



THE GATEWAY LMI PROJECT

B.C. LABOUR  
MARKET  
REQUIREMENTS  
FOR THE ASIA  
PACIFIC GATEWAY,  
2013–2022

OVERVIEW

*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  
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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 likely also be significantly 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 53 key APG occupations.

In this context, policy makers, educators and individual Canadians will need accurate, current labour market information to make sound business, policy, human resource, training and career decisions. To that end, in 2012 the Asia Pacific Gateway Skills Table (APGST) released *B.C. Labour Requirements for the Asia Pacific Gateway, 2011–2019*. This report—*B.C. Labour Market Requirements for the Asia Pacific Gateway, 2013–2022*—builds on it, describing the labour market conditions for the 53 occupations that support Gateway operations and outlining the forecasted labour market for them from 2013–2022.

## WHAT'S NEW IN THIS REPORT?

The 2011 report on the Asia Pacific Gateway was well received by industry, government and business. This second edition, *B.C. Labour Market Requirements for the Asia Pacific Gateway, 2013–2022*, includes five new elements:

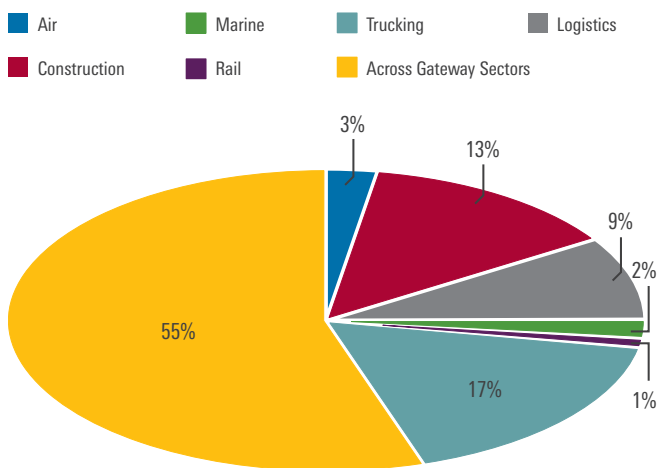
- Economic scenarios to offer a sense of both the high and low potential labour market.
- Separate regional reports for northern British Columbia and the Lower Mainland.
- Coverage of 53 occupations, up from 34 in the first report.
- Data exclusively from a single source—the Centre for Spatial Economics Labour Market Forecast—whereas the last report relied on three sources.
- A focused look at on British Columbia marine pilots using the Pacific Pilotage Authority's detailed pilot demand forecast model.

## KEY FINDINGS

### Attrition is Creating Opportunities

Attrition continues to be the dominant force affecting the APG labour market, accounting for the vast majority of change and job openings in every occupation. In some cases, it represents more than 80% of the demand. While large attrition rates can create a productivity or experience gap, attrition also provides opportunities for positive and innovative changes in the way the APG serves its customer base.

Total Job Openings from Attrition 2013–2022 by Sector (Expected Scenario)



### Management Openings Put the Spotlight on Retention

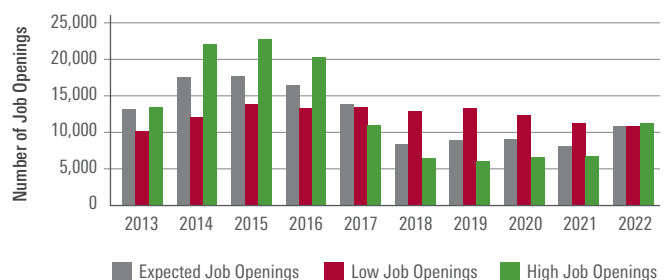
Managers represent about 20% of the total increase in jobs for the APG—and 10 of the 14 manager occupations are “tight,” meaning there are significant challenges in finding workers for job openings for the vast majority of the forecast period. Management positions are often filled by succession from within an organization. When they cannot be filled this way, it becomes necessary to draw from other organizations’ talent pools. This puts the focus on retention.

## 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 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 ten years. Major investments in the B.C. 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 forecast \$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 our 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.

Total Job Openings (Expected, Low and High Scenarios)



## NEARLY 116,000 JOB OPENINGS ANTICIPATED

The *B.C. Labour Market Requirements for the Asia Pacific Gateway, 2013–2022* report forecasts:

- Just over 116,000 job openings in the 53 APG occupations from 2013 to 2022—an increase of more than 60% from the previous year’s forecast.
- Nearly 80,000 job openings in the 53 APG occupations between 2013 and 2017. This amounts to nearly 70% of the job openings in the 10 years of the forecast and double the previous year’s forecast.
- The three occupations with the highest proportion of job openings overall over the 2013–2022 forecast period are expected to be: supervisors, motor transport; senior managers – construction, transportation, production and utilities; and supervisors, mail and message distribution occupations.

## THE ASIA PACIFIC GATEWAY: A KEY DRIVER OF NATIONAL AND PROVINCIAL ECONOMIES

**The previous report observed that British Columbia’s Asia Pacific Gateway was facing a robust future.**

Today’s outlook is similar: Container traffic is projected to double by 2020, while imports, exports and 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 to take advantage of this growth and maintain a competitive position in international trade.

## WHERE IS THE GATEWAY?

**B.C.’s Asia Pacific Gateway comprises:**

- Two main west coast ports: Port of Prince Rupert and Port Metro Vancouver.
- 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.

## 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](http://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.

## The 53 Occupations Ranked for this Report

**LEGEND:** AIR  CONSTRUCTION  LOGISTICS  MARINE  RAIL  TRUCKING  MANAGERS  ACROSS GATEWAY SECTORS 

**1**

A "1" ranking means that there are at least 10% more workers in the occupation than there are jobs: this would be a loose or oversupplied labour market.

**3**

































A "3" ranking means that there are between 5 and 6.5% more workers in the occupation than there are jobs: this is becoming a tight or undersupplied labour market.

**2**
































A "2" ranking means that there are between 6.5 and 10% more workers in the occupation than there are jobs: this would be a balanced labour market.

**4**

A "4" ranking means that there are less than 5% more workers in the occupation than there are jobs: this would be a tight labour market.

	NOC*	OCCUPATION	SECTOR	YEAR										
				2013	'14	'15	'16	'17	'18	'19	'20	'21	'22	
1	0016	Senior Managers – Construction, Transportation, Production and Utilities	 	4	4	4	4	4	4	4	4	4	4	4
2	0113	Purchasing Managers	 	4	4	4	4	4	4	4	4	4	4	4
3	0114	Other Administrative Services Managers	 	4	4	4	4	4	4	4	4	4	4	4
4	0213	Computer and Information Systems Managers	 	4	4	4	4	4	4	4	4	4	4	4
5	0611	Sales, Marketing and Advertising Managers	 	4	4	4	4	4	4	4	4	4	4	4
6	0711	Construction Managers	 	4	4	4	4	4	4	4	4	4	4	4
7	0713	Transportation Managers	 	4	4	4	4	4	4	4	4	4	4	4
8	0721	Facility Operation and Maintenance Managers	 	4	4	4	4	4	4	4	4	4	4	4
9	1122	Professional Occupations in Business Services to Management		4	4	4	4	4	4	4	4	4	4	4
10	1214	Supervisors, Mail and Message Distribution Occupations	 	4	4	4	4	4	4	4	4	4	4	4
11	1215	Supervisors, Recording, Distributing and Scheduling Operations	 	3	4	4	4	4	4	4	4	4	4	4
12	1225	Purchasing Agents and Officers		3	4	4	4	4	4	4	4	4	4	4
13	1236	Customs, Ship and Other Brokers		3	4	4	4	4	4	4	4	4	4	4
14	1471	Shippers and Receivers		3	3	3	4	4	4	3	3	3	3	3
15	1474	Purchasing and Inventory Clerks		3	3	3	4	4	4	4	3	3	3	3
16	1475	Dispatchers and Radio Operators		3	3	3	4	4	4	4	3	3	3	3
17	1476	Transportation Route and Crew Schedulers		3	3	3	4	4	4	4	3	3	3	3
18	2131	Civil Engineers		3	4	4	4	4	4	4	4	3	3	3
19	2133	Electrical and Electronics Engineers		3	4	4	4	4	4	4	4	3	3	3
20	2171	Information Systems Analysts and Consultants		3	4	4	4	4	4	4	4	4	3	3
21	2231	Civil Engineering Technologists and Technicians		3	4	4	4	4	4	4	4	3	3	3
22	2232	Mechanical Engineering Technologists and Technicians		3	4	4	4	4	4	4	4	4	4	3

\*) National Occupational Classification

	NOC*	OCCUPATION	SECTOR	YEAR										
				2013	'14	'15	'16	'17	'18	'19	'20	'21	'22	
23	2233	Industrial Engineering and Manufacturing Technologists and Technicians		3	4	4	4	4	4	4	4	4	3	3
24	2241	Electrical and Electronics Technologists and Technicians		3	4	4	4	4	4	4	4	4	3	4
25	2243	Industrial Instrument Technicians and Mechanics		3	3	4	4	4	4	4	4	4	3	3
26	2244	Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors		3	3	4	4	4	4	4	4	4	3	3
27	2271	Air Pilots, Flight Engineers and Flying Instructors		3	3	4	4	4	4	4	4	4	3	3
28	2273	Deck Officers, Water Transport		3	4	4	4	4	4	4	4	4	3	3
29	2274	Engineer Officers, Water Transport		3	4	4	4	4	4	4	4	4	3	3
30	2275	Railway Traffic Controllers and Marine Traffic Regulators		3	3	4	4	4	4	4	4	4	3	4
31	6233	Retail and Wholesale Buyers		2	2	3	3	3	3	3	3	3	2	2
32	6651	Security Guards and Related Occupations		2	2	3	3	3	3	3	3	3	2	2
33	7221	Supervisors, Railway Transport Operations		2	2	2	3	3	3	3	3	2	2	2
34	7222	Supervisors, Motor Transport		2	2	3	3	3	3	3	2	2	2	2
35	7231	Machinists and Machining and Tooling Inspectors		4	4	4	4	4	4	4	4	4	4	4
36	7241 42, 43	Electricians (including power and industrial)		3	3	3	4	4	4	4	3	3	3	3
37	7252	Steamfitters, Pipefitters, and Sprinkler System Installers, Marine Fitter/Fabricator Piping Trades		3	3	4	4	4	3	3	3	3	3	3
38	7263	Structural Metal and Platework Fabricators and Fitters		3	3	3	4	4	4	4	3	3	3	3
39	7264	Ironworkers		3	3	3	4	4	4	3	3	3	3	3
40	7265	Welders and Related Machine Operators		3	3	3	4	4	4	4	3	3	3	3
41	7311	Construction Millwrights and Industrial Mechanics		4	4	4	4	4	4	4	4	4	4	4
42	7312	Heavy Duty Equipment Mechanics		4	4	4	4	4	4	4	4	4	4	4
43	7315	Aircraft Mechanics and Aircraft Inspectors		2	2	2	3	3	3	3	3	2	2	2
44	7321	Automotive Service Technicians, Truck and Bus Mechanics and Mechanical Repairers		2	2	3	3	3	3	3	3	2	2	2
45	7361	Railway and Yard Locomotive Engineers		2	2	2	3	3	3	3	3	2	2	2
46	7362	Railway Conductors and Brakemen/women		2	2	2	3	3	3	3	3	2	2	2
47	7371	Crane Operators		4	4	4	4	4	4	4	4	4	4	4
48	7411	Truck Drivers		2	2	2	3	3	2	2	2	2	2	2
49	7421	Heavy Equipment Operators (Except Crane)		4	4	4	4	4	4	4	4	4	4	4
50	7432	Railway Track Maintenance Workers		2	2	2	3	3	2	2	2	2	2	2
51	7434	Engine Room Crew		2	2	2	3	3	3	2	2	2	2	2
52	7451	Longshore Workers		2	2	2	3	3	2	2	2	2	2	2
53	7452	Material Handlers		2	2	2	3	3	3	2	2	2	2	2

\*) National Occupational Classification



**ASIA PACIFIC GATEWAY**  
SKILLS TABLE

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Overview

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Prepared by  
Asia Pacific Gateway Skills Table  
© July 2013



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