

Fiscal Pulse

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Enhancing Apprenticeship Training in Canada

- German practice offers a reference point as the Provinces further develop trades education.

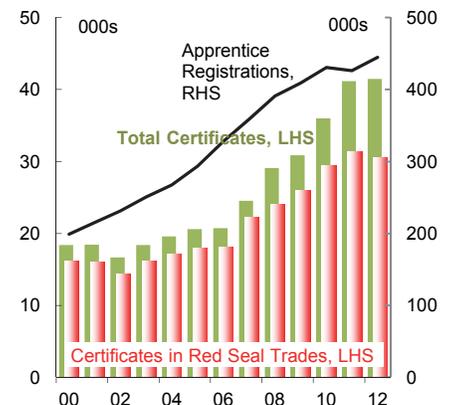
As Canadian governments step up their efforts to bridge the gap between the skills employers require and the skills available workers possess, the focus on trades education builds upon the Provinces' expansion of apprenticeship programs (*top two charts*). Across Canada, over the decade to 2012 (the latest year of data available), the number of registered apprentices and completed certifications more than doubled. Reflecting this surge, the International Labour Organization's latest data put the number of Canadian apprentices per 1,000 employed workers at roughly double the 14 reported for the U.S. With its large resource projects, Alberta in 2012 trained over 38 apprentices per 1,000 employed (*bottom chart*), pacing Australia with 40, and Germany, Austria and Switzerland whose deeply entrenched apprenticeship programs are rooted in 150 years of common practice.

Although Canada's apprenticeship programs now cover more than 200 trades, the bulk of apprentices remain in the traditional skilled trades (such as electricians, plumbers, construction and auto mechanics). For some of these categories, per 1,000 employed, the number of Canada's registered apprentices actually tops Germany's, with the notable exception of auto mechanic. In contrast, Germany's apprenticeship framework is substantially broader, covering 350 professions, with 60% of its apprentices in the services sector, such as retail, insurance, banking, health, and the public service. The ten trades reporting the largest number of apprentices in Germany, Austria and Switzerland are in services, with one or two exceptions.

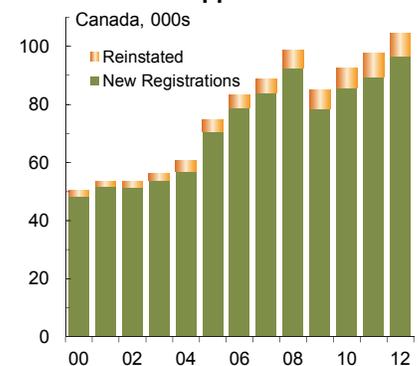
Critical to the German model is the degree to which "the social partners" (businesses, Chambers of Commerce, unions, industry & trade associations/guilds and public-sector educational authorities) collaborate on skills training. Germany's so-called "dual system" combines a structured study curriculum with on-the-job learning-by-doing and involves the business community closely in curriculum development to ensure alignment with the real economy's evolving demands. In Canada, the greater integration of industry in post-secondary training is advancing. British Columbia, for example, is forging long-term partnerships with industry, labour and the First Nations to prepare workers for the proposed West Coast LNG projects.

In Germany, the integration of business in skills training reflects longstanding practice, alongside a carefully balanced structure of incentives that make apprentices part of the corporate profit model. The government pays fully for the educational component of the "dual system". In return for free education, apprentices are content with compensation from their firms that tends to be low and is often referred to as an "allowance" rather than a "wage." While apprentice compensation can vary significantly, it is fixed by collective agreement and escalates over the duration of the program in rough proportion with the economic value that the apprentice brings to the business.

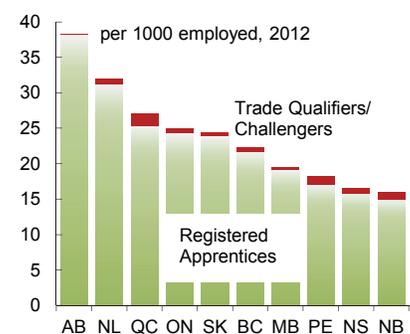
Canada's Apprentices



Post-Recession Recovery in New Apprentices



Registered Apprentices by Province . . .



Source for charts: Statistics Canada.

In contrast to most Swiss firms, German employers maintain that apprenticeship training remains a net cost, despite the trainees' rising contribution during the program. German firms estimate that the net cost of training apprentices over three years averages around €22,600.¹ Post-program benefits, however, can be significant. German firms generally hire the apprentices they train, eliminating recruiting costs and obtaining permanent employees familiar with their firm and their processes, in whom they have confidence.

A recent empirical study concluded that only 3% of training firms in Germany are victims of poaching.² For permanent employees outside of collective agreements, poaching workers can add an estimated 10%-15% to market wages,³ and spur demand for similar premiums from existing employees. For training companies, in addition to potentially limiting upward wage pressures, apprenticeship skills have generally proven adaptable as industries evolve.

In Canada, federal and provincial incentives exist to encourage business's participation in apprenticeship programs, and the need to simplify some program regulations is recognized. The Red Seal certification, now in place for close to 60 trades, is valid across Canada, facilitating labour mobility. An ongoing challenge in Canada is the apprenticeship completion rate, significantly below the German rate, despite federal and provincial assistance rewarding progress in the programs and completion. Among Austrian, German and Swiss apprentices, completion rates average from 85%-91%.

Another point of reference is that the German system promotes the trades as a very viable option to its younger students. Germany streams its children following elementary school onto one of three paths. In addition to the *Gymnasium*, leading to university admission, are the *Realschule*, leading to technical colleges, and the *Hauptschule*. The latter allows pupils to enter into apprenticeship programs after Grade Ten, permitting many to graduate before age 20. Thus, apprentices below age 20 is the largest age group in Germany, while remaining relatively small in Canada (*top chart*). Studies credit the young age and high completion rates of Austrian, German and Swiss apprentices for the relatively seamless transition from school to the work place, helping to narrow the gap between youth and adult unemployment (*bottom chart*).

Across Canada, the trend in secondary education is towards introducing a broader range of occupations through various education options. Several Provinces have introduced "dual credits", counting towards high school graduation as well as the first level of technical training in apprenticeship or industry training programs. An example of the enhanced financial support for trades education is Alberta's sizable addition to its Alberta Heritage Scholarship Fund, dedicated to trades-focused education.

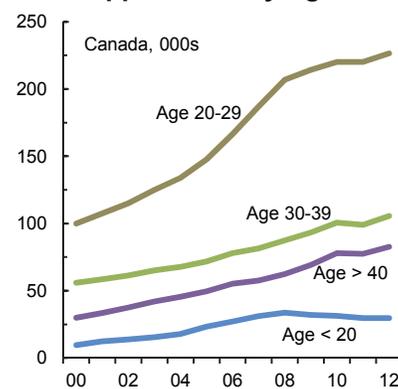
For many German apprentices, the prestige of apprenticing with Germany's top companies is considerable and the advantages of their work experience in high-demand positions can pace the benefits of academic studies. Entering as an apprentice, significant mobility within a German corporation is not uncommon, nor is further education later in life. The German, Swiss and Austrian experience underlines that there are several ways for youth to launch a career, including tailoring education to available career progressions.

¹ Robert Lerman, *Expanding Apprenticeship Training in Canada*, April 2014.

² Jens Mohrenweiser, et al. *Poaching and Firm-sponsored Training: First Clean Evidence*, Discussion Paper No. 13-037.

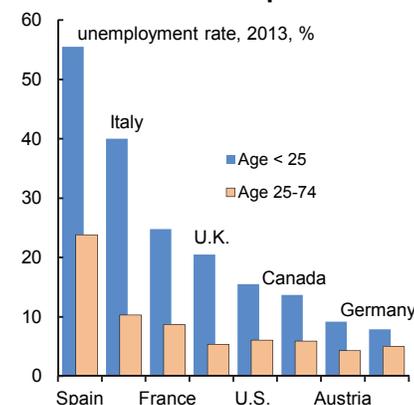
³ Pepper D. Culpepper (ed), *The German Skills Machine*, 1999.

Apprentices by Age



Source: Statistics Canada

Youth Participation



Source: Eurostat, U.S. Bureau of Labour, Statistics Canada.

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