1. What is Labour Market Information (LMI)?
2. Why do we need LMI?
3. Recent trends
4. HR challenges for mining
5. Diversity in the mining workforce
What is LMI and what is it used for?

Information on:
1) the demand for labour
2) the supply of workers

Used in decision-making
• Government – policy setting and spending
• Education – programs and curriculum
• Employers – hiring, retention, succession planning
• Career seekers – what jobs are available and where
• Students – what subjects and where to get the skills
Demand for labour in mining

External influencers
• Price of commodities mined
• Interest rates
• Exchange rate

Internal considerations (output and inputs)
• Production levels
• Workers and machinery
• Productivity of labour and capital
Commodity price super cycle
Adjustments in the outlook for prices

**Historical and forecasted coal prices (1987-2025)**

- **Coal**

**Historical and forecasted iron ore prices (1987-2025)**

- **Iron ore**

**Historical and forecasted nickel prices (1987-2025)**

- **Nickel**

**Historical and forecasted copper prices (1987-2025)**

- **Copper**

Sources:
- Mining Industry Human Resources Council, World Bank, 2016
- Mining Industry Human Resources Council, World Bank, 2016
Mining employment is more volatile

Annual percentage changes in employment, mining workforce and Canadian workforce (1988-2014)

Source: Mining Industry Human Resources Council, Statistics Canada, 2015
Supply of workers

**Entries:** new graduates, immigration, transition from other industries

**Exits:** retirement and other reasons
90,000 people will leave the industry by 2020

- Almost 60 percent are retiring
Supply of workers

...is the result of the collective actions of a group of diverse individuals, each making personal and career choices
Bigger swings in unemployment

Unemployment rate in Canada, all industries and in the mining industry (January 1987-December 2015)

A contractionary scenario, reflective of recent industry performance

Historical and forecasted mining industry employment (1987-2025)

Source: Mining Industry Human Resources Council, Statistics Canada, 2016
Hiring requirements persist in all economic scenarios

### Cumulative hiring requirements forecasts by scenario (2016-2025)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Net Change in Employment</th>
<th>Replacement Requirements</th>
<th>Cumulative Hiring Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replacement Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Retirement</td>
<td>Non-Retirement</td>
</tr>
<tr>
<td>Contractionary</td>
<td>-6,330</td>
<td>48,600</td>
<td>41,830</td>
</tr>
<tr>
<td>Baseline</td>
<td>11,640</td>
<td>51,030</td>
<td>43,800</td>
</tr>
<tr>
<td>Expansionary</td>
<td>27,740</td>
<td>53,260</td>
<td>45,600</td>
</tr>
</tbody>
</table>

Source: Mining Industry Human Resources Council, 2015
Replacement-requirements are the main driver of new hires

Annual hiring requirements forecast, contractionary scenario (2016-2025)

- Retirement
- Non-retirement
- Net change in employment

Source: Mining Industry Human Resources Council, 2016
Assessing the talent gap – new entrants to mining

Comparing the hiring requirements to new entrants

- 70 occupations
- Graduates or school leavers
- Immigration
- Others
Occupational gaps illustrated

New entrants

Hiring requirements

- Construction managers
- Land surveyors
- Civil engineering technologists and technicians
- Other professional engineers
- Engineering managers

The gap between hiring requirements and new entrants is highest in these occupations.
Gaps emerge as the economy recovers

**Occupational gaps, broad categories by scenarios (2016-2025)**

<table>
<thead>
<tr>
<th>Occupational Grouping</th>
<th>Contractionary</th>
<th>Baseline</th>
<th>Expansionary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trades and Production Occupations</td>
<td>11,430</td>
<td>4,560</td>
<td>-1,615</td>
</tr>
<tr>
<td>Professional and Physical Science Occupations</td>
<td>21,560</td>
<td>980</td>
<td>-76</td>
</tr>
<tr>
<td>Human Resources and Financial Occupations</td>
<td>190</td>
<td>-390</td>
<td>-900</td>
</tr>
<tr>
<td>Support Workers</td>
<td>900</td>
<td>230</td>
<td>-380</td>
</tr>
<tr>
<td>Technical Occupations</td>
<td>2,660</td>
<td>1,820</td>
<td>1,070</td>
</tr>
<tr>
<td>Supervisors, Coordinators, and Foremen</td>
<td>1,260</td>
<td>40</td>
<td>-1,050</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18,604</strong></td>
<td><strong>7,244</strong></td>
<td><strong>-2,956</strong></td>
</tr>
</tbody>
</table>

Source: Mining Industry Human Resources Council, 2015
KEY SOURCES OF LABOUR SUPPLY: DIVERSITY IN THE WORKFORCE
Diversity in the Mining Labour Force

Diversity in Canada’s mining labour force (2011)

Source: Mining Industry Human Resources Council, Statistics Canada, 2015
Women underrepresented in the mining industry and mining-related occupations

Representation of women in the labour force (2011)

- Labour force in all industries: 48%
- Labour force in selected occupations in all industries: 27%
- Labour force in the mining industry: 17%
- Labour force in selected occupations in the mining industry: 12%

Source: Mining Industry Human Resources Council, Statistics Canada, 2016
There are fewer women in the occupations that mining needs most.
Fewer women as occupations become more mining specific

Source: Mining Industry Human Resources Council, 2016
Mining industry not getting its share of immigrants

Source: Mining Industry Human Resources Council, Statistics Canada, 2016
Engagement of immigrant workers could be improved

Representation of immigrants in all industries and in mining, by broad occupational category (2011)

- Total
- Support workers
- Human resources and Financial occupations
- Technical occupations
- Professional and Physical science occupations
- Supervisors, Coordinators and Foremen
- Trades and Production occupations

Share of immigrants in the labour force (%)

- % Immigrants - All industries
- % Immigrants - Mining industry

Source: Mining Industry Human Resources Council, Statistics Canada, 2016
Immigrants more likely to hold a university degree

Source: Mining Industry Human Resources Council, Statistics Canada, 2015
The mining industry is relatively successful in engaging Aboriginal peoples.
But lagging in the attracting Aboriginal people to some roles

Representation of Aboriginal peoples in all industries and in mining, by broad occupational category (2011)

Source: Mining Industry Human Resources Council, Statistics Canada, 2016
Imbalance in educational attainment limits career opportunities

Highest level of educational attainment in Canada’s mining labour force, Aboriginal peoples and non-Aboriginal peoples (2011)

Source: Mining Industry Human Resources Council, Statistics Canada, 2015
Strengthening Mining’s Talent Alloy: Exploring Diversity and Inclusion

Published April 2016
Background: What are the Employment Barriers?

- Lack of career awareness or negative perceptions
- Lack of diverse senior leaders, role models and mentors
- Inflexible workplace practices
- Problematic workplace culture
- Inequitable opportunities for career advancement
- Lack of Industry network
Summary Findings

There is some good news and room for improvement.

- Employers are trying to create inclusivity.
- Diverse talent pools are enthusiastic about their experience in mining.

There are issues of equity.

- Access to opportunities,
- ‘Fitting in’ to the mining culture
- Recognition for qualifications.

My employer always or often takes action to encourage...

- More Aboriginal workers
- More women
- More immigrants
- More people from local communities
Diversity and Inclusion Practices are Impactful

Figure 3: Diversity and inclusion practice and intentions to leave the sector

- **Diversity and inclusion practice**
- **General positive practice**
- **No comment or negative**

Percentage of survey respondents:
- Very likely to leave
- Likely
- Neutral
- Unlikely
- Very unlikely to leave the sector

- 97 Participants (6 MiHR staff)
- 46 Women, 24 men and 27 provided no response to gender
- 17 Aboriginal, 4 new immigrant participants
Key Themes identified in the National Diversity Dialogue

• Flexibility
• Greater collaboration
• Partnerships
• A broader definition of diversity
• Importance of success stories
• Shifting perspectives
Building the Diversity and Inclusion Strategy – what are the strategic areas of focus?

- Building Inclusive Culture in Mining Workplaces
- Removing Systemic Barriers
- Ensuring Inclusion throughout Career Pathways (attraction, development, retention, transition).
- Championing Flexible workplace arrangements/practices
- Industry Partnerships for Inclusion