



## Critical Success Factors and Talent Risks for BC

The [September issue](#) of this newsletter reviewed the international, labour market and public policy contexts for talent mobility and development and briefly identified key success factors and risks for British Columbia (BC) in achieving its workforce development goals. In this month's issue, we explore each of these areas and offer suggestions for ensuring an adequate labour supply and successful workforce development in BC.

### 1. Coordination, Integration and Harmonization of Workforce Funding and Delivery

In this period of growing concern about skilled labour supply, we see a plethora of workforce programs and initiatives, stakeholders and service providers throughout the province and across Canada. The major British Columbia initiatives include the *BC's Skills for Jobs Blueprint*<sup>1</sup>, the reform of apprenticeship, the revamped Industry Training Authority (ITA), and activities related to the LNG opportunity. Combined with federal immigration reform, these initiatives involve a large amount of funding and project activity among government agencies and stakeholders on both the demand and supply sides of the labour market.

Looking ahead, the risk is that inadequate coordination and communication, along with delivery overlaps and competition, could be counter-productive to both public policies and private sector strategies aimed at achieving desired workforce outcomes. Governments, industry and other stakeholders will need to be creative and disciplined in keeping the dots connected and avoiding silos and insular thinking in order to sustain successful outcomes.

<sup>1</sup> Province of BC, [BC's Skills for Jobs Blueprint: Re-Engineering Education and Training](#), 2014.

The BC government has established a number of planning and implementation committees to facilitate coordination across its skills and talent development programming:

- A senior provincial Labour Market Priorities Board to make *Blueprint*-related labour market and other funding decisions.
- A committee of senior officials from various Ministries to coordinate Aboriginal training and employment initiatives.
- A Premier's LNG Working Group.
- Federal-provincial committees to implement and review the Canada-BC Job Fund, the Canada-BC Job Grant, and joint arrangements on immigration matters.

Despite best efforts at coordinating government programs and services, the large number of initiatives and programs underway may be confusing to employers and other parties, and the information and programs developed can be difficult to use when not designed with the capacity of small businesses, industry groups and communities and regional stakeholders in mind.

### 2. Increased Participation and Completion in Apprenticeship and Trades Training

According to a provincial study, 57% of the estimated LNG construction jobs will be skilled trades.<sup>2</sup> Therefore, significantly and rapidly growing apprenticeship-based trades will be critical for major project proponents. Table 1 summarizes the projected job openings in the top ten LNG-related occupations.

<sup>2</sup> BC Natural Gas Workforce Strategy Committee, [BC Natural Gas Workforce Strategy and Action Plan](#), Ministry of Jobs, Tourism and Skills Training, 2013.

Table 1 – Top Ten LNG Occupations: Growth in and outside of LNG by 2018

Top Ten LNG Occupations	Employment by 2018 – Status Quo (a)	Growth in Job Openings by 2018 (b)	Growth in LNG Jobs by 2018 (c)	Total Growth (d=b+c)	Total Growth as a % of Status Quo Base* (d/a)
1. Construction Trades Helpers & Labourers	27,000-28,500	10,500-12,000	11,800	22,300-23,800	83.5%
2. Steamfitters & Pipefitters	3,000-3,200	2,900-3,100	3,800	6,700-6,900	215.6%
3. Welders	11,500-12,300	1,800-2,000	2,200	4,000-4,200	34.1%
4. Concrete Finishers	2,100-2,300	1,100-1,200	1,500	2,600-2,700	117.4%
5. Transport Truck Drivers	40,500-43,000	2,100-2,300	1,500	3,600-3,800	8.8%
6. Carpenters	35,500-38,000	2,200-2,300	1,400	3,600-3,700	9.7%
7. Heavy Equipment Operators	13,700-14,700	1,500-1,600	1,100	2,600-2,700	18.4%
8. Gas Fitters	1,600-1,700	850-900	1,100	1,950-2,000	117.6%
9. Purchasing Agents	5,400-5,700	850-900	875	1,725-1,775	31.1%
10. Crane Operators	2,600-2,800	650-750	800	1,450-1,550	55.4%

\* Calculated by dividing the high end of status quo into the high end of the total growth range.

Source: Province of BC, *BC Skills for Jobs Blueprint: Re-Engineering Education and Training*, pp. 29-32. (except last 2 columns)

It is instructive to consider the data in the table against the baseline employment picture:

- The growth by 2018 in Steamfitters/ Pipefitters job openings represents over two times (216%) the increase in total “status quo” employment (i.e., the employment level without job growth or attrition) in this trade.
- The need for an additional 2,600-2,700 Concrete Finishers in 2018 is on top of an existing 2,100-2,300 expected in that year without any growth.

- Labourers (84%) and Gas Fitters (118%) also are projected to see high growth in positions relative to the status quo.
- Even those occupations with lower job growth in percentage terms will see significant absolute numbers of new openings (e.g. Welders, Truck Drivers, Carpenters).

Canada has traditionally suffered from low apprenticeship completion rates (well below 50% in BC) as well as low participation rates. According to Bernard Simon, in 2011 Canada had only 30 apprentices per 1,000 employees – compared to 39 in Germany, 40 in Australia, and

Selected High-Demand Trade (from Top Ten LNG Occupations)	# of BC RS Candidates 2013	BC Exam Pass Rate 2013	National Exam Pass Rate 2013	# of BC Passed RS 2013	Total Job Growth 2014-2108	Avg. RS Passes Needed per Year
Carpenter	601	64%	62%	385	3,600-3,700	720-740
Concrete Finisher	8	50%	71%	4	2,600-2,700	520-540
Steamfitter/Pipefitter	39	61%	59%	24	6,700-6,900	1,340-1,380
Welder	295	59%	65%	174	4000-4200	800-825

Sources: Resource Training Organization, 2013 Red Seal Exam Results for BC, August 20, 2014. Province of BC, BC Skills for Jobs Blueprint: Re-Engineering Education and Training, pp. 29-32.

44 in Switzerland. And it takes about one-third longer to qualify as a carpenter or welder in Canada than in Germany.<sup>3</sup>

The barriers to entry into and completion of apprenticeships have been well-documented in national and provincial research. A key issue for entry is having a job and an employer willing to sponsor an apprentice. Until the sponsorship challenge has been addressed through innovation and greater employer acceptance of the value proposition, it will be difficult to achieve the ITA's new mandated direction.

Our training system risks not keeping up with the demand for skilled trades in BC. The industry training system needs to increase employer participation in apprenticeship, including in "Red Seal" trades (48 in BC<sup>4</sup>) that are recognized as *the* standard of national excellence

Table 2 shows Red Seal exam pass rates for four of the "top ten" occupations, illustrating potential sizable gaps in meeting future demand unless apprenticeship training is ramped up, more tradespeople are recruited from other jurisdictions, and/or workers' skills are

recognized through "challenge" processes. For example:

- BC could need an average of 520 to 540 new Concrete Finishers over the next five years to 2018. Yet, in 2013, only eight candidates passed the Red Seal exam, making them eligible to obtain this endorsement.
- While 174 people passed the Welder Red Seal exam in 2013, we could need an average of 800 to 825 per year to 2018.
- Of greatest concern, only 24 candidates passed the Steamfitter/Pipefitter Red Seal exam in 2013, yet the province could require as many as 1,340-1,380 new Steamfitters/Pipefitters per year to 2018.

Will there be enough infrastructure (e.g., labs, shops, instructors, etc.) to ramp up fast enough to meet the projected demand – especially as employers in Alberta, Saskatchewan and elsewhere continue to recruit BC's Red Seal trades?

If potential major projects, including even a few of the proposed LNG projects, move forward in BC in the next few years, there will be pronounced stress on the province's industry

<sup>3</sup> Bernard Simon, Skills Development in Canada: So Much Noise, So Little Action. Report prepared for the Canadian Council of Chief Executives, November 2013.

<sup>4</sup> ITA, Trade Programs. <http://www.itabc.ca/discover-apprenticeship-programs/search-programs>.

Table 3 – Indicators of Education Concerns for Select BC Northern Communities, 2011							
Regional District	Local Community	% of population without high school completion aged 25-54	% of 18 year olds who did not graduate on average 2008-2011	Grade 12 provincial exam non-completion on average 2008-2011			% below standard on Grade 4 Reading, writing and math 2008-2011
				Math	Chemistry	English	
British Columbia		11.1	27.9	88.4	94.3	35.7	18.9
Average in the North		23.4	48.19	96.5	97.4	58	36
Skeena	Prince Rupert	25	38.5	87.8	90.8	52.4	38.5
Kitimat Stikine	Upper Skeena	34.9	68	93.5	95.1	66.2	52.5
	Nisga'a	25.5	72.1	99.7	99.8	92.5	69.6
	Terrace	17.2	47	95.9	98.9	58	35.1
Bulkley Nechako	Burns Lake	25.8	46.4	98.8	96.8	48.2	42.1
Peace River	Peace River South	20	41.6	99.1	99.3	54.7	32.2
	Peace River North	21.2	40.2	97.3	99.3	47.3	15.6
Source: Adapted from Decoda, <u>A British Columbia Workforce Literacy and Essential Skills Plan</u> , 2014.							

training system and significantly more pressure on employers to step up the hiring and retention of apprentices.

Despite recent reforms, BC's apprenticeship system will also need to be more accessible to Aboriginal people, rural communities, women, immigrants, persons with disabilities, older workers, and small employers. This will require greater use of flexible, non-traditional models in terms of the structure, location, duration and delivery of apprenticeships. Group apprenticeships, mobile delivery, recognition of prior learning and on-line training are just a few examples of the types of flexibility and innovation that will be needed.

### 3. Increasing Literacy and High School Completion Rates

According to BC's literacy organization, "Over 150,000 British Columbians aged 25-54 have not graduated from high school and approximately 600,000 working-age British Columbians do not have the minimum literacy and essential skills required to successfully participate in a knowledge economy."<sup>5</sup> Based on 2011 Census data from BC Stats, Table 3 shows that among the 25-54 age group, 11.1% had not completed high school in 2011. The figure rises to 16.3%-34.9% in northern regions, with the northern average reaching 23.4%.

<sup>5</sup> Decoda, A British Columbia Workforce Literacy and Essential Skills Plan, 2014.

The northern education gap is manifested across all of the indicators in the table:

- Almost half of 18 year olds in the north in the period 2008-2011 had not graduated, compared to 28% of all BC 18 year-olds.
- Northern students had higher non-completion of provincial exams for mathematics, chemistry and English.
- The percentage of students in the north who were below standard on Grade 4 reading, writing and mathematics exams was almost double the provincial average (36% versus approximately 19%).

### The Aboriginal Opportunity

Aboriginal youth and unemployed or underemployed Aboriginal adults are a huge pool of new talent in the province. Aboriginal youth are the youngest and fastest growing population group – almost half of all Aboriginal people in BC are under the age of 25.<sup>6</sup> Forty thousand working age (15-64) Aboriginal people live in northern regions of BC.<sup>7</sup>

The skilled trades are particularly attractive to Aboriginal people and communities because many of the major projects underway or proposed in BC are in close proximity to where Aboriginal people reside.

However, Aboriginal people in BC and across Canada face higher rates of unemployment and have lower levels of formal education, resulting in weaker connections to the job market than for the non-Aboriginal population. As the *Blueprint* notes, at 59.6%, high school completion rates for Aboriginal students in BC are among the best in Canada and have risen substantially over the past decade. However, they remain well below the provincial average of 83.1%. At 16.4%, Aboriginal

unemployment in 2011 was more than twice that for the total BC population in that year (7.5%).<sup>8</sup>

Achieving increased Aboriginal education, training and employment opportunities also depends on the following:

- Designing programs and services to address the most common barriers, including literacy and education, cultural sensitivity, racism/discrimination, self-esteem, poverty and housing, lack of driver's license, transportation and child care.
- Providing accurate information on workforce supply and employer needs.
- Forging partnerships that connect basic skill development and job training directly to employment, economic development and resource stewardship, particularly on major projects and in high-growth industries in proximity to on-reserve and off-reserve Aboriginal people.
- Increasing provincial capacity for delivering literacy/numeracy, essential skills, high school completion courses within Aboriginal communities, and integrate such learning with job-related basic skills training (i.e. safety and health tickets, tools and equipment operation, basic job site orientation, etc.).
- Ensuring coherence among federal, provincial, First Nations, and industry Aboriginal training and employment funding and program delivery strategies.
- Respecting First Nations' traditions, languages, values and territories and working with them as full partners.

All of this means governments, industries and employers, service providers and First Nations and other communities must be working

<sup>6</sup> Province of BC, *BC's Skills for Jobs Blueprint: Re-Engineering Education and Training*, 2014.

<sup>7</sup> Ibid.

<sup>8</sup> Statistics Canada, *National Household Survey: Aboriginal Population Profile, 2011*; and Statistics Canada, *Labour Force Survey*, November 2014.

together to equip local people with the basic education and skills needed to succeed in job training and employment. Without a concerted push on this front, more jobs are likely to go to qualified people from outside BC's northern regions.

#### 4. Full Utilization of Immigrant Talent

"Canada simply cannot be complacent and the recent changes suggest it isn't. BC cannot rest on its natural appeal...BC is in a pitched battle with other provinces and nations."<sup>9</sup>

##### Immigration Trends and Issues<sup>10</sup>

With low fertility rates, an aging population and uncertain interprovincial migration trends, the province has set a target to meet 25% of labour demand by 2022 (or 265,000 job openings) through immigration, temporary foreign workers, and recognition of foreign qualifications. Without significant increases in the recruitment of economic immigrants, this target may not be met.

There has been a troubling decline in the share of economic immigrants coming to BC over the last decade. Coupled with growing international competition for talent and current economic, labour market and demographic trends in Canada, this means that employers will need to be more engaged with the immigration system to ensure that BC has the skilled workers to support a growing, diversified and competitive economy.

An overall increase of immigrant landings (for permanent residency) in BC from 12,262 in 1985 to 36,161 in 2013 masks declines from highs of 52,000 in 1996 and of 44,770 in 2005. Further, total immigrant landings in BC in relation to the size of the province's labour force fell from 1.7% in 2004 to 1.5% in 2013.<sup>11</sup> Landings in the Skilled Worker category stood at 7,452 in 2013, the

lowest number since 1992 and down from highs of over 20,000 in 2005 and 1996/97. Landings in the Skilled Worker category dwindled from 1.6% of the BC labour force in 2004 to 0.6% by 2013.

However, Provincial Nominees continued to rise, reaching a high of 7,128 in 2013; and Family Class landings in 2013 were 14,150, the highest since 1996. Live-In Caregiver, Entrepreneur, Investor, and the Self-Employed categories all involve smaller numbers and have been down in recent years.

Those immigrants who arrived in BC with university degrees represented 43.4% of all newcomers in 2013, down from 54.5% in 2004. Those with college or trade certificate qualifications declined from 17.8% to 15.6% over the same period. Immigrants who landed in BC with unknown educational levels increased from 2.7% of total landings in 2004 to more than one quarter by 2013. The proportion of newcomers with English language ability has been increasing over the last decade, notably in the Skilled Worker and Provincial Nominee categories.

A panelist at a recent forum on global talent mobility succinctly outlined the gaps between landed immigrants and the provincial labour force. An immigrant outcome gap is reflected in the following data:

- A participation rate that is six to 16 percentage points below the BC average.
- An unemployment rate of 11% compared to the BC average of 7%.
- Average income of \$26,000 compared with the BC average of \$39,000.<sup>12</sup>

Another important issue in fully utilizing immigrant talent – both existing landed immigrants and new immigrant applicants – is

<sup>9</sup> Warren Everson, cited in Immigrant Employment Council of BC, Mind the Gap: 2014 Summit Final Report, p. 24.

<sup>10</sup> Unless otherwise noted, the immigration statistics in this section are from BC Stats, Immigrant Landings, 1985 to

2013, with some data provided by Citizenship and Immigration Canada.

<sup>11</sup> Statistics Canada, Labour Force Survey, August 2014.

<sup>12</sup> Immigrant Employment Council of BC, op. cit., p. 29.

recognition of foreign qualifications and facilitating the responsiveness of occupational and professional regulators.

#### Successful Implementation of the New Express Entry System

The start of the new Express Entry System is just weeks away. According to the Government of Canada, the new system will be an opportunity to improve the flexibility, responsiveness, and speed of economic immigration. The focus will be on highly skilled immigrants, although there will also be some less skilled components, particularly through Provincial Nominee programs. A major change with the Express Entry system is that it involves a more direct and significant role for employers in the selection of economic immigrants. This must be predicated on operationalizing a system that meets the needs of employers.

For BC to maximize the attraction and utilization of skilled foreign workers, the province must have a broad immigrant talent strategy that is integrated with other parts of the province's workforce development plan. The government has set a goal of attracting 265,000 immigrants and foreign workers by 2022, but this will require an integrated plan so that immigrant talent strategies are linked with other workforce initiatives and do not operate in a silo. This plan must equip employers with the awareness and capacity to tap into existing and new streams of immigrants and foreign workers. Finally, the topic is controversial, all indications suggest that the Temporary Foreign Worker Program should have a place in any broad workforce strategy for BC. No matter how successful we can tap other talent pools, some businesses will need to access TFWs to successfully undertake projects and activities.

#### **5. Strategic and Useable Labour Market Information**

Trying to measure and forecast what talent will be needed to fuel economic development, wealth creation and investment in BC (and around the world) has become an important task. Yet, as Nobina Robinson, the CEO of Polytechnics Canada, recently observed, "We still can't answer even the most basic questions about the labour market – such as how many welders or electricians are going to be certified this year, or how many [will be needed]."<sup>13</sup>

Labour demand forecasting provides orders of magnitude projections and relevant directional intelligence. The forecasts can be adjusted as circumstances/scenarios change. Based on econometric models and economic input/output models and assumptions, labour demand forecasting is the easier part of the labour demand/supply equation. We can survey employers on their projected human capital requirements. We can forecast labour requirements based on investment plans and intentions and other data regarding major projects. We can use formulas showing how GDP and other economic indicators translate into expected employment (labour demand).

The *real* challenge and gap is on the labour supply side of this equation (i.e., what are the main talent pools, and how can employers access them). In addition to a paucity of reliable and real-time labour supply data, other kinds of labour market information needed by employers, job-seekers, training institutions and governments include the following:

- More regular, up-to-date job forecasts – not having to wait two years or even one year for updates in an ever-changing economy.

<sup>13</sup> Nobina Robinson. "You can't run a labour market on a hunch." [iPolitics](http://www.ipolitics.ca), November 27, 2014.

<http://www.ipolitics.ca/2014/11/27/you-cant-run-a-labour-market-on-a-hunch/>.

- Better use and distribution of up-to-date sectoral and regional labour market information.
- Local and regional level employment information and forecasts that can be used for planning by employers and trainers.
- Continually updated data on skill shortages and high-demand occupations and skills.
- A provincial job vacancy indicator.

The continuous improvement of the WorkBC portal, the BC Labour Market Outlook (to 2020), and ongoing work on LNG occupational forecasting are all good additions to BC's labour market information base. With the *Blueprint* initiatives, provincial Ministries and their partners are taking coordinated action to improve and disseminate labour market information. This will hopefully enhance the availability of useful labour market tools for employers, job-seekers and others at the regional and local levels.

### Conclusions

We end with a few themes that transcend the aforementioned workforce success factors and risks. These need to be kept in mind when addressing workforce opportunities and challenges in BC:

1. On-going, updated workforce planning, informed by accurate and accessible HR, labour market and other information, is essential.
2. Evidence-based program design and development, informed by proven best practices, program evaluations, and user input, is also important.
3. Execution needs to be informed by strong project management, good information, and effective coordination and integration of the delivery of public and private policies, strategies, programs and services.
4. More must be done to reconcile workforce demand and supply perspectives so that greater emphasis is placed on what the customers – mainly employers and workers (including job-seekers) – of programs and services need and will find user-friendly.
5. Employers must be prepared to attract and retain skilled workers from a broad array of labour sources in BC and beyond.

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This edition of *Human Capital Law and Policy* was guest authored by **Kerry Jothen**. For the last 13 years, Kerry Jothen has been the CEO of **Human Capital Strategies**, a Vancouver-based strategic HR consultancy. Previously, he was the CEO of the Industry Training and Apprenticeship Commission. HCS has completed over 225 consulting projects, advising many key business and industry groups and employers throughout BC and Canada, and helping Aboriginal and immigrant groups build human capital capacity and employment.