



## Project Plan – Implementation of Effective Apprenticeship Ratios on Public Infrastructure Projects 2017-18 – 2018/19

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### Purpose of Document

This document provides a framework to guide the work which is required to implement the Minister of Advanced Education, Skills and Training mandate direction *“to work with the Ministry of Transportation and Infrastructure to implement effective apprenticeship ratios on government-funded infrastructure projects and to increase participation of equity seeking groups in the skilled workforce.”*

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## 1.0 Purpose

The purpose of this project plan is to provide a framework to guide the work which is required to implement the Minister of Advanced Education, Skills and Training mandate direction *“to work with the Ministry of Transportation and Infrastructure to implement effective apprenticeship ratios on government-funded infrastructure projects and to increase participation of equity seeking groups in the skilled workforce.”*

## 2.0 Context

### 2.1 Workforce Needs

The Province’s Labour Market Outlook<sup>1</sup> forecasts 917,000 job openings between 2017 and 2027, of which 70 percent will be replacing workers leaving the labour market mainly due to retirement. The remaining 30 percent are new positions created through economic growth.

- The outlook forecasts there will be 116,100 job openings in the trades, transport and equipment operators and related sector, about 12.7% of total job openings in the province by 2027. About 23% of the construction workforce (about 49,000 people) is expected to retire in the next 10 years, representing the loss of practical experience on jobsites and underlining the importance of effective training systems to ensure skill and safety among new workers. A strong, effective trades training system that provides diverse opportunities for apprentices is needed to ensure new entrants are fully prepared for their occupations.
- According to Buildforce Canada’s 2017-26 Outlook, Canada’s Indigenous population has the highest rate of population growth and a higher propensity to choose construction as their career choice, indicating to government a growing priority to prepare the trades training system to support and accommodate this important population.
- B.C.’s construction sector is the top employer in the Goods Sector of the B.C. economy, representing about 8.3% of the economy in 2016 (above the national average of 7%), supporting 23,500 businesses with some 211,000 employees. 92% of these companies have fewer than 20 people. The apprenticeship ratio policy will need to recognize the capacity challenges of small businesses.
- Vulnerable and underemployed people are a key demographic to employ to help meet the demand for workers in a tight labour market, and improved pathways to sustainable employment can help address individual poverty and inequality. An effective trades training system that supports inclusion of Indigenous people through apprenticeship to completion will help ensure people from every background have the opportunity to reach their full potential.
- Other workforce and industry factors influencing the policy include a rapidly changing workforce, increasing automation that reduces demand for new workers in some sectors, requirements for mid-career upskilling and reskilling, worker desire for multiple careers, and an increasing environment where temporary positions are common and organizations contract with independent

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<sup>1</sup> Link to Labour Market Outlook [https://www.workbc.ca/getmedia/66fd0e7c-734e-4fcb-b1a6-0454862525a6/BC\\_Labour\\_Market\\_Outlook\\_2017\\_Edition\\_Nov\\_2017.PDF.aspx](https://www.workbc.ca/getmedia/66fd0e7c-734e-4fcb-b1a6-0454862525a6/BC_Labour_Market_Outlook_2017_Edition_Nov_2017.PDF.aspx)

workers for short-term engagements. A strong foundation of skills and workforce training will help British Columbians adapt to the changes and opportunities that accompany these trends.

## **2.2 Apprenticeship Training**

B.C.'s trades training system includes 103 certified trades in B.C., 49 of which are Red Seal trades managed in accordance with national standards. Apprenticeship training programs in B.C. generally incorporate 80% on the job training with 20% in classroom training. On the job training is done by an employer that has registered as a Sponsor with the Industry Training Authority (ITA). Registered Sponsors are responsible for:

- Ensuring that apprentices receive on the job training and practical experience under the direction of a qualified individual in an appropriate work environment. The qualified individual can be a certified tradesperson, or the holder of and ITA issues letter of authorization.
- Enabling the apprentice to attend regular technical training (in classroom) required under the apprentices training program.
- Report to the ITA on the progress of the apprentices.
- Recommend the apprentice for certification (Certification of Qualification) when the employer feels that the apprentice has met the established standards for their apprenticeship program.

Employer sponsors are required for apprentices to complete the on the job training in order to become a certified journeyperson, and finding an available employer sponsor is often a roadblock to certification. In 2016-17, 11,210 Sponsors provided on the job training to 35,000 apprentices in B.C.

(Appendix A covers the background of B.C. apprenticeship policy).

## **2.3 Current Apprenticeship Policy**

In July 2015, B.C. implemented a policy that all public infrastructure projects over \$15 million involving Red Seal (National Standard) trade work will use apprentices and report quarterly on the number of apprentice hours worked. This policy applies to all infrastructure projects funded or managed by:

- All B.C. government ministries.
- Boards of education.
- Health authorities.
- Public post-secondary institutions.
- B.C. Hydro and Power Authority.

The current policy is generally self-policed. Government has had a limited ability to monitor compliance and track hours-worked, and there are presently no on-site inspections.

Certain elements of the current policy are working well, particularly in that:

- Reporting requirements are simple to administer (100% compliance).
- The threshold of \$15 million effectively captures all significant infrastructure projects employing the majority of workers. Some projects just below the threshold adopted the policy voluntarily.
- The policy applies to sub contracts over \$500K, recognizing that the value includes material costs, which can exceed 50% on some projects. This also protects smaller contractors that can't sustain apprentices, and allows business flexibility to hire based on a job's actual need.



- The policy is scoped to only apply to subcontractors performing Red Seal trades work, which ensures flexibility for non-Red Seal trades while covering 80% or more of apprenticeships. Applying the policy to the national standard helps ensure alignment with interjurisdictional labour mobility obligations, as the policy applies equally to individuals with the Red Seal designation no matter where they're from.

The current policy also has shortcomings:

- It does not effectively maximize government spending on infrastructure to achieve broader outcomes.
- There is no requirement to report on the ratio of total apprentice-hours to total work-hours, nor is there a requirement to meet a minimum threshold of apprentice-hours on projects. Because of this lack of baseline data, government cannot know the extent to which public infrastructure projects are currently supporting apprentices and whether there is capacity to increase apprenticeship opportunities without impacting project quality or worker safety.
- The current policy has not measurably improved the following system issues:
  - Insufficient growth in the number of new sponsors: The growth in registering new sponsors has not kept up with the growth in apprentice registrations (2.6 apprentices per sponsor in 2004-05 to 3.6 apprentices per sponsor in 2016-17).
  - The number of new apprentices registered has not shown clear improvement: The number of new apprentices registered has ranged between 12,500 and 15,000 annually over the past 10 years, with no definitive increasing trend.
  - There has not been sufficient improvement in apprentice completion rates: between 2006-07 and 2016-17, apprentice completion rates have ranged between 33% and 44% (program completed and qualification certificates issued within six years of registration).
  - The participation of women or indigenous people in trades-training programs over 10 years has not shown improved: flat at 10% for indigenous people and 9% for women.

## 2.4 The Opportunity

Over the next three years, B.C. is forecast to invest more than \$14.6 billion in capital projects, building roads, bridges, schools, hospitals, post-secondary institutions, as well as renovations and updates to existing buildings. Provincial infrastructure projects are a diverse, consistently funded, and well-regulated opportunity to:

- Strengthen the apprenticeship system and improve apprenticeship completion rates.
- Encourage employers to support the training and certification of apprentices, thereby developing the province's future workforce.
- Train more apprentices, and attain greater assurance future workforce needs will be met.
- Provide local employment, and increase participation of equity seeking groups in the skilled workforce.

### 3.0 Scope

The scope of this project plan is to:

- Manage the development, approval, implementation, and evaluation approach of the policy to implement effective apprenticeship ratios on government infrastructure projects and increase the participation of equity seeking groups.
- Coordinate with ministries that have related mandate direction, including the Ministry of Jobs Trade and Technology, and the Ministry of Transportation and Infrastructure.

#### ***Out-of-Scope:***

- Review of compulsory trades and legislated apprenticeship ratios. This review will be conducted by a separate project team.

### 4.0 Approach

The project will be conducted in four phases:

#### **4.1 Phase 1 – Planning & Stakeholder Engagement (by March 21, 2018).**

This phase includes:

- A. Developing a policy framework and preliminary options.
- B. Defining the project structure and governance.
- C. Engaging with stakeholders to ensure that:
  - There is broad agreement on how to implement effective apprenticeship ratios.
  - There is broad agreement on the process to define “effective” ratios.
  - Government has a better understanding of the risks and benefits of the different options
    - Advice on the approach for implementation (scope, reporting etc.)
    - Advice on specific mechanisms to increase participation by equity seeking groups
- D. Reporting back through the project governance structure on the outcome of the stakeholder engagement. This may include an assessment of whether further external consultations are necessary and will confirm the project’s next steps.

#### **4.2 Phase 2 – Policy implementation approach to Minister by March 31, 2018.**

This phase will synthesize feedback from external and internal stakeholders to determine options for the mechanism to implement ratios, the process to use to set targets (i.e. determining an “effective” ratio). Cabinet committee direction will be sought with input from:

- ADM working committee.
- DM ad hoc meetings.
- ADM Committee on Sustainable Shared Prosperity.
- DM Capital Committee.

Further consultation with stakeholders may be contemplated in this phase.

### 4.3 Phase 3 – Implement decisions by summer 2018

A roll-out plan will be developed and implemented in this phase. The plan will include a reporting and data-collecting framework, and a communication plan for launching the implementation of apprenticeship ratio targets on public infrastructure projects.

### 4.4 Phase 4 – Monitoring and Evaluation

This phase includes the implementation of a reporting and data-collection framework and a requirement to evaluate and report on the efficacy of the new apprenticeship ratio policy.

## 5.0 Timelines and Milestones

Phase	Deliverable	Due Date	Milestone Check-Ins
1	Preliminary Options	Oct 31, 2017	<ul style="list-style-type: none"><li>Minister approval of policy framework and preliminary options</li></ul>
1	Project Structure Defined	Nov 30, 2017	<ul style="list-style-type: none"><li>Project Plan</li><li>Terms of Reference</li><li>Confirmed Governance</li><li>Risk Register</li></ul>
1	Stakeholder Engagement	Initiated by Jan 31, 2018  Concluded by Mar 20, 2018	<ul style="list-style-type: none"><li>Planning by December 30, 2017</li><li>Pre-engagement by January 12, 2018</li><li>Meeting 1: by January 19, 2018</li><li>One-off information meetings with other stakeholders – BCCA, COCA, others</li><li>Meeting 2 – Synthesis: by February 16, 2018</li><li>Meeting 3: Wrap up by March 2, 2018</li></ul>
2	Policy development and approach presented to minister	By March 31	<ul style="list-style-type: none"><li>Internal (government) stakeholder consultation - Presentation to working group</li><li>Presentation approved by ADM</li><li>Presentation to DM</li><li>Presentation to Minister by March 31</li></ul>
2A	Stakeholder consultation and engagement on draft approach	TBD in April	<ul style="list-style-type: none"><li>To include both internal and external stakeholders</li></ul>
2B	Cabinet Direction	TBD as development and decisions proceed.	<ul style="list-style-type: none"><li>Draft submission by</li><li>ADM sub-committee review by</li><li>DM committee on Capital by</li><li>Pre-brief with minister to finalize Cab sub</li><li>Final Cab Sub due to Cab Ops by</li><li>Cab Committee - Shared Prosperity by....</li></ul>
3	Implementation Plan	To be informed by stakeholder	<ul style="list-style-type: none"><li>Engagement on implementation may be necessary to identify partners.</li></ul>

Phase	Deliverable	Due Date	Milestone Check-Ins
		consult and Cabined direction	<ul style="list-style-type: none"> <li>Finalize Implementation &amp; Communication Plan from Cabinet direction.</li> </ul>
3	Implementation Launch	TBD	<ul style="list-style-type: none"> <li>To be determined based on stakeholder engagement and Cabinet direction. Target start Summer 2018</li> </ul>
4	Evaluation	TBD	<ul style="list-style-type: none"> <li>To be developed based on stakeholder engagement and projects.</li> </ul>

## 6.0 Mandate Linkages

The ministries of Advanced Education, Skills and Training (AEST; Jobs, Trade and Technology (JTT)), and Transportation (TRAN) have direction to develop policy frameworks or implement policy that affects how infrastructure is delivered by both ministries and broader public sector agencies like school districts, health authorities, and post-secondary institutions. The policy development process will need to be coordinated to ensure policies are aligned to avoid contradiction, duplication, and overlapping stakeholder engagements.

- Ministry of Jobs, Trade and Technology** – has a mandate to create a framework to promote local hiring on government infrastructure projects. Ministries will pursue a common approach to implementing mandate direction so public infrastructure builders have one process (i.e. procurement requirements, or a community benefit agreement). Both mandate items affect the same stakeholders (i.e. construction sector, labour groups).
- Ministry of Transportation and Infrastructure** — is directed to review and develop options for government to implement Community Benefit Agreements (CBAs) on major government-funded infrastructure projects. TRAN intends to develop the policy framework on CBAs in time for spring 2018 capital project announcements. AEST is also directed to work with TRAN to implement effective apprenticeship ratios. CBAs (project labour agreements) are one of the preliminary options identified as a possible mechanism to implement both the AEST and JTT policies. The AEST and TRAN policies affect the same stakeholders.
- Federal Government:** The 2017 Federal Budget announced the next phase of the Investing in Canada Plan, which will include \$180 billion (nationally) in infrastructure over 12 years. To support the plan, Infrastructure Canada has initiated a discussion with provinces and territories on the concept of a Community Employment Benefit Reporting Framework. As part of infrastructure funding agreements, the Province may need to collect and report data on specific priorities, such as increasing opportunities for apprenticeships; women; Indigenous peoples; people with disabilities; veterans; newcomers to Canada; and small and medium sized enterprises, including social enterprises. Anticipating this data requirement in the development of the current policy can streamline B.C.'s ability to meet requirements on federal infrastructure funding. TRAN and Finance are responding to the discussion paper for government.

## 7.0 Governance

The AEST and JTT mandate items and the TRAN policy framework for Community Benefit Agreements are expected to be key components of government's Infrastructure Strategy. As part of a broader government strategy, there are many ministry partners with shared interests in the success of these mandate items. To ensure this work remains well coordinated and collaborative:

- An ADM committee of the DM committee on Capital may be established to include key mandate partners (AEST, JTT, TRAN, Labour) to coordinate cross-ministry work and develop the government infrastructure strategy.
- AEST and JTT staff will continue to work closely together on their related mandate items. Both ministries will also use the Cabinet Committee on Sustainable Shared Prosperity (CCSSP) as the body to seek policy direction. AEST and JTT will endeavour to proceed to these committees jointly where possible, understanding that AEST is seeking direction on implementation and JTT is seeking direction on a framework/approach.
- MOTI has established a working committee to ensure ongoing alignment on the shared mandate items and issues related to Community Benefit Agreements. This working committee will include policy ministries, Finance, and relevant capital owning ministries as well as input from B.C. Hydro, which has the major share of self-supported capital spending and experience with Project Labour Agreements from prior projects.

### Project Management Governance

Basic Terms of Reference to be developed to guide project implementation, including regular meetings.

- **Project Coordinator** – Sam Gysbers
- **Project Expertise** – David Muter, Shelley Allen
- **Project Lead** – Jamie Edwardson
- **Executive Sponsor** – Bindi Sawchuk
- **ADM Sub-Committee on Capital + JTT** — to oversee working group and ensure executive oversight and coordination across ministries connected to this project. Also ensures the inclusion of JTT, which is not part of the DM Committee on Capital.
- **DM Committee on Sustainable Shared Priorities** — preliminary step on the track toward approval by the Cabinet Committee on Sustainable Shared Priorities.
- **Cabinet Committee on Sustainable Shared Priorities.**

## 8.0 Risks

Two categories of risks have been identified at this point, and through the course of the project risks will be continually monitored, reviewed and updated.

- Policy risks** are risks that arise from the policy direction and the potential consequences, unintended or otherwise, that flow from the policy direction government has mandated. These risks will need to be mitigated through the policy design, development and implementation.
- Project Risks** are operational and arise from the project process and implementation. Mitigation plans will be developed and incorporated into the project plan.

A preliminary Risk Register has been developed (Appendix B), which will be updated and reported on regularly through the governance structure.

## Appendix A – Background – History of Apprenticeship Policy

### B.C. Apprenticeship Training System

Apprenticeship training programs in B.C. generally incorporate 80% on the job training with 20% in classroom training. On the job training is done by an employer that has registered as a sponsor with the Industry Training Authority (ITA). Registered employer sponsors are responsible for:

- Ensuring that apprentices receive on the job training and practical experience under the direction of a qualified individual in an appropriate work environment. The qualified individual can be a certified tradesperson, or the holder of and ITA issues letter of authorization.
- Enabling the apprentice to attend regular technical training (in classroom) required under the apprentices training program
- Report to the ITA on the progress of the apprentices
- Recommend the apprentice for certification (Certification of Qualification) when the employer feels that the apprentice has met the established standards for their apprenticeship program.

An individual needs a sponsor in order to be registered as an apprentice in this province. Employer sponsors provide apprentices with the opportunity to complete their on the job training supporting the apprentice's goal to achieving certification. Finding an available employer sponsor is one of the roadblocks to achieving certification. In 2016-17, 11,210 sponsors provided on the job training to 35,000 apprentices in B.C.

### Apprenticeship Policy in B.C.

#### Pre-2004:

- In 1994, the B.C. government introduced the *Skills Development and Fair Wage Act*, which included the requirement that all individuals performing work in an apprentice trade under a public construction contract must be a certified journeyman or registered apprentice. The act was repealed in 2001 (Bill 22).
- Prior to 2004, B.C. had 11 compulsory trades and prescribed journeyman-to-apprentice ratios.
  - Automotive Collision Repair (since 1996); Automotive Refinishing (1996); Automotive Service(1996); Electrician; Plumber; Power Line Technician; Refrigeration Mechanic; Roofer; Sheet Metal Worker; Sprinkler System Installer; Steamfitter and Pipefitter.
- Ratios were generally prescribed at 1:1.
- The Industry Training and Apprenticeship Commission (ITAC): B.C. Crown corporation administering trades training, apprenticeship and compulsory trades requirements.
- Apprenticeship Counsellors (ITAC):
  - expected to use the 1:1 ratio as a guideline when registering new apprentices.
  - authority under the *Offence Act* to fine employers for hiring non-certified trades workers in a compulsory trade, however, this provision was not used.
  - authority to approve slight ratio variations where it was determined the apprentice would not be disadvantaged and appropriate training would occur.

- ITAC took the position that it could not be both a training agency and an enforcement agency at the same time. Counsellors relied heavily on safety inspectors to assist with enforcement and monitoring.

#### Since 2004

- Industry Training Authority (ITA) established in 2004: training and safety legislation separated.
  - *Industry Training Authority Act* focuses on training program development and skills assessment.
  - *Safety Standards Act (SSA)* focuses on protecting public and worker safety through licensing regulations.
- B.C. is currently the only Canadian jurisdiction that has adopted this approach and ended compulsory trades and prescribed apprentice ratios.
- B.C. has 20 regulated trades; other jurisdictions have between four (Saskatchewan) to 22 (Ontario) compulsory trades. Alberta has 19 compulsory trades.
  - **B.C. Regulated Trades:** Appliance Service Tech; Blasterer; Crane Operator; Cremationist; Electrician (construction; industrial); Embalmer; Funeral Director; Gasfitter; Industrial Instrument Mechanic; Locksmith; Power Engineer; Powerline Tech; RV Service Tech; Security Alarm Installer; Welder.
- Of B.C.'s 20 regulated trades, 11 are regulated through the *Safety Standards Act*.
- Technical Safety B.C. (Crown agency administering the *Safety Standards Act*) issues licenses to individuals who meet prescribed qualifications, allowing them to perform regulated work. Regulations enforced by 125 trained Safety Officers in 27 locations across B.C.
- In addition to Technical Safety B.C., Consumer Protection B.C., WorkSafe B.C., and Transport Canada also regulate some trades.

#### Added in 2015

- In July 2015, B.C. required contractors doing Red Seal Trades\* work to use apprentices and report the number of apprentice-hours worked each quarter. Policy applies to all public infrastructure projects over \$15M – 26 to date. This threshold captures significant projects that involve trades work.



## Appendix B – Detailed Workplan

Phase	Deliverable		Due Date
1	Preliminary Options	<ul style="list-style-type: none"> <li>Minister approval of policy framework and preliminary options</li> </ul>	Oct 31, 2017
1	Project Structure Defined	<ul style="list-style-type: none"> <li>Project Plan</li> <li>Terms of Reference</li> <li>Confirmed Governance</li> <li>Risk Register</li> </ul>	Nov 30, 2017
1	Stakeholder Engagement process		Initiated by Jan 12, 2018 Concluded by Mar 16, 2018
Planning	Discussion guide	LMID review complete Colleague review complete Dean of trade review?	ready for review by Dec 30, 2017
Planning	Final stakeholders	<ul style="list-style-type: none"> <li>Jan 8 meeting with M3</li> </ul>	ready for review by Dec 30, 2017
Planning	Engagement TOR	<ul style="list-style-type: none"> <li>Pre-engagement complete by Jan 12, 2018</li> </ul>	ready for review by Dec 30, 2017
Planning	Facilitators –	<ul style="list-style-type: none"> <li>final proponents ID'd</li> <li>Decision Jan 8</li> </ul>	reviewable by Dec 30, 2017  Decision Jan 8
Planning	Minister briefing deck		reviewable by Jan 2, 2018
Planning element	Minister Briefing on pre-planning	<ul style="list-style-type: none"> <li>confirm participants,</li> <li>facilitator,</li> <li>review discussion guide</li> <li>Confirm materials for minister</li> </ul>	Jan 8, 2018
Planning	Facilitator	<ul style="list-style-type: none"> <li>Confirm proponent and contract</li> <li>Brief facilitator and finalize materials</li> </ul>	Jan 8 Jan 9-18
Planning	Stakeholder/invites discussion guide	<ul style="list-style-type: none"> <li>Send Tom/Lindsay discussion guide on Jan 8 for preliminary review</li> <li>Phone key participants – confirm date and heads-up on meeting format/discussion guide to follow.</li> <li>Confirm contact information for all stakeholders for invites.</li> <li>Issue Invitations</li> <li>Issue Discussion guide to all stakeholders</li> </ul>	Jan. 8 Jan 8/9 Jan 8/9 Jan 9/10 By Jan 15.
M.1 prep	Meeting 1 logistics	<ul style="list-style-type: none"> <li>Date confirmed</li> <li>Location booked</li> <li>See detailed workplan on meeting logistics</li> </ul>	Done Done
M.1 prep	Minister meeting binder – content development	<ul style="list-style-type: none"> <li>Bios and participant overviews</li> <li>Annotated agenda and questions</li> <li>Discussion guide</li> </ul>	Done Done Done

Phase	Deliverable		Due Date
M.1 prep	ADM briefing/approval	•	
M.1 prep	DM prebrief	•	Week of Jan 8
M.1 prep	Distribute discussion guide to stakeholders.	•	
<b>M.1 prep</b>	<b>Minister pre-brief</b>	<ul style="list-style-type: none"> <li>• <b>Binder</b></li> <li>• Materials</li> </ul>	<b>Jan 12</b>
M.1 prep	Update and revise as necessary	<ul style="list-style-type: none"> <li>• Follow-up with final materials</li> </ul>	Jan 16
M.1 prep		<ul style="list-style-type: none"> <li>• Meeting 1: Jan 19, 2018</li> </ul>	Complete
M.2 prep	Review M.1 findings	<ul style="list-style-type: none"> <li>• Overall assessment of first meeting</li> <li>• Identify preliminary themes and commonalities among stakeholders</li> <li>• Identify information gaps or elements not addressed in M1 for followup</li> </ul>	Wk Jan 22
M.2 prep		•	
		•	
		•	
M.2 prep	Follow-up	<ul style="list-style-type: none"> <li>• Targeted followup with stakeholders for clarifications and idea development</li> </ul>	Jan 22-31
M.2 prep	M2 meeting plan	<ul style="list-style-type: none"> <li>• Facilitation plan development.</li> <li>• Meeting objectives</li> <li>• Presentation development</li> </ul>	
<b>M.2</b>		<ul style="list-style-type: none"> <li>• <b>Meeting 2 – Synthesis: by Feb 16, 2018</b></li> </ul>	
M.3 prep	Review M.2 findings	<ul style="list-style-type: none"> <li>• Overall assessment of meeting</li> <li>• Identify themes and commonalities among stakeholders</li> <li>• Identify any remaining information gaps for followup</li> <li>• Final presentation with next steps</li> </ul>	
<b>M.3 prep</b>		<ul style="list-style-type: none"> <li>• <b>Minister briefing on meeting outcomes and final presentation</b></li> </ul>	<b>By Feb 23</b>

Phase	Deliverable		Due Date
M.3		<ul style="list-style-type: none"> <li>Meeting 3 – by March 20.</li> </ul>	
2	Policy development and approach presented to minister	<ul style="list-style-type: none"> <li>Initial Internal (government) stakeholder consultation <ul style="list-style-type: none"> <li>- Presentation to CBA framework group</li> </ul> </li> <li>Plan/Presentation approved by ADM</li> <li>Presentation to DM</li> <li>Presentation to Minister by Mar. 31</li> </ul>	Up to March 31
2		<ul style="list-style-type: none"> <li>Overall assessment of meeting 3</li> <li>Incorporate findings into planning and policy development</li> </ul>	Wk. March 5
		<ul style="list-style-type: none"> <li>ADM approval on plan/presentation</li> </ul>	
		<ul style="list-style-type: none"> <li>Brief DM on draft policy and implementation approach</li> </ul>	
		<ul style="list-style-type: none"> <li>Brief Minister on draft policy and implementation approach</li> </ul>	March 28
2	Cabinet Direction	<ul style="list-style-type: none"> <li>Draft Cab Sub by April 18 to DMO</li> <li>DMCSSP – April 27</li> <li>Final Cab Sub due to DMO by May 4</li> <li>Final Cab Sub due to Cab Ops by May 7</li> <li>Cab Committee - Shared Prosperity on May 14.</li> </ul>	May 4 to DMO  May 7 to Cab Ops
		<ul style="list-style-type: none"> <li></li> </ul>	
3	Implementation Plan (May-August TBD)	<ul style="list-style-type: none"> <li>Engagement on implementation may be necessary to identify partners.</li> <li>Finalize Implementation &amp; Communication Plan from Cabinet direction.</li> </ul>	To be informed by stakeholder consult and Cabinet direction
	Cabinet Submission for Decisions and Approval (August-September)	<ul style="list-style-type: none"> <li>Develop cabinet submission with detailed policy</li> <li>Identify potential costing impacts, including capital cost for contract authorities, administration, monitoring and enforcement</li> </ul>	
	Implementation Launch Rollout and Communications (Fall 2018)	<ul style="list-style-type: none"> <li>To be determined based on stakeholder engagement and Cabinet direction. Target start Summer 2018</li> </ul>	TBD
		<ul style="list-style-type: none"> <li></li> </ul>	
	Evaluation	<ul style="list-style-type: none"> <li>To be developed based on stakeholder engagement and projects.</li> </ul>	TBD

## Ministry Stakeholder – connection points and relevant dates

### Education

- BCSTA Annual general meeting is **April 26-29**.
- Ministry of Education has regular contact with BCASBO members and their executive throughout the year. Their May AGM is a unique opportunity to get a message out to all of the SD Finance staff, and to get face time with all of them at once. **May 23-25, 2018**, in Penticton.
- For the Facilities staff, it's Educational Facility Managers Association of British Columbia (EFMABC) who have their AGM **June 6-8, 2018**, in Penticton. Capital branch is also very active with this group.
- Superintendents (BCSSA) have a Fall Conference **Nov 8-9**.

## Appendix C: Risk Register

(working risk register is in a separate Excel file)

RISK DESCRIPTION		PROB.	IMPACT	DATE ADDED	MITIGATION STRATEGY	RESIDUAL RISK	ASSIGNED TO	STATUS
<b>PART A – Policy Risk</b>								
<b>1</b>	<b>Stakeholder concern with slow implementation.</b> Union based contractors and labour groups may raise concerns the timeline required to pilot the policy on select projects before going to full implementation.			Nov-17	Stakeholder communication plan with regular updates and information.			
<b>2</b>	<b>Stakeholder concern with the established ratios being too high or too low.</b> At either the pilot stage or at full implementation, union and non-union labour groups may express concern that the established ratios are too high and thus increase project costs or place workers at risk, or too low and thus providing no increased apprenticeship opportunities.			Nov-17	Government's engagement approach will set as its objective agreement among stakeholders on the process by which we will establish a definition of "effective" ratios.			
<b>3</b>	<b>Compulsory Trades:</b> Some stakeholders may seek to pursue an interest in legislated compulsory trades with defined apprenticeship ratios. Other stakeholders will be concerned the government intends to bring in compulsory trades as part of its policy discussions on apprenticeship ratios.			Nov-17	Identify up front that compulsory trades will be the subject of a separate review and is not being considered as a mechanism to ensure effective apprenticeship ratios on government funded projects.			
<b>4</b>	<b>Stakeholder concern with additional reporting requirements and "red tape"</b> . Smaller independent contractors in particular will be concerned that additional requirements and reporting will hamper them from bidding on contracts.			Nov-17	Through stakeholder consultation, look for opportunities to reduce or eliminate regulatory requirements, and aim for a net-zero regulatory approach.			
<b>5</b>	<b>Policy requirements are not followed</b> and government does not have the resources to monitor			Nov-17				

CONFIDENTIAL

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### Project Plan – Apprenticeship Ratios

[illegible]



## 9.0 Implementation Plan

Developing and implementing the full apprentice ratio policy as presented in Appendix I connects with a number of ministries.

Ministry	Issue	Office/Contact
Finance	<b>Procurement Policy</b> - Policy framework and proposed implementation measures will need to be consistent with Core Policy and government procurement policy.	OCG – Financial Management Branch (Tamara McLeod, ED)
	<b>Capital business planning process</b> – Implementation of the policy will need to be reflected in the business planning process undertaken by capital ministries	TBS Capital (Heather Hill, ED)
	<b>Capital cost</b> -- Effects of the proposed policy will need to be assessed and modelled to determine if there is a risk of new incremental cost that could affect capital budgets.	TBS Capital (Heather Hill, ED)
Citizen's Services	Policy framework will need to be aligned with procurement modernization initiative.  Policy implementation will need to be consistent with and support government procurement best practices.	Procurement and supply division; procurement modernization (Erik Wanless, Director)
Justice	o contract language and legal review.	

- Finance - procurement policy; capital planning and capital asset management framework).
  - o Policy framework and proposed implementation measures will need to be consistent with Core Policy and government procurement policy.
  - o Effects of the proposed policy will need to be assessed to determine if there is a risk of new incremental cost that could affect capital budgets.
- Implementation of the policy will need to be reflected in the business planning process undertaken by capital ministries.
- Citizen's Services – procurement and supply division; procurement modernization.
  - o Policy framework will need to be aligned with procurement modernization initiative.
  - o Policy implementation will need to be consistent with and support government procurement best practices.
- Justice and Attorney General –
  - o contract language and legal review.
- Capital ministries: AEST staff will need to engage with capital ministries and contract authorities
  - o Health, and health authorities
  - o Education, and boards of education
  - o Transportation and Infrastructure
  - o Advanced Education, Skills and Training, and post-secondary institutions
  - o Energy, and BC Hydro

May - August

- Engagement with policy ministries (Citizen's Services, Finance, Justice)



- Develop procurement process and contract language
  - Determine options available for compliance and enforcement measures.
  - Determine compliance monitoring and responsibilities (e.g. which ministry/government organization is responsible for monitoring and what types of monitoring activities are required)
  - Review requirements as required with Legal Counsel(s)
  - Develop and publish apprentice ratio policy requirements, forms and templates (e.g. training plan if necessary) to support the community benefit agreements
- Engagement with Capital Ministries
  - Ensure process is consistent with procurement practices and contract management.
- Costing Analysis (Operations and Capital)
- Develop Framework into Full Policy
- Develop ratio reporting requirements and public posting measures
- Develop declaration, reporting and other forms as required
- Develop training plan templates
- Develop related policy and guidelines

## Minister of Advanced Education and Skills Training

### *Event Details Checklist*

*Updated: 27/09/2018*

<b>Function Date</b>	January 19, 2018
<b>Minister's recommended arrival time</b>	9:30 AM for pre-brief with staff and facilitator
<b>Time Minister will be introduced</b>	10 AM meeting start
<b>Name of Function</b>	Stakeholder engagement – priority trades initiatives
<b>Number of attendees expected</b>	15 stakeholders + ex officio representatives, and staff
<b>Sponsor/Host</b>	Ministry of Advanced Education and Skills Training
<b>Event Theme</b>	Establishing Effective Apprenticeship Ratios and Increasing Participation of Equity-Seeking Groups in the Skilled Workforce
<b>Speech topic</b>	Opening and closing remarks for stakeholder engagement meeting. See annotated agenda for additional information.
<b>Speech length</b>	Opening remarks – 2-3 minutes Closing remarks – 2-3 minutes
<b>Room setup/format</b>	U-shaped table for 18 people. Minister and DM at head of table
<b>Anticipated departure time</b>	1 PM meeting ends
<b>Appropriate Dress</b>	Business
<b>Address/ directions</b>	BCIT Downtown Campus, Boardroom 481 555 Seymour Street. Vancouver BC
<b>Pre-brief location</b>	Room 410 (along the hall from the meeting room)
<b>Parking arrangements</b>	Hourly parking available at 555 Seymour St.
<b>Contact meeting Minister at location/ cell number/phone</b>	Jamie Edwardson – 250.514.5306
<b>Media anticipated</b>	No
<b>Indigenous Territory</b>	Unceded territory of the Coast Salish peoples, including the territories of the <b>Musqueam, Squamish, Stó:lō, and Tsleil-Waututh Nations.</b>
<b>Name and title of other notable guests</b>	1. Jud Martell, BC Building Trades (representing Tom Sigurdson) 2. Lindsay Langill, Independent Contractors and Businesses Association 3. Laird Cronk, BC Federation of Labour 4. Rieghardt Van Enter, Progressive Contractors Association

	<p>5. Larry Richardson, Christian Labour Assn. of Canada</p> <p>6. Kelly Scott, BC RoadBuilders</p> <p>7. Lisa Langevin, IBEW, Women in Trades</p> <p>8. Julia Ballantyne, BuildTogetHER Co-Chair s.22 s.22</p> <p>9. s.22 , Apprentice, Sheet Metal</p> <p>10. Peter Baker, Director, Squamish Training Centre</p> <p>11. Clifford White, Chief, Gitxaala Nation</p> <p>12. Thomas Nyce, Indigenous Affairs Representative, Ledcor</p> <p>13. Margot Middleton, Middleton Petroleum Services (Kamloops)</p> <p>14. Roberta Ellis, Board Chair, Industry Training Authority</p> <p><b><u>Regrets for current meeting; intend to join future meetings:</u></b></p> <p>15. Robert Lashin, Houle Electric</p> <p>16. Tom Sigurdson, BC Building Trades</p> <p>17. Clyde Scolan, Construction Labour Relations Association</p> <p>18 s.22 Apprentice, Carpentry</p> <p><b><i>Ex Officio representatives</i></b></p> <ul style="list-style-type: none"> <li>• Gary Herman – CEO, Industry Training Authority</li> <li>• Shelley Gray – Industry Training Authority</li> <li>• Nina Hansen – BC Federation of Labour</li> <li>• Brynn Bourke – BC Building Trades (TBC)</li> <li>• Tim McEwan – VP Policy and External Relations, Independent Contractors and Businesses Association</li> </ul>
<b>Staff attending event</b>	<ul style="list-style-type: none"> <li>• Shannon Baskerville – Deputy Minister, AEST</li> <li>• Bindi Sawchuk – ADM, Labour Market Development and Information Division, AEST</li> <li>• Jamie Edwardson – Executive Director, Labour Market Development and Information Division, AEST</li> <li>• David Muter – Executive Director, Labour Market and Information Division, AEST</li> <li>• Gordon Sharpe – Director, Trades Training Unit</li> </ul>

**SPEAKING NOTES FOR**

**STAKEHOLDER ENGAGEMENT SESSION  
PRIORITY TRADES INITIATIVES**

**HON. MELANIE MARK  
MINISTER OF ADVANCED EDUCATION AND SKILLS TRAINING**

**JANUARY 19, 2018**

**BCIT Downtown Campus, Boardroom 481  
555 Seymour Street. Vancouver BC**

**AUDIENCE: 18 stakeholders in construction trades**

**TIME: Opening remarks – 3 minutes**

**WORD COUNT: 400 words**

**KEY MESSAGES:**

- **Apprenticeships in the skilled trades are essential to develop B.C.'s future workforce.**
- **Increasing opportunities for apprentices to be trained will help ensure we're training tomorrow's workforce. Setting effective apprenticeship ratios on government infrastructure projects can help ensure B.C. apprentices can get the training they need to get good paying jobs.**
- **Our government plans to invest more than \$14-billion in infrastructure over the three years – and we want to get the best value for that money. That means making sure there are training opportunities for apprentices and local BC workers.**
- **I want to work with the people in the construction trades, employers and other stakeholders to ensure that as we're building schools and hospitals for B.C., we're also building up British Columbians.**

## **OPENING REMARKS – MINISTER MARK**

- Unfortunately we were not able to have a local Indigenous elder attend today for a welcome and opening prayer.
- I would like to begin by acknowledging that the land on which we gather is the unceded territory of the Coast Salish peoples, including the territories of the Musqueam, Squamish, ~~Stó:lō~~, and Tsleil-Waututh Nations.
- Thank you very much for coming today and agreeing to participate in this process.
- We are here because apprenticeships in the skilled trades are essential to the development of the future workforce.
- Our government plans to invest more than \$14-billion in infrastructure over three years — much of it new construction — and we want the best value for that money.
- That means not just constructing new schools, roads, and hospitals...
- But also making sure there are good jobs and training for apprentices, local BC workers, women and Indigenous people on government funded construction projects.
- I asked you to meet with me today to provide me and my ministry with your advice and guidance, as we develop a policy that will set effective apprenticeship ratios for government projects.
- There is great expertise and experience around this table....
- The major industry and union associations in the construction trades... employers and contractors who can advise on how ideas could apply in practice...

- And people like<sup>s.22</sup>                      **and**<sup>s.22</sup>                      who could benefit from policies like these.
- I also know there are strong and divergent views on this issue around this table.
- Some of you are concerned we won't go far enough or fast enough; some are worried we'll go too far and too fast.
- Some of you think ratios will solve many of the problems you see in the industry, some worry about the potential unintended consequences of putting them in place.
- But there are also **common views** around this table.
- Common views like the importance of apprenticeship training to our future workforce. The importance of sponsors, and of attracting and supporting apprentices through to completion...
- So that they have the skills they need to become the next generation of leaders in your industry.
- My goal is to work with you to find common middle ground where we can build ways to benefit British Columbians who work—or who want to work—in the construction trades.
- Our government believes that setting effective apprenticeship ratios for government funded projects will maximize the value of government spending by building up British Columbians as we build B.C.
- Thank you again for agreeing to participate. I look forward to working with you to achieve this outcome.

END

## OPENING REMARKS – DM SHANNON BASKERVILLE

- I would like to echo the minister's thanks that you agreed to attend today and participate in this process.
- There is incredible value in having the diversity of views and perspectives around the table.
- Our ministry has been given the mandate to implement **effective** apprenticeship ratios on government funded projects.
- And we're talking to all of you to get your advice and guidance on how to make sure the approach we take to defining and establishing ratios will be effective.
- Today's session is intended to be a facilitated discussion covering: how to define an "effective" ratio; ways to implement ratios; a process to determine how to set ratios across trades and project types...
- And ways to increase the participation of equity seeking groups in the skilled workforce.
- On February 14, we would like to reconvene this group for a working session with ministry staff to develop common themes from today and discuss options.
- In March, we will return with the Minister for a summary of what we heard, for your final comments and to indicate the next steps government is planning, based on your advice.
- **Continuity** of the people around the table important to a successful process. I would ask that you who are here commit to attend the future meetings to help provide that continuity.



- I would also ask you for a degree of **confidentiality**. Nothing here or in the discussion guide is secret, but it's also important to respect the participants at the table.
- And if you have questions or concerns about what you're seeing – call us and discuss them. We are here to listen.
- The direction government has given us builds off of a policy in place today – our requirement that all government construction projects have at least one apprentice.
- Now, we're taking that further, and looking to you all for advice on how to get it right.
- It's important to note that our colleagues in this ministry and others other are also working on separate projects that touch to this one.
- Transportation is working on a policy framework for future infrastructure projects, and our work will contribute to that.
- Likewise the Ministry of Jobs Trade and Technology is looking at policy on local hiring.
- And as many of you already know our ministry is starting a process to look at compulsory trades.
- We would like to keep all of those topics separate from our conversations today, so that we can keep the focus on positive discussions about effective apprenticeship ratios on government funded projects and increasing the participation of equity seeking groups in the skilled workforce.
- And with that I'll turn the day over to **Gayle Farrell**.

END

## ANNOTATED MEETING AGENDA – January 19, 2018

Time	Agenda Item	Lead
9:30 am	<ul style="list-style-type: none"> <li>Minister pre-brief with staff</li> <li>Stakeholder arrival and welcome (coffee, light breakfast)</li> </ul>	
10:00 am	<b>Opening</b> <ul style="list-style-type: none"> <li>Minister's welcome and opening remarks</li> <li>Context and terms of engagement</li> </ul>	Minister Mark DM Baskerville
10:08 am	Review Agenda and structure of day  Introductions - roundtable	Facilitator
10:30 am	<b>Inside the apprentice experience</b> – interview apprentices at the table about their recent experience: <ul style="list-style-type: none"> <li>Typical day on the job, first day, finding a job, getting through to certification, etc.</li> </ul>	Facilitator
10:40 am	<b>1. Defining “effective” apprentice ratios.</b> Facilitated discussion. <ul style="list-style-type: none"> <li>Challenges: lack of data, variety of projects, variety of trades.</li> <li>Meaning of “effective” – safety, increase opportunities, cost-effective for industry and government.</li> <li>Possible approaches to develop a definition.</li> </ul> <b>Potential questions for Minister to ask:</b> <ul style="list-style-type: none"> <li>What would make an apprentice ratio “effective” from your perspective.</li> <li>How would that ratio change the current situation on a worksite.</li> <li>How would you make such a ratio work in practice in the workplace?</li> </ul>	Facilitator
11:10 am	<b>2. Different ways to implement apprenticeship ratios</b> Short review of policies available to support implementation, based on Discussion Guide <ul style="list-style-type: none"> <li>Provide Incentives, Supports, and Public Reporting</li> <li>Set Requirements in Procurement Process and Contract Terms</li> <li>Develop and Require Community Benefit / Labour Procurement Agreements</li> </ul>	ADM Bindi Sawchuk
11:15 am	<b>Different ways to Implement Effective Apprenticeship Ratios:</b> Facilitated discussion	Facilitator

	<p><b><u>Potential questions for Minister to ask:</u></b></p> <ul style="list-style-type: none"> <li>• What are some of the barriers that stop employers from sponsoring apprentices?</li> <li>• What are some of the barriers apprentices face to getting sponsored and getting their hours?</li> <li>• If there was one thing to change that could make progress through apprenticeship a little easier, what would it be?</li> </ul>	
11:30 am	<p><b>3. Establishing a Process to Determine the Ratio Target Number</b></p> <p><b><u>Potential questions to ask:</u></b></p> <ul style="list-style-type: none"> <li>• What should we do to make adopting a ratio easier for the industry?</li> <li>• What should we <b><i>not do</i></b> (what mistake should we avoid) to make adopting a ratio easier?</li> </ul>	Facilitator
12 pm	<p><b>Lunch available during meeting</b></p> <p><i>Staff and facilitator meet with minister to discuss closing remarks</i></p>	
12 pm	<p><b>4. Increasing Participation of Equity-Seeking Groups in the Skilled Workforce</b> -- would identify comments from previous sections and build further ideas.</p> <p><b><u>Potential questions for Minister to ask:</u></b></p> <ul style="list-style-type: none"> <li>• What measures <u><i>within your own organizations or the industry</i></u> are already helping increase employment of equity-seeking groups in the skilled workforce? What best practices can you share that others could consider?</li> <li>• If there were one change you could make, what would it be?</li> </ul>	Facilitator
12:30 am	<p><b>Discussion: Next Steps, last comments,</b></p> <ul style="list-style-type: none"> <li>• Snapshot of how information gathered will be used</li> <li>• Date and overview of 2nd meeting</li> </ul> <p><b><u>Potential questions for Minister to ask:</u></b></p> <ul style="list-style-type: none"> <li>• Where are you starting to see common ground emerge that we could build on going forward?</li> <li>• What other questions should we be asking that would offer additional insights into the subject?</li> <li>• Along with pursuing the apprenticeship ratio model, are there other policy levers government could consider to increase apprenticeship opportunities?</li> </ul>	Facilitator
12:50 – 1pm	<b>Minister's concluding remarks</b>	Minister Mark

## Discussion Guide Questions

### ***1. Determining what “Effective” Means in the Context of an Apprenticeship Ratio***

#### **1.1 The Structure of an Apprenticeship Ratio**

1. Comparing the work-hour ratio approach to the workforce ratio approach – what are the implications (if any) between the two approaches in terms of increasing the number of apprentice sponsors?
2. Comparing the work-hour ratio approach to the workforce ratio approach – what (if any) health and safety, product quality, and public safety considerations should be noted? Please provide specific examples /data to support safety concerns if possible.
3. Comparing the work-hour ratio approach to the workforce ratio approach – how does each approach influence opportunities for apprentices, including but not limited to: effective training time, and support for a path to completion and sustainable employment?

#### **1.2 Ensuring Worker Safety and Project Quality**

4. What are the key workplace health and safety, product quality, and public safety issues associated with the proposed policy for effective apprenticeship ratios? And how should these issues be addressed?

#### **1.3 What Would be “Effective” at Increasing Apprenticeship Opportunities**

5. How should the factors in 1.3 above be addressed in the proposed policy to ensure there are more opportunities for apprentices and to support a path to completion and sustainable employment for apprentices?

#### **1.4 Defining “Effective” in Terms of Cost to the Project Owner and Contractors**

6. Including the issues identified in 1.4 above, what challenges (e.g. extra administration) could an apprenticeship ratio policy create for a contractor or sub-contractor, and how could these be addressed?

### ***2. Ways to Implement Effective Apprenticeship Ratios on Government Projects***

#### **2.1 Provide Incentives, Supports, and Public Reporting**

7. Using incentives, supports or public reporting, how could government further encourage or support increased employer sponsorship of apprentices, improved apprentice completion, and participation of equity-seeking groups in the skilled workforce? Are there any risks associated with using these measures?

## **2.2 Set Requirements in Procurement Process and Contract Terms**

8. What challenges and opportunities are associated with using the procurement process to implement effective apprenticeship ratios? What factors should be considered when looking for specific contract terms to increase opportunities for apprentices and increased participation of equity-seeking groups?

## **2.3 Set Requirements through Labour Agreements**

9. What challenges and opportunities are associated with using a Labour Agreement approach to implement effective apprenticeship ratios?
10. The government's current policy applies to projects costing \$15 million and sub-contracts worth more than \$500,000. In considering the three approaches above to implement ratios, would this threshold be too low, too high, or are there other options to consider?

## **3 *Establishing a Process to Determine the Ratio Target Number***

11. In addition to consultation and pilot projects, are there are other ways to identify ratio targets that government should consider?
12. What factors should be considered in developing a process to determine ratio targets?

## **4 *Increasing Participation of Equity-Seeking Groups in the Skilled Workforce***

13. What measures, including incentives, supports or requirements could help increase employment of equity-seeking groups in the skilled workforce?

## **CLOSING REMARKS – MINISTER MARK**

- Thank you again for your participation.
- One of the main messages I try to deliver wherever I am is that my goal as minister is to lift as we climb. Part of that is tackling poverty and inequality and creating good-paying jobs.
- You're in trades that are busy building British Columbia, and our government will be working with you to build schools, roads, bridges and hospitals across this province.
- I believe that as we can also build up British Columbians as we build our province.
- And that means making sure that our provincial infrastructure provides training opportunities for apprentices, and job opportunities for women, indigenous Canadians, and others.
- I'm optimistic that we have good people around this table who will give us their best advice and guidance as we work on the question of making apprentice ratios on government projects effective.
- And I thank you again very much for your work today and your support as we go forward.

END

# **Effective Apprenticeship Ratios & Increasing Participation of Equity-Seeking Groups in the Skilled Workforce**

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## ***Stakeholder Engagement & Discussion Guide***

### ***Discussion #2***

***DRAFT***

Ministry of Advanced Education, Skills & Training

Labour Market and Information Division

*Issued: March XX, 2018*



# Discussion Guide #2

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## 1.0 Introduction

To support the provincial government in maximizing the value of provincial spending on public infrastructure projects, the Ministry of Advanced Education, Skills and Training (the Ministry) is developing policy that meets its mandate to implement effective apprentice ratios on government-funded infrastructure projects and increase the participation of equity-seeking groups in the skilled workforce<sup>1</sup> (the proposed policy).

The Ministry is engaging with stakeholders to discuss policy development and seek information, advice and guidance on the following topics:

1. Defining what makes an apprenticeship ratio “effective.”
2. Understanding the implications of different ways the proposed policy on effective apprenticeship ratios could be implemented.
3. Identifying processes to determine appropriate levels of apprentices (ratios) on public projects.
4. Options to increase the participation of equity-seeking groups in the skilled workforce.

## Engagement Process

The Ministry’s engagement process consists of three direct meetings with key stakeholders:

- 1. Initial meeting – January 19, 2018:** Facilitated discussion on how to define an “effective” ratio; ways to implement ratios; a process to determine how to set ratios across trades and project types; and options to increase participation of equity-seeking groups.
- 2. Half-day working session – February 14, 2018:** Review common themes from Session 1, develop policy options and explore implications.
- 3. Final meeting – March 2018:** Summarize discussions and work to date; capture additional input from stakeholders; and outline government’s next steps.

Building on the findings from Session 1, this publication, *Discussion Guide #2*, is designed to support effective engagement at the February 14, 2018 session by furthering a collective understanding of the approaches and implications associated with implementing effective apprenticeship ratios on government-funded infrastructure projects and increasing participation of equity-seeking groups in the skilled workforce.

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<sup>1</sup> Minister of Advanced Education Skills and Training mandate letter: <https://www2.gov.bc.ca/assets/gov/government/ministries-organizations/premier-cabinet/mlas/minister-letter/mark-mandate.pdf>



## 2.0 Determining What “Effective” Means: Themes from the First Engagement Process

### 2.1 Themes from the January 19 Meeting

At the January 19, 2018, meeting, participants discussed policy to support the implementation of an effective ratio. Key points raised were summarized and organized into themes in the table below.

**Table 2.1 – Session 1 Themes**

Theme	Key Points for Consideration when Establishing Apprenticeship Ratio Policy
<b>Promote meaningful apprentice training</b>	<ul style="list-style-type: none"><li>• Apprentices’ on-the-job training should be meaningful by contributing to their skill development. Workplaces should support a pathway to certification and avoid training delays.</li><li>• Policy should support, not hinder, apprentice completion and certification.</li><li>• Proponents could be assessed based on their past record of supporting apprenticeship; training plans could be included in the process.</li></ul>
<b>Ensure apprentice and workplace safety</b>	<ul style="list-style-type: none"><li>• Some trades have greater safety considerations than others, and some types of work are higher risk than others; the policy should consider these different safety needs.</li><li>• In general, safety improves as the apprentice’s training and skill develops.</li></ul>
<b>Consider employer costs versus benefits</b>	<ul style="list-style-type: none"><li>• Employers must be able to manage their project effectively, including managing workforce composition.</li><li>• Accommodating off-the-job training can be challenging for employers.</li><li>• Prime contractors should be accountable for reporting and ensuring sub-contractors use apprentices, minimizing sub-contractor administrative burden.</li><li>• Policy requirements should allow employers some flexibility and not be burdensome.</li><li>• Geographic challenges may need to be considered.</li></ul>
<b>Ensure effective policy/procurement requirements</b>	<ul style="list-style-type: none"><li>• There was support for using the procurement process as the mechanism to implement the policy, noting that clearly established and defined contract requirements are important.</li><li>• Effective and consistent monitoring and enforcement of requirements promotes a level playing field and fairness.</li><li>• Workforce diversity could be considered as part of qualification with steps to ensure ongoing compliance.</li><li>• Employers should empower Indigenous people up-front to reach agreement on the jobs and the opportunities they could fill may help meet government requirements. This could also relate to policy requirements for people of other equity-seeking groups.</li></ul>
<b>Use data to help determine ratio target</b>	<ul style="list-style-type: none"><li>• Data collection supports an evidence-based approach to implementing, managing, and reviewing policy.</li><li>• Data/reporting could be made available to the public for transparency.</li><li>• It may be possible to use existing data from completed projects to help set targets.</li></ul>

### 2.2 Written Submissions

Following the January 19<sup>th</sup> session, a number of submissions responding to the first set of discussion questions were submitted to the Ministry on February 7, 2018. A summary of that feedback is included throughout this guide in the appropriate sections.

## 3.0 Determining what “Effective” Means: Principles of an Apprentice Ratio

In reviewing the January 19, 2018, discussion on what makes an effective apprenticeship ratio, it became apparent key themes emerged during the discussion that could be understood as

principles to guide how the ratio is established and how its effectiveness is measured over time.

**Principle #1: Enhance Apprentice Training and Completion** – An effective ratio will:

- Demonstrate an employer’s ongoing commitment to develop the province’s trades’ workforce by creating an increased number of training opportunities for apprentices and people from equity-seeking groups.
- Support meaningful and appropriate training for apprentices throughout their apprenticeship, including achieving certification.
- Enable employers to balance their labour force to meet project goals, while also ensuring that qualified mentors can offer appropriate and meaningful training to apprentices.

**Principle #2: Maintain Safety** – An effective ratio will:

- Support appropriate supervision so that apprentices are safely doing work that is appropriate to their skill level.
- Enable employers to meet public safety and quality standards by allowing them to arrange the composition of their workforce in a way that ensures they meet those standards.

**Principle #3: Allow Flexibility** – An effective ratio will:

- Allow apprentices to be deployed based on project type, project stage, and day-to-day labour requirements so that project milestones and contractual obligations can be met.

**Principle #4: Maintain Reasonable Costs** – An effective ratio will:

- Ensure administrative requirements are not overly burdensome, time-consuming, nor incur excessive costs.
- Facilitate a contractor’s ability to bid on public sector projects rather than discourage their participation.

**Principle #5: Ensure Fairness and Transparency** – An effective ratio will:

- Ensure that, regardless of employer or contract size, qualification requirements are equitable, clear, and achievable.
- Offer employers requirements that are administratively manageable while providing data and information that helps government evaluate the ratio’s effectiveness.
- Require data reporting so that government can evaluate policy effectiveness and publish project outcomes to demonstrate transparency and compliance.

## **Written Submissions: Determining What “Effective” Means**

Submissions on what “effective” means in relation to an apprenticeship ratio policy expressed a number of divergent views. Some strongly supported an apprentice ratio that requires a specific number of apprentices to be supervised by a specific number of journeypersons, as seen in compulsory trades regulations of other provinces and in collective agreements. This type of ratio

is outside the scope of this project. Other submissions suggested that government not impose a ratio, but rather work within a market-based approach and incentivize more training.

Several submissions noted that “effective” means providing apprentices with good on-the-job mentorship, training and supervision. Themes such as safety, product quality, public safety considerations, cost, and workforce productivity were common. Some submissions said an “effective” approach needs to recognize that projects differ in size, cost structure (ratio of capital to labour), and the trades required for construction. They noted geographic challenges, including the availability of apprentices and equity seeking groups, and recommended that government be flexible when considering how a ratio would apply. Some said a ratio should be measurable and enforceable to promote compliance.

The importance of clarity and certainty in definitions of terms (for example: is the apprentice being compared to total hours/workforce, total construction trade hours/workforce; certified journeyperson hours/workforce) was noted.

## 4.0 The Structure of an Apprentice Ratio

At the January 19, 2018, meeting, two approaches to calculate a ratio were identified: either a **workforce** or a **work-hour ratio** (as shown in Appendix B). Stakeholders were asked which approach would be more effective.

A **workforce ratio** requires composition of the project labour force to include a specific number of registered apprentices compared to journeypersons, whereas a **work-hour ratio** requires a specific portion of the hours worked by Red Seal construction tradespeople on a project to be worked by registered apprentices.

- Based on discussions with stakeholders, the Ministry understands that a workforce ratio could increase apprentice employment opportunities on public sector projects.
- However, the workforce ratio structure could also result in unintended consequences, such as the risk of apprentices being employed to meet ratio quotas even in the absence of work that contributes to their skill development.
- A workforce ratio would offer less flexibility for employers than a work-hour ratio, as the employer would need to ensure a constant presence of journeypersons as compared to the number of apprentices on the work site. Ensuring this composition on a daily basis may result in greater administration and costs for employers and, potentially, the public sector project owner when monitoring compliance.

Introducing a **work-hour ratio** helps to ensure that the number of apprentices on site are determined by the contractor’s day-to-day work and safety requirements, the skill levels required for the work during specific phases of a project, and the apprentices’ training needs.

- The work-hour ratio could also offer flexibility in situations where apprentices are performing work related to the project, even if they are not on the worksite. For example, modular construction or pre-fabrication work performed by an apprentice at the contractor’s shop could be considered as eligible to meet the ratio requirements.

- A work-hour ratio could be implemented with less administration than a workforce ratio as employers already track work hours for employee pay, report apprentices' on-the-job training hours to the Industry Training Authority (ITA) and, when applicable, report apprentice hours under the government's current Apprentices on Public Projects policy.

On balance, it appears that a work-hour ratio represents a more effective approach to implementing apprentice ratios on public sector projects.

### **Written Submissions: the Structure of an Apprentice Ratio**

Written submissions included an understanding that the workforce approach (a ratio of apprentices to journeymen) is necessary to maintain a stable workforce and replace retiring workers. Some submissions said that the workforce approach would contribute to stronger one-to-one training and mentorship for apprentices and provide better supervision. It was also suggested that workforce approach might encourage greater employer sponsorship.

Written submissions also indicated that the workforce approach could result in employers keeping apprentices on, but giving them few hours, potentially resulting in less training and slower completion of training for apprentices. Other comments recommended flexibility so that employers could accommodate safety concerns and the meaningfulness of the apprentice's work, as well as to manage costs. Under the work-force ratio approach, employers would be required to assign apprentices to every call-out, even where dispatching the apprentice is of little value or might not be safe. An onerous ratio could also deter small- and medium-sized employers from taking on apprentices.

Comments about the work-hour ratio approach included recognition that it could give the employer flexibility to assign apprentices to jobs where the work is meaningful and they can gain hands-on experience. It was suggested that employers might see a business benefit to becoming a sponsor under the workhour approach, as it could help reduce their labour costs. Some submissions said that because the work-hour approach gives more flexibility and is easier to manage, employers might comply more readily, which would give apprentices a better chance of getting the training hours that they need. It was also noted that person-hour projections are already a part of the project scheduling function of general contractors, and that person-hours can be built into schedule modelling which could make adoption of the policy easier. Further, the ability to track hours would allow data comparisons of apprenticeship work-hours at the beginning of the project and the end (forecasts vs. actuals). It was suggested that that even with a work-hour ratio, employers could also report on the number of individual apprentices employed during the reporting period.

It was recommended that the policy consider ways to avoid creating disincentives to apprentice completion. For example, an apprentice that becomes a journeyman part-way through the project could continue to have her hours count toward the apprentice hour requirement for a period of time to give the employer flexibility in meeting the ratio.

## **5.0 Ways to Implement Effective Apprenticeship Ratios on Government Projects**

The January Discussion Guide identified three approaches to implement an effective ratio and the

subsequent discussion has been assessed as follows.

### **5.1 Provide Incentives, Supports, and Require Public Reporting**

On balance, stakeholders did not believe that incentives and program supports would adequately meet the objectives of an effective apprentice ratio given concerns with administrative burden and difficulty enforcing the policy.

While stakeholders also did not see public data reporting as an effective implementation method, it continues to be an important component of the policy to support:

- Transparency, demonstrating that employers are meeting requirements.
- Effective evaluation, so that policy improvements can be made as necessary.

It may also be appropriate for the Ministry to consider using targeted incentives and supports to enhance and improve the effectiveness of this policy over time.

### **5.2 Set Requirements in the Procurement Process and Contract Terms**

Stakeholders expressed support for the use of clear requirements established in the procurement process, and contract terms as the most desirable option to implement the proposed policy. It was noted that the province's Request for Qualification (RFQ) and Request for Proposal (RFP) requirements are understood within industry and that contracts can include monitoring and compliance measures, which helps to ensure terms are enforceable and more likely to be met.

In addition, there are other benefits to using the procurement process, such as the ability to include assessment criteria of an employer's past support for apprentices. This approach could encourage maximum efforts by employers to achieve the ratio target/range.

### **5.3 Set Requirements Through Labour Procurement Agreements on Publicly Funded Projects**

The Ministry of Transportation and Infrastructure (MOTI) is developing a policy framework to guide the incorporation of community benefits for public sector projects, including labour considerations such as effective apprentice ratios. The Ministry of Advanced Education, Skills and Training is working closely with MOTI to ensure that the ratio policy established will align and be included in the community benefit framework approach. Implementation of the policy through this type of mechanism is expected to be similar to traditional procurement outlined in 5.2 above.

## **Written Submissions: Ways to Implement Effective Apprentice Ratios on Government Projects**

### **Incentives**

Some submissions indicated that the current incentives were ineffective and administratively burdensome. Suggested incentives include tuition-free technical training; wage sponsorship by government to offset the labour costs of apprentices; and communication and awareness campaigns that celebrate successful and effective apprentice employers could drive positive behaviour and greater sponsorship. Exploring different, flexible, or online training options was also suggested. There was a general consensus that collecting and reporting data publically would

be beneficial, and submissions recognized that data reporting would be necessary to monitor and enforce compliance.

### **Procurement**

Written responses generally favoured using the procurement process. Some noted that stating apprentice composition requirements in bid documents at the start of procurement was important for clarity and transparency. Others noted that providing flexibility was also important, particularly considering the type of project and location (e.g. rural/urban) and the local labour market. Others felt that past efforts in employing apprentices and equity seeking groups should be part of the evaluation process and requirements for changing behaviour. It was suggested that the policy be phased-in to give employers time to adapt. Some noted that other jurisdictions (City of Seattle [see Appendix A] and the State of Washington) enforce compliance with their apprenticeship policies by restricting non-compliant employers from bidding on future projects. One submission suggested that, at the procurement phase, government could require proponents to meet required ratios of apprentices in their workforce, and then government could track the hours worked during construction.

### **Labour Procurement Agreements**

Several submissions supported the use of labour procurement agreements. Some suggested agreements could help support strong public benefits through emphasis on apprenticeship, and local, Indigenous and equity seeking group hiring. Others expressed concern over the potential for restrictions on labour supply or the ability of some employers to bid on a project, and suggested they could hamper innovation and flexibility.

### **Policy Threshold**

A number of submissions indicated that the \$15 million threshold was appropriate and that extensive consultation was undertaken when the policy was developed in 2015 to determine the appropriate number. Others felt that the policy should apply to all projects where apprentices might normally be present. The suggestion was made to reduce the threshold to \$3 million and eliminate the \$500,000 threshold for sub-contracts. Determining the application of the new apprentice ratio policy on a project-by-project basis was also proposed for consideration. To effectively implement this policy through procurement, submissions noted that it should be clear at the outset of the procurement process whether the policy would apply, and not allow the application of the policy to be determined by the value of bids.

## **6.0 Establishing a Process to Determine the Ratio Target Number**

There are a number of challenges in determining what may be the right way (or best process) to establish an effective apprenticeship ratio target. After a significant amount of research to locate data and other potential sources to help inform setting a target ratio/range, two distinct approaches have emerged for further discussion:

- 1) **Set a specific target or range for each project type**, considering the trades required at different phases of a project.

- 2) **Set a whole of government aspirational target** that would apply across all projects with the expectation that employers achieve or surpass the target on their individual projects.

To be effective, any target identified through this process would need to be high enough for the market to respond to the target and increase apprentice opportunities, but not so high that it strains the local labour market, negatively impacts safety, hinders flexibility, and/or creates an unreasonable cost environment.

## 6.1 Set a Specific Target or Range for Each Project Type

There are **two methods** that could be used to determine a specific target or range for each project type: (1A) using historical project data, or (1B) consulting industry experts.

### 1A) Using Historical Data from Public and Private Sector Construction Projects

At the January 19, 2018 meeting, stakeholders suggested several possible historical data sources as a basis to set a specific target for apprentice ratios. Research into these suggestions has resulted in the following:

- **Apprentice Hours Data from Existing Government Policy:** Prime contractors report each quarter on the number of hours worked by apprentices on the government-funded infrastructure projects that meet the current policy thresholds. This historical data is available on the Ministry website<sup>2</sup>. There is no data reported on the total number of journeyperson hours worked to calculate against a ratio of apprentice-hours, and therefore no ability to establish a baseline. Even if there was a baseline, this would only inform the minimum apprenticeship participation and would not give any useful data to determine what an effective target could be.
- **Data from Construction Sector Sources:** The Ministry asked stakeholders to identify, or develop and provide, relevant data based on past projects undertaken by their unions and/or member contractors. Data sets would need to include the whole scope of project labour information. This type of data could provide baseline information of apprentice employment on past projects, and could help to understand target ranges for apprentice participation if it was notable on that project. While this approach could potentially work, it's unclear if the level of data needed could be obtained and applied to all types of public infrastructure projects.
- **Kitimat Modernization Project:** Stakeholders suggested using data from the Kitimat Modernization Project (Kitimat Project) to understand the ratio of apprentices working in various trades on this project. However, the Kitimat Project Labour Agreement<sup>3</sup> did not demonstrate a process to determine journeyperson-to-apprentice ratio by hours, and instead required a specific number of journeypersons with a specific number of apprentices assigned dependent on the type of trade. The Ministry also requested specific Kitimat Project data from

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<sup>2</sup> <https://www2.gov.bc.ca/gov/content/industry/construction-industry/apprentices>

<sup>3</sup> The Project Labour Agreement between the Kitimat Modernization Employer Association and the Coalition of British Columbia Building Trade Unions for the Kitimat Modernization Project is [available online](#).

related labour stakeholders. Data sets would need to include the full scope of the Kitimat project labour information. This type of data could provide baseline information of actual apprentice employment on the Kitimat Project, and could help to understand target ranges for apprentice participation if it was notable. While this approach may be useful, it is unclear if the level of data needed could be obtained and applied to all types of provincial public projects.

- **Review of Labour Procurement Agreements:** A number of labour procurement agreements from across various jurisdictions were reviewed and, similar to the Kitimat Project Labour Agreement, other labour procurement agreements do not reflect a process to determine journey person-to-apprentice ratios by hours. Instead, they specify the number of journey persons with a set number of apprentices assigned, usually dependent on the type of trade, and/or they refer to an overarching policy rather than defining an apprenticeship ratio.
- **Review of Labour Market Information Developed by the LNG Working Group:** In 2014–15, government engaged industry and labour stakeholders to assess the potential labour force demand that could result from a final investment decision by an LNG proponent to construct an LNG facility in B.C. Workforce profiles of different trades that would be required for facility construction were developed. These profiles assessed the current baseline labour pool in each individual trade, the potential labour market demand, the capacity to train additional tradespeople, and the potential for labour shortages. Some of the data elements developed by the LNG Working Group could be used to provide additional baseline information to establish an apprentice ratio. However, it will take time to update the data, which would then be followed by further stakeholder consultation. Even with these two steps, it is not certain that the data developed for the LNG Working Group would provide a process to determine an apprentice ratio. In addition, while this approach may be useful, it is unclear if the data needed could be applied to all types of public infrastructure projects.

### **Risks and Considerations of Setting Targets Based On Data**

- **Data Availability and Reliability:** Historical data does not provide useable information (that is, information to set a target in today's labour environment) and/or complete information (all labour data on a project) to establish apprentice ratios on public construction projects.
- **Variation within Project Types:** The historical data approach does not appear to provide adequate information on different projects to ensure "effective" ratio targets are set for various types of projects. In addition, the labour market context for historic projects needs to be considered if used to establish targets today.
- **Mix of Trades:** Different trades will be required for different types of projects. Using historical data to develop specific apprentice ratio targets for future projects may not align with the mix of trades required for future projects.

### **1B) Set Specific Targets by Consulting with Industry Experts**

Under this approach, consultation with subject matter experts to gather key input data could be



used to establish apprentice ratio targets for different project types and different trades.

The public sector invests in a number of different types of construction projects for each type of project; there are typical phases of construction or types of work that require different types of trade-workers. The following table outlines basic types of projects and their construction phases.

**Table 6.1 – Conceptual Framework for Project Type and Phase (New Construction)**

Example: Project Type	Example: Phases of New Construction						
<b>K-12 Schools</b>	Site prep and excavation	Foundation	Structural framing	Roofing	Exterior Finishing	Electrical Mechanical	Interior Finishing
<b>Post-secondary Institutions</b>	Site prep and excavation	Foundation	Structural framing	Roofing	Exterior Finishing	Electrical Mechanical	Interior Finishing
<b>Office buildings</b>	Site prep and excavation	Foundation	Structural framing	Roofing	Exterior Finishing	Electrical Mechanical	Interior Finishing
<b>Health care facilities</b>	Site prep and excavation	Foundation	Structural framing	Roofing	Exterior Finishing	Electrical Mechanical	Interior Finishing
<b>Other types of projects (bridges/roads/substations/corrections facilities)</b>	Varies by project	Varies by project	Varies by project	Varies by project	Varies by project	Varies by project	Varies by project

With an understanding of the different phases of construction for each project type, it may be possible to develop an estimate of the required trade-worker and apprentice hours for each phase of construction. Subject matter experts could further help refine phases of each project type.

For example, all elementary schools constructed in B.C. follow similar designs and methods of construction, driven primarily by the design requirements of the school districts and the provincial building code. Using the constructed area (in square metres) as the multiplier, the Ministry could consult subject matter experts to provide estimates to complete a table similar to the one below.

**Table 6.2 – Example of Phases and Trades for New Construction of an Elementary School**

Example of Red Seal Workforce Estimates Total Hours (T) and Apprentice Hours (A) per square metre				
Phase	Trades			
Foundation	Carpenter T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Concrete finisher T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Construction craft worker T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	
Structural Frame	Carpenter T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Construction craft worker T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Ironworker T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Mobile Crane T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>
Exterior Finishing	Painter T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Glazier T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Roofer T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Carpenter T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>
Electrical / Mechanical	Electrician T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Plumber T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Insulator T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Sheet metal T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>
Interior Finishing	Painter T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Sprinkler system installer T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Flooring T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>	Glazier T=2.5 hrs/m <sup>2</sup> A=0.6 hrs/m <sup>2</sup>

Using the table above, the target apprentice ratio for a specific project could be set by applying the per square metre factors in the table to a project for each phase of construction.

Subject matter experts would need to be consulted to determine estimated values for Total Hours and Apprentice Hours to ensure the effective use of apprentices for each specific phase of construction. It may be appropriate to develop a range for Total Hours and Apprentice Hours, depending on expert advice.

A different table would be needed for each type of project. Further detail may be needed for regional differences and possibly for different sizes of projects within each type.

### Risks and Considerations of the Consultative Approach

- **Updating Total Hour and Apprentice Hour Factors:** It may be necessary to regularly consult back with subject matter experts and allow for stakeholder feedback on the Total Hour and Apprentice Hour factors. This approach would require regular and consistent updating and consultation.
- **Variation within Project Types:** While schools are largely similar in construction, other project types may not be consistent enough to allow for an accurate range of total-hour and apprentice-hour factors. For example, the construction of the Royal Columbian Hospital may not be comparable to any other future hospital.
- **Special Project Types:** There are several cases of unique project types. For example, Site C has no other current comparison that could be used as a basis to set Total Hour and Apprentice Hour factors.
- **Employer Input:** In some cases, the employer selected to build a specific project may have legitimate reason for not being able to meet the resulting apprentice ratio target. Special site

consideration, safety, or design requirements may impact the Total Hour and Apprentice Hour factors.

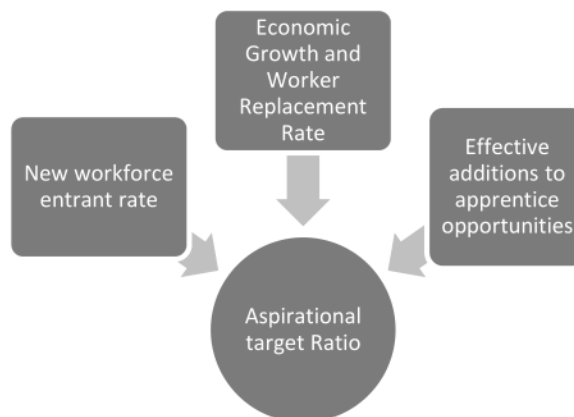
## 6.2 Set an Aspirational Target That Would Apply Across the Whole of Government

The second potential approach could be to set an aspirational target that would apply to all government funded construction projects across the public sector as a whole. As each new project enters procurement, proponents would be expected to demonstrate their plan to approach the government target for the project they bid on.

This “whole-of-government” target would be developed by analyzing the Ministry’s labour market information, economic activity forecasts, and ITA data. An additional factor would be added to this for the increased opportunities for apprentices on public sector construction projects.

To develop this aspirational target, government has identified three core rates that are key to establishing a balanced and effective labour market and to be effective at increasing apprentice opportunities on public projects:

- A. New Workforce Entrant Rate:** The rate of new people (apprentices and journeypeople) into trades.
- B. Economic Growth and Worker Replacement Rate:** Demand for labour based on economic growth and replacement of workers who leave the trades.
- C. A Rate to Effectively Increase Apprentice Opportunities.**



The new workforce entrant rate and the economic growth/worker replacement rate set a base level that achieves ongoing workforce replacement. The further rate would be added **to increase opportunities for apprentices** at a level that is effective.

The sum of these three factors would form the basis of the whole-of-government target.

The effectiveness of the whole-of-government target would need to be tested through data analysis to identify possible risks of supply challenges in specific economic sectors, construction sectors, trade labour forces, and regions.

### Implementation Approach

Government’s procurement process would be used to implement and adjust the whole of government target apprentice ratio. Progress toward the aspirational target would be measured regularly, based on projects that complete within the fiscal year. Employers would be required to regularly report the work hours of their apprentices and total workforce, and high rates of apprentice utilization on completed projects would set a new benchmark targets that would apply as new projects go into procurement.

### Risks and Considerations of an Aspirational Target Approach

- The value of provincial construction compared to non-provincial sector construction – if the relative value of provincial construction is high, increasing the number of apprentices on public projects may affect other sectors (i.e., the cost of non-provincial construction may increase if the availability of apprentices decreases significantly). The methodology would be designed to account for this issue.
- An aspirational target may be higher than the labour force in a region can support. Sensitivity analysis will identify occupation or regional risks allowing the ratio/range to be set at a level that doesn't cause undue labour supply challenges.
- The aspirational target would need to be high enough to allow the market to respond by increasing opportunities for apprentices.
- Regular reporting by employers of total construction workforce hours and total apprentice hours would be required.

### Written Responses: Process to Determine a Ratio

Written responses discussed factors that should be consider in establishing a process to determine ratio targets, specifically: safety, efficiency, value to the apprentice and journey person, availability of apprentices and of training seats, and data accuracy.. A suggestion was made to consider a phase-in period, or a number of pilot projects, to help determine what an optimal effective ratio level should be. Data from early projects could help determine an effective proportion of apprentices. The importance of clear and appropriate definitions of “apprentice” and “apprentice ratio” was noted.

## 7.0 Increasing Participation of Equity-Seeking Groups in the Skilled Workforce

The January Discussion Guide and stakeholder engagement session asked for advice and guidance from stakeholders on ways to increase the participation of people of equity-seeking groups in the skilled workforce. Based on these inputs, two possible approaches to this goal are discussed below.

### 1) Include Requirements that Promote Greater Participation for People of Equity-Seeking Groups on Public Infrastructure Projects in the Procurement Process

Several approaches related to the procurement process have been suggested. These could be incorporated into the way apprentice ratios are established. Such measures include:

- **Qualifying proponents on the basis of their workforce composition.** At the qualification stage, employers would need to demonstrate that they employ apprentices who are women, Indigenous people, or members of other equity-seeking groups.
- **Requiring that proponents be qualified to bid on the basis of an apprentice development plan that includes people of equity-seeking groups.** Requirements would include a description of their current workforce and policies, plans regarding the hiring and support

for people from equity-seeking groups, and mentorship and apprentice training plans for people in equity-seeking groups.

- **Developing bid incentives for industry leaders** who consistently meet targets that increase participation of equity-seeking groups.
- **Recognizing and celebrating employers** constructing public projects that are industry leaders in the employment of equity-seeking groups.
- **Collecting data on training and employment outcomes** of people from equity-seeking groups on public sector projects. Any data collection and reporting would need to fully comply with the public sector's privacy obligations under the *Freedom of Information and Protection of Privacy Act* and the private sector's privacy obligations under the *Personal Information and Protection of Privacy Act*.

Measures implemented through the proposed policy to set effective apprentice ratios will help to increase participation of equity-seeking groups in the apprentice workforce, but not enough to meet government's overall goals. Therefore, other measures expressed in discussions will be taken forward for separate consideration.

## **2) Explore, Develop, and Support Other Approaches that Promote Greater Participation for People of Equity-seeking Groups in the Skilled Workforce**

In addition to establishing an effective apprentice ratio, further approaches that aim to increase participation of people of equity-seeking groups in the skilled workforce can be developed.

This work will include local, national, and international research into how other areas have successfully implemented measures to increase the participation of equity-seeking groups and the evidence to support success, including:

- Identification of barriers to equity-seeking groups to working in the skilled workforce (e.g., discrimination or harassment on the worksite or lack of understanding of skills required for a trade or occupation).
- Support mechanisms that could help people of equity-seeking groups succeed in the skilled workforce (e.g. financial support for technical training or life supports such as housing).
- Support for employer-provided mentors for apprentices from equity-seeking groups.
- Training grants for people from equity-seeking groups.
- Approaches and best practices that other organizations have used to successfully increase the number of women and equity-seeking groups to their workforce.
- Identification of requirements for employer plans on hiring practices that successfully increase and integrate equity-seeking groups into the skilled workforce.

### **Summary of Written Responses: Increasing Participation of Equity Seeking Groups**

Some submissions pointed to the procurement process as an effective mechanism to help

increase employment of equity seeking groups, including the use of labour procurement agreements, or mandating employment requirements in procurement documents. Submissions also noted it is important to track training that leads to employment, not just the number of people trained.

Submissions highlighted the need to address systemic barriers and the need to work with industry to reduce/eliminate them. For example: *“The biggest challenge related to the employment of equity-seeking groups is retention, rather than employment. Hiring incentives alone would not address this issue. Many women, for example, drop out of the construction workforce in two to five years, citing harassment, confinement to repetitive duties, or conflict between workplace and child care responsibilities.”* It was strongly encouraged that this policy go beyond considering the numbers of recruits in its apprentice development strategy, to a discussion of the quality of the apprentice experience. It was recommended that contractors on public construction projects should be required to submit a plan for employing and retaining people from equity-seeking groups. Progress on the firm-specific plan would be monitored through regular check-in meetings.

Some submissions encouraged implementing support mechanisms to mitigate participation barriers, such as child care responsibilities. Establishing employer-provided mentors, incentivized by grants or tax credits, could support better integration into the workforce of people of equity seeking groups. Social media and awareness campaigns were suggested, as was essential skills development and testing prior to becoming a trades worker. Submissions noted there are a number of steps that need to be taken across the construction sector, and no single approach can be expected to have a full effect of increasing participation of people from equity seeking groups in the skilled workforce.

## **APPENDIX A: City of Seattle Apprenticeship Ratio Policy**

### **Examples of the City of Seattle**

An example of this approach in practice is the City of Seattle's apprentice utilization policy. Seattle's City Purchasing and Contracting Services (CPCS) administers apprenticeship requirements on public works contracts. Seattle requires apprentice labour on construction projects estimated to cost \$1 million or greater. Contractors must ensure that up to 15% of the total contract labour hours are worked by apprentices enrolled in an apprenticeship program approved or recognized by the Washington State Apprenticeship and Training Council (SATC)<sup>4</sup>. To meet this policy, contractors must submit an Apprentice Utilization Plan<sup>5</sup> to the city at the time of the initial pre-construction meeting. This plan must include a listing of estimated journeyperson labour hours, estimated apprentice hours, and the estimated number of apprentices for the project.

### **Seattle Community Workforce Agreement**

In addition to this policy, the City of Seattle in 2015 reached a Community Workforce Agreement (CWA) with local building trades that represent workers who typically perform on City public works projects<sup>6</sup>. This CWA covers every City of Seattle administered public works project estimated to cost \$5 million dollars or more at time of bid (including contingency budget. The city retains the right to exempt some projects from this policy). In addition to establishing agreement on the typical terms of a project labour agreement, the CWA requires that unions dispatch as a priority workers from depressed ZIP codes, women, and other equity-seeking groups, and that they continue to dispatch these priority workers even when the contractor is meeting the required ratios for priority workers.

The CWA also requires that prime contractors ensure apprentice employment meets the rate established in the City Public Works contract for each project. The CWA states that required apprentice utilization shall never be less than 15% and will not exceed 20% of all craft project labour hours.

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<sup>4</sup> <https://www.seattle.gov/city-purchasing-and-contracting/social-equity/apprenticeships>

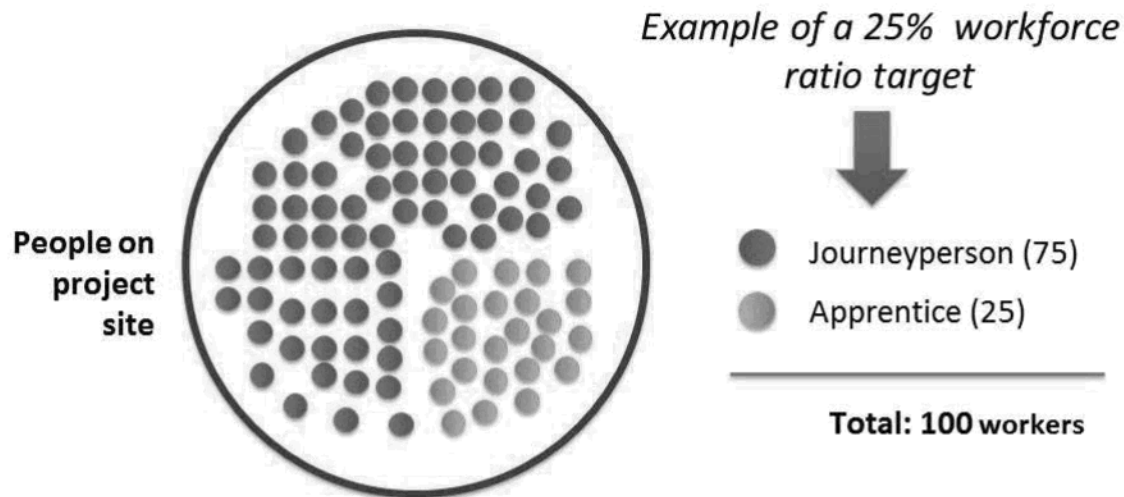
<sup>5</sup> [https://www.seattle.gov/Documents/Departments/FAS/PurchasingAndContracting/Labor/la\\_ApprenticePlan.pdf](https://www.seattle.gov/Documents/Departments/FAS/PurchasingAndContracting/Labor/la_ApprenticePlan.pdf)

<sup>6</sup> [http://www.seattle.gov/Documents/Departments/FAS/PurchasingAndContracting/Labor/Seattle\\_CWA\\_final.pdf](http://www.seattle.gov/Documents/Departments/FAS/PurchasingAndContracting/Labor/Seattle_CWA_final.pdf)

## Appendix B – Workforce vs Work-hour Ratios

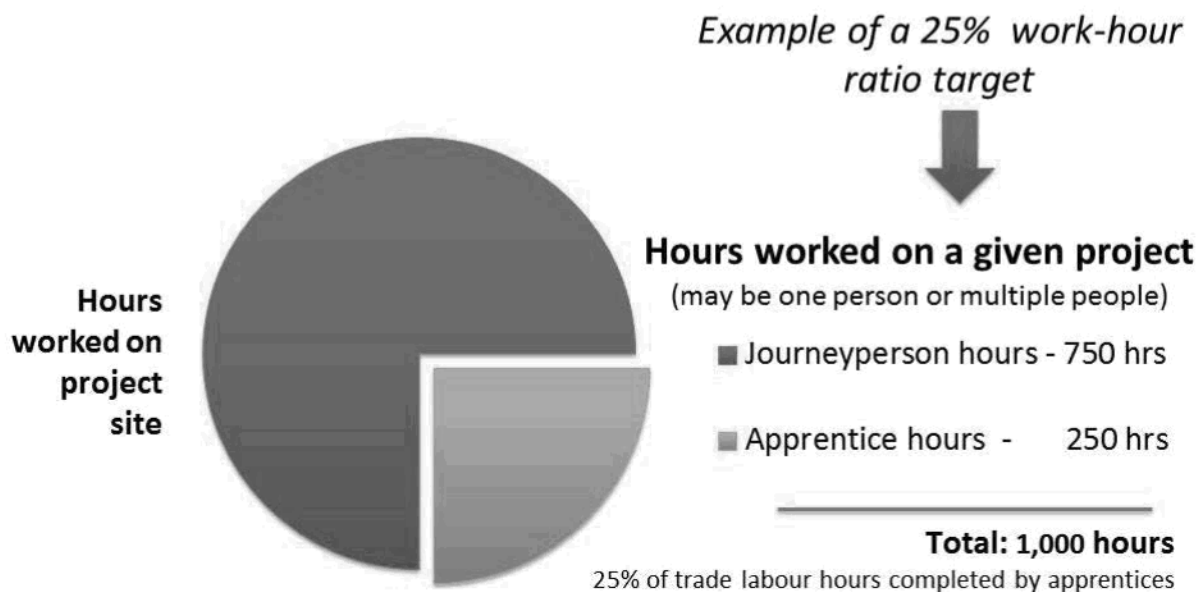
### Workforce Ratio

Requires a specific number of apprentices compared to the overall labour force. For example, a 25% workforce ratio means that in a workforce of 100 tradespeople, 25 would be apprentices.



### Work-hour Ratio

Requires a specific number of apprentice hours worked on a project in relation to a specific number of journeyperson hours worked.





## **Appendix C: Glossary of Key Terms in this Guide and Common Terms in Industry**

**Apprenticeship** – A type of industry training that combines work-based training and experience with components of institutional training and that leads a to provincial and/or national industry training credential.

**Apprentice** – A person who registers with the Industry Training Authority in order to participate in an Apprenticeship program with the intent of obtaining a Certificate of Qualification.

**Apprentice Ratio** – Regulations that determine the number of apprentices who may be sponsored in relation to the number of journeypersons. There are essentially three types of ratio: (1) the workforce ratio (apprentices employed); (2) the work-hour ratio (hours apprentices have worked); and (3) the trade-specific journeyperson-to-apprentice ratio.

**Certificate of Qualification** – The credential awarded by the ITA to individuals who have met the requirements of an industry training program either through completion of a formal apprenticeship program or through a challenge process. When a Certificate of Qualification is earned in a Red Seal Trade, a Red Seal endorsement is added to the credential.

**Challenger** – Individuals who have not participated in a formal apprenticeship program in Canada, but who have been assessed and approved to undergo final certification requirements based on prior experience and existing skills.

**Completion Rates** – The percentage of total completed apprenticeships out of total new starts from the same cohort. This is an indicator of the number of apprentices successfully completing apprenticeship programs.

**Compulsory Trades** – A designated trade that requires individuals to be either a registered apprentice or a certified trades worker in order to legally work in the occupation.

**Consortium/Group Trainer** – A collection of employers and organizations which, amongst themselves, can offer sustainable employment and training to an apprentice. The consortium allows member employers to offer and receive apprentices as new projects open and close, which allows the apprentice continual employment.

**Discontinuer** – An apprentice that ends his or her training prior to the completion of the program either by choice or by circumstance.

**Employer Sponsor** – A qualified individual or other legal entity (often, but not necessarily, an employer) that commits to ensuring that an apprentice receives work-based training relevant to his or her industry training program, and under the direction of one or more qualified individuals.

**Equity-seeking Groups** – Equity-seeking groups may be defined as women, members of visible minorities, Indigenous peoples, persons with disabilities, newcomers to Canada, and others from groups identified as often being excluded from the economy and political decision-making.

**Foundation Programs** – Pre-apprentice programs aligned with apprenticeship programs to offer entry level training through which participant can earn credit for level 1 technical training without needing an employer sponsor.

**Industry Training Authority** – The Industry Training Authority (ITA) is a **Crown corporation** that leads and coordinates British Columbia’s skilled trades system. ITA works with employers, labour, apprentices, industry, training providers, and government to issue credentials, support apprenticeships, fund programs, set program standards, and increase opportunities in the skilled trades.

**Industry Training Program** – Any of a number of occupation-specific programs involving defined competencies and standards, assessment tools and a credential to be awarded upon successful completion. Includes both apprenticeship and foundation programs

**Journey person (Certified Trades Worker)** – Once an apprentice has completed the apprenticeship program and/or successfully passed the Certificate of Qualification exam and, in some cases, the Inter-Provincial Red Seal exam, they become a certified journey person.

**Pilot Project** – A small scale preliminary study conducted to evaluate the feasibility, time, cost, adverse elements, and areas of improvement upon the study design prior to its full scale implementation.

**Labour Procurement Agreement** – A pre-hire collective bargaining agreement with one or more labour organizations that establishes the terms and conditions of employment for a specific project.

**Public Infrastructure** – Basic physical and organizational structures and facilities (e.g., schools, buildings, and roads) needed for the operation of a society. Also known as government/public capital, it is owned by the public and operates for public use.

**Public Sector (Provincial)** – The sector of the economy controlled by government. At a provincial level this includes school districts, health authorities, public post-secondary institutions, and Crown corporations, which deliver services such as healthcare, public education, transit, and many forms of infrastructure (highways, bridges, schools, health facilities, large-scale hydro generation and electricity transmission, etc.).

**Red Seal** – A standardized national endorsement for specific trades that enables greater mobility. Upon successful completion of an Inter-Provincial Red Seal exam, a nationally recognized Red Seal endorsement is added to the provincial Certificate of Qualification.

**Sector Advisory Group (SAG)** – An organization of trades worker employers within a certain sector that advises government and offers services to sector businesses.

**Skilled Trades** – Careers whose labour component requires specific training and skill, such as a carpenter, tile-setter, or an electrician. Skilled trades require both trained expertise and physical

aptitude.

**Skilled Workforce** – A segment of the workforce with a high level of skill that creates significant economic value through the work performed (human capital). Skilled labour is generally characterized by high levels of education and high wages.

**Stakeholder** – A person, group, or organization that has a vested interest or concern in an organization's decision-making process. Stakeholders can affect or be affected by the organization's actions, objectives, and policies.

**Sub-Contract** – A contract for a company or person to do work as part of a larger contract or project.

**Technical Training (Classroom)** –An institution-based component of industry training programs that is intended to provide apprentices with a combination of theoretical knowledge and practical skills to complement their work-based training.

**Training Provider** – An individual or organization that provides training services and has been designated by the ITA. Training may be provided by private trainers, employer organizations, unions, and post-secondary institutions.

**Work-based Training (On-the-job)** – Training that occurs in the workplace that provides practical experience and exposure to the needs of the industry and prepares apprentices for employment in the trades.

**Workforce Hours** – The hours contributed to economic activity by a particular segment of the workforce, or the summation of hours worked by each individual across the workforce.

## Appendix D: B.C.'s Accredited Red Seal Trades

The following red seal trades are designated as accredited program in British Columbia:

1. Agricultural Equipment Technician
2. Appliance Service Technician
3. Automotive Painter (Automotive Refinishing Technician)
4. Automotive Service Technician
5. Baker
6. Boilermaker
7. Bricklayers (Mason)
8. Cabinet Maker (Joiner)
9. Carpenter
10. Concrete Finisher (Cement Mason)
11. Construction Craft Worker
12. Cook
13. Electric Motor System Technician
14. Electrician, Construction
15. Electrician, Industrial
16. Floor Covering Installer
17. Glazier
18. Hairstylist
19. Heavy Duty Equipment Technician
20. Horticulturalist, Landscaper
21. Industrial Mechanic (Millwright)
22. Instrumentation and Control Technician
23. Insulators (Heat and Frost)
24. Ironworker (Generalist)
25. Ironworker (Reinforcing)
26. Lather (Interior Systems Mechanic)(Wall & Ceiling Installer)
27. Machinist
28. Metal Fabricator (Fitter)
29. Mobile Crane Operator - Hydraulic Unlimited tonnage
30. Mobile Crane Operator - Lattice Boom Friction Crane
31. Mobile Crane Operator - Lattice Boom Hydraulic Crane
32. Motor Vehicle Body Repairer (Metal & Paint) – Automotive Collision Repair Technician
33. Motorcycle and Power Equipment Technician
34. Oil heating System Technician
35. Painter and Decorator(Decorator(19.0605), Painter(46.0408))
36. Partsperson 3
37. Plumber
38. Power Line Technician
39. Recreational Vehicle Service Technician
40. Refrigeration and Air Conditioning Mechanic
41. Rig Technician
42. Roofer (Roofer, Damp and Waterproofing)
43. Sheet Metal Worker
44. Sprinkler System Installer
45. Steamfitter-Pipefitter
46. Tilesetter
47. Tool and Die Maker
48. Tower Crane Operator
49. Transport Trailer Technician
50. Truck and Transport Mechanic
51. Welder

# **Effective Apprentice Ratios & Increasing Participation of Equity-Seeking Groups in the Skilled Workforce**

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## ***Stakeholder Engagement & Discussion Guide Discussion #3 - March 20, 2018***

Ministry of Advanced Education, Skills and Training

Labour Market and Information Division

Issued: March 16, 2018





# Discussion Guide #3

The Province of British Columbia will support the B.C. apprenticeship system as it trains the future workforce by setting requirements for effective apprentice ratios on public projects that increase on-the-job apprentice training opportunities.

Setting effective apprenticeship ratios on government-funded infrastructure projects aims to maximize the value of government capital spending by:

- Creating employment and training opportunities for apprentices that support apprentice certification.
- Developing the future workforce by encouraging employer support for apprentice training and certification.
- Increasing employment and training opportunities in the skilled workforce for people of equity-seeking groups.

The Ministry of Advanced Education, Skills and Training (the Ministry) is engaging with key stakeholders to seek information, advice, and guidance on developing a policy that meets its mandate to implement effective apprentice ratios on government-funded infrastructure projects and increase the participation of equity-seeking groups in the skilled workforce<sup>1</sup>.

The Ministry's engagement process consists of three in-person sessions with key stakeholders, held January 19, February 14, and March 20, 2018, and written responses to questions asked in a discussion guide circulated January 15, 2018.

## What We Have Heard So Far

Discussion topics include defining what makes an apprenticeship ratio "effective"; understanding the implications of different ways the proposed policy could be implemented; identifying processes to determine appropriate levels of apprentices (ratios) on public projects; and identifying options to increase the participation of equity-seeking groups on public infrastructure projects.

Discussions to define what makes an apprenticeship ratio "effective" highlighted a number of key themes and principles (Appendix 1). An effective ratio will:

- Enhance apprentice work-based training, job opportunities, and completion.
- Maintain workplace health and safety.
- Allow flexibility for employers and accommodate different types of projects.
- Maintain reasonable costs both for employers and government.
- Ensure fairness and transparency.

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<sup>1</sup> Minister of Advanced Education Skills and Training mandate letter: <https://www2.gov.bc.ca/assets/gov/government/ministries-organizations/premier-cabinet/mlas/minister-letter/mark-mandate.pdf>

### *Measuring the Ratio of Apprentices*

Possible ways to structure and measure the ratio of apprentices working on a public infrastructure project looked at: A) measuring the proportion of apprentices on the project workforce, or B) the proportion of hours worked by apprentices on the project compared to the hours worked by Red Seal trades. A hybrid workforce/workhour structure was raised in the second engagement session, which would include consideration of both a workforce requirement before construction starts and a target ratio of apprentice work-hours during construction relative to Red Seal trades work hours. Based on the discussions to date and submissions received, it would seem a hybrid approach combines many of the strengths of both the workforce and work-hours approaches. A discussion of how the model could be implemented in government's procurement process is presented in **Appendix 2**.

### *Ways to Set a Target Ratio Number*

Possible ways to set a target ratio number included using data from past projects, consulting with experts to set specific targets for each project type, and setting a "whole-of-government" apprentice ratio target based on labour market information.

The whole-of-government target based on labour market information appeared to be both feasible and practical. Under the model to set the number, as discussed and presented in the February discussion guide, the Apprentice Ratio target would apply to all in-scope provincially funded infrastructure projects. As projects enter into the procurement/contracting process, proponents would be expected to demonstrate their plan toward achieving the whole of government apprentice target.

A summary of the model to establish a target ratio based on labour market information is presented in **Appendix 3**.

### *How a Proposed Apprentice Ratio Could Work*

Based on the advice received in the discussion sessions, an effective Apprentice Ratio would require a target proportion of work-hours on government-funded infrastructure projects to be dedicated to registered apprentices. To support effective implementation of the Apprentice Ratio, prime contractors and their sub-contractors would:

- Demonstrate their engagement in apprentice sponsorship to show they have the workforce capacity to meet the required work-hour target for the project.
- Use registered apprentices with approved supervisors on project-related contracts.
- Maximize the hours registered apprentices work relative to Red Seal trade work hours, to meet an overall government target of apprentice hours on government funded infrastructure.
- Report on the hours worked by registered apprentices relative to the total hours worked by Red Seal Trades on the project.

Considerations of the threshold at which the apprentice ratio policy could apply are in **Appendix 4**.



## Increasing the Participation of Equity Seeking Groups

Through the January and February engagement sessions and in written submissions, it was heard that an approach to increase the participation of equity-seeking groups within the construction sector must recognize several key points:

- A single approach will not be successful, and instead the approach should be multifaceted. Several steps will be required and industry will need to be involved; government measures are not enough.
- The equity-seeking group approach needs to be broader than apprentices; it should include the whole workforce.
- Consideration must be given to address systemic discrimination that prevents equity-seeking group apprentices from entering and staying in the skilled trades.
- The equity-seeking group approach needs to be broader than just public infrastructure projects. Government funded projects represent an opportunity to initially test best practices, but to effectively drive change in the sector, success on public infrastructure projects needs to be replicated in the broader economy.

A summary of programs underway, best practices, and research to date are presented in **Appendix 5**, including a listing of possible initiatives to discuss for implementation.

## Discussion 3 – March 20, 2018

This discussion guide is designed to support the third engagement session. It builds on the feedback and findings received from the January and February sessions.

There are three remaining elements of this proposed approach where the Ministry is seeking advice from stakeholders:

- 1) The way the apprentice ratio could be measured and implemented in the government procurement/tendering process.**
- 2) The method to establish a whole-of-government target number.**
- 3) The threshold amount at which the ratio policy would apply.**

There are a number of possible options that could be pursued to support increased participation of equity-seeking groups on public infrastructure projects and in the broader skilled workforce.

- 4) The intent of the discussion on equity seeking groups is to identify three to five options for further development and implementation.**

The Annotated Agenda below lays out the proposed discussion topics. The appendices that follow contain technical information to support the discussion.

## Annotated Agenda for Discussion 3

Time	Agenda Item	Topic
8:30 am	Arrival and welcome Elder Mary Roberts (Musqueam)	<b>Welcome and Greeting</b>
8:40 am	<b>Opening</b>	<ul style="list-style-type: none"> <li>• Introductions - roundtable</li> <li>• Minister Mark – welcome and remarks</li> <li>• DM Baskerville – welcome and remarks</li> </ul>
8:50 am	<b>Review agenda</b>	
9 am	<b>Review of what we have heard so far</b>	<p>Overview of first and second meetings.</p> <p>→ For the themes and principles, see <b>Appendix 1</b></p>
9:15 am	<b>Measuring the Apprentice Ratio</b>  Proposed structure of the Apprentice Ratio — Implementation in Procurement	<p>A hybrid work-force/work-hour model for an effective apprentice ratio on public infrastructure projects would require both:</p> <ul style="list-style-type: none"> <li>A) Employers to demonstrate they have the workforce capacity to meet government’s work-hour ratio before a contract is awarded; and</li> <li>B) Employers to demonstrate they are meeting the work-hour ratio commitment.</li> </ul> <p>Key considerations to discuss include:</p> <ul style="list-style-type: none"> <li>• Whether the proposed hybrid model reflects the principles of an effective apprentice ratio.</li> <li>• Whether the proposed procurement requirements are practical and feasible.</li> </ul> <p>→ For details on the proposed approach to measure and implement the apprentice ratio, see <b>Appendix 2</b>.</p> <p><u><b>Discussion Questions</b></u></p> <ol style="list-style-type: none"> <li><b>1. Are there any changes you would recommend to the Hybrid Model?</b></li> <li><b>2. Are the procurement requirements presented in the Appendix sufficient? Is anything missing? Are there problems with the proposed measures?</b></li> </ol>
9:45 am	<b>Method to Calculate a “Whole of Government” Apprentice Ratio Target</b>	<p>To develop a potential model to calculate the Apprentice Ratio target, the Ministry’s Labour Market Outlook data were updated with 2016 Census labour force information to identify the <b>new workforce entrant rate</b> and an <b>economic growth and worker replacement rate</b> that support a balanced forecast in the labour market.</p> <p>Key considerations to discuss include :</p> <ul style="list-style-type: none"> <li>• What measures could be included to ensure each project maximizes apprentice opportunities within a range that is safe and effective.</li> <li>• Implications for the mix of apprentices versus Red Seal trade workers.</li> <li>• Are there any other implications to be aware of.</li> </ul>

		<p>→ For the proposed method to calculate an apprentice ratio target, see <b>Appendix 3</b>.</p> <p><u>Discussion Questions</u></p> <p>3. What are the implications for the mix of apprentices versus Red Seal trade workers) if a target of 20%, 25% or 30% were to be contemplated?</p> <p>4. What would be the potential incentive to ensure each project maximizes apprentice opportunities within a range that is safe and effective?</p> <p>5. Are there any other implications of the whole of government target approach that we should be aware of?</p>
10:15 am	<b>Threshold Amount for Ratio Policy Application</b>	<p>Decisions on the policy scope will need to consider the value and cost-effectiveness of administering, monitoring and enforcing policy requirements on a larger number of small construction projects with fewer labour hours, relative to the benefit that may result to apprentices on those projects.</p> <p>→ For a discussion on the threshold at which the ratio policy could apply, see <b>Appendix 4</b>.</p> <p><u>Discussion Questions</u></p> <p>6. What are the potential benefits or challenges of lowering the threshold amount?</p> <p>7. Are there other factors to consider in setting a threshold at which the policy should apply?</p>
10:45 am	<b>10 min break</b>	
10:55 am	<b>Increasing Participation of Equity-Seeking Groups in the Skilled Workforce</b>	<p>Based on discussions to date, a preliminary research review, and work currently underway, a number of possible measures to support increased participation by people of equity seeking groups on public infrastructure projects are presented for discussion.</p> <p>The intent is to identify three to five options to develop for implementation. Some of the measures could be linked to the implementation of the Apprentice Ratio Policy.</p> <p>→ Measures to support increased participation are listed in <b>Appendix 5</b>.</p> <p><u>Discussion Questions</u></p> <p>8. Out of the options presented in Appendix 5, Table 1, what three to five measures should government consider for public infrastructure projects to demonstrate leadership in increasing participation of members from equity-seeking groups.</p> <p>9. Are there other measures that could be considered either immediately or over the longer term that have not been included in Table 1?</p>
11:30 am	<b>Closing remarks</b>	

## Appendix 1: Themes from the January and February Engagement Sessions

From the January and February engagement sessions and written submissions received from engagement participants, discussions to define what makes an apprenticeship ratio “effective” highlighted a number of key themes and principles that define what effective means in the context of an apprentice ratio.

### **Principle #1: Enhance Apprentice Work-based Training, Job Opportunities, and Completion –**

An effective ratio will:

- Demonstrate an employer’s ongoing commitment to develop the province’s trades’ workforce by creating an increased number of training opportunities for apprentices and people from equity-seeking groups.
- Support meaningful and appropriate training for apprentices throughout their apprenticeship, including achieving certification.
- Enable employers to balance their labour force to meet project goals, while also ensuring that qualified mentors can offer appropriate and meaningful training to apprentices.

### **Principle #2: Maintain Workplace Health and Safety —** An effective ratio will:

- Support appropriate supervision so that apprentices are mentored to safely do work that is appropriate to their skill level.
- Enable employers to meet public safety and quality standards by allowing them to arrange the composition of their workforce in a way that ensures they meet those standards.

### **Principle #3: Allow Flexibility —** An effective ratio will:

- Allow apprentices to be deployed based on project type, project stage, and day-to-day labour requirements so that project milestones and contractual obligations can be met.
- Recognize the differences between types of projects, and accommodate different project or labour-force pressures related to geography.

### **Principle #4: Maintain Reasonable Costs—**An effective ratio will:

- Ensure administrative requirements are not overly burdensome, time-consuming, nor incur excessive costs.
- Facilitate a contractor’s ability to bid on public sector projects rather than discourage their participation.
- Maintain reasonable costs for the public sector, including construction costs for project owners and administrative costs required to monitor and oversee employer compliance.

### **Principle #5: Ensure Fairness and Transparency —** An effective ratio will:

- Ensure that, regardless of employer or contract size, qualification requirements are equitable, clear, and achievable.
- Offer employers requirements that are administratively manageable while providing data and information that helps government evaluate the policy’s effectiveness.
- Monitor compliance during construction to ensure that commitments made in procurement are met in practice.
- Require data reporting so that government can evaluate policy effectiveness and publish project outcomes to demonstrate transparency and monitor employer compliance.

## Appendix 2: Measuring and Implementing the Apprentice Ratio

To date, stakeholder discussions on possible ways to measure the ratio of apprentices working on a public infrastructure project considered measuring: 1) the proportion of apprentices in the workforce and 2) the proportion of hours worked by apprentices compared to the hours worked by Red Seal trades on the project.

A hybrid workforce/workhour structure was raised in the second engagement session, which could include consideration of both a workforce requirement before construction starts and a target ratio of apprentice work-hours during construction relative to Red Seal trades work hours.

### A. Proposed Hybrid Model for Measuring the Apprentice Ratio

A hybrid workforce/work-hour model for an effective apprentice ratio on public infrastructure projects would need to consider:

- a) Employers demonstrating they have the workforce capacity to meet government's work-hour ratio before a contract is awarded; and
- b) Employers demonstrating they are meeting the work-hour ratio commitment.

A hybrid model would meet the spirit of the principles of an "effective" apprentice ratio in the following ways:

- The effectiveness of an apprentice work-hour ratio during construction is enhanced when employers have the mentorship, training supervision capacity, and experience in place before construction starts to support apprentices on the worksite.
- Apprentice learning is enhanced with qualified training and supervision, and employer plans to deliver the work-based training needed for apprentices to progress through their training to certification.
- Meets the desired outcome of an apprentice work-hour ratio (more apprentices receiving work-based-training on public infrastructure projects). This is more likely to be achieved if employers have demonstrated before construction starts that they have access to enough apprentices and the supervision capacity for enough apprentices to work the required number of hours to meet the ratio.
- During construction, tracking apprentice work-hours allows flexibility for employers to determine the appropriate composition of their worksite on a daily basis, and provides flexibility to move apprentices from one project to another, including to assign greater or fewer apprentices as dictated by the work available on the project. This flexibility also benefits apprentices, as they are more likely to be assigned to projects where the work is meaningful to their training.
- Tracking apprentice work-hours during construction helps maintain reasonable costs, as it is consistent with how project work is currently estimated, how payroll is tracked, how apprentice hours are reported to the Industry Training Authority (ITA), and how employers report information under the current Ministry Apprentices on Public Project Policy.

## B. Proposed Implementation of the Apprenticeship Ratio through Government Procurement Process

The following table outlines the way workforce tests could be included in the procurement process for each new public infrastructure project that goes to procurement/tender to which the Apprentice Ratio would apply.

To help make a work-hour ratio effective, prime contractors and their sub-contractors could be required to:

### 1. Demonstrate active support for apprenticeship.

Description	Procurement Requirements	Proposed Compliance/Evaluation Method
Proponents would declare their past or future commitment to apprenticeship.	<p>The prime contractor will declare that they and their sub-contractors:</p> <ul style="list-style-type: none"> <li>Have employed apprentices in the past.</li> <li>Demonstrate that these apprentices have progressed in their training (or have achieved completion during their employment within the last year).</li> <li>Submit a training plan and commit to implementation over the life of the project. The plan will be required to include the various levels their apprentices would be employed in.</li> </ul> <p>If the prime contractor or their sub-contractors do not employ apprentices they must:</p> <ul style="list-style-type: none"> <li>Submit a training plan and commit to implementation over the life of the project. The plan will be required to include the various levels their apprentices would be employed in.</li> </ul>	<ul style="list-style-type: none"> <li>Qualification, evaluation, or negotiation factors during the procurement/contracting process may include awarding points based on the quality of the proposal.</li> </ul>

### 2. Commit to supervision. This provides assurance that apprentices will be supervised as required by policy<sup>2</sup> and that employees are trained to ensure a supportive worksite for all workers.

Description	Procurement Requirements	Proposed Compliance/Evaluation Method
Contractors would be required to declare they will ensure appropriate supervision to their apprentices, offer scope of	<ul style="list-style-type: none"> <li>The prime contractor and sub-contractors will ensure apprentices are supervised by a qualified supervisor and that scope of trade is offered to the apprentice during the life of the</li> </ul>	<p>Prime contractors and sub-contractors will:</p> <ul style="list-style-type: none"> <li>Declare their commitment to an apprentice's appropriate</li> </ul>

<sup>2</sup> **ITA Operations Policy PA3000:** 2.1 Responsibilities of Sponsors — Sponsors will ensure the Apprentice receives training and related practical experience under the direction of a qualified individual [certified Tradesperson or other(s) specified in the Industry Training Program Profile, OR holder of an ITA-issued letter authorizing supervision and sign-off of Apprentices in the trade] in a work environment conducive to learning the tasks, activities, and functions that form the Industry Training Program in which the Apprentice is registered.

trade, and workforces will receive Ministry-endorsed training.	<p>project to the extent possible.</p> <ul style="list-style-type: none"> <li>The prime contractor and sub-contractors will ensure work-site employees take bullying, harassment and mentorship training endorsed by the Ministry.</li> </ul>	<p>supervision and training.</p> <ul style="list-style-type: none"> <li>Ensure the supervisor is certified or has received ITA sign-off as an appropriate supervisor.</li> <li>Declare their company has registered with a Ministry-endorsed program and that the workforce will receive training within 90 days of construction starting (subject to program availability).</li> </ul>
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- 3. Demonstrate workforce capability to meet the work-hour target during construction.** This demonstrates that contractors have the workforce available to meet the required work-hour ratio.

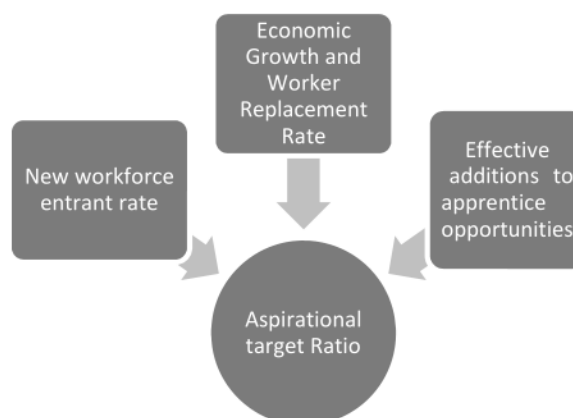
Description	Procurement Requirements	Proposed Compliance/ Evaluation Method
Contractors would declare they have available or can acquire the number of apprentices necessary to meet the work-hour ratio.	<p>The prime contractor and sub-contractors will agree to meet the ratio by providing:</p> <ul style="list-style-type: none"> <li>An estimate of the project's total construction hours related to employment of Red Seal trades.</li> <li>An estimate of the number of hours to be worked by apprentices to meet the work-hour ratio.</li> <li>A commitment for the prime contractor to provide reports to government on the overall construction workforce compared to the number of apprentices.</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly reports must meet ratio requirements.</li> <li>Deductions or holdbacks could be considered for non-compliance when the ratio is not met, unless extenuating circumstances prevail.</li> <li>Public reporting will be required in a form to be determined.</li> </ul>

## Appendix 3: Method to Calculate a “Whole of Government” Apprentice Ratio Target

Discussions to date have indicated that a “whole-of-government” target for apprentice utilization on public sector projects could be more feasible and practical than using data from past projects or undertaking a detailed consultative approach based on different types of projects.

A “whole-of-government” target could apply to all in-scope provincially funded infrastructure projects. As projects enter into the procurement/contracting process, proponents would be expected to demonstrate their plan toward achieving the whole of government apprentice target.

To develop a potential model to calculate the whole-of-government target, the Ministry’s Labour Market Outlook data were updated with 2016 Census labour force information to identify the **new workforce entrant rate** and an **economic growth and worker replacement rate** that support a balanced forecast in the labour market.



While there are currently labour shortages in construction, these are forecast to be short-term. The updated Labour Market Outlook forecast indicates that construction occupations are moving into balance over the next 10 years, and the current flow of new workers is expected to meet anticipated demand.

### Assessment:

- Based on preliminary modelling, an 18% whole-of-government target for apprentices on public projects would be the minimum to replace workers leaving the trades and to meet economic growth demands.
- Setting a higher ratio would be effective at increasing the number of apprentice opportunities on public infrastructure projects. Table 1 estimates the effect of different target ratio numbers on the number of apprentices required to meet the target and the share of all apprentices in the construction trades.

**Table 1 - Apprentice Ratio and Trades’ Share**

<b>Provincial construction value as share of total (2016):</b>		<b>6.6%</b>			
<b>Construction trades employment on provincial construction projects:</b>		<b>6,752</b>			
<b>Number of apprentices on provincial construction (estimate – 18%):</b>		<b>1,187</b>			
<b>Potential Target Ratio Numbers</b>	<b>15%</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>	
Additional % required compared to current:	-3%	+2%	+7%	+12%	
Additional number of apprentices required:	-174	+164	+502	+839	
Share of all apprentices in construction trades:	-1%	+1%	+3%	+5%	

More detail on the methodology and assumptions are available on request.



## Appendix 4 Threshold Amount for Ratio Policy Application

The current policy requiring apprentices on public projects applies to projects that have a provincial investment of \$15 million or more and sub-contracts worth more than \$500,000. This threshold amount was reviewed in past stakeholder engagement sessions and participants had varying views including:

- A. The \$15 million threshold is appropriate for the new policy, as extensive consultation was undertaken to determine the appropriate number when the 2015 policy was developed.
- B. Reducing the threshold to \$3 million and eliminating the \$500,000 threshold for sub-contracts.
- C. Amending the policy so it applies to all projects where apprentices might normally be present.

The Province of Alberta and the City of Seattle have established the following thresholds for their apprenticeship policies:

- In February 2018, the Alberta government announced that their public sector infrastructure policy applies to major public projects valued at over \$15 million or those that will require at least two years to complete. In addition, Alberta's policy applies to sub-contracts of \$500,000 or greater.
- The City of Seattle's apprentice utilization policy requires apprentice labour on construction projects estimated to cost \$1 million or greater.

Decisions on the scope of policy application will need to consider the value and cost-effectiveness of administering, monitoring and enforcing policy requirements on a larger number of small construction projects with fewer labour hours, relative to the benefit that may result to apprentices on those projects.

## Appendix 5 – INCREASING PARTICIPATION OF EQUITY-SEEKING GROUPS IN THE SKILLED WORKFORCE

This section outlines the feedback and ideas received to date from the January and February engagement sessions; identifies work underway within the Ministry; summarizes a review of preliminary research undertaken to inform decisions; and presents options to increase the participation of equity-seeking groups on public infrastructure projects and, where possible, the broader public sector.

Public infrastructure projects offer an immediate opportunity to implement measures to increase the participation of equity-seeking groups, which can demonstrate leadership by example for the greater provincial construction industry. However, public infrastructure only makes up six to seven percent of total construction in the Province, and more must be done to change behaviour and to significantly increase the overall participation of equity-seeking groups in the skilled trades.

A comprehensive coordinating strategy that includes both short-term and longer-term proposals will be developed in 2018-19 to ensure the multiple individual initiatives currently underway, and options discussed and identified, are aligned to effectively achieve the desired outcome.

### Current Provincial Initiatives Supporting Equity-Seeking Groups in the Trades

There are a number of initiatives underway that can be leveraged and coordinated in a way that helps achieve greater participation for equity-seeking groups in the trades and skilled. The following outlines the current initiatives the Ministry is working on.

#### Program funding

- Newly announced funding (March 8, 2018) will support two pilot projects that aim to address the systemic issues identified in the women in trades' labour market reports. Opportunities to leverage these programs beyond women to other equity-seeking groups will also be explored.
- Through the Canada Job Fund, the ITA delivers pre-apprenticeship trades training for members of underrepresented groups (including women and Indigenous people) facing barriers to entering trades occupations (approximately \$10M annually).
- Work is underway to conclude the B.C.-Canada Workforce Development Agreement (WDA). Programming delivered under the WDA's predecessor, the Canada Job Fund, is expected to continue unchanged until September 2018.

#### Partnership Projects

- The Ministry has an ongoing partnership programs with the First Nations Forestry Council and the B.C. Association of Aboriginal Friendship Centres to increase the representation of equity-seeking groups in the forestry industry.
- The Ministry is working with the Progressive Contractors Association and Women Building Futures, to launch a pilot project to support women either entering into or involved in carpentry apprenticeship training in the construction trades. The pilot project will proceed once funding is secured through Employment and Social Development Canada.

## Leading Cultural Change and Improving Service Delivery

In support of increasing participation of equity-seeking groups in the trades, the ITA's Mandate Letter<sup>3</sup> and Service Plan<sup>4</sup> include a number of actions to lead the cultural change needed in B.C.'s trades training and apprenticeship system to remove barriers for equity-seeking groups. Actions identified include a multi-stakeholder information and engagement campaign, one that provides tools to help employers better integrate equity-seeking groups in their workforce, as well as clear accountabilities to ensure increases. Other identified activities include:

- Working to remove barriers and support equity of access to trades training programs and identify improvements that will enable greater participation by Indigenous Peoples;
- Pursuing innovative methods of engaging and training Indigenous Peoples;
- Working closely with community service providers to increase and incorporate innovation and technology into programming.

## Research, Best Practices, and Barriers

Research papers, studies, other jurisdictional programming (see Appendix 6), and interviews with diversity research professionals was undertaken as part of a preliminary research exercise to inform considerations to increase the participation of equity-seeking groups. Section 2.4.1 summarizes some of the measures that were identified that support success and Section 2.4.2 identifies barriers and some of the measures that were unsuccessful.

## Initiatives that Support Success

### Corporate and Organizational Culture

- Introduction of workplace diversity and inclusion training including programs that focus on specific goals such as composition of leadership teams and disruption to old habits and routines.
- Ensuring there is strong leadership by employers and management to support initiatives.
- Requiring that equity-seeking groups are included in candidate pools for interviewing while still allowing the appointment of the most qualified candidate, even if they are not part of an equity-seeking group.

### Training

- Offering pre-apprenticeship training programs to prepare more women for the trades including providing rigorous screening and work-hardening.
- Introducing industry focused scholarships for entering or advancing in construction careers.

### Corporate policy and planning to support integration and diversity

- Making workplace practices compatible with childcare needs including introducing family-friendly policies.
- Introducing good hiring and human resource practices to assure women are not hired on the basis of gender only women are not hired on the basis of gender only, but for their skills and qualifications.

<sup>3</sup> [http://www.itabc.ca/sites/default/files/docs/about-ita/corporate-reports/2018-19%20Mandate%20Letter\\_executed%20copy.pdf](http://www.itabc.ca/sites/default/files/docs/about-ita/corporate-reports/2018-19%20Mandate%20Letter_executed%20copy.pdf)

<sup>4</sup> [http://bcbudget.gov.bc.ca/2017\\_Sept\\_Update/sp/pdf/agency/ita.pdf](http://bcbudget.gov.bc.ca/2017_Sept_Update/sp/pdf/agency/ita.pdf)

## **Networks and support systems to support integration**

- Developing supportive networks to reduce isolation.
- Introducing formal mentoring programs.
- Providing support for women (and members of equity-seeking groups) after they are hired.

## **Considerations for Government Procurement**

- Indigenous business enhancement policy and contract stipulations, which seek to adapt policy and processes to guarantee the participation of minority groups such as Indigenous suppliers and gives preference to contractors who hire indigenous workers.

## **Unsuccessful Measures and Barriers:**

### **Measures**

- Using quotas can be unsuccessful because once a quota is filled, the member of the equity-seeking group are often laid off a project.
- While quotas can build up the workforce quickly, they can bring unintended consequences such as the individuals hired are less valued by their colleagues, which persist in the longer term.
- Training on harassment and bullying fail unless accompanied by leadership support for cultural change.

### **Barriers:**

- Apprentice and pre-apprenticeship training can create barriers because women may be unfamiliar with tools and lack a general knowledge about the construction trades. They may be less prepared than men in regards to math coursework and technical abilities.
- Women have a more difficult time securing apprenticeship positions which are often held for men with connections to employer sponsors.
- Gender roles and “masculine workplaces” may affect a woman’s decision to enter the trades.
- Discriminatory attitudes and detrimental behaviours of others on job sites, including bullying and harassment, can deter equity-seeking groups from entering the trades or destroy their retention.
- Gender-biased organizational practices, policies, norms, and standards do not support a diverse worksite.
- Widespread and ingrained gender bias within the sector can affect recruiting, hiring decisions, and hinder professional development and advancement opportunities.

## **Proposed Options for Further Consideration**

Based on the discussions to date, a preliminary research review (see section 2.4), and work currently underway, the following 13 measures are presented for discussion, with the intent of identifying three to five options to develop for implementation. Some of the measures could be linked to the implementation of the Apprentice Ratio Policy.

It important to note it will take time to evaluate implementation of these measures, including detailed policies and processes, costs, and risks that could impact the ability to implement. The 13 measures

below are not an exhaustive list of the options that may be available, and further review is necessary to continue to explore best practices and other options that could be most successful at increasing the participation of equity-seeking groups in the skilled workforce.

The table below identifies measures noted in section 2.4.1 that are not already covered by programs currently underway. It also identifies measures that can address the barriers and training identified in section 2.4.2 with the exception of diversity quotas. Research, input from women involved in British Columbia's construction industry who provided feedback into the women in trades' labour market reports (noted in section 2.3), and interviews with diversity researchers highlighted the risk of unintended consequences from the introduction of quotas. Quotas are generally not supported by the equity-seeking group they are targeting and, more importantly, they can have unintended consequences including where persons are less valued by their colleagues which persists over the longer term (See 2.4.1).

**TABLE 1 – Proposed Options for Further Consideration**

Ref. #	Initiative	Possible Implementation Timeframe	Application	
			Public Sector	Broader Workforce
	<b>Training</b>			
1.	<b>Pre-Apprenticeship Training Modification:</b> Modify B.C.'s pre-apprenticeship programming to prepare women (and others) for the trades including providing rigorous screening and work hardening.	Completed within approximately six months	Yes	Yes
2.	<b>Worksite Support:</b> Aside from the training on bullying, harassment and mentorship that will be offered, explore other work-site measures to support women and people of equity-seeking groups on public project worksites.	Completed within approximately the next six months dependent on identified options	Yes	Yes – may take longer to implement
3	<b>Diversity and Inclusion Training:</b> Include programs that focus on specific goals such as composition of leadership teams and disruption of old habits and routines.	Completed within approximately 12 months  Could be linked to Apprentice Ratio Policy	Yes	Yes – may take longer to implement

	<b>Funding/Existing Tax Credit</b>			
4.	<b>B.C.'s Training Tax Credit Review:</b> Review the existing B.C. Training Tax Credit program to see if there are other uses that could more effectively support participation in apprenticeship programs by people of equity-seeking groups (such as grants or other targeted incentives).	Completed within approximately nine months	Yes	Yes
5.	<b>Scholarship Funding:</b> Introduce industry/trade-focused scholarships for entering or advancing in the construction careers.	Completed within approximately nine months	Yes	Yes
6.	<b>Dedicated Mentors:</b> Provide funding for a dedicated mentor for people of equity-seeking groups on the job-site, so they have greater access to supervisors and more assistance at work. The dedicated mentor's salary could be supported by government funding.	Completed within approximately 12 months	Yes	Yes – may take longer to implement
	<b>Procurement</b>			
7.	<b>Procurement Policy Change to Support Indigenous People:</b> Amending procurement policy on public sector projects so that preference is given to employers that have established partnerships with Indigenous communities and training organizations.	Completed within approximately the next six months  Could be linked to Apprentice Ratio Policy	Yes	Yes – may take longer to implement
8.	<b>Procurement Policy Change to Include Employment and Retention Plans:</b> Require employers on public projects to develop employment and retention plans to support members of equity-seeking groups.	Completed within approximately the next six months  Could be linked to Apprentice Ratio Policy	Yes	Yes – may take longer to implement
9.	<b>Candidate Pool Policy:</b> Require employers to include in equity-seeking groups in public sector project hiring candidate pools for interviewing to the extent possible, while still allowing appointment of the most qualified candidate, even if they are not part of an equity-seeking group. Evaluate the use of the procurement process as the tool to implementation.	Completed within approximately next six months  Could be linked to Apprentice Ratio Policy	Yes	Yes – may take longer to implement
	<b>Other Measures</b>			
10.	<b>Literature Review:</b> Identify existing challenges and best practices to increase the participation of equity-seeking groups in the skilled workforce (including the construction sector) to further inform policy and program development in addressing challenges and in identifying existing program gaps.	Completed within approximately next three months	Yes	Yes

11.	<b>Leadership and Management Support for Diversity:</b> Aside from the training on bullying, harassment, and mentorship that will be offered (see section 2.3), explore other options to ensure there is strong employer leadership and management to support diversity on public sector projects.	Completed within approximately the next six months dependent on identified options  Could be linked to Apprentice Ratio Policy	Yes	Yes – may take longer to implement
12.	<b>Family Friendly Policies:</b> Create and issue family friendly policies to employers such as flexible hours, job sharing, or modified work weeks.	Completed within next six months and then expanded to skilled workforce within 12 – 18 months.	Yes	Yes – may take longer to implement
13.	<b>Childcare Needs:</b> Making workplace practices compatible with childcare needs such as on-site or nearby childcare, or funding support.	Completed within next 12 – 18 months.	Yes	--

## Appendix 6 - Review of Research and Best Practice Recommendations to Enhance Participation of Women and Equity-Seeking Groups

The following provides an overview of some of the research the Ministry has evaluated as part of its review to increase the participation of equity-seeking groups in the construction sector.

“Unfinished Business: Building Equality for Women in the Construction Trades” reviews US policy efforts to integrate women into the construction trades and highlights the gateways and gatekeepers that control access to construction work. The review highlights barriers during apprenticeship and pre-apprenticeship training and the difficulty securing apprenticeship positions. The paper highlights the value of:

- Pre-apprenticeship training programs that provide the knowledge and skills required to succeed in an apprentice program.
  - Development of supportive networks to reduce isolation.
  - Formal mentoring programs.
  - Making workplace practices compatible with childcare needs; funding for local childcare.
  - Workplace diversity and inclusion training.
  - Requiring employers make “maximum effort” when hiring women and minorities.
- Diversity Matters looks at the relationship between a company’s level of diversity and financial performance, finding a statistically significant relationship between more diverse leadership and better financial performance, with companies in the top quarter of gender diversity being 15 percent more likely to have financial returns above their national industry median. Companies looking to become more diverse require diversity in the top team and at all levels of an organization. Diversity programmes which focus on specific goals and seek to alter the composition of leadership teams or staff and to disrupt old habits and routines. Successful diversity programmes have clear objectives, are led from the top, and foster active involvement from the wider organisation.
- The State of Women in Construction in Canada discusses how the Canadian construction industry is taking steps to expand the domestic labour pool by improving access to industry careers by older workers, members of Indigenous groups, immigrants and women. This research examines the methods to increasing the number of women in the trades, such as:
  - Increasing pre-apprenticeship programming to prepare more women for the trades.
  - Providing rigorous screening and work hardening as part of pre-apprenticeship training.
  - Providing support for women after they are hired.
  - Promoting trade careers at high schools, career fairs, and colleges.
  - Providing industry-funded scholarships for women entering or advancing in careers in construction.
- **Results of the Canadian Apprenticeship Forum (CAF) Survey of Apprentices** noted that barriers to women’s access to industry careers persist in recruitment, apprenticeship training, employment, and within the workplace. Recommendations to reduce these barriers include:
  - Improvements to workplace safety.
  - Increased workplace respect and family-friendly policies.
  - Stronger leadership by employers and management.
  - Hiring and HR practices that assure women are not hired on the basis of gender only.



- Careful education of all employees regarding new policies and practices.
- Monitoring of programs to ensure policies make a meaningful difference.
- Canadian Construction Association Indigenous Engagement Guide examines methods to successfully build relationships between Indigenous People and the Construction Industry in Canada, noting that the most successful companies have developed a familiarity with Indigenous history, an understanding of communications, and a grounded knowledge of the culture and social and political structures of First Nations, Métis and Inuit communities. Recommended approaches include:
  - Create an inclusive workplace where the staff is equipped with the knowledge and cultural competencies needed to work with Indigenous people.
  - Establish a policy that affirms the company's commitment to Indigenous engagement
  - Establish a longer term plan to build Indigenous community capacity. Working with and within community capabilities is key to success.
- B.C.'s Indigenous Communities: Opportunities in the ICI Construction Sector identifies construction industry levers that have the potential to improve the ability of industry to attract and retain an indigenous construction workforce, such as:
  - Community engagement.
  - Skilled workforce development.
  - Indigenous business enhancement policy and contract stipulations, which seek to adapt policy and processes to guarantee the participation of minority groups such as Indigenous suppliers and gives preference to contractors who hire indigenous workers.
- Ontario's Infrastructure for Jobs and Prosperity Act includes the promotion of community benefits, such as local job creation, training and apprenticeship opportunities.
- The Eglinton Crosstown Light Rapid Transit line is Ontario's first large-scale public infrastructure project to require that equity-seeking groups directly benefit from the province's investment. As part of the Project Agreement with the project owner, Metrolinx, an Apprenticeship Plan was submitted that outlined the employer's commitment to apprenticeship, employment, local procurement and social enterprises. The Project Agreement requires the Apprenticeship Plan to include:
  - Specific objectives for apprenticeship opportunities on a trade-by-trade basis.
  - Apprenticeship opportunities for each trade required on the project.
  - Confirmation that all apprenticeships will be registered with the Ministry of Training, Colleges and Universities and the Ontario College of Trades.
  - A program to ensure the supply of apprentices meets the employer and project owner objectives and requirements.
  - A program to ensure apprentices complete their apprenticeships during the project.
  - A program to support the completion of those apprenticeships after the end of the project.
  - A focused apprenticeship program for youth-at-risk and historically disadvantaged groups.

Page 078 to/à Page 098

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s.12;s.13

Page 099 to/à Page 137

Withheld pursuant to/removed as

s.13

Page 138 to/à Page 143

Withheld pursuant to/removed as

s.12;s.13;s.17

From: [Sawchuk, Bindi AEST:EX](#)  
To: [Muter, David AEST:EX](#)  
Cc: [Charlton, Julie EDUC:EX](#)  
Subject: DM Bi-Lat update  
Date: Tuesday, August 29, 2017 6:23:00 PM

---

Hi David,  
s.12,s.13

**Bindi Sawchuk, CPA, CMA** | A/Assistant Deputy Minister  
Labour Market & Information Division | Ministry of Advanced Education, Skills& Training  
s.17 | [bindi.sawchuk@gov.bc.ca](mailto:bindi.sawchuk@gov.bc.ca)

From: Muter, David AEST:EX  
Sent: Monday, October 23, 2017 8:26 PM  
To: Porter, Donna A AEST:EX  
Subject: s.12,s.13,s.17  
s.12,s.13,s.17  
s.12,s.13,s.17

Hi Donna. Sorry for the delay. Final version attached

Thanks  
D

Sent from my iPhone

Begin forwarded message:  
From: "Sawchuk, Bindi JTST:EX" <Bindi.Sawchuk@gov.bc.ca>  
Date: October 23, 2017 at 8:24:59 PM PDT  
To: "Muter, David JTST:EX" <David.Muter@gov.bc.ca>  
s.12,s.13,s.17

Hi David, minor changes in the attached and it's approved.

Thanks for all your work on this.

From: Muter, David JTST:EX  
Sent: Monday, October 23, 2017 5:42 PM  
To: Sawchuk, Bindi JTST:EX  
s.12,s.13,s.17  
;

Hi Bindi,

Any other comments or edits on this? Donna is looking for a final approved version

Thanks  
D

David Muter  
Executive Director  
Trades Training, Strategic Planning and Engagement  
Labour Market & Information Division  
Ministry of Advanced Education, Skills and Training  
David.muter@gov.bc.ca s.17

From: Porter, Donna A AEST:EX  
Sent: Monday, October 23, 2017 4:38 PM  
To: Muter, David JTST:EX  
s.12,s.13,s.17

Hi David, have you got final approvals on this?

Donna Porter, CPA, CMA  
Executive Director and Chief Financial Officer  
Ministry of Advanced Education, Skills and Training  
Ph: 250 356-6819

From: Muter, David JTST:EX  
Sent: Monday, October 23, 2017 3:02 PM  
To: Sawchuk, Bindi JTST:EX; Porter, Donna A AEST:EX  
s.12,s.13,s.17

Bindi, Donna

s.12,s.13,s.17

Please let me know if you have any questions

Thanks  
D

Page 147 to/à Page 166

Withheld pursuant to/removed as

s.12;s.13



From: Sawchuk, Bindi AEST:EX  
Sent: Friday, August 31, 2018 9:43 AM  
To: Renault, Shannon AEST:EX  
Cc: Brown, Taylor J AEST:EX  
Subject: RE: Apprenticeship Ratio Policy Project Plan - v2  
Attachments: Project Plan - Apprenticeship Ratio Policy (v2 - DRAFT 2018-08-28).docx

From: Renault, Shannon AEST:EX  
Sent: Wednesday, August 29, 2018 5:40 PM  
To: Sawchuk, Bindi AEST:EX  
Cc: Brown, Taylor J AEST:EX  
Subject: Apprenticeship Ratio Policy Project Plan - v2

Bindi here is a revised project plan for the apprenticeship ratio policy. I'm having a couple minor issues with the TOC formatting but I will fix those after content review.

Shannon Renault  
Director, Labour Market Policy  
Strategic Policy and Initiatives Branch  
Workforce Innovation and Division Responsible for Skills Training  
Ministry of Advanced Education, Skills & Training  
Office: (250) 387-6661 | Cell: s.17 | Email: shannon.renault@gov.bc.ca

From: Sawchuk, Bindi AEST:EX  
Sent: Thursday, August 16, 2018 11:17 AM  
To: Renault, Shannon AEST:EX  
Cc: Tennant, Laura AEST:EX  
Subject: RE: Apprenticeship Ratio Policy Project plan  
Attachments: 2018-08 Apprenticeship Ratio Implementation Plan(2).docx

From: Renault, Shannon AEST:EX  
Sent: Wednesday, August 15, 2018 4:12 PM  
To: Sawchuk, Bindi AEST:EX  
Cc: Tennant, Laura AEST:EX  
Subject: Apprenticeship Ratio Policy Project plan

Bindi here is a draft on a project plan for the implementation work on the apprenticeship ratio. In addition, I have attached a first draft of a workplan. There are a couple of columns in here (dependencies and comments) that have not been filled in yet but these will populate as we move forward.

I welcome your input on the first draft. I expect there may be some deliverables or activities that I may have overlooked. I intend on sharing this with David and Kim as well for their input

Shannon Renault  
Director, Labour Market Policy  
Strategic Policy and Initiatives Branch  
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