



ASIA PACIFIC GATEWAY
SKILLS TABLE



THE GATEWAY LMI PROJECT

**ASIA PACIFIC
GATEWAY
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LABOUR MARKET
SUMMARY,
2013–2022**

WHERE IS THE GATEWAY?

B.C.'s Asia Pacific Gateway comprises:

- Two main west coast ports: Port of Prince Rupert and Port Metro Vancouver. The Port of Kitimat is also central to the Gateway, particularly related to the LNG industry.
- Three major airports: Vancouver International Airport, Abbotsford International Airport and Prince George International Airport.
- Three major transcontinental railways: Canadian Pacific, Canadian National, and Burlington Northern Santa Fe Railway.
- An integrated, high-quality highway system accessible to all of North America.

This project is funded by the Government of Canada's Sector Council Program.

The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

British Columbia's Asia Pacific Gateway (APG) is a world-class transportation network designed to make Canada the most competitive entry and exit point in North America for trade with Asia. Forecast to grow substantially over the next 10 years as trade activity accelerates, the APG is an integrated supply chain connecting Canada and the North American market to Asia and the world via airports, seaports, railways, roadways and border crossings.

By 2020, Asia-Pacific container traffic arriving at British Columbia's deep water ports is expected to increase by 200%. To compete for this expanding trade, APG partners have set ambitious growth targets for British Columbia's ports and airports. Projects to expand and enhance port, rail, road and airport infrastructure (planned or underway) total over \$21 billion.

The B.C. government estimates that 32,000 new jobs will be needed to operate and maintain the province's maritime ports through this period of increased activity. There will also be more jobs at airports, on the railroads and in trucking. Other increases are expected in supply-chain management, security, customs, warehousing and distribution, and in financial, legal and insurance services.

This study finds there could be as many as 116,000 job openings in the APG occupations, 84,000 in the Lower Mainland and 12,000 in northern British Columbia.

British Columbia's Asia Pacific Gateway—a key driver of national and provincial economies—is facing a robust future. Container traffic is projected to double by 2020, and both imports and exports, along with bulk traffic, are expected to continue growing. Access to accurate, current and reliable labour market information will help British Columbia employers, government policy-makers, educators and individual Canadians in taking a leadership role in the competitive market for international trade.

WHAT'S NEW IN THE REPORTS?

The 2011 report on the Asia Pacific Gateway was well received by industry, government and business.

Five new elements were included this year:

- Economic scenarios to offer a sense of both the high and low potential labour market.
- Separate regional reports for northern British Columbia and the Lower Mainland.
- Coverage of 53 occupations (41 in northern British Columbia), up from 34 in the first report.
- Data exclusively from a single source—the Centre for Spatial Economics Labour Market Forecast.
- The Economic Context of the Forecast.

The major change in the labour market conditions between the forecast in the *B.C. Labour Requirements for the Asia Pacific Gateway, 2011–2019* and this second edition is the tightness of the market overall. While in last year's report most occupations appeared in balance, this is not the case

KEY FINDINGS

The data shows that for British Columbia, northern British Columbia, and the Lower Mainland, between 2013 and 2022, the labour outlook for the Asia Pacific Gateway occupations is challenging. The British Columbia Asia Pacific Gateway shows a tight labour supply for the majority of the key occupations that make up its labour force. The economic cycle has a major effect on this forecast: job openings created by economic expansion are largely seen in the first five years of the forecast, while in the latter half many occupations see a year-to-year decline in the number of jobs with job openings being generated almost solely by attrition. This holds true regardless of the economic forecast.

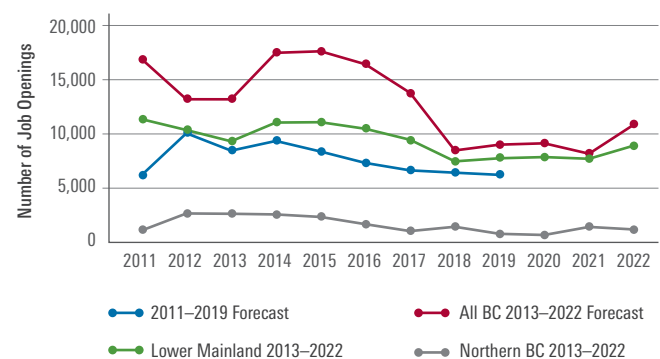
in the 2013–2022 forecast. Even the most conservative of the economic scenarios shows the majority of occupations as tight or tightening in most of the 10 years. Major investments in the British Columbia economy have significantly brightened the economic outlook for import and export trade, transportation and logistics activities.

The high scenario represents a substantially overheated economy. With over \$80 billion in investments projected in the middle five years of the forecast period, the final three to five years show a substantial economic decline created by the inflationary impact of the massive investments.

The expected scenario also generates an overheated economy. The forecasted \$64 billion in investments, while lower, still creates enough inflationary pressure to generate a strong economic decline in the latter years of the forecast period.

The low scenario—which experts universally suggested was too conservative at \$30 billion in investments over the 10-year forecast—shows slow but consistent economic growth and does not induce an economic slowdown beyond that generated by the standard economic cycle.

Job Openings by Year and Region



There are three challenges facing the APG in this 10-year forecast. First and most dramatic is the impact of attrition — workers leaving the occupations due to retirement or death. For the 10 years of the forecast, attrition will generate nine out of 10 job openings in northern British Columbia and nearly 7 out of 10 in the Lower Mainland and British Columbia as a whole.

This creates both challenges and opportunities for the Asia Pacific Gateway. Loss of experienced, highly skilled workers can cause declines in productivity as younger, less experienced workers develop the sophisticated skills of their older counterparts. However, these same younger workers can also bring emerging knowledge into the workplace and create innovations that bring dramatic shifts in productivity. Businesses and industry, governments and other policy-makers would do well to consider how they might address the challenges and opportunities created by the significant loss of experience and expertise that retirement will bring over the next five years. They can examine how these changes in the labour market can help them to create an environment that will foster innovation for productivity improvement.

For communities and businesses in northern British Columbia, the impact of attrition also calls to attention challenges in recruiting workers into northern communities and more importantly retaining them. While there are many advantages to younger workers taking jobs in the north, it is not well publicized locally or provincially. In discussions with northern businesses and newly hired workers, it was clear that the opportunities for challenging and senior positions were much more available to younger workers than they were in more urban areas. It was also clear that business is looking to creative local solutions to retain their own youth and put them to work in the northern economy. Discussion included catching the attention of local youth before they move to post-secondary training out of the region, multi-organization partnerships to develop and deliver training in the north and close to the work, and collaborative hiring to enable full-time or near full-time work for individuals across organizations.

The second challenge relates to the growth in the British Columbia economy, largely centered in northern British Columbia. Regardless of which scenario is used, the demand for the 53 APG occupations is much higher than the previous report's forecast and demonstrates a challenging labour market. This is due to the number of large-scale projects being launched in British Columbia over the 10-year forecast period. This will create upward wage pressures and, in the case of the high scenario, has the potential to overheat the economy to the point that a steep decline could be seen in the last two or three years of the forecast. While these projects are not all related to the Asia Pacific Gateway, the occupations required to support them are the same as many of those the Gateway needs to function competitively. This implies that early in the forecast period, employers need to focus on recruitment and retention strategies to ensure they have the necessary workers as the demand grows from competing sectors.

Finally, the most significant tightness regardless of region or sector is seen in the managerial occupations. All have tight labour market conditions from the beginning of the forecast period and in no instance does the pressure ease. These leadership roles are critical to efficient, productive and innovative operation of the industries and businesses in the British Columbia Asia Pacific Gateway. Employers need to develop comprehensive succession and leadership development programs. In addition, a proactive approach to re-organizing businesses to take advantage of newly trained workers with less leadership experience can help address this ongoing challenge. As the workforce becomes younger and the long-term, experienced leaders leave the workforce, the concept of leadership will need to be reconsidered.



RANKING COMPARISON: British Columbia (All BC), Lower Mainland (MSW) & Northern British Columbia (NBC)

SECTOR	REGION	YEAR									
		2013	'14	'15	'16	'17	'18	'19	'20	'21	'22
AIR SECTOR TOTAL	All BC	2	3	3	4	4	4	3	3	3	3
	MSW	2	3	3	4	4	3	3	3	2	2
	NBC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONSTRUCTION SECTOR TOTAL	All BC	4	4	4	4	4	4	4	4	4	4
	MSW	4	4	4	4	4	4	4	4	4	4
	NBC	4	4	4	4	4	4	4	4	4	4
LOGISTICS SECTOR TOTAL	All BC	3	3	4	4	4	4	4	3	3	3
	MSW	3	3	4	4	4	3	3	3	2	2
	NBC	4	4	4	4	4	4	4	4	4	4
MARINE SECTOR TOTAL	All BC	2	3	3	3	4	3	3	3	3	3
	MSW	2	3	3	3	3	3	2	2	2	2
	NBC	3	4	4	4	4	4	4	3	3	4
RAIL SECTOR TOTAL	All BC	2	2	2	3	3	3	3	2	2	2
	MSW	2	2	3	3	3	2	2	2	2	2
	NBC	3	4	4	4	4	4	4	3	3	3
TRUCKING SECTOR TOTAL	All BC	2	2	2	3	3	3	3	2	2	2
	MSW	2	2	3	3	3	2	2	2	2	2
	NBC	3	4	4	4	4	4	3	3	3	3
MANAGERS TOTAL	All BC	4	4	4	4	4	4	4	4	4	4
	MSW	4	4	4	4	4	4	4	4	3	3
	NBC	4	4	4	4	4	4	4	4	4	4
OCCUPATIONS THAT WORK ACROSS THE GATEWAY SECTORS TOTAL	All BC	2	3	3	4	4	3	3	3	3	3
	MSW	3	3	4	4	4	3	3	3	2	2
	NBC	4	4	4	4	4	4	3	3	3	3
ALL APG	All BC	2	3	3	3	3	3	3	3	3	2
	MSW	2	3	3	4	4	3	3	2	2	2
	NBC	4	4	4	4	4	4	3	3	3	3

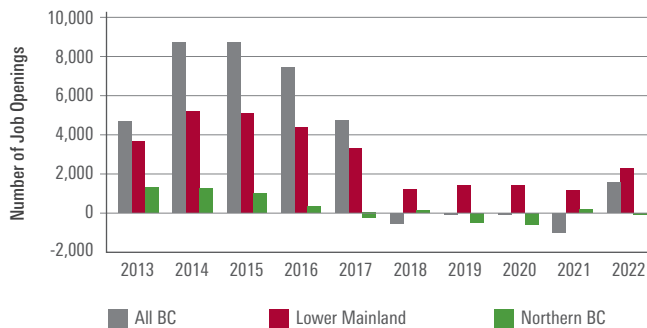
The All BC and MSW rankings are based on an assumed level of frictional unemployment of 5% for all occupations except those in the construction trades, while the NBC rankings are based on an assumed level of frictional unemployment of 7.5% for all occupations except those in the construction trades. For the construction trade occupations, the frictional unemployment rate used is 10%. This more accurately reflects both the labour mobility in the construction trades and the seasonality of the work.

The APGST Labour Market Information (LMI) Project data reveal a labour market that is predominantly tight, with significant job openings in all sectors and all regions between 2013 and 2017; after 2017, the economy and thus the number of job openings begin to slow. However, due to the baby-boomer retirement, attrition exacerbates the growth in job demand and generates a very significant portion (between 70 and 90%) of the job openings. Without direct and sustained action, the Asia Pacific Gateway will face a range of labour market challenges in the next 10 years.

DEMAND KEY FACTS

- » In northern British Columbia, 90% of the APG occupations are tight or tightening in all 10 years of the forecast. That proportion is 68% in the Lower Mainland, and 45% for all of British Columbia.
- » Overall, the number of jobs in the APG occupations will grow by 5% in northern British Columbia, 13% in the Lower Mainland, and 10% across all of British Columbia.

Expansion Demand: Job Openings Generated by Economic Growth, 2013–2022



- » In all of British Columbia, there will be just over 116,000 job openings from both expansion and attrition. 84,000 job openings will come in the Lower Mainland and 12,000 in northern British Columbia.
- » In the Lower Mainland, between 60 and 70% of the job openings come in the first five years of the forecast.
- » The APG occupations represent between 10 and 12% of the expansion demand forecast for British Columbia / northern British Columbia between 2013 and 2020 (the Province of British Columbia’s Labour Market Outlook BCLMO forecast ends at 2020; as a result, analysis beyond 2020 cannot be made).
- » The APG occupations represent 24% of the replacement demand for northern British Columbia between 2013 and 2020; that figure is about 12% in the Lower Mainland and 13% for British Columbia as a whole.

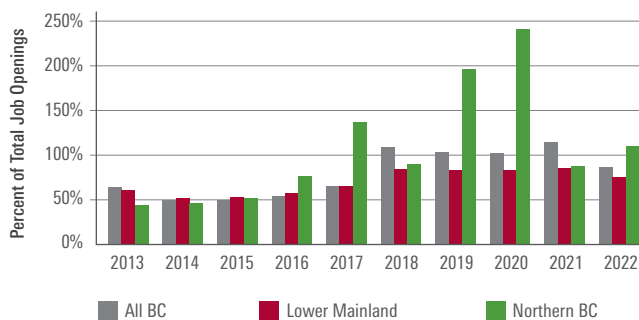
- » At 77%, the rail sector in the Lower Mainland has the highest proportion of job openings due to attrition over the 2013–2022 forecast. However, all of the sectors show over 65% of job openings from attrition.
- » At 94%, the construction sector in northern British Columbia has the highest proportion of job openings due to attrition over the 2013–2022 forecast. However, all of the sectors in northern British Columbia show over 80% of job openings from attrition.
- » At 85%, the construction sector in all of British Columbia has the highest proportion of job openings due to attrition over the 2013–2022 forecast. However, the marine sector has the highest proportion (80%) in the shorter term (2013–2017).
- » For all of British Columbia, the construction sector and the 14 manager occupations show tight labour market conditions for the entirety of the 2013–2022 forecast period, whereas the rail and trucking sectors are in balance six of the 10 years of the forecast and tightening in the middle four years.

ATTRITION KEY FACTS

- » Overall, attrition demand for the APG occupations represents 35% in northern British Columbia, 33% in the Lower Mainland, and 27% in all of British Columbia of the total number of jobs at the beginning of the forecast period.
- » Attrition is highest in northern British Columbia at 3.3% of the total number of jobs each year of the 2013–2022 forecast. The Lower Mainland and British Columbia as a whole are a full percent lower at about 2.5%.
- » A third of the occupations in northern British Columbia lose 4% of their total workforce to attrition annually; all of these are supervisory or managerial roles.
- » Almost 86,000 job openings will be created in British Columbia by attrition over the 2013–2022 forecast period; this figure is 59,000 in the Lower Mainland and 10,000 in northern British Columbia.

- » The APG occupations represent about 24% of the replacement demand in northern British Columbia between 2013–2020. In the Lower Mainland and British Columbia as a whole, it is about half that rate at 12–13% (the BCLMO forecast ends at 2020).
- » 76% of the APG occupations in northern British Columbia have at least one in four workers leaving due to attrition. For both the Lower Mainland and all of British Columbia, this figure is 68%.
- » With this high proportion of labour demand being generated by workers leaving occupations, concerns arise related to productivity and experience. In general, those moving into the job openings are less experienced than those leaving.

Replacement (Attrition) Demand as a Percent of Total Job Openings, 2013–2022

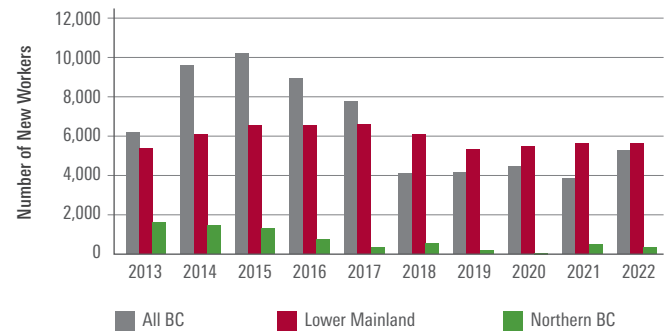


SUPPLY KEY FACTS

- » Net in-mobility—the number of workers that are newly trained/certified, have moved from other provinces or are immigrants to Canada—to the APG occupations for the whole of British Columbia is about 65,000. This figure is 59,000 in the Lower Mainland and 7,000 in northern British Columbia.
- » In northern British Columbia, the rate of in-mobility is below (30%) the number of workers who retire (or die) and leave the occupation. This adds to the overall tightness in the labour market.
- » Supply grows fastest in the Lower Mainland (1.4% on average each year of the forecast) and slowest in the whole of British Columbia (0.9% on average each year of the forecast).

- » The average age of workers is youngest in northern British Columbia at 41.9. The average age in the Lower Mainland is 42.8, while it is 43 in British Columbia as a whole.

Net New Workers to the Occupations, 2013–2022



THE GATEWAY LMI TOOL ON HRWIRE.CA

Your source for accurate, current, reliable labour market information. The Gateway Labour Market Information contained in this study is also available through the Asia Pacific Gateway Skills Table's Gateway LMI Tool available on www.hrwire.ca/gateway-lmi. The Gateway LMI Tool provides tailored, comparative labour market information by occupation.

The information supports an intermodal supply chain perspective of the Asia Pacific Gateway and encourages stakeholders to undertake their HR planning from a broader perspective.

THE ASIA PACIFIC GATEWAY SKILLS TABLE (APGST)

The APGST is a representative, collaborative network of Gateway business, labour and training organizations. The Skills Table mission is to address labour shortages and skills gaps, ensuring that Asia Pacific Gateway employers have enough people with the right skills and training to meet their needs.



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Asia Pacific Gateway Skills Table
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