

# Education and Mining UNBC

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Dean, Science and Management

# Overview

- Mining Sector Labour Force
- Education in the North
- Partnerships

# Canadian Cumulative Hiring Requirements Forecasts

	2015	2018	2023
Trades and Undesignated Occupations	11,125	22,510	47,055
Professional and Physical Science Occupations	1,920	3,880	8,100
Human Resources and Financial Occupations	740	1,485	3,110
Support Workers	1,095	2,235	4,665
Technical Occupations	1,725	3,470	7,250
Supervisors, Coordinators and Foremen	2,190	4,415	9,230
All Other Occupations	15,705	31,805	66,460
<b>Total</b>	<b>34,500</b>	<b>69,800</b>	<b>145,870</b>

Source: Mining Industry Human Resources Council, 2013

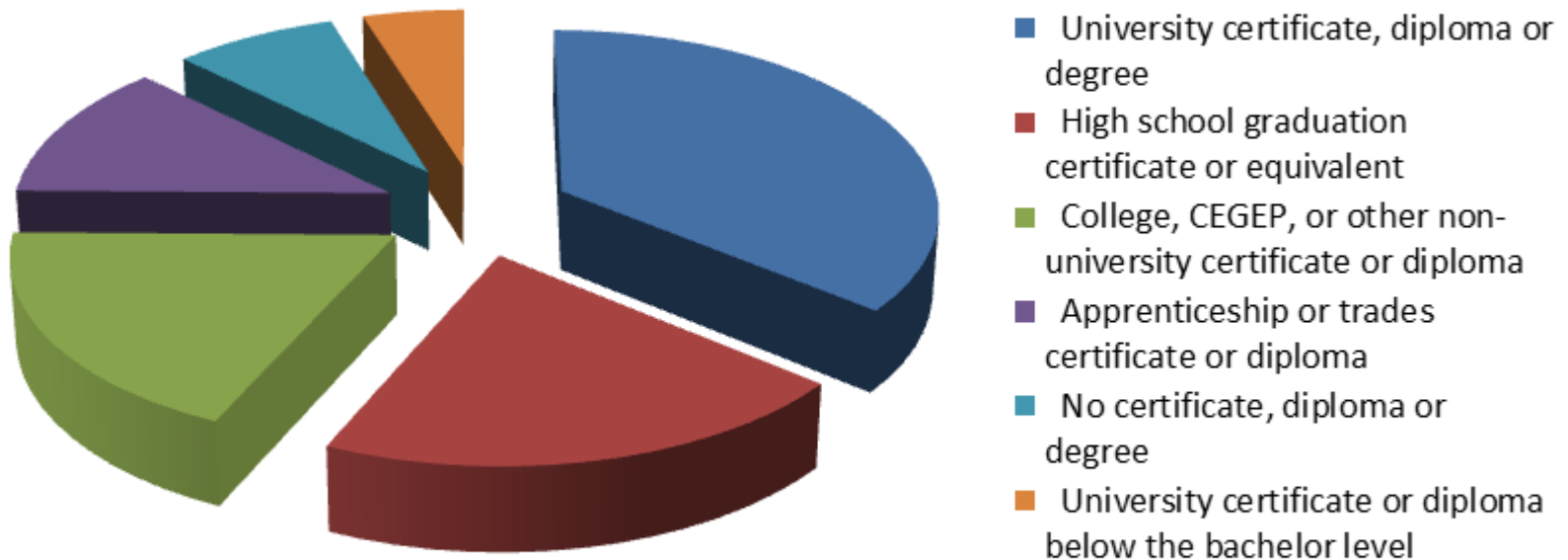
# Qualifications in the Canadian Mining Industry Workforce

	Mining	Canadian Labour Force	
No Certificate	14%	13%	
High School	25%	26%	
Apprenticeship or Trades	19%	12%	
College or Non-University Diploma	21%	21%	
University Certificate, Diploma or Degree	21%	28%	

Source: Canadian Mining Industry Employment, Hiring Requirements and Available Talent 10-year Outlook. 2013

# Qualifications of Workers in BC Mining Occupations

Source: Mining Industry Human Resources Council; Statistics Canada Census 2006



# The Gap and Challenge to 2023 Cumulative Needs in Canada

	Hiring Req.	Avail. Talent	Gap	Trad. Share	Req. Share
Trades and Production	47,055	39,180	-7,875	7%	8%
Professional and Physical Sciences	8,100	7,200	-900	5%	5%
Human Resources and Financial	3,110	2,630	-480	1%	1%
Support Workers	4,665	3,470	-1,195	1%	2%
Technical	7,250	4,490	-2,760	4%	7%
Supervisors, Coordinators, Foreman	9,230	6,420	-2,810	12%	17%

Source: Mining Industry Human Resources Council, 2013

# What is creating the Gap in BC?

Source	Gap in 2022	
Retirement	900	47%
Non-Retirement	750	40%
Net Change in Employment	250	13%
Total	1900	100%

Source: British Columbia Hiring Requirements and Available Talent Forecasts  
Exploration, Mining, and Stone, Sand and Gravel, 2012

# Gap Summary

- Mining Sector Employees are Retiring, or leaving for other reasons
- Number of Jobs is increasing
- Mining Industry is competing with other sectors
- New Workers are more MOBILE



# Education in the North

- One of Canada's Top Ranked Universities
  - University of Northern British Columbia
  - Top 3 in Canada for the last 10 years

# UNBC

- Business Programs
  - HR, Accounting, Finance, International Business, MBA
- Science Programs
  - Chemistry, Environmental Science, Math, Physics, Biology, Fish and Wildlife, Forestry, Computer Science
- Arts Programs
  - Environmental Planning, Environmental Studies, Geography
- Health Programs
  - Medical, Nursing, Social Work
- Education Programs

# UNBC

- Environmental Engineering
- New: Master of Integrated Wood Engineering and Design
  - Civil Expertise
  - Structural Engineering, Energy Efficiency, Sustainable Design, Prefabrication, and Recyclable Buildings
  - Connections to Mining
    - Energy Efficient, Pre-fab structures for Temporary Camps
    - Energy Efficient Structures using local Materials and Expertise
    - Others?

# UNBC

- Future Plans
- Leverage Current Expertise into:
  - Undergraduate Civil and Environmental Program with geotechnical focus on remediation

UNBC

Our Graduates  
Stay in the North

# Education in the North:

- School Districts a pathway to Colleges and Universities
- Colleges provide technical and trades training and a range of other skills, business and foundation programs
- UNBC provides a wide range of advanced, academic and professional programs
- All three of these are essential in supporting
  - the mining industry
  - the communities

# Partnerships?

Partnerships?

Educate Workers for  
Closure



# Summary

A New Culture in Education  
and Industry

An expectation of ongoing  
education at all levels  
within the workplace

Thank You