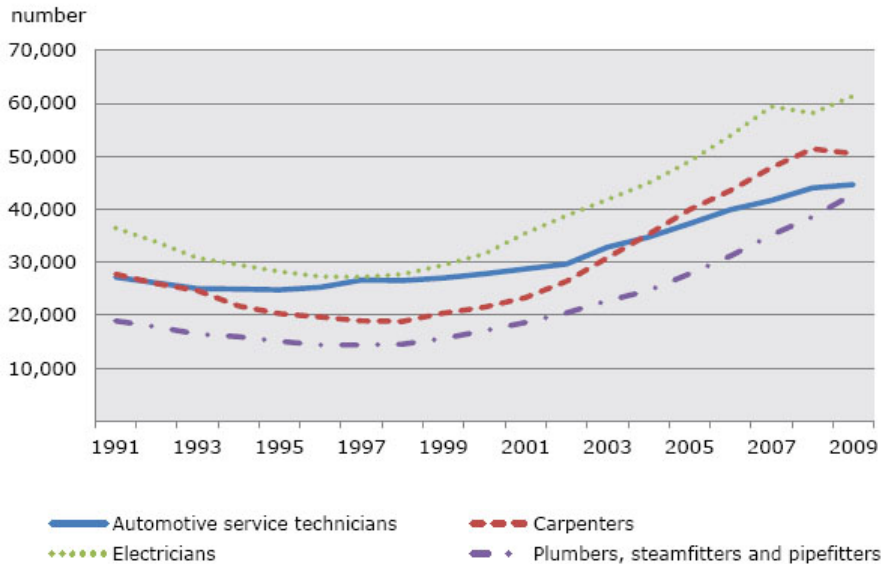
Total registered apprenticeship numbers in 2009, while still greater than in 2008, showed a much smaller increase than in previous years. Total registrations increased by 18,333 between 2008 and 2009, while in the 2004 to 2008 period, annual increases were between 26,060 and 34,330. The smaller increase in total registrations compared to previous years is related to a decrease in new registrations being added in 2009 compared to the previous years. The drop in new registrations may be a result of the downturn in the economy which occurred near the end of 2008 and into 2009.

Total registrations, the four largest trade groups

When looking at total registrations by the 22 major trade groups, the four largest in 1991 accounted for 57.2% of all apprentices. These were electricians (18.9%), carpenters (14.4%), automotive service technicians (14.1%) and plumbers, pipefitters and steamfitters (9.8%). The remaining major trade groups in 1991 were smaller in numbers with the interior finishing group being the largest of these at 10,881 or 5.6% of the overall total.

Following the recession of the 1990s, these four largest trade groups saw steady growth in the total number of registrations. However, the case of carpenters, a drop in total registrations occurred between 2008 and 2009, again, the first decrease in this trade since 1998.²

Chart 1 Trend in total number of registered apprentices, the four largest major trade groups, 1991 to 2009



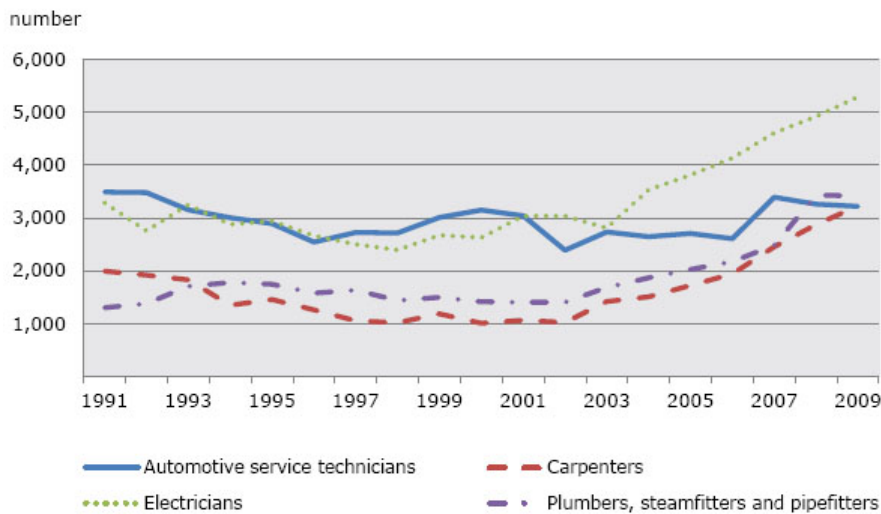
Source: Statistics Canada, [Registered Apprenticeship Information System](#).

Trends in completions, the four largest trade groups, 1991 to 2009

Similar to the total number of registered apprentices in 1991, the same top four major trade groups of electricians, automotive service technicians, carpenters, and plumbers, pipefitters and steamfitters also accounted for the greatest share of completers. In total, the four major trade groups made up 51.1% of all completions in 1991, slightly less than their share of registrations, at 57.2%.

As in the case of the total number of registered apprentices, the recession of the early 1990s also had an impact on the total number of completions, which decreased from 19,722 in 1991 to just over 16,000 in 1996. The number of completions in the carpenters trade group decreased more sharply during that recessionary period than in the other four major trade groups and that trade group continued to struggle through to the end of the 1990s. Completion numbers in the carpenters trade group began to recover in the early 2000s and continued to increase annually through the recent economic downturn and into 2009. Similarly, the electricians trade group also saw strong growth in the number of completions from the early 2000s through to 2009.

Chart 2
Trend in total number of completions, the four largest major trade groups, 1991 to 2009



Source: Statistics Canada, [Registered Apprenticeship Information System](#).

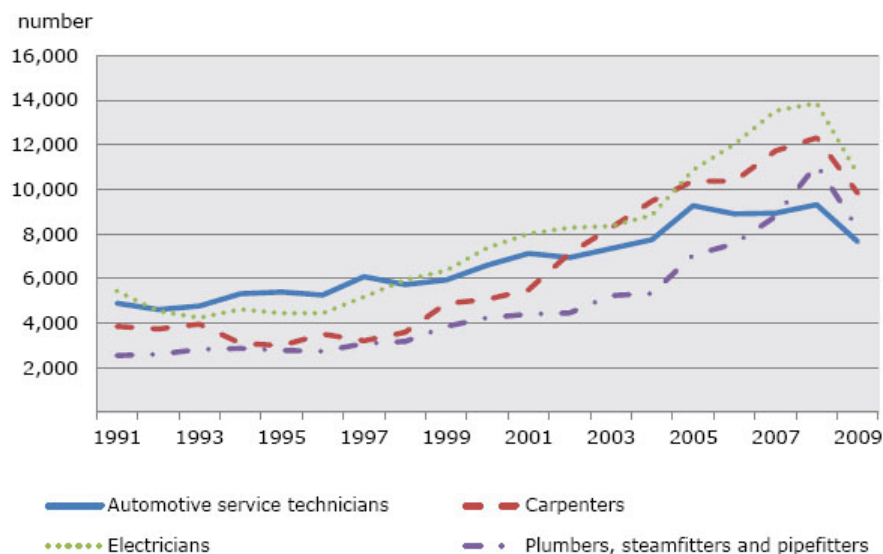
Trends in new registrations, the four largest trade groups, 1991 to 2009

Between 2001 and 2008, the number of new registrations in each of the four largest major trade groups was greater than the number of departures in each year, resulting in the increase in the total number of registrations over this period that was noted earlier. However, there was a sharp drop in new

registrations between 2008 and 2009 in each of the four trade groups.

This decrease in new registrations between 2008 and 2009 is consistent with earlier research which found that in the wake of the economic slowdown which intensified in the fall of 2008, apprenticeable occupations sustained greater employment losses (-5.7%) than other occupations (-1.3), though these losses were not even across all apprenticeable occupations. Between October 2008 and October 2009, employment declined by 8.6 % for electricians and by 16.3% for carpenters, for example. However, employment increased by 5.3% for automotive service technicians and by 6.9% for plumbers, pipefitters and steamfitters.³

Chart 3
Trend in total number of new registrations, the four largest major trade groups, 1991 to 2009



Source: Statistics Canada, Registered Apprenticeship Information System.

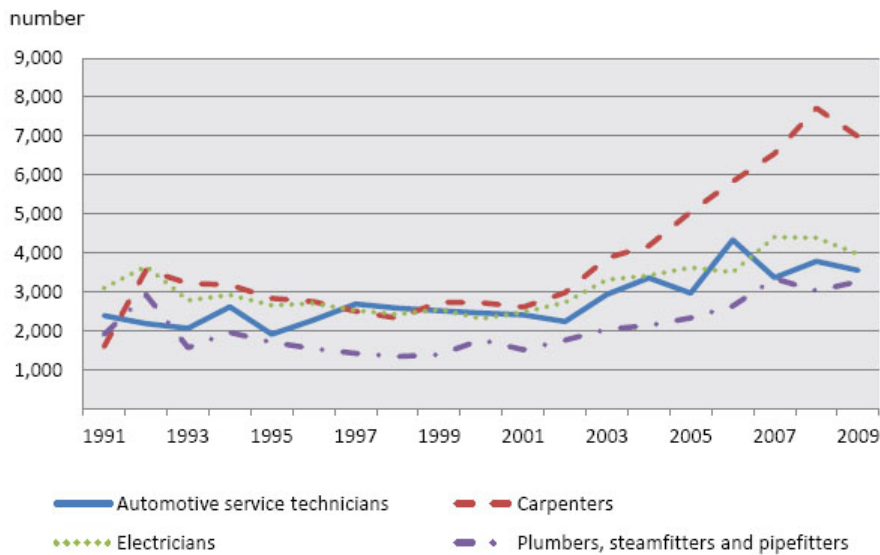
Trends in discontinuers, the four largest trade groups, 1991 to 2009

Discontinuers are individuals who leave before completing their apprenticeship program. Differences are apparent across the four largest major trade groups in patterns of discontinuation compared to patterns of completion.

The carpenters major trade group stands out most in this respect with the number of discontinuers being much higher than the number of completers throughout all of the 1991 to 2009 period and especially during the period of strong economic growth from 2003 to 2008. However, the number of discontinuers fell between 2008 and 2009, marking the first such decrease in the past decade. In the case of electricians, the numbers of discontinuers and completers were very similar over the 1991 to 2008 period and there was only a very slight drop in the number of discontinuers.

Because of the way in which discontinuers are identified, caution must be used in interpreting these trends in the numbers of discontinuers. Discontinuation of an apprenticeship program is not identified at a single point in time, but rather becomes evident in apprenticeship registration systems over a period of time as an individual no longer remains active in the system. Thus, changes in the number of discontinuers between 2008 and 2009 largely reflect changes over the previous few years. A longer time series is needed to determine whether changes observed in the number of discontinuers in 2008/2009 continue or whether they reflect the type of year-over-year changes observed in previous years.

Chart 4
Trend in number of discontinuers, the four largest major trade groups, 1991 to 2009



Source: Statistics Canada, [Registered Apprenticeship Information System](#).

Conclusion

Total apprenticeship registrations across Canada have been on the increase for a number of years, exceeding 400,000 individuals in 2009. Fuelling that growth have been significant increases in the number of newly registered apprentices, in excess of 80,000 to 90,000 each year since 2006.

In the four major trade groups examined in this article, the total number of registered apprentices experienced a cycle of decrease in the early to mid 1990s followed by an extended growth period beginning in the early 2000s. Strong growth in the number of new registrations being added every year to the number of already-registered apprentices has been a contributing factor in the increase in the total number of registrations in these trade groups, more than compensating for the number of departing apprentices, whether they were completers or discontinuers.

This was the case, at least to 2008. However, the number of newly registered apprentices dropped in all four major trade groups between 2008 and 2009, while the number of completers, particularly in the case of carpenters and electricians, continued to rise.

This cycle of decreases in the total apprenticeship numbers in the early to mid 1990s and increases up to 2009 are evident across all major trade groups. In 2009, the total number of registrations still increased, but to a much smaller extent, with almost half of the major trade groups having a greater number of departing individuals than new registrations.

This suggests that the apprenticeship training system – which is dependent upon both employers and individuals seeking apprenticeship training – is sensitive to sharp fluctuations in the rate of economic growth. This is evident in decreases in the number of new apprentices who are taken on by employers during an economic slowdown and an increase in the number of completers for whom securing the title of journeyperson may offer some security in a period of economic uncertainty.

A longer time series is needed to determine whether the drop in apprenticeship numbers between 2008 and 2009 is a short-term reaction to the sharp downturn that occurred at that time. Previous research found, for example, that the increase in employment that occurred between October 2009 and October 2010 favoured workers in apprenticeable occupations more than workers in other occupations.⁴ Whether this employment growth is reflected in the overall numbers of registered apprentices can only be determined when data on apprenticeship numbers become available for subsequent years.

Appendix Table A1

Number and percentage distribution of registered apprentices, by major trade group, 1991 and 2009

Major trade group	1991		2009	
	number	percent	number	percent
Automotive service technicians	27,177	14.1	44,634	10.9
Carpenters	27,735	14.4	50,502	12.3
Early childhood educators	---	---	6,996	1.7
Electricians	36,453	18.9	61,425	15.0
Electronics and instrumentation	2,691	1.4	5,685	1.4
Exterior finishing	8,058	4.2	14,046	3.4
Food service	6,288	3.3	16,869	4.1
Hairstylists/estheticians	4,365	2.3	19,068	4.7
Heavy duty equipment operators	5,781	3.0	12,411	3.0
Heavy equipment/crane operators	5,604	2.9	11,214	2.7
Interior finishing	10,881	5.6	17,859	4.4
Landscape and horticulture	1,077	0.6	2,877	0.7
Machinists	6,771	3.5	11,055	2.7
Metal workers (other)	5,724	3.0	8,328	2.0
Millwrights	8,499	4.4	12,150	3.0

Oil and gas well drillers	5,184	1.3
Plumbers, pipefitters and steamfitters	18,915	9.8	42,867	10.4
Refrigeration and air conditioning	3,111	1.6	7,122	1.7
Sheet metal workers	5,901	3.1	8,730	2.1
User support technicians	15,051	3.7
Welders	4,338	2.2	17,112	4.2
Other	3,576	1.9	17,865	4.4
Total	192,945	100.0	409,038	100.0

... not applicable

Source: Statistics Canada, [Registered Apprenticeship Information System](#).

Notes

1. A portion of the observed increase in the total number of registered apprentices over time is due to the fact that some of the major trade groups that existed in 2009 did not exist as apprenticeable trades in 1991. These include early childhood educators and assistants, user support technicians, and the oil and gas well drillers, servicers, testers and related workers trade group.
2. The decrease in the total registration observed for the electricians trade group between 2007 and 2008 reflects a slight change in identification and reporting of total registrations for this group.
3. Desjardins, Louise. 2011. [Apprenticeable Occupations and the Employment Downturn in Canada](#). Education Matters. Vol. 7 no. 6. Statistics Canada Catalogue no. 81-004-X.
4. Ibid