



Alberta's Short-Term Employment Forecast 2017-2019

Overview

The *Alberta Short-Term Employment Forecast (STEF)* provides a three-year overview of occupations expected to be in-demand during that time period. The *STEF* results, in conjunction with other labour market and economic information, can help inform decisions to be made by various stakeholders such as: the Government of Alberta (GoA) in the design of effective labour market and education policies and programs; employers and industry in the development of strategic workforce plans; educational institutions and training providers in the design and development of programs that are more responsive to labour market needs; and youth or students in their education, training and career choices. It is also a tool used by career counsellors who develop and coordinate career and labour market information that enables all Albertans to make labour market decisions. It also provides awareness to newcomers and prospective immigrants on the short-term employment outlook in Alberta.

This three-year forecast helps bridge the gap between what is happening now in the labour market and in the long term; the long term as indicated by the government's 10-year forecast, *Alberta's Occupational Demand and Supply Outlook 2015-2025*. The long-term forecast examines which occupations are expected to grow in demand and by how much the overall supply of labour will expand. The current 10-year outlook forecasts that Alberta's labour market will grow by approximately 401,000 workers and a net increase of 352,000 workers is expected to join the labour force. For the coming decade, Alberta could experience a labour shortage of around 49,000 workers. In contrast, the *STEF* only examines the demand outlook for various occupations in the next three years. It does not estimate potential labour shortages by occupation; rather, it examines which occupations are expected to be in high, moderately high, medium or low demand. This is the seventh consecutive year that the GoA has released this short-term forecast.

The production of this report reflects GoA's commitment to supplying relevant labour market information to various levels of government, industry, professional organizations, educational institutions and the general public. This also reflects GoA's undertaking to improve available labour forecasts to help inform the development of workforce strategies, by both the public and private sectors, that will help promote efficiency in the labour market.

The *Alberta STEF 2017-2019* examines 455 occupations and ranks them into the following four demand categories: **High**; **Moderately High**; **Medium**; and **Low**. Each of the 455 occupations were analyzed using number of quantitative and qualitative indicators. Thresholds for all indicators are calculated through a scientific methodology; the more thresholds the occupation meet, the better its demand outlook is.

Objectives

- To develop evidence-based methodology to produce forecasts that will support short-term planning and development of program strategies by the GoA and other stakeholders.
- To deliver objective, accurate, and reliable information to help Albertans make informed employment and career-related decisions.
- To identify occupations that will be in high or low demand in the labour market in the near future, and allow decision-makers to take action to avert or ease any potential imbalances.
- To ensure consistency in data utilization and interpretation within the GoA.

Methodology

The *STEF* methodology is based on robust assessment of occupations at the 4-digit National Occupational Classification (NOC) Code based on a number of quantitative indicators and qualitative information such as:

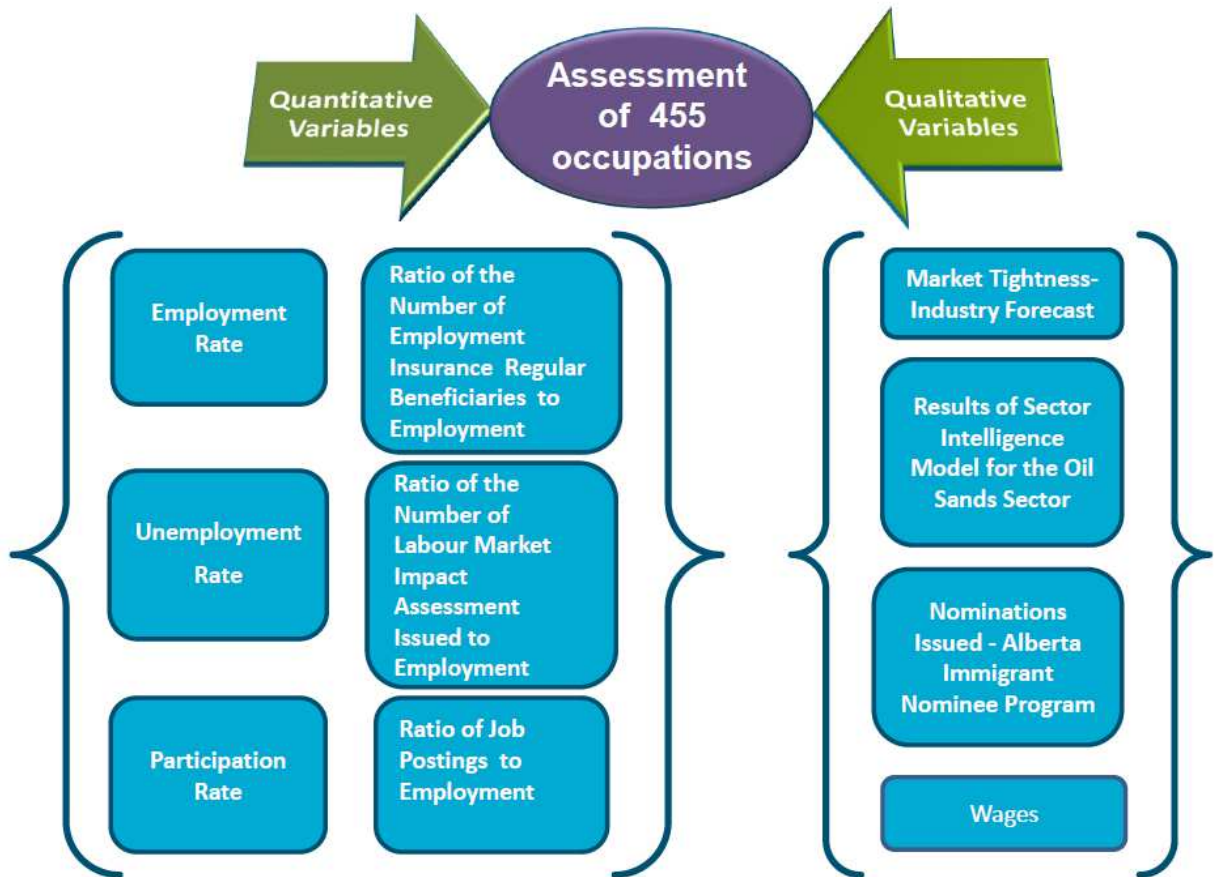
- Key labour market indicators from the Labour Force Survey;
- Labour market information from administrative datasets of the Federal Government, the GoA and the private sector;
- Industry forecasts; and
- Results of the GoA's Sector Intelligence Model for the Oil Sands Sector.

The *STEF* analyzes seven variables for each occupation: six quantitative and one qualitative measure. The single qualitative indicator is an amalgamation of four pieces of information. Please refer to the chart below.

There are 455 occupation titles identified at the 4-digit level of the NOC 2011 for which information is available. Information for all 455 occupations is collected, organized, calculated, analyzed, and summarised.

Information for all 455 occupations is assessed against the threshold value for each of the seven indicators. Depending on the number of thresholds met, an occupation is either ranked as **High Demand**; **Moderately High Demand**; **Medium Demand**; or **Low Demand**. The more indicators an occupation meets, the higher the demand ranking.

Short-Term Employment Forecast (STEF) Methodology



Results

The following is a summary of the results for the 455 occupations analyzed and assessed:

- 6 occupations met the threshold for six or all 7 variables, meaning there is a significant likelihood that these occupations will be in **high demand** in the next three years;
- 46 occupations met the threshold for five variables, meaning there is a significant likelihood these occupations will be in **moderately high demand** in the next three years;
- 147 occupations met the thresholds for four variables, meaning there is a likelihood these occupations will be in **medium demand** in the next three years;
- 256 occupations met the threshold for three variables or less, meaning it is likely these occupations are going to be in **low demand** in the next three years.

The attached Appendix shows the *Alberta STEF 2017-2019* results.

For more information on this forecast tool or to request a presentation of the material, contact LFS.Analyst@gov.ab.ca

Appendix

Short-Term Employment Forecast

High Demand Occupations

Occupation Title
3012 Registered nurses and registered psychiatric nurses
3233 Licensed practical nurses
6311 Food service supervisors
6315 Cleaning supervisors
7334 Motorcycle, all-terrain vehicle and other related mechanics
8252 Agricultural service contractors, farm supervisors and specialized livestock workers

Short-Term Employment Forecast

Moderately High Demand

Occupation Title
0121 Insurance, real estate and financial brokerage managers
0124 Advertising, marketing and public relations managers
0125 Other business services managers
0311 Managers in health care
0631 Restaurant and food service managers
1122 Professional occupations in business management consulting
1243 Medical administrative assistants
1311 Accounting technicians and bookkeepers
3011 Nursing co-ordinators and supervisors
3111 Specialist physicians
3112 General practitioners and family physicians
3113 Dentists
3131 Pharmacists
3216 Medical sonographers
3217 Cardiology technologists and electrophysiological diagnostic technologists, n.e.c.
3222 Dental hygienists and dental therapists
3236 Massage therapists
3413 Nurse aides, orderlies and patient service associates
4011 University professors and lecturers
4163 Business development officers and marketing researchers and consultants
4214 Early childhood educators and assistants

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Moderately High Demand (continued)

Occupation Title
4311 Police officers (except commissioned)
5232 Other performers, n.e.c.
6211 Retail sales supervisors
6312 Executive housekeepers
6313 Accommodation, travel, tourism and related services supervisors
6322 Cooks
6341 Hairstylists and barbers
6344 Jewellers, jewellery and watch repairers and related occupations
6525 Hotel front desk clerks
6531 Tour and travel guides
6711 Food counter attendants, kitchen helpers and related support occupations
7272 Cabinetmakers
7283 Tilesetters
7284 Plasterers, drywall installers and finishers and lathers
7301 Contractors and supervisors, mechanic trades
7305 Supervisors, motor transport and other ground transit operators
7321 Automotive service technicians, truck and bus mechanics and mechanical repairers
7322 Motor vehicle body repairers
7333 Electrical mechanics
7535 Other automotive mechanical installers and servicers
8431 General farm workers
9213 Supervisors, food, beverage and associated products processing
9214 Supervisors, plastic and rubber products manufacturing
9434 Other wood processing machine operators
9462 Industrial butchers and meat cutters, poultry preparers and related workers

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Medium Demand (1 of 5)

Occupation Title
0012 Senior government managers and officials
0016 Senior managers - construction, transportation, production and utilities
0113 Purchasing managers
0122 Banking, credit and other investment managers
0213 Computer and information systems managers
0412 Government managers - economic analysis, policy development and program administration
0414 Other managers in public administration
0421 Administrators - post-secondary education and vocational training
0423 Managers in social, community and correctional services
0601 Corporate sales managers
0621 Retail and wholesale trade managers
0651 Managers in customer and personal services, n.e.c.
0711 Construction managers
0712 Home building and renovation managers
0811 Managers in natural resources production and fishing
0912 Utilities managers
1111 Financial auditors and accountants
1113 Securities agents, investment dealers and brokers
1114 Other financial officers
1121 Human resources professionals
1123 Professional occupations in advertising, marketing and public relations
1212 Supervisors, finance and insurance office workers
1215 Supervisors, supply chain, tracking and scheduling co-ordination occupations
1222 Executive assistants
1224 Property administrators
1228 Employment insurance, immigration, border services and revenue officers
1241 Administrative assistants
1312 Insurance adjusters and claims examiners
1315 Customs, ship and other brokers
1434 Banking, insurance and other financial clerks
1435 Collectors

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Medium Demand (2 of 5)

Occupation Title
1511 Mail, postal and related workers
1526 Transportation route and crew schedulers
2112 Chemists
2121 Biologists and related scientists
2131 Civil engineers
2141 Industrial and manufacturing engineers
2142 Metallurgical and materials engineers
2147 Computer engineers (except software engineers and designers)
2161 Mathematicians, statisticians and actuaries
2171 Information systems analysts and consultants
2174 Computer programmers and interactive media developers
2175 Web designers and developers
2223 Forestry technologists and technicians
2224 Conservation and fishery officers
2225 Landscape and horticulture technicians and specialists
2234 Construction estimators
2241 Electrical and electronics engineering technologists and technicians
2242 Electronic service technicians (household and business equipment)
2243 Industrial instrument technicians and mechanics
2255 Technical occupations in geomatics and meteorology
2262 Engineering inspectors and regulatory officers
2271 Air pilots, flight engineers and flying instructors
2275 Railway traffic controllers and marine traffic regulators
2281 Computer network technicians
2282 User support technicians
3121 Optometrists
3122 Chiropractors
3124 Allied primary health practitioners
3125 Other professional occupations in health diagnosing and treating
3132 Dietitians and nutritionists
3141 Audiologists and speech-language pathologists

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Medium Demand (3 of 5)

Occupation Title
3142 Physiotherapists
3143 Occupational therapists
3211 Medical laboratory technologists
3214 Respiratory therapists, clinical perfusionists and cardiopulmonary technologists
3215 Medical radiation technologists
3219 Other medical technologists and technicians (except dental health)
3221 Denturists
3223 Dental technologists, technicians and laboratory assistants
3231 Opticians
3232 Practitioners of natural healing
3411 Dental assistants
3414 Other assisting occupations in support of health services
4030 Secondary and Elementary School Teachers and Educational Counsellors, n.e.c.
4031 Secondary school teachers
4032 Elementary school and kindergarten teachers
4033 Educational counsellors
4151 Psychologists
4153 Family, marriage and other related counsellors
4154 Professional occupations in religion
4165 Health policy researchers, consultants and program officers
4211 Paralegal and related occupations
4212 Social and community service workers
4312 Firefighters
4411 Home child care providers
4412 Home support workers, housekeepers and related occupations
4421 Sheriffs and bailiffs
4423 By-law enforcement and other regulatory officers, n.e.c.
5123 Journalists
5131 Producers, directors, choreographers and related occupations
5133 Musicians and singers
5134 Dancers

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Medium Demand (4 of 5)

Occupation Title
5135 Actors and comedians
5136 Painters, sculptors and other visual artists
5224 Broadcast technicians
5225 Audio and video recording technicians
5244 Artisans and craftspersons
6221 Technical sales specialists - wholesale trade
6231 Insurance agents and brokers
6235 Financial sales representatives
6316 Other services supervisors
6332 Bakers
6411 Sales and account representatives - wholesale trade (non-technical)
6421 Retail salespersons
6512 Bartenders
6522 Purser and flight attendants
6523 Airline ticket and service agents
6541 Security guards and related security service occupations
6731 Light duty cleaners
6732 Specialized cleaners
6741 Dry cleaning, laundry and related occupations
7203 Contractors and supervisors, pipefitting trades
7204 Contractors and supervisors, carpentry trades
7235 Structural metal and platework fabricators and fitters
7236 Ironworkers
7244 Electrical power line and cable workers
7246 Telecommunications installation and repair workers
7271 Carpenters
7282 Concrete finishers
7291 Roofers and shinglers
7292 Glaziers
7295 Floor covering installers
7304 Supervisors, railway transport operations

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Medium Demand (5 of 5)

Occupation Title
7318 Elevator constructors and mechanics
7332 Appliance servicers and repairers
7335 Other small engine and small equipment repairers
7373 Water well drillers
7441 Residential and commercial installers and servicers
7511 Transport truck drivers
8221 Supervisors, mining and quarrying
8432 Nursery and greenhouse workers
9211 Supervisors, mineral and metal processing
9215 Supervisors, forest products processing
9217 Supervisors, textile, fabric, fur and leather products processing and manufacturing
9223 Supervisors, electrical products manufacturing
9224 Supervisors, furniture and fixtures manufacturing
9227 Supervisors, other products manufacturing and assembly
9232 Petroleum, gas and chemical process operators
9241 Power engineers and power systems operators
9411 Machine operators, mineral and metal processing
9412 Foundry workers
9423 Rubber processing machine operators and related workers
9431 Sawmill machine operators
9435 Paper converting machine operators
9461 Process control and machine operators, food, beverage and associated products processing
9619 Other labourers in processing, manufacturing and utilities

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (1 of 8)

Occupation Title
0011 Legislators
0013 Senior managers - financial, communications and other business services
0014 Senior managers - health, education, social and community services and membership Organizations
0111 Financial managers
0112 Human resources managers
0114 Other administrative services managers
0131 Telecommunication carriers managers
0132 Postal and courier services managers
0211 Engineering managers
0212 Architecture and science managers
0411 Government managers - health and social policy development and program administration
0422 School principals and administrators of elementary and secondary education
0431 Commissioned police officers
0432 Fire chiefs and senior firefighting officers
0511 Library, archive, museum and art gallery managers
0512 Managers - publishing, motion pictures, broadcasting and performing arts
0513 Recreation, sports and fitness program and service directors
0632 Accommodation service managers
0714 Facility operation and maintenance managers
0731 Managers in transportation
0821 Managers in agriculture
0822 Managers in horticulture
0911 Manufacturing managers
1112 Financial and investment analysts
1211 Supervisors, general office and administrative support workers
1213 Supervisors, library, correspondence and related information workers
1214 Supervisors, mail and message distribution occupations
1221 Administrative officers
1223 Human resources and recruitment officers
1225 Purchasing agents and officers
1226 Conference and event planners
1227 Court officers and justices of the peace

Appendix (continued)

Short-Term Employment Forecast

Low Demand (2 of 8)

Occupation Title
1242 Legal administrative assistants
1251 Court reporters, medical transcriptionists and related occupations
1252 Health information management occupations
1253 Records management technicians
1254 Statistical officers and related research support occupations
1313 Insurance underwriters
1314 Assessors, valuers and appraisers
1411 General office support workers
1414 Receptionists
1415 Personnel clerks
1422 Data entry clerks
1431 Accounting and related clerks
1432 Payroll clerks
1451 Library assistants and clerks
1452 Correspondence, publication and regulatory clerks
1454 Survey interviewers and statistical clerks
1512 Letter carriers
1513 Couriers, messengers and door-to-door distributors
1521 Shippers and receivers
1522 Storekeepers and partspersons
1523 Production logistics co-ordinators
1524 Purchasing and inventory control workers
1525 Dispatchers
2113 Geoscientists and oceanographers
2114 Meteorologists and climatologists
2115 Other professional occupations in physical sciences
2122 Forestry professionals
2123 Agricultural representatives, consultants and specialists
2132 Mechanical engineers
2133 Electrical and electronics engineers
2134 Chemical engineers
2143 Mining engineers

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (3 of 8)

Occupation Title
2144 Geological engineers
2145 Petroleum engineers
2146 Aerospace engineers
2148 Other professional engineers, n.e.c.
2151 Architects
2153 Urban and land use planners
2154 Land surveyors
2172 Database analysts and data administrators
2173 Software engineers and designers
2211 Chemical technologists and technicians
2212 Geological and mineral technologists and technicians
2221 Biological technologists and technicians
2222 Agricultural and fish products inspectors
2231 Civil engineering technologists and technicians
2232 Mechanical engineering technologists and technicians
2233 Industrial engineering and manufacturing technologists and technicians
2251 Architectural technologists and technicians
2252 Industrial designers
2253 Drafting technologists and technicians
2254 Land survey technologists and technicians
2261 Non-destructive testers and inspection technicians
2263 Inspectors in public and environmental health and occupational health and safety
2264 Construction inspectors
2272 Air traffic controllers and related occupations
2283 Information systems testing technicians
3114 Veterinarians
3144 Other professional occupations in therapy and assessment
3212 Medical laboratory technicians and pathologists' assistants
3213 Animal health technologists and veterinary technicians
3234 Paramedical occupations
3237 Other technical occupations in therapy and assessment
4012 Post-secondary teaching and research assistants

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (4 of 8)

Occupation Title
4021 College and other vocational instructors
4112 Lawyers and Quebec notaries
4152 Social workers
4155 Probation and parole officers and related occupations
4156 Employment counsellors
4161 Natural and applied science policy researchers, consultants and program officers
4162 Economists and economic policy researchers and analysts
4164 Social policy researchers, consultants and program officers
4166 Education policy researchers, consultants and program officers
4167 Recreation, sports and fitness policy researchers, consultants and program officers
4168 Program officers unique to government
4169 Other professional occupations in social science, n.e.c.
4216 Other instructors
4217 Other religious occupations
4413 Elementary and secondary school teacher assistants
4422 Correctional service officers
5111 Librarians
5121 Authors and writers
5122 Editors
5125 Translators, terminologists and interpreters
5132 Conductors, composers and arrangers
5211 Library and public archive technicians
5212 Technical occupations related to museums and art galleries
5221 Photographers
5226 Other technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts
5227 Support occupations in motion pictures, broadcasting, photography and the performing arts
5231 Announcers and other broadcasters
5241 Graphic designers and illustrators
5242 Interior designers and interior decorators
5243 Theatre, fashion, exhibit and other creative designers
5251 Athletes
5252 Coaches

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (5 of 8)

Occupation Title
5253 Sports officials and referees
5254 Program leaders and instructors in recreation, sport and fitness
6222 Retail and wholesale buyers
6232 Real estate agents and salespersons
6314 Customer and information services supervisors
6321 Chefs
6331 Butchers, meat cutters and fishmongers - retail and wholesale
6342 Tailors, dressmakers, furriers and milliners
6345 Upholsterers
6346 Funeral directors and embalmers
6511 Maîtres d'hôtel and hosts/hostesses
6513 Food and beverage servers
6521 Travel counsellors
6532 Outdoor sport and recreational guides
6533 Casino occupations
6551 Customer services representatives - financial institutions
6552 Other customer and information services representatives
6561 Image, social and other personal consultants
6562 Estheticians, electrologists and related occupations
6563 Pet groomers and animal care workers
6564 Other personal service occupations
6611 Cashiers
6621 Service station attendants
6622 Store shelf stockers, clerks and order fillers
6623 Other sales related occupations
6721 Support occupations in accommodation, travel and facilities set-up services
6722 Operators and attendants in amusement, recreation and sport
6733 Janitors, caretakers and building superintendents
6742 Other service support occupations, n.e.c.
7201 Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations
7202 Contractors and supervisors, electrical trades and telecommunications occupations
7205 Contractors and supervisors, other construction trades, installers, repairers and servicers

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (6 of 8)

Occupation Title
7231 Machinists and machining and tooling inspectors
7232 Tool and die makers
7233 Sheet metal workers
7234 Boilermakers
7237 Welders and related machine operators
7241 Electricians (except industrial and power system)
7242 Industrial electricians
7243 Power system electricians
7245 Telecommunications line and cable workers
7247 Cable television service and maintenance technicians
7251 Plumbers
7252 Steamfitters, pipefitters and sprinkler system installers
7253 Gas fitters
7281 Bricklayers
7293 Insulators
7294 Painters and decorators (except interior decorators)
7302 Contractors and supervisors, heavy equipment operator crews
7303 Supervisors, printing and related occupations
7311 Construction millwrights and industrial mechanics
7312 Heavy-duty equipment mechanics
7313 Refrigeration and air conditioning mechanics
7314 Railway carmen/women
7315 Aircraft mechanics and aircraft inspectors
7331 Oil and solid fuel heating mechanics
7361 Railway and yard locomotive engineers
7362 Railway conductors and brakemen/women
7371 Crane operators
7372 Drillers and blasters - surface mining, quarrying and construction
7381 Printing press operators
7384 Other trades and related occupations, n.e.c.
7442 Waterworks and gas maintenance workers
7444 Pest controllers and fumigators

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (7 of 8)

Occupation Title
7445 Other repairers and servicers
7452 Material handlers
7512 Bus drivers, subway operators and other transit operators
7513 Taxi and limousine drivers and chauffeurs
7514 Delivery and courier service drivers
7521 Heavy equipment operators (except crane)
7522 Public works maintenance equipment operators and related workers
7531 Railway yard and track maintenance workers
7534 Air transport ramp attendants
7611 Construction trades helpers and labourers
7612 Other trades helpers and labourers
7621 Public works and maintenance labourers
7622 Railway and motor transport labourers
8211 Supervisors, logging and forestry
8222 Contractors and supervisors, oil and gas drilling and services
8231 Underground production and development miners
8232 Oil and gas well drillers, servicers, testers and related workers
8241 Logging machinery operators
8255 Contractors and supervisors, landscaping, grounds maintenance and horticulture services
8411 Underground mine service and support workers
8412 Oil and gas well drilling and related workers and services operators
8421 Chain saw and skidder operators
8422 Silviculture and forestry workers
8611 Harvesting labourers
8612 Landscaping and grounds maintenance labourers
8614 Mine labourers
8615 Oil and gas drilling, servicing and related labourers
8616 Logging and forestry labourers
9212 Supervisors, petroleum, gas and chemical processing and utilities
9226 Supervisors, other mechanical and metal products manufacturing
9243 Water and waste treatment plant operators
9414 Concrete, clay and stone forming operators

Note: The 2011 National Occupational Classification is used in this report.

Appendix (continued)

Short-Term Employment Forecast

Low Demand (8 of 8)

Occupation Title
9415 Inspectors and testers, mineral and metal processing
9416 Metalworking and forging machine operators
9417 Machining tool operators
9418 Other metal products machine operators
9421 Chemical plant machine operators
9422 Plastics processing machine operators
9432 Pulp mill machine operators
9436 Lumber graders and other wood processing inspectors and graders
9437 Woodworking machine operators
9442 Weavers, knitters and other fabric making occupations
9446 Industrial sewing machine operators
9465 Testers and graders, food, beverage and associated products processing
9471 Plateless printing equipment operators
9473 Binding and finishing machine operators
9474 Photographic and film processors
9521 Aircraft assemblers and aircraft assembly inspectors
9523 Electronics assemblers, fabricators, inspectors and testers
9524 Assemblers and inspectors, electrical appliance, apparatus and equipment manufacturing
9525 Assemblers, fabricators and inspectors, industrial electrical motors and transformers
9526 Mechanical assemblers and inspectors
9532 Furniture and fixture assemblers and inspectors
9533 Other wood products assemblers and inspectors
9534 Furniture finishers and refinishers
9535 Plastic products assemblers, finishers and inspectors
9536 Industrial painters, coaters and metal finishing process operators
9537 Other products assemblers, finishers and inspectors
9611 Labourers in mineral and metal processing
9612 Labourers in metal fabrication
9613 Labourers in chemical products processing and utilities
9614 Labourers in wood, pulp and paper processing
9615 Labourers in rubber and plastic products manufacturing
9617 Labourers in food, beverage and associated products processing

Note: The 2011 National Occupational Classification is used in this report.

work.alberta.ca/labour/short-term-employment-forecast.html

ISBN 978-1-4601-3467-2 (PDF)

ISSN 2368-1039 (online)

© 2017 Government of Alberta. Printed in Canada for free distribution.

Published: September 2017