

Investing in Canada's Future Prosperity: An Economic Opportunity for Canadian Industries

PART II of *Reconciliation: Growing Canada's Economy by \$27.7 B*

Methods and Sources Paper

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This paper reflects the views and opinions of the authors and are not necessarily those of the National Aboriginal Economic Development Board.



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Table of Contents

Introduction.....	1
Background	1
Outline	1
Definitions	2
Indigenous Representation in the Current Labour Force.....	4
Basic Labour Force Comparison	4
Descriptive Example	6
Highlights for British Columbia.....	7
Highlights for Alberta.....	7
Highlights for Saskatchewan.....	7
Highlights for Manitoba.....	8
Highlights for Ontario	8
Highlights for Quebec	8
Highlights for Newfoundland and Labrador	8
Highlights for Prince Edward Island.....	8
Highlights for Nova Scotia	9
Highlights for New Brunswick	9
Highlights for Yukon	9
Highlights for Northwest Territories	9
Highlights for Nunavut.....	9
Summary.....	10
Labour Force Comparison at Equalized Participation Rates	11
Descriptive Example	15
Highlights for British Columbia.....	17
Highlights for Alberta.....	17
Highlights for Saskatchewan.....	17
Highlights for Manitoba.....	17
Highlights for Ontario	18
Highlights for Quebec	18
Highlights for Newfoundland and Labrador	18
Highlights for Prince Edward Island.....	18



Highlights for Nova Scotia	19
Highlights for New Brunswick	19
Highlights for Yukon	19
Highlights for Northwest Territories	19
Highlights for Nunavut.....	20
Summary.....	20
Employment Comparison	22
Descriptive Example	24
Highlights for British Columbia.....	25
Highlights for Alberta.....	25
Highlights for Saskatchewan.....	25
Highlights for Manitoba.....	25
Highlights for Ontario	25
Highlights for Quebec	26
Highlights for Newfoundland and Labrador	26
Highlights for Prince Edward Island.....	26
Highlights for Nova Scotia	26
Highlights for New Brunswick	26
Highlights for Yukon	27
Highlights for Northwest Territories	27
Highlights for Nunavut.....	27
Summary.....	27
Future Opportunities	28
Descriptive Example	32
Specific Opportunities to Close the Projected Gaps.....	33
Appendix A – Industry Definitions.....	34
Appendix B – Matching COPS Data	39



Introduction

Background

Fiscal Realities Economists recently completed a project for the National Aboriginal Economic Development Board called *Reconciliation: Growing Canada's Economy by \$27.7 Billion*. The work included an analysis on the expected economic impacts for Canada that would result from closing the gaps in economic outcomes between the Indigenous and the Non-Indigenous population. We developed a two-fold infographic brochure as well as a background and methods paper. These were presented at the NAEDB's board meeting in Songhees (May 31 to June 1, 2016). The Board has requested the analysis be enhanced by including a sectoral breakdown. Fiscal Realities has conducted employment and labour force analysis by industry to enhance this previous work. This paper describes our methodology used for this additional analysis.

Outline

There are three components to the analysis.

Analysis of Current Labour Force Participation by Industry – Utilizing data from Statistics Canada's 2011 National Household Survey (NHS), we conducted labour force analysis for each province / territory. The analysis includes an industry breakdown based on the North American Industry Classification System (NAICS) and shows 20 industries.¹ By comparing data for the Indigenous population and data for the Non-Indigenous population across all 20 industries in each province / territory, we were able to show the industries in which the Indigenous labour force is currently under-represented, relative to the Non-Indigenous labour force.

¹ Industries are defined in Appendix A.



Analysis of Current Employment by Industry – Utilizing data from the NHS, obtained from a Senior Statistical Officer with INAC’s Statistics and Measurement Directorate, we conducted employment analysis for each province / territory. This analysis also followed the same industry breakdown used in the labour force section. By comparing data for the two populations, we were able to identify the industries in which the Indigenous population is under-employed, relative to the Non-Indigenous population.

Analysis of Future Opportunities by Industry – Utilizing data from Employment and Social Development Canada’s (ESDC) Canadian Occupational Projection System (COPS), we were able to project labour force conditions to 2024. This provided a projected labour force analysis at a national level allowing us to estimate future employment gaps between Indigenous and Non-Indigenous Canadians. By comparing projected labour force sizes for Indigenous and Non-Indigenous populations across 17 industries, we were able to forecast the industries in which the Indigenous population will be under-represented, relative to the Non-Indigenous population, in 2024. This may be valuable in terms of targeting skills development and employment training efforts to the industries forecasted to have growing labour forces and an expected under-representation of Indigenous labour.

Definitions

Our analysis uses data from the 2011 National Household Survey. This was a Statistics Canada voluntary survey in which a questionnaire was delivered to about 4.5 million Canadian households. Labour force and employment data are based on the week of Sunday May 1 to Saturday, May 7, 2011. As such, when this paper describes “current” labour force conditions, it is in reference to data based on May 2011. The labour force analysis and the employment analysis (the first two sections of this paper) are based on 2011 data that has not been projected forward to 2016.

Data in the third section, which deals with estimates of the future labour force, have been projected forward from 2011 to 2024.



Caveats

This study is based on Statistics Canada's 2011 National Household Survey; and therefore, the quality of our findings is dependent on the accuracy of the StatsCan data.² Known issues with the quality of the NHS data include:³

- Sampling – Most 2011 National Household Survey respondents received the N1 questionnaire, while respondents living on Indian reserves received the N2 questionnaire. In N1 areas, three in ten households were surveyed, while 100% of households were surveyed in the N2 areas.
- Incomplete Enumeration – In 2011, there were a total of 36 Indian reserves and Indian settlements reported as 'incompletely enumerated' in the NHS. The 2011 NHS estimates are not available for the 36 incompletely enumerated Indian reserves and Indian settlements and are not included in 2011 NHS tabulations. The extent of the impact will depend on the geographic area under study. It is much less for higher geographic areas such as Canada, provinces and territories, census metropolitan areas and census agglomerations.⁴

Further, this study includes estimates, predictions, forecasts, and projections that are forward-looking, and reflect our opinion as of the study date. These forecasts represent our current judgment, but they are subject to risks and uncertainties that could cause actual results to differ significantly.

² The global non-response rate (GNR) is used as an indicator of data quality. A small GNR indicates a lower risk of non-response bias and a lower risk of inaccuracy. The GNR for the 2011 NHS is 26.1% for Canada. Most provinces and all three territories are under 30% (with NFLD and PEI under 35%). All are well within the threshold.

³ Please see Chapter 5 of the User Guide for a discussion of data quality. Available at https://www12.statcan.gc.ca/nhs-enm/2011/ref/nhs-enm_guide/guide_4-eng.cfm.

⁴ The impact may be more significant for lower geographic areas, such as census subdivisions. This has less of an impact in our study, which examines data on a national or provincial / territorial basis.



Indigenous Representation in the Current Labour Force

Basic Labour Force Comparison

Using data from the National Household Survey (NHS), this section determines if the Indigenous labour force is currently under-represented or over-represented in each of the NAICS 20 industries, relative to the Non-Indigenous labour force. A comparison is made for each province and territory.

Each industry's share of the total labour force was calculated. This was done for both the Indigenous and the Non-Indigenous population. For each industry, the Indigenous and Non-Indigenous share of the total labour force was compared. For each industry, the difference was applied to the size of the Indigenous labour force to determine the number of workers by which the Indigenous population was either over- or under-represented.

Our findings are summarized in Table 1 on the next page.



Table 1 – Current Indigenous Labour Force Gaps by Industry (Basic)

	Current Indigenous Labour Force Gap												
	Negative numbers (red) indicate under-representation; and Positive numbers (black) indicate over-representation												
	BC	AB	SK	MB	ON	QC	NL	PE	NS	NB	YK	NT	NU
Agri, For, Fish, Hunt	+2,082	-1,064	-4,263	-1,720	-332	+414	-62	+37	+332	+293	+3	+125	+75
Mining, Oil & Gas	+993	+611	-30	+362	+1,460	+344	-16	-6	-68	-2	+106	+138	+332
Utilities	-74	-255	-100	+619	+272	+163	+63	-5	-28	-61	-10	+26	+60
Construction	+1,071	+3,324	+232	+1,233	+2,084	+744	-42	-30	-48	-48	+87	+256	+345
Manufacturing	-645	-1,345	-1,042	-2,488	-3,558	-2,953	-248	-51	-134	-268	-65	-14	+63
Wholesale Trade	-1,480	-1,066	-1,054	-1,045	-2,446	-1,250	-102	-4	-94	-56	-37	-47	-3
Retail Trade	+177	-409	-376	-782	-444	-1,047	-148	-26	-129	-36	-170	-104	+513
Transportation	-828	-128	-711	-485	+62	-318	-176	-1	-289	-60	-2	-454	+13
Info & Cultural	-1,351	-738	-239	-359	-1,105	-558	-133	-13	-83	-108	-59	-192	-37
Finance & Insurance	-2,130	-1,761	-1,214	-1,501	-4,516	-1,378	-178	-25	-262	-110	-42	-140	-99
Real Estate	-1,004	-490	-134	-278	-741	-228	-35	-13	-37	-31	-18	+51	+124
Pro, Sci & Tech	-4,478	-4,080	-1,476	-2,009	-5,541	-2,491	-303	-47	-183	-230	-92	-249	-187
Mgmt of Companies	-74	+42	-39	+10	-96	+12	+2	-1	-11	-7	-4	+7	+10
Admin, Waste Mgmt	+25	+544	+388	+495	+464	+9	+44	+9	+85	-8	-43	+29	+22
Educational Services	-1,559	-1,429	+259	+285	-1,618	-442	-21	-34	-285	-203	-46	-314	-479
Health, Social Assist	-343	-361	+446	+1,012	+2,906	+929	+273	+33	+17	-214	-18	-140	+156
Arts, Entertain, Rec	-150	+395	+1,208	-128	+518	+120	-9	+51	+34	+50	-1	+26	+122
Accom, Food Service	+1,040	+958	+980	+378	+2,180	+184	+50	-27	+22	+59	-17	-124	+29
Other Services	-530	-342	-706	-563	-360	-280	-111	-13	-53	-54	-103	-43	-43
Public Admin	+6,169	+4,451	+4,475	+3,903	+7,805	+6,916	+1,074	+85	+807	+844	+331	+541	-1,594



There are 20 rows in Table 1, one for each of the 20 NAICS industries, and 13 columns, one for each province / territory. A negative number, shown in red, indicates an under-representation of the Indigenous labour force within the particular industry, while a positive number, shown in black, indicates an over-representation of the Indigenous labour force. For example, Manitoba's current Indigenous labour force is under-represented in Professional, Scientific and Technical Services and Finance and Insurance (among other industries) as shown by negative values contained in those cells, and over-represented in Public Administration and Health Care and Social Assistance (among other industries) as shown by positive values in those cells.

Descriptive Example

A descriptive example will be provided using data for Ontario's Professional, Scientific and Technical Services industry.

In Ontario, the total Non-Indigenous labour force consists of 6,724,300 workers, with 505,975 of those workers in the Professional, Scientific and Technical industry. Therefore, the industry's share of the total labour force is calculated as 7.52% for the Non-Indigenous population in Ontario.

Similarly, Ontario's Indigenous labour force consists of 140,685 workers, with 5,045 of those in the Professional, Scientific and Technical industry. In this case, the industry's share of the Indigenous labour force is determined to be 3.59%.

In this example, the labour force gap is 3.94 percentage points. By applying this gap to the province's total Indigenous labour force of 140,685, we find that 5,541 additional Indigenous workers are required to close the gap with the Non-Indigenous population in Ontario's Professional, Scientific and Technical industry. That is, the Indigenous labour force is under-represented in the Professional, Scientific and Technical industry in Ontario by 5,541 workers.



This same process was followed for each industry in each province / territory. Some of our findings are highlighted below. For each province / territory, the five industries with the largest labour force gaps are identified (that is, the five industries for which the Indigenous labour force's under-representation is the most significant). The estimated shortfall in Indigenous labour force participants is shown in parentheses. Several industries in which the Indigenous labour force is over-represented are also identified for each province / territory.

Highlights by Province / Territory

British Columbia – The province's current Indigenous labour force is under-represented in Professional, Scientific and Technical Services (-4,478); Finance and Insurance (-2,130); Educational Services (-1,559); Wholesale Trade (-1,480); and Information and Cultural Industries (-1,351). The province's current Indigenous labour force is over-represented in Public Administration (+6,169); Agriculture, Forestry, Fishing and Hunting (+2,082); and Construction (+1,071).

Alberta – The province's current Indigenous labour force is under-represented in Professional, Scientific and Technical Services (-4,080); Finance and Insurance (-1,761); Educational Services (-1,429); Manufacturing (-1,345); and Wholesale Trade (-1,066). The province's current Indigenous labour force is over-represented in Public Administration (+4,451); Construction (+3,324); and Accommodation and Food Services (+958).

Saskatchewan – The province's current Indigenous labour force is under-represented in Agriculture, Forestry, Fishing and Hunting (-4,263), Professional, Scientific and Technical Services (-1,476); Finance and Insurance (-1,214); Wholesale Trade (-1,054); and Manufacturing (-1,042). The province's current Indigenous labour force is over-represented in Public Administration (+4,475); Arts, Entertainment and Recreation (+1,208); Accommodation and Food Services (+980).



Manitoba – The province’s current Indigenous labour force is under-represented in Manufacturing (-2,488); Professional, Scientific and Technical Services (-2,009); Agriculture, Forestry, Fishing and Hunting (-1,720); Finance and Insurance (-1,501); and Wholesale Trade (-1,045). The province’s current Indigenous labour force is over-represented in Public Administration (+3,903); Construction (+1,233); and Health Care and Social Assistance (+1,012).

Ontario – The province’s current Indigenous labour force is under-represented in Professional, Scientific and Technical Services (-5,541); Finance and Insurance (-4,516); Manufacturing (-3,558); Wholesale Trade (-2,446); and Educational Services (-1,618). The province’s current Indigenous labour force is over-represented in Public Administration (+7,805); Health Care and Social Assistance (+2,906); and Accommodation and Food Services (+2,180).

Quebec – The province’s current Indigenous labour force is under-represented in Manufacturing (-2,953); Professional, Scientific and Technical Services (-2,491); Finance and Insurance (-1,378); Wholesale Trade (-1,250); and Retail Trade (-1,047). The province’s current Indigenous labour force is over-represented in Public Administration (+6,916); Health Care and Social Assistance (+929); and Construction (+744).

Newfoundland and Labrador – The province’s current Indigenous labour force is under-represented in Professional, Scientific and Technical Services (-303); Manufacturing (-248); Finance and Insurance (-178); Transportation and Warehousing (-176); and Retail Trade (-148). The province’s current Indigenous labour force is over-represented in Public Administration (+1,074); Health Care and Social Assistance (+273); and Utilities (+63).

Prince Edward Island – The province’s current Indigenous labour force is under-represented in Manufacturing (-51); Professional, Scientific and Technical Services (-47); Educational Services (-34); Construction (-30); and Accommodation and Food Services (-27). The province’s current Indigenous labour force is over-represented in Public Administration (+85); Arts, Entertainment and Recreation (+51); and Agriculture, Forestry, Fishing and Hunting (+37).



Nova Scotia – The province’s current Indigenous labour force is under-represented in Transportation and Warehousing (-289); Educational Services (-285); Finance and Insurance (-262); Professional, Scientific and Technical Services (-183); and Manufacturing (-134). The province’s current Indigenous labour force is over-represented in Public Administration (+807); Agriculture, Forestry, Fishing and Hunting (+332); and Administrative and Support, Waste Management and Remediation Services (+85).

New Brunswick – The province’s current Indigenous labour force is under-represented in Manufacturing (-268); Professional, Scientific and Technical Services (-230); Health Care and Social (-214); Educational Services (-203); and Finance and Insurance (-110). The province’s current Indigenous labour force is over-represented in Public Administration (+844); Agriculture, Forestry, Fishing and Hunting (+293); and Accommodation and Food Services (+59).

Yukon – The territory’s current Indigenous labour force is under-represented in Retail Trade (-170); Other Services (-103); Professional, Scientific and Technical Services (-92); Manufacturing (-65); and Information and Cultural Industries (-59). The territory’s current Indigenous labour force is over-represented in Public Administration (+331); Mining, Quarrying, and Oil and Gas Extraction (+106); and Construction (+87).

Northwest Territories – The territory’s current Indigenous labour force is under-represented in Transportation and Warehousing (-454); Educational Services (-314); Professional, Scientific and Technical Services (-249); Information and Cultural Industries (-192); and Health Care and Social Assistance (-140). The territory’s current Indigenous labour force is over-represented in Public Administration (+541); Construction (+256); and Mining, Quarrying, and Oil and Gas Extraction (+138).

Nunavut – The territory’s current Indigenous labour force is under-represented in Public Administration (-1,594); Educational Services (-479); Professional, Scientific and Technical Services (-187); Finance and Insurance (-99); and Other Services (-43). The territory’s current Indigenous labour force is over-represented in Retail Trade (+513); Construction (+345); and Mining, Quarrying, and Oil and Gas Extraction (+332).



Summary

In every province and territory, the current Indigenous labour force is under-represented in Professional, Scientific and Technical Services; Finance and Insurance; Wholesale Trade; and Information and Cultural Industries. In most provinces and territories, the current Indigenous labour force is under-represented in Manufacturing (all except NU); Transportation and Warehousing (all except ON and NU); and Real Estate and Rental and Leasing (all except NT and NU).

Nationally, the current Indigenous labour force is under-represented in Professional, Scientific and Technical Services by an estimated 24,431 workers; Manufacturing by an estimated 21,063 workers; Finance and Insurance by an estimated 15,202 workers; Wholesale Trade by an estimated 10,137 workers; Information and Cultural Industries by an estimated 5,782 workers; and Educational Services by an estimated 4,700 workers.

In every province and territory except Nunavut, the current Indigenous labour force is over-represented in Public Administration.

Nationally, the current Indigenous labour force is over-represented in Public Administration by an estimated 41,593 workers; Construction by an estimated 11,659 workers; Mining, Quarrying, and Oil and Gas Extraction by an estimated 8,488 workers; Accommodation and Food Services by an estimated 5,873 workers; and Health Care and Social Assistance by an estimated 5,236 workers.



Labour Force Comparison at Equalized Participation Rates

The data above provides estimates of the number of Indigenous workers required in each industry to close the labour force gap. But, the Indigenous and Non-Indigenous populations have different labour force participation rates.⁵ The participation rate among the Indigenous population (just over 61%) is lower than that of the Non-Indigenous population (about 65%). Matching participation rates is an important factor in raising the productivity of Indigenous labour and closing economic outcome gaps.

⁵ The labour force includes people over the age of 15 that are employed or unemployed; but, it excludes those that are not employed and not looking for employment. The participation rate is the number of people in the labour force as a percentage of all the population over the age of 15.



Matching Participation Rates

Consider the following hypothetical populations:

- **Population A** has 1,000 people age 15 years and over. Assume the labour force participation rate is 80%. Therefore, Population A's labour force consists of 800 workers.
- **Population B** is one tenth the size and has 100 people age 15 years and over. Assume 60 people make up Population B's labour force – a participation rate of 60%.

In this hypothetical example there are only two relevant industries - Industry I and Industry II.

- Assume that 60% of **Population A's** labour force is in Industry I (480 A workers) and the other 40% are in Industry II (320 A workers).
- Assume further that 50% of **Population B's** labour force is in Industry I (30 B workers) and the other 50% are in Industry II (30 B workers).

In this example, Population B's labour force is under represented in Industry I. To have 60% of Population B's labour force in Industry I would require an additional 6 workers (36 in total, or 60% of 60). Further, Population B's labour force is over represented in Industry II. The 6 workers need to move from Industry II to Industry I for Population B to close the labour force gaps with Population A (24 in total, or 40% of 60).

However, in this case, Population B must rely on the economic productivity of a relatively smaller labour force (60% of the 15+ population), while Population A can rely on the economic productivity of a relatively larger labour force (80% of its 15+ population). Population B must increase its participation rate to 80% to close the gap. When the participation rate is taken into consideration, Population B is actually under-represented in both industries. Population B's labour force should be comprised of 48 workers. Population B's population age 15 years and older is one-tenth the size of that of Population A, and the number of workers in its Industry I should be one-tenth the number of Population A's 480 workers. An increase of 18 B workers is required. Further, Population B's labour force in Industry II should be comprised of 32 workers. Population B's population age 15 years and older is one-tenth the size of that of Population A, and the number of workers in its Industry II should be one-tenth the number of Population A's 320 workers. An increase of 2 B workers is required to close the labour force gap if participation rates are equalized.



Matching the Participation Rates

The table below summarizes the hypothetical case described in the text box above.

Pop	# of people age 15+	Labour Force		Industry I		Industry II	
		%	People	%	People	%	People
A	1,000	80%	800	60%	480	40%	320
B	100	60%	60	50%	30	50%	30
B1	100	60%	60	60%	36 (+6)	40%	24 (-6)
B2	100	80%	80 (+20)	60%	48 (+18)	40%	32 (+2)

The row labeled **A** represents Population A, comprised of 1,000 people age 15 years and older, with 800 people in the labour force, including 480 in Industry I and 320 in Industry II.

The row labeled **B** represents Population B, comprised of 100 people age 15 years and older, with 60 people in the labour force, including 30 in Industry I and 30 in Industry II.

The row labeled **B1** represents Population B if only labour force gaps are closed, comprised of 100 people age 15 years and older, still with only 60 people in the labour force, including 36 in Industry I (6 more than B's current conditions) and 24 in Industry II (6 fewer than B's current conditions). Industry I's share of B's labour force is 60%, matching the industry's portion of A's labour force. Industry II's share of B's labour force is 40%, matching the industry's portion of A's labour force. But, these numbers are still only based on a labour force participation rate of 60%, which is much lower than A's rate of 80%.

The row labeled **B2** represents Population B if labour force and participation rate gaps are closed, comprised of 100 people age 15 years and older, now with 80 people in the labour force (20 more than B's current conditions), including 48 in Industry I (18 more than B's current conditions) and 32 in Industry II (2 more than B's current conditions). Industry I's share of B's labour force is 60%, matching the industry's portion of A's labour force. Industry II's share of B's labour force is 40%, matching the industry's portion of A's labour force. These numbers are based on a labour force participation rate of 80%, which matches A's rate as well.

This section of the paper provides an analysis of current labour force gaps that assumes the participation rate gap is also closed. Our findings are summarized in Table 2 on the next page.



Table 2 – Current Indigenous Labour Force Gaps by Industry (Based on Equalized Participation Rates)

	Indigenous Labour Force Gap Based on Equalized Participation Rates												
	Negative numbers (red) indicate under-representation; and Positive numbers (black) indicate over-representation												
	BC	AB	SK	MB	ON	QC	NL	PE	NS	NB	YK	NT	NU
Agri, For, Fish, Hunt	+1,983	-1,461	-5,787	-2,369	-457	+347	-45	+34	+323	+277	-1	+121	+75
Mining, Oil & Gas	+952	-257	-660	+252	+1,425	+328	-1	-6	-70	-7	+91	-58	+315
Utilities	-96	-397	-249	+453	+202	+136	+67	-5	-30	-66	-15	-11	-17
Construction	+770	+2,094	-939	+338	+1,572	+553	-5	-33	-65	-79	+42	+10	+78
Manufacturing	-895	-2,142	-1,795	-3,777	-4,420	-3,333	-217	-54	-153	-303	-75	-44	+38
Wholesale Trade	-1,633	-1,641	-1,662	-1,549	-2,824	-1,385	-91	-5	-103	-69	-44	-108	-55
Retail Trade	-267	-1,875	-2,055	-2,332	-1,368	-1,445	-93	-30	-162	-84	-230	-437	+65
Transportation	-1,028	-798	-1,426	-1,240	-316	-462	-155	-3	-299	-80	-23	-787	-322
Info & Cultural	-1,457	-969	-544	-623	-1,326	-636	-126	-14	-88	-116	-75	-297	-140
Finance & Insurance	-2,287	-2,212	-1,826	-2,115	-4,969	-1,505	-169	-26	-270	-123	-49	-213	-185
Real Estate	-1,097	-749	-341	-465	-906	-277	-30	-13	-41	-35	-23	-4	-22
Pro, Sci & Tech	-4,785	-5,144	-2,161	-2,653	-6,176	-2,717	-286	-49	-196	-247	-120	-421	-367
Mgmt of Companies	-79	+26	-56	-1	-104	+9	+2	-1	-11	-7	-4	-2	+10
Admin, Waste Mgmt	-140	+81	+31	+31	+84	-115	+59	+8	+73	-27	-59	-62	-107
Educational Services	-1,841	-2,342	-939	-880	-2,235	-681	+10	-37	-306	-231	-76	-622	-1,262
Health, Social Assist	-759	-1,683	-1,335	-832	+2,058	+536	+332	+30	-16	-266	-52	-469	-197
Arts, Entertain, Rec	-245	+143	+972	-410	+342	+57	-3	+50	+29	+44	-13	-22	+70
Accom, Food Service	+742	+161	+73	-517	+1,669	-17	+77	-30	+5	+34	-53	-315	-195
Other Services	-719	-991	-1,423	-1,189	-725	-430	-91	-14	-64	-73	-129	-176	-215
Public Admin	+5,939	+3,657	+3,438	+2,792	+7,251	+6,687	+1,115	+80	+782	+804	+190	-256	-4,229



Table 2 has 20 rows, one for each of the 20 NAICS industries, and 13 columns, one for each province / territory. Again, a negative number, shown in red, indicates an under-representation of the Indigenous labour force within the particular industry, while a positive number, shown in black, indicates an over-representation of the Indigenous labour force. For example, assuming equalized participation rates, Quebec's current Indigenous labour force is under-represented in Professional, Scientific and Technical Services and Finance and Insurance (among other industries) as shown by negative values contained in those cells, and over-represented in Public Administration and Health Care and Social Assistance (among other industries) as shown by positive values in those cells.

Descriptive Example

To carry on with the Ontario example above, we calculated that the Professional, Scientific and Technical Services industry accounted for 7.52% of Ontario's Non-Indigenous labour force, and 3.59% of the Indigenous labour force. As described above, we estimated that an additional 5,541 Indigenous workers would be need in the industry to close the labour force gap. That is, with the addition of 5,541 Indigenous workers, the industry would account for 7.52% of the Indigenous labour force.

But, the Indigenous population's participation rate is lower than that of the Non-Indigenous population.⁶ There are 505,975 Non-Indigenous workers in Ontario's Professional, Scientific and Technical Services industry. This represents 4.94% of the province's Non-Indigenous population age 15 years and older (10,246,435).

⁶ 61.91% among the Indigenous population and 65.63% among the Non-Indigenous population.



There are 5,045 Indigenous workers in the industry, which is only 2.22% of the province's Indigenous population age 15 years and older (227,235). So, although it takes an additional 5,541 Indigenous workers for the industry's share of the Indigenous labour force to match the Non-Indigenous labour force, a larger number of Indigenous workers must be added so the industry's share of the Indigenous population (15+) matches the Non-Indigenous population (15+). In fact, we estimate that 6,176 Indigenous workers are required so the industry's share of the Indigenous population (15+) matches the Non-Indigenous population (15+).⁷ Alternatively stated, Ontario's Professional, Scientific and Technical Services industry requires an additional 6,176 Indigenous workers close the labour force gap if participation rates are equalized between the two populations.⁸

This same process was followed for each industry in each province / territory. Some of our findings are highlighted below. For each province / territory, the five industries for which the Indigenous labour force's under-representation is the most significant (at equalized participation rates) are identified. Again, the estimated shortfall in Indigenous labour force participants is shown in parentheses. Several industries in which the Indigenous labour force is over-represented (at equalized participation rates) are also identified for each province / territory.

⁷ This is an additional 635 Indigenous workers to close the participation rate gap on top of the previously estimated 5,541 Indigenous workers required to close the labour force gap. Combined, it is estimated that 6,176 Indigenous workers are required to close the labour force gap at the same participation rate as the Non-Indigenous population.

⁸ This is estimated by projecting the number of Indigenous workers required in the industry by applying the Non-Indigenous rate of 4.94% to the Indigenous population age 15+ (227,235). The total requirement is estimated to be 11,221 Indigenous workers. The current number of Indigenous workers in the industry (5,045) is subtracted from this projection. The result is 6,176 Indigenous workers.



Highlights by Province / Territory

British Columbia – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Professional, Scientific and Technical Services (-4,785); Finance and Insurance (-2,287); Educational Services (-1,841); Wholesale Trade (-1,633); and Information and Cultural Industries (-1,457). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+5,939); Agriculture, Forestry, Fishing and Hunting (+1,983); and Mining, Quarrying, and Oil and Gas Extraction (+952).

Alberta – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Professional, Scientific and Technical Services (-5,144); Educational Services (-2,342); Finance and Insurance (-2,212); Manufacturing (-2,142); and Retail Trade (-1,875). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+3,657); Construction (+2,094); and Accommodation and Food Services (+161).

Saskatchewan – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Agriculture, Forestry, Fishing and Hunting (-5,787); Professional, Scientific and Technical Services (-2,161); Retail Trade (-2,055); Finance and Insurance (-1,826); and Manufacturing (-1,795). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+3,438); Arts, Entertainment and Recreation (+972); and Accommodation and Food Services (+73).

Manitoba – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Manufacturing (-3,777); Professional, Scientific and Technical Services (-2,653); Agriculture, Forestry, Fishing and Hunting (-2,369); Retail Trade (-2,332); and Finance and Insurance (-2,115). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+2,792); Utilities (+453); and Construction (+338).



Ontario – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Professional, Scientific and Technical Services (-6,176); Finance and Insurance (-4,969); Manufacturing (-4,420); Wholesale Trade (-2,824); and Educational Services (-2,235). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+7,251); Health Care and Social Assistance (+2,058); and Accommodation and Food Services (+1,669).

Quebec – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Manufacturing (-3,333); Professional, Scientific and Technical Services (-2,717); Finance and Insurance (-1,505); Retail Trade (-1,445); and Wholesale Trade (-1,385). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+6,687); Construction (+553); and Health Care and Social Assistance (+536).

Newfoundland and Labrador – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Professional, Scientific and Technical Services (-286); Manufacturing (-217); Finance and Insurance (-169); Transportation and Warehousing (-155); and Information and Cultural Industries (-126). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+1,115); Health Care and Social Assistance (+332); and Accommodation and Food Services (+77).

Prince Edward Island – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Manufacturing (-54); Professional, Scientific and Technical Services (-49); Educational Services (-37); Educational Services (-37); Construction (-33); and Retail Trade (-30). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+80); Arts, Entertainment and Recreation (+50); and Agriculture, Forestry, Fishing and Hunting (+34).



Nova Scotia – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Educational Services (-306); Transportation and Warehousing (-299); Finance and Insurance (-270); Professional, Scientific and Technical Services (-196); and Retail Trade (-162). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+782); Agriculture, Forestry, Fishing and Hunting (+323); and Administrative and Support, Waste Management and Remediation (+73).

New Brunswick – At the same participation rate as the Non-Indigenous population, the province’s Indigenous population is under-represented in Manufacturing (-303); Health Care and Social Assistance (-266); Professional, Scientific and Technical Services (-247); Educational Services (-231); and Finance and Insurance (-123). If participation rates were equalized, the province’s current Indigenous labour force is over-represented in Public Administration (+804); Agriculture, Forestry, Fishing and Hunting (+277); and Arts, Entertainment and Recreation (+44).

Yukon – At the same participation rate as the Non-Indigenous population, the territory’s Indigenous population is under-represented in Retail Trade (-230); Other Services (-129); Professional, Scientific and Technical Services (-120); Educational Services (-76); and Manufacturing (-75). If participation rates were equalized, the territory’s current Indigenous labour force is over-represented in Public Administration (+190); Mining, Quarrying, and Oil and Gas Extraction (+91); and Construction (+42).

Northwest Territories – At the same participation rate as the Non-Indigenous population, the territory’s Indigenous population is under-represented in Transportation and Warehousing (-787); Educational Services (-622); Health Care and Social Assistance (-469); Retail Trade (-437); and Professional, Scientific and Technical Services (-421). If participation rates were equalized, the territory’s current Indigenous labour force is only over-represented in two industries, including Agriculture, Forestry, Fishing and Hunting (+121) and Construction (+10).



Nunavut – At the same participation rate as the Non-Indigenous population, the territory’s Indigenous population is under-represented in Public Administration (-4,229) – in contrast with all other provinces and territories; Educational Services (-1,262); Professional, Scientific and Technical Services (-367); Transportation and Warehousing (-322); and Other Services (-215). If participation rates were equalized, the territory’s current Indigenous labour force is over-represented in Mining, Quarrying, and Oil and Gas Extraction (+315); Construction (+78); and Agriculture, Forestry, Fishing and Hunting (+75).

Summary

In every province and territory, the Indigenous population is under-represented (based on equalized participation rates) in Professional, Scientific and Technical Services; Finance and Insurance; Wholesale Trade; Information and Cultural Industries; Other Services; Transportation and Warehousing; and Real Estate and Rental and Leasing. In most provinces and territories, the Indigenous population is under-represented (based on equalized participation rates) in Manufacturing (all except NU); Retail Trade (all except NU); and Educational Services (all except NL).

Nationally, the Indigenous population is under-represented (based on equalized participation rates) in Professional, Scientific and Technical Services by an estimated 27,903 workers; Manufacturing by an estimated 25,563 workers; Finance and Insurance by an estimated 17,351 workers; Wholesale Trade by an estimated 12,177 workers; Retail Trade by an estimated 9,792 workers; and Educational Services by an estimated 8,284 workers.

In every province and territory except Northwest Territories and Nunavut, the Indigenous population is over-represented (based on equalized participation rates) in Public Administration.



Nationally, the Indigenous population is over-represented (based on equalized participation rates) in Public Administration by an estimated 38,247 workers; Construction by an estimated 8,356 workers; Mining, Quarrying, and Oil and Gas Extraction by an estimated 7,795 workers; and Accommodation and Food Services by an estimated 2,786 workers.



Employment Comparison

This section is also based on National Household Survey data. Aboriginal employment data by industry isn't published on the Statistics Canada website with the rest of the NHS data. The data used in this project was obtained from a Senior Statistical Officer with INAC's Statistics and Measurement Directorate.

The labour force analysis above can be further enhanced by the employment analysis in this section, as the labour force contains both the employed and the unemployed.⁹ Therefore, it is also important to consider employment data.

The portion of the Non-Indigenous population aged 15 years and over employed in each industry was calculated. This percentage was applied to the Indigenous population aged 15 years to yield the total number of Indigenous people required to be employed in each industry in order to match the employment rate of the Non-Indigenous population. This was subtracted from the actual number of Indigenous people employed in each industry to yield the employment gap between the Indigenous and Non-Indigenous populations.

Our findings are summarized in Table 3 on the next page.

⁹ The employed are persons having a job or business. The unemployed are persons without work, but are available for work and are actively seeking work. The labour force is comprised of the employed and the unemployed.



Table 3 – Current Indigenous Employment Gaps by Industry

	Employment Gaps by Industry												
	Negative numbers (red) indicate under-employment; and Positive numbers (black) indicate over-employment												
	BC	AB	SK	MB	ON	QC	NL	PE	NS	NB	YK	NT	NU
Agri, For, Fish, Hunt	+1,032	-1,613	-5,917	-2,596	-650	+87	-160	+43	+279	+135	-14	+51	+28
Mining, Oil & Gas	+736	-474	-707	+240	+1,281	+260	-12	-4	-61	+0	+36	-135	+173
Utilities	-108	-423	-271	+368	+125	+67	+33	-5	-29	-72	-11	-36	-20
Construction	-237	+1,431	-1,413	-300	+628	+77	-206	-64	-67	-91	-41	-192	-182
Manufacturing	-1,305	-2,132	-1,864	-3,690	-4,551	-3,277	-429	-48	-169	-308	-77	-40	+53
Wholesale Trade	-1,679	-1,615	-1,731	-1,539	-2,743	-1,345	-107	-4	-118	-92	-37	-109	-75
Retail Trade	-756	-2,158	-2,356	-2,696	-1,482	-1,599	-137	-61	-181	-165	-264	-502	-142
Transportation	-1,267	-999	-1,504	-1,421	-597	-523	-206	-3	-290	-70	-39	-798	-415
Info & Cultural	-1,389	-942	-550	-591	-1,296	-637	-123	-12	-137	-112	-76	-288	-187
Finance & Insurance	-2,309	-2,221	-1,800	-2,100	-4,879	-1,461	-154	-25	-270	-119	-41	-214	-190
Real Estate	-1,093	-754	-392	-493	-961	-267	-27	-11	-33	-42	-35	-11	-130
Pro, Sci & Tech	-4,711	-5,122	-2,206	-2,635	-5,955	-2,696	-320	-44	-187	-241	-135	-428	-382
Mgmt of Companies	-96	+33	-63	+0	-102	-3	+5	-1	-10	-6	-3	-2	+10
Admin, Waste Mgmt	-502	-213	-137	-228	-273	-267	-54	+13	-2	-96	-75	-113	-182
Educational Services	-2,003	-2,309	-1,124	-1,073	-2,380	-755	-21	-48	-298	-253	-78	-629	-1,277
Health, Social Assist	-1,109	-2,096	-1,695	-1,061	+1,720	+190	+271	+32	-59	-296	-66	-498	-285
Arts, Entertain, Rec	-290	+43	+835	-400	+120	-55	+0	-15	-3	+53	+3	-19	+73
Accom, Food Service	+69	-233	-395	-800	+759	-233	+58	-21	+34	-9	-104	-363	-257
Other Services	-886	-1,167	-1,462	-1,236	-917	-531	-110	-12	-62	-132	-131	-212	-255
Public Admin	+4,630	+3,044	+2,895	+2,043	+6,347	+5,627	+815	+55	+583	+479	+43	-574	-4,417



Table 3 has 20 rows, one for each of the 20 NAICS industries, and 13 columns, one for each province / territory. A negative number, shown in red, indicates the Indigenous population is under-employed in the particular industry, while a positive number, shown in black, indicates over-employment. For example, Newfoundland and Labrador's current Indigenous population is under-employed in Professional, Scientific and Technical Services and Finance and Insurance (among other industries) as shown by negative values contained in those cells, and over-employed in Public Administration and Health Care and Social Assistance (among other industries) as shown by positive values in those cells.

Descriptive Example

A descriptive example is provided below. For consistency, the descriptive example is again based on data for Ontario's Professional, Scientific and Technical Services industry.

In Ontario, the Non-Indigenous population age 15 years and over consists of 10,246,435 people, with 482,040 of them employed in the Professional, Scientific and Technical Services industry. We calculated that 4.70% of the Non-Indigenous population age 15 years and over is employed in the industry. By applying this portion to the Indigenous population age 15 years and older (227,235), we find that 10,690 Indigenous people must be employed in the industry to match the employment rate of the Non-Indigenous population. But, the data shows that only 4,735 Indigenous people are actually employed in the Professional, Scientific and Technical Services industry in Ontario. In order to close the employment gap in the industry, 5,955 more Indigenous people must be employed in the industry.

This same process was followed for each industry in each province / territory. Some of our findings are highlighted below. For each province / territory, the five industries with the largest employment gaps are identified (that is, the five industries for which the Indigenous population's under-employment, relative to the Non-Indigenous population's, is the most significant). The estimated shortfall in employed Indigenous workers is shown in parentheses.



Highlights by Province / Territory

British Columbia – The province’s Indigenous population is under-employed in Professional, Scientific and Technical Services (-4,711); Finance and Insurance (-2,309); Educational Services (-2,003); Wholesale Trade (-1,679); and Information and Cultural Industries (-1,389). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Alberta – The province’s Indigenous population is under-employed in Professional, Scientific and Technical Services (-5,122); Educational Services (-2,309); Finance and Insurance (-2,221); Retail Trade (-2,158); and Manufacturing (-2,132). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Saskatchewan – The province’s Indigenous population is under-employed in Agriculture, Forestry, Fishing and Hunting (-5,917); Retail Trade (-2,356); Professional, Scientific and Technical Services (-2,206); Manufacturing (-1,864); and Finance and Insurance (-1,800). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Manitoba – The province’s Indigenous population is under-employed in Manufacturing (-3,690); Retail Trade (-2,696); Professional, Scientific and Technical Services (-2,635); Agriculture, Forestry, Fishing and Hunting (-2,596); and Finance and Insurance (-2,100). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Ontario – The province’s Indigenous population is under-employed in Professional, Scientific and Technical Services (-5,955); Finance and Insurance (-4,879); Manufacturing (-4,551); Wholesale Trade (-2,743); and Educational Services (-2,380). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.



Quebec – The province’s Indigenous population is under-employed in Manufacturing (-3,277); Professional, Scientific and Technical Services (-2,696); Retail Trade (-1,599); Finance and Insurance (-1,461); and Wholesale Trade (-1,345). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Newfoundland and Labrador – The province’s Indigenous population is under-employed in Manufacturing (-429); Professional, Scientific and Technical Services (-320), Transportation and Warehousing (-206); Construction (-206); and Agriculture, Forestry, Fishing and Hunting (-160). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Prince Edward Island – The province’s Indigenous population is under-employed in Construction (-64); Retail Trade (-61); Manufacturing (-48); Educational Services (-48); and Professional, Scientific and Technical Services (-44). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Nova Scotia – The province’s Indigenous population is under-employed in Educational Services (-298); Transportation and Warehousing (-290); Finance and Insurance (-270); Professional, Scientific and Technical Services (-187); and Retail Trade (-181). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

New Brunswick – The province’s Indigenous population is under-employed in Manufacturing (-308); Health Care and Social Assistance (-296); Educational Services (-253); Professional, Scientific and Technical Services (-241); and Retail Trade (-165). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.



Yukon – The territory’s Indigenous population is under-employed in Retail Trade (-264); Professional, Scientific and Technical Services (-135); Other Services (-131); Accommodation and Food Services (-104); and Educational Services (-78). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Northwest Territories – The territory’s Indigenous population is under-employed in Transportation and Warehousing (-798); Educational Services (-629); Public Administration (-574); Retail Trade (502); and Health Care and Social Assistance (-498). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Nunavut – The territory’s Indigenous population is under-employed in Public Administration (-4,417); Educational Services (-1,277); Transportation and Warehousing (-415); Professional, Scientific and Technical Services (-382); and Health Care and Social Assistance (-285). These findings are largely consistent with both the basic labour force analysis and the analysis of the labour force at equalized participation rates conducted earlier.

Summary

In every province and territory, the Indigenous population is under-employed in Professional, Scientific and Technical Services; Finance and Insurance; Wholesale Trade; Retail Trade; Educational Services; Information and Cultural Industries; Other Services; Transportation and Warehousing; and Real Estate and Rental and Leasing. In most provinces and territories, the Indigenous population is under-employed in Manufacturing (all except NU); and Administrative and Support, Waste Management and Remediation Services (all except PEI).

Nationally, the Indigenous population is under-employed in Professional, Scientific and Technical Services by an estimated 27,423 employed workers; Manufacturing by an estimated 25,596 employed workers; Finance and Insurance by an estimated 17,088 employed workers; Wholesale Trade by an estimated 12,058 employed workers; and Retail Trade by an estimated 11,687 employed workers.



Specific Opportunities to Close the Gap

This section identifies one or more industries in each province / territory where the opportunity exists for the Indigenous population to close the employment gap with the Non-Indigenous population. For the purposes of displaying these findings in the infographic, the Atlantic provinces have been combined as well as the northern territories.

British Columbia – The employment of 4,711 additional Indigenous workers in BC’s Professional, Scientific and Technical Services industry, 2,309 additional Indigenous workers in the Finance and Insurance industry, and 2,003 in the Educational Services industry will close the gaps with the Non-Indigenous population.

Alberta – To close the employment gap with the Non-Indigenous population, 5,122 additional Indigenous workers must be employed in Professional, Scientific and Technical Services industry, 2,309 additional workers in the province’s Educational Services industry, and 2,221 in the Finance and Insurance industry.

Saskatchewan – Employing 2,356 more Indigenous workers in Saskatchewan’s Retail Trade industry, 2,206 more in the province’s Professional, Scientific and Technical Services industry, and 1,864 more in the Manufacturing industry will close the employment gaps with Non-Indigenous workers.

Manitoba – The Indigenous population can close the employment gaps with the Non-Indigenous population in Manitoba with 3,690 more employed Indigenous people in the Manufacturing industry, 2,696 more in the Retail Trade industry, and 2,635 in the Professional, Scientific and Technical Services industry.

Ontario – The employment of 5,955 additional Indigenous workers in Ontario’s Professional, Scientific and Technical Services industry, 4,879 additional Indigenous workers in the Finance and Insurance industry, and 4,551 in the Manufacturing industry will close the gaps with the Non-Indigenous population.



Quebec – To close the employment gaps with the Non-Indigenous population, 3,277 more Indigenous workers are needed in Quebec’s Manufacturing industry, 2,696 more in the Professional, Scientific and Technical Services industry, and 1,599 in the Retail Trade industry.

Atlantic – It is estimated that 953 more Indigenous workers employed in the Manufacturing industry, 791 more in the Professional, Scientific and Technical Services industry will close the employment gaps in Atlantic Canada.

North – To close the employment gaps, it is estimated that 1,985 additional Indigenous workers need to be employed in the Educational Services industry, 1,253 more in the Transportation and Warehousing industry, and 946 in the Professional, Scientific and Technical Services industry.



Future Opportunities

This section utilizes data from Employment and Social Development Canada's (ESDC) Canadian Occupational Projection System (COPS) to project labour force sizes by industry.¹⁰ The COPS data was used to project labour force size by industry to 2024.¹¹

The size of just the Indigenous labour force in 2024 was then estimated. The Indigenous population represents one of the fastest growing demographic groups in Canada. But, a fast growing total population is not the only factor affecting the size of the future labour force. As discussed in the first section of this paper, the pace at which the Indigenous participation rate will rise to match the participation rate of the Non-Indigenous population is also a factor of significant influence. One estimate assumes the Indigenous participation rate matches the Non-Indigenous participation rate by 2026.¹² Under this assumption, it is estimated that the Indigenous labour force will reach 700,391 workers by 2024.¹³

The distribution of the Indigenous labour force into the various industries was assumed to correspond with the current break down. For example, 2.43% of the Indigenous labour force was in the Agriculture, Forestry, Fishing and Hunting industry in 2011; and accordingly, it is assumed that 2.43% of the projected 2024 Indigenous labour force will be in the Agriculture, Forestry, Fishing and Hunting industry.

¹⁰ Canadian Occupational Projection System 2015 Projections – Industrial Summaries 2015-2024; ESDC; Dec 2015. Available at <http://occupations.esdc.gc.ca/sppc-cops/maint/file/download/SSPB-EPD-COPS2015IndustrialSummaries-Report-20151210-EN-FINAL.pdf>.

¹¹ Appendix B explains how the industry breakdowns in the COPS data and the NHS data were reconciled.

¹² The Great Canadian Skills Mismatch: People Without Jobs, Jobs Without People and MORE, Rick Miner, Miner Management Consultants, March 2014. Available at [http://www.minerandminer.ca/data/Miner_March_2014_final\(2\).pdf](http://www.minerandminer.ca/data/Miner_March_2014_final(2).pdf).

¹³ Table 8 of the Miner projection shows an estimated impact of 60,201 in 2021 and 97,043 in 2026. Note 1 states that increases are equally distributed over the five year period. Therefore, based on straight line growth (equally distributed) between 2021 and 2026, the estimated impact is 82,306 in 2024. The base year for this estimate is 2011. The NHS (2011 data) shows an Indigenous labour force of 618,085. Therefore, the estimated size of the Indigenous labour force in 2024 is the sum, or 700,391.



The size of each industry’s Non-Indigenous future labour force was estimated by subtracting the estimated number of Indigenous workers in 2024 in each industry from total number of workers projected for each industry’s labour force. Each industry’s share of the projected 2024 Non-Indigenous labour force was then calculated.¹⁴

Each industry’s share of the Indigenous and Non-Indigenous labour force was compared to estimate the Indigenous labour force gaps in 2024. Our findings are summarized in Table 4 below.

Table 4 – Projected Indigenous Labour Force Gaps by Industry (2024)

Industry	Projected Labour Force Gap Negative numbers (red) indicate under-representation; and Positive numbers (black) indicate over-representation
Agriculture, Forestry, Fishing & Hunting	+6,084
Mining, Quarrying, & Oil & Gas Extraction	+8,667
Utilities	+1,926
Construction	+7,376
Manufacturing	-23,298
Wholesale Trade	-6,293
Retail Trade	-3,501
Transportation and Warehousing	+1,304
Info, Culture and Rec Services	-980
Finance, Insurance, Real Estate & Leasing Services	-18,965
Professional, Scientific and Technical Services	-33,545
Mgmt, Admin and Other Support Services	+2,122
Educational Services	+138
Health Care and Social Assistance	-10,588
Accommodation and Food Services	+5,705
Other Services (Except Public Admin)	-2,068
Public Administration	+64,740

¹⁴ This first required estimating the size of the Non-Indigenous labour force in 2024. In 2011, Statistics Canada projected the Canadian labour force to 2031 under five growth scenarios (*Projected trends to 2031 for the Canadian labour force*, Statistics Canada, Canadian Economic Observer, Aug 2011; available at <http://www.statcan.gc.ca/pub/11-010-x/2011008/part-partie3-eng.htm>). The projected size of the Canadian labour force in 2024 in this project is based on this StatsCan forecast, estimated under the following parameters, which are contained in the StatsCan forecast: (i) average annual growth in the labour force between 2006 and 2010 was approximately 1.4%; (ii) by 2016, average annual growth in the labour force is projected to be less than 1.0%; and (iii) average annual growth in the labour force is projected to range between 0.2% and 0.7% during the period 2021-2026. Based on these parameters, a growth rate was selected for each year up to 2024. The result is an estimated labour force of 20,051,912 Canadians (Indigenous and Non-Indigenous) in 2024. The estimated Indigenous labour force was subtracted from this to provide an estimate of the Non-Indigenous labour force only in 2024 or about 19,351,521. The estimated 656,345 Non-Indigenous workers in the Wholesale Trade industry represent about 3.39% of the estimated Non-Indigenous labour force.



Table 4 summarizes our projections of Indigenous labour force gaps in 2024, by industry. The column on the left identifies the industry and the column on the right identifies the estimated number of Indigenous workers required to match the rate of the Non-Indigenous population. A negative number, shown in red, indicates that Indigenous workers are projected to be under-represented in the particular industry in 2024. For example, we have projected the Indigenous population will be under-represented in the Professional, Scientific and Technical Services industry in 2024, relative to the Non-Indigenous population. The gap is estimated to be 33,545 workers. That is, we have estimated that it will take an additional 33,545 Indigenous workers for the industry's portion of the Indigenous labour force to match that of the Non-Indigenous labour force.

A positive number, shown in black, indicates that Indigenous workers are projected to be over-represented in the particular industry in 2024. For example, we have projected the Indigenous population will be over-represented in the Public Administration industry in 2024, relative to the Non-Indigenous population, by an estimated 64,740 workers.

Descriptive Example

A descriptive example is provided for the Wholesale Trade industry. The COPS data states that in 2014, the industry's labour force included about 622,200 workers. The COPS data projects annual growth to average 0.8% until 2024. This results in a projected labour force of about 673,807 workers nationally, including Indigenous and Non-Indigenous workers.



As described above, just the Indigenous labour force in 2024 is projected to be 700,391 workers. In 2011, 2.49% of the Indigenous labour force was in the Wholesale Trade industry and this methodology assumes this same percentage of the Indigenous labour force will be in the industry in 2024. This is estimated to be about 17,462 Indigenous workers.¹⁵ This means the industry's labour force is estimated to include about 656,345 Non-Indigenous workers.¹⁶ This is about 3.39% of the Non-Indigenous labour force.¹⁷ The gap of 0.90% was applied to the estimated 2024 Indigenous labour force of 700,391. It is projected that in 2024, the Indigenous population will be under-represented in the Wholesale Trade industry by an estimated 6,293 workers.

Specific Opportunities to Close the Projected Gaps

This section identifies seven industries that meet three criteria:

- (i) The Indigenous population is currently under-represented within the labour force and / or the Indigenous labour force is currently under-employed, relative to the industry's Non-Indigenous labour force;
- (ii) A projected under-representation of the Indigenous population within the industry's future labour force; and
- (iii) Positive projected growth in labour force size is expected over the forecast period.

The industries identified below represent the highest potential return on investment in skills development and employment training programs.

¹⁵ 2.49% of the estimated 700,391 Indigenous labour force is an estimated 17,462 (Indigenous workers projected to be in the Wholesale Trade industry in 2024).

¹⁶ The estimated labour force of 673,807 workers (Indigenous and Non-Indigenous), less the estimated 17,462 Indigenous workers.

¹⁷ The estimated 656,345 Non-Indigenous Wholesale Trade workers divided by the estimated 19,351,521 workers in the Non-Indigenous labour force.



Professional, Scientific and Technical Services – The Indigenous population is currently under-represented in the industry and Indigenous workers in the industry are also currently under-employed. According to our projections, the Indigenous population will be under-represented in the industry by an estimated 33,545 workers by 2024. This is the most significant under-representation among all industries. This is important because labour force growth in this industry is expected to be 2nd highest over the forecast period.

Manufacturing – The Indigenous population is currently under-represented in the industry. Indigenous workers in the industry are also currently under-employed. According to our projections, the Indigenous population will also be under-represented in the industry in 2024. In fact, this industry is projected to have the 2nd largest labour force gap, an estimated 23,298 workers by 2024. The size of the industry’s labour force is expected to increase modestly over the forecast period.

Finance, Insurance, Real Estate and Leasing Services – The Indigenous population is currently under-represented in the industry. Indigenous workers are also under-employed in the industry. By 2024, we have projected the Indigenous population to be under-represented by an estimated 18,965 workers (the 3rd largest gap). The size of the industry’s labour force is expected to realize above average growth over the forecast period.

Health Care and Social Assistance – Indigenous workers are currently under-employed in the industry. Based on our projections, by 2024, Indigenous people will be under-represented in the industry by an estimated 10,588 workers. This industry represents a particularly important potential opportunity as its projected labour force growth rate is the highest among all industries over the forecast period.

Wholesale Trade – Currently, the Indigenous population is under-represented and under-employed in the industry. Further, the Indigenous population is projected to be under-represented within the industry’s future labour force by an estimated 6,293 workers. The industry is projected to have above average labour force growth over the forecast period.



Retail Trade – The Indigenous population is under-represented and under-employed in the industry. We have projected the Indigenous population will be under-represented within the industry’s labour force by an estimated 3,501 workers by 2024. The industry is expected to experience above average growth in labour force size over the forecast period.

Other Services (except Public Administration) / Repair, Personal and Household Services – The Indigenous population is currently under-represented and under-employed in the industry. We have projected that by 2024 the Indigenous population will be under-represented within the industry’s labour force by an estimated 2,068 workers. The industry’s labour force is expected to experience above average growth over the forecast period.



Appendix A – Industry Definitions

Our analysis is based on the North American Industry Classification System (NAICS). The 20 industries are defined briefly below.¹⁸

Agriculture, Forestry, Fishing and Hunting – This sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, harvesting fish and other animals from their natural habitats and providing related support activities.

Mining, Quarrying, and Oil and Gas Extraction – This sector comprises establishments primarily engaged in extracting naturally occurring minerals (including solids like coal and ores; liquids, such as crude petroleum; and gases, such as natural gas). Quarrying, well operations, milling, exploration, development of mineral properties and mining operations are also included in this sector.

Utilities – This sector comprises establishments primarily engaged in operating electric, gas and water utilities, including the generation, transmission and distribution of electric power; distribution of natural gas; treatment and distribution of water; operation of sewer systems and sewage treatment facilities; and the provision of related services.

Construction – This sector comprises establishments primarily engaged in constructing, repairing and renovating buildings and engineering works, and in subdividing and developing land.

Manufacturing – This sector comprises establishments primarily engaged in the chemical, mechanical or physical transformation of materials or substances into new products.

Wholesale Trade – This sector comprises establishments primarily engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

¹⁸ Definitions for industry classification structure from <http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&db=imdb&dis=2&adm=8&TVD=118464>



Retail Trade – This sector comprises establishments primarily engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

Transportation and Warehousing – This sector comprises establishments primarily engaged in transporting passengers and goods, warehousing and storing goods, and providing services to these establishments.

Information and Cultural Industries – This sector comprises establishments primarily engaged in producing and distributing (except by wholesale and retail methods) information and cultural products.

Finance and Insurance – This sector comprises establishments primarily engaged in financial transactions (that is, transactions involving the creation, liquidation, or change in ownership of financial assets) or in facilitating financial transactions.

Real Estate and Rental and Leasing – This sector comprises establishments primarily engaged in renting, leasing or otherwise allowing the use of tangible or intangible assets.

Professional, Scientific and Technical Services – This sector comprises establishments primarily engaged in activities in which human capital is the major input. These establishments make available the knowledge and skills of their employees, often on an assignment basis.

Management of Companies and Enterprises – This sector comprises establishments primarily engaged in managing companies and enterprises and/or holding the securities or financial assets of companies and enterprises, for the purpose of owning a controlling interest in them and/or influencing their management decisions.

Administrative and Support, Waste Management and Remediation Services – This sector comprises establishments of two different types: those primarily engaged in activities that support the day-to-day operations of other organizations; and those primarily engaged in waste management activities.



Educational Services – This sector comprises establishments primarily engaged in providing instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities and training centres.

Health Care and Social Assistance – This sector comprises establishments primarily engaged in providing health care by diagnosis and treatment, providing residential care for medical and social reasons, and providing social assistance, such as counselling, welfare, child protection, community housing and food services, vocational rehabilitation and child care, to those requiring such assistance

Arts, Entertainment and Recreation – This sector comprises establishments primarily engaged in operating facilities or providing services to meet the cultural, entertainment and recreational interests of their patrons.

Accommodation and Food Services – This sector comprises establishments primarily engaged in providing short-term lodging and complementary services and establishments engaged in preparing meals, snacks and beverages to customer orders.

Other Services (except Public Administration) – This sector comprises establishments, not classified to any other sector, primarily engaged in repairing, or performing general or routine maintenance, on motor vehicles, machinery, equipment and other products to ensure that they work efficiently; providing personal care services, funeral services, laundry services and other services to individuals, such as pet care services and photo finishing services; organizing and promoting religious activities; supporting various causes through grant-making, advocating (promoting) various social and political causes, and promoting and defending the interests of their members.

Public Administration – This sector comprises establishments primarily engaged in activities of a governmental nature, that is, the enactment and judicial interpretation of laws and their pursuant regulations, and the administration of programs based on them. Legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and international assistance, and the administration of government programs are activities that are purely governmental in nature.



Appendix B – Matching COPS Data

The Canadian Occupational Projection system 2015 Projects – Industrial Summaries 2015-2024 (Dec 2015) from Employment and Social Development Canada provide forecasts for future long-term trends in the distribution of employment growth across 33 industries. For data comparability, these must be combined and / or grouped into the 20 NAICS industries used in our previous analysis.

This appendix explains how the 33 industries from the COPS Industry Summaries were grouped to coordinate with the 20 NAICS industries from the NHS data.

1. Agriculture, Forestry, Fishing and Hunting – Projections for this industry utilize data from the COPS Industry Summaries for three subcategories, including (i) Agriculture; (ii) Forestry and Logging; and (iii) Fishing, Hunting and Trapping. The projected growth rate of employment was calculated as a weighted average of COPS projections for the three subcategories.
2. Mining, Quarrying, and Oil and Gas Extraction – Projections for this industry utilize data from the COPS Industry Summaries for three subcategories, including (i) Mining; (ii) Oil and Gas Extraction; and (iii) Support Activities for Mining, Oil and Gas Extraction. The projected growth rate of employment was calculated as a weighted average of COPS projections for the three subcategories.
3. Utilities – Projections for this industry utilize data from the COPS Industry Summaries for the Utilities industry only.
4. Construction – Projections for this industry utilize data from the COPS Industry Summaries for the Construction industry only.
5. Manufacturing – Projections for this industry utilize data from the COPS Industry Summaries for three subcategories, including (i) Food and Beverage Products; (ii) Wood Product Manufacturing; (iii) Paper Manufacturing; (iv) Printing and Related Activities; (v) Rubber, Plastics and Chemicals; (vi) Manufactured Mineral Products; (vii) Metal Fabrication and Machinery; (viii) Computer, Electronic and Electrical Products; (ix) Motor Vehicles, Trailers and Parts; (x) Non-Automotive Transportation Equipment; and (xi) Textile, Clothing, Leather and Furniture. The projected growth rate of employment was calculated as a weighted average of COPS projections for the 11 subcategories.
6. Wholesale Trade – Projections for this industry utilize data from the COPS Industry Summaries for the Wholesale Trade industry only.
7. Retail Trade – Projections for this industry utilize data from the COPS Industry Summaries for the Retail Trade industry only.



8. Transportation and Warehousing Trade – Projections for this industry utilize data from the COPS Industry Summaries for the Transportation and Warehousing industry only.
- 9 & 10. Information and Cultural Industries; AND Arts, Entertainment and Recreation – Two of the 20 NAICS industries from the NHS are combined in the COPS data, including (i) Information and Cultural Industries and (ii) Arts, Entertainment and Recreation. In the COPS Industry Summaries, these are presented as Information, Culture and Recreation Services.
- 11 & 12. Finance and Insurance; AND Real Estate and Rental and Leasing – Two of the 20 NAICS industries from the NHS are combined in the COPS data, including (i) Finance and Insurance; and (ii) Real Estate and Rental and Leasing. In the COPS Industry Summaries, these are presented as Finance, Insurance, Real Estate and Leasing Services.
13. Professional, Scientific and Technical Services – Projections for this industry utilize data from the COPS Industry Summaries for three subcategories, including (i) Professional Business Services; (ii) Computer Systems Design Services; and (iii) Other Professional Services. The projected growth rate of employment was calculated as a weighted average of COPS projections for the three subcategories.
- 14 & 15. Management of Companies and Enterprises; AND Administrative and Support, Waste Management and Remediation Services – Two of the 20 NAICS industries from the NHS are combined in the COPS data, including (i) Management of Companies and Enterprises; and (ii) Administrative and Support, Waste Management and Remediation Services. In the COPS Industry Summaries, these are presented as Management, Administrative and Other Support Services.
16. Educational Services – Projections for this industry utilize data from the COPS Industry Summaries for the Educational Services industry only.
17. Health Care and Social Assistance – Projections for this industry utilize data from the COPS Industry Summaries for the Health Care and Social Assistance industry only.
18. Accommodation and Food Services – Projections for this industry utilize data from the COPS Industry Summaries for the Accommodation and Food Services industry only.
19. Other Services (Except Public Administration) – Projections for this industry utilize data from the COPS Industry Summaries for the Repair, Personal and Household Services industry only.
20. Public Administration – Projections for this industry utilize data from the COPS Industry Summaries for the Public Administration industry only.

The result is projections for 17 industry categories.

