

Labour Force Supply and Demand Forecast: 2006-2031

North Okanagan Regional District

Prepared for:



REGIONAL DISTRICT OF NORTH OKANAGAN
REGIONAL GROWTH STRATEGY
"One Region, One Future"

Regional District of North Okanagan

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January 31st, 2010

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1 Introduction

1.1 Context

The Regional District of North Okanagan (RDNO) is now developing its growth management strategy. Currently, the pace of change within the North Okanagan requires critical long-term visioning and land use planning based on sustainable principles to ensure that the livability of the region is not compromised due to unforeseen growth issues in the region. The goal of the regional growth plan is not an initiative to stop growth, but to direct it over the long term for the benefit of the community as a whole. The RDNO Regional Growth Strategy process began in 2007 and is scheduled for completion in August of 2011. (North Okanagan Regional District. website)

1.2 Purpose

One of the key information needs required to support RDNO's Regional Growth Strategy process is to gain a better understanding of the change in the region's employment supply and demand in the future. In addition, the Growth Strategy process is trying to gain a better understanding of where the labour force lives and where they work.

To assist in addressing these information needs, this report assesses five specific indicators including:

1. Confirms the total size of the labour force in 2006;
2. Reviews the residency of the labour force in 2006 and compares this to where they work (labour force mobility);
3. Undertakes a forecast of the size of the total experienced labour force anticipated in 2031 in each jurisdiction in RDNO based on population forecasts;
4. Develops a forecast that provides an approximation of the experienced labour force by industry in 2031 for each jurisdiction in RDNO; and,
5. Provides an estimate of the change in the mobility numbers of the employed labour force by jurisdiction from 2006 to 2031.

1.3 Methodology

1.3.1 Overview

The work undertaken in this report is linked to other research that RDNO is undertaking as part of their Growth Management Strategy. The research here is dependent on growth and age characteristics forecasting from the provincial government and that has been adjusted by RDNO to represent all incorporated municipalities and Electoral Areas in RDNO. This report builds upon this population and age characteristics data to develop the various labour force forecasts.

This methodology to determine labour force forecasts should be considered the status quo or “passive growth” scenario and depends on provincial and regional level trends that are anticipated. This work primarily confirms the labour force supply that will be present given assumptions about future population and age characteristics in the jurisdictions in RDNO.

In addition, population and age characteristics in themselves will also drive general demand for labour force requirements within many of the service-producing sectors. However, this work does not take into account the implications of targeted economic development initiatives or the shift in regional planning that may significantly alter settlement patterns or the type of employment in the region in the future.

Therefore not all demand requirements can be accurately incorporated using this “passive growth” methodology, particularly when considering basic sector forecasts. In addition, given the many smaller jurisdictions being model here it should be highlighted that the closure or attraction of one major employer could significantly change the outcomes forecast within this report.

Overall, the labour force values produced here are for illustrative purposes for the use of RDNO to gain insight into to potential size and distribution of the labour force in the future given the growth in the region’s population and the aging of the region’s residents.

1.3.2 Forecast of Future Labour Force Size

As mentioned above, the forecast of the size of the future RDNO experienced labour force builds upon research undertaken by RDNO on the total population and age characteristics by jurisdiction¹ in RDNO for the period 2006 to 2031. These future age and population characteristics are then applied to the provincial experienced labour force participation rates forecasted by BC Stats for 2006 to 2031. This provides an estimate of the possible number of the total experienced labour force locally.

As a final step, each jurisdiction is standardized against the observed participation rate locally in 2006 to ensure that any local unique characteristics of the labour force that cause it to be different from the provincial level are captured. This allows the anticipated change in provincial participation rates in the future and the current local participations rates to be reflected for each jurisdiction and an estimate made of the experienced labour force from 2006 to 2031.

1.3.3 Scenario of Future Labour Force Characteristics

With the size of the future labour force characteristics determined to 2031, the BC Stats *Regional Employment Projection Model* (REPM) developed for the Okanagan College Region is used to update the labour force characteristics by sector for the period from 2006 to 2016 for each of the RDNO jurisdictions. The objective is to assign the increased experienced labour force to the industries that will likely be growing over the period. For the period from 2016 to 2031, the growth within specific sectors is determined using the insights of RDNO staff and the consultant (For more detail on the methodology see Appendix A).

¹ RDNO has not done forecasts of First Nation Reserves within RDNO; therefore, these jurisdictions are not included in this work.

Overall, the BC Stat's REPM model and expert insight provides a forecast of the experienced labour force by sector for the Okanagan College Region that is then used on the much smaller jurisdictional level within RDNO to determine local experienced labour force by sector in 2031. However, again the local growth generated by the total labour force forecast done earlier is used to cap the overall growth anticipated in any given experienced labour force category in the local areas. This constraint ensures no sector will grow beyond the anticipated size of the labour force anticipated to be supported by the local population in 2031.

1.3.4 Estimate of Future Labour Force Mobility

The labour force mobility for each jurisdiction in RDNO is identified for 2006, using Statistics Canada's 2006 Census data. This data provides a sense of current mobility patterns within the region and between jurisdictions. The focus of this work is to explore the residency of the employed labour force and their work location for that portion of the work force that has identified a "usual place of work". The 2006 mobility identified in 2006 among the employed labour force with a "usual place of work" is assumed to remain constant and is then applied to the 2031 labour force. This is done only to give an illustration of the potential employed labour force numbers that could be travelling in the area for work in 2031.

1.4 Study Area Boundary

The North Okanagan Regional District (RDNO) and the jurisdictions that make up RDNO are the focus of the work for this project.

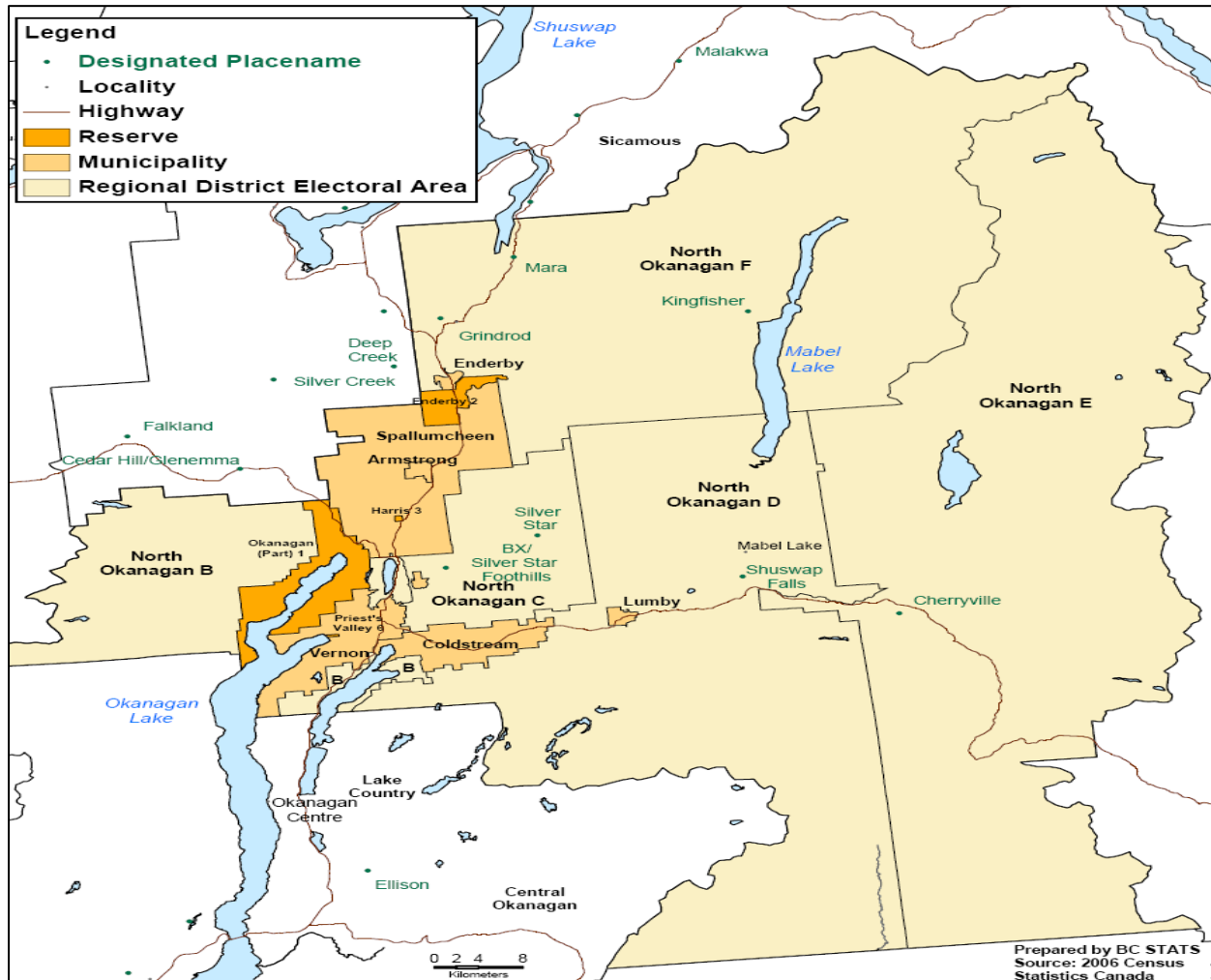
The individual jurisdictions of interest for this study within RDNO include:

- City of Armstrong
- DM of Coldstream
- City of Enderby
- Village of Lumby
- DM of Spallumcheen
- Okanagan IR #1
- Enderby IR # 2
- City of Vernon
- Electoral Area B
- Electoral Areas C
- Electoral Areas D
- Electoral Area E
- Electoral Area F
- Priests Valley IR # 6

There are three First Nation reserves included in the current labour force portion of this work. These three reserves represent the three main populated reserves in RDNO. While there are other First Nation reserve lands within RDNO they are not populated or are populated by a small number of residents. In addition, no First Nation reserves are included in the forecast of RDNO with only the incorporated municipalities and electoral areas in the regional district being considered.

Figure 1-1 provides an overview of the North Okanagan Regional District and the location of the First Nation reserves, incorporated municipalities, and the electoral areas within RDNO.

Figure 1-1: North Okanagan Regional District



1.5 Report Organization

This report is organized as follows:

- Section 1 outlines the methodology and confirms the jurisdictions included in the study;
- Section 2 overviews the current labour force (Size, Sector Characteristics and Mobility) in RDNO by jurisdiction; and,
- Section 3 outlines the future experienced labour force (Size in 2031, Sector Characteristics and Mobility) in RDNO by jurisdiction.

This is followed by detailed appendices.

2 Current Labour Force

2.1 Current Labour Force Size and Characteristics

2.1.1 Population Median Age and Labour Force Participation Rates

Table 2-1 highlights the 2006 total labour force, median age, and the labour force participation rates for men and women for each municipality, electoral area, and the three main First Nation Reserves within RDNO. The 2006 total labour force, median age and participation rates for the province are also highlighted.

Table 2-1 Labour Force Participation Rates, 2006

	Total Force	Labour	Median Age	Male	Female	Total
	(#)		(Years)	(%)	(%)	(%)
Municipalities						
Armstrong	2,050		44.5	67.3%	53.7%	59.9%
Coldstream	5,120		44.3	72.9%	61.3%	67.1%
Enderby	1,265		48.1	56.8%	50.0%	53.2%
Lumby	820		43.2	60.3%	60.6%	60.3%
Spallumcheen	2,765		44.6	72.9%	62.4%	57.7%
Vernon	17,410		44.5	65.4%	53.2%	58.8%
Electoral Areas						
RDNO EA B	1,865		43.9	76.5%	62.4%	69.3%
RDNO EA C	2,305		43.4	77.3%	65.4%	71.6%
RDNO EA D	1,690		43.4	76.6%	67.4%	72.4%
RDNO EA E	465		44.9	68.7%	52.9%	61.2%
RDNO EA F	2,350		45.1	71.3%	66.0%	68.7%
First Nations Reserves						
Priest's Valley IR 6	300		55.2	50.9%	54.1%	53.1%
Okanagan IR 1	815		56.2	45.9%	40.5%	43.5%
Enderby IR 2	165		33.1	77.8%	54.2%	63.5%
Total Region						
RDNO	39,385		44.8	67.8%	56.5%	61.9%
BC	2,226,385		40.8	70.7%	60.7%	65.6%

Source: Statistics Canada.

One of the most important issues for the labour force in years to come will be the retirement of the baby-boom population. The proportion of the working age population in older age groups, which have lower age-specific participation rates, is expected to increase in coming decades as the “baby boomers” age into their retirement years. (BC Stats. 2007)

For RDNO there is already an older age profile than generally observed at the provincial level. As illustrated above, in 2006 the median age in RDNO was 44.8 years – a full four years older than the median age for the province. So while the population in RDNO is forecasted to grow, the labour force will not necessarily grow at the same rate as the population if the population continues to age. Currently, the population is forecast to age noticeably between 2008 and 2031.

2.1.2 Labour Force By Industry

Table 2-2 highlights the experienced labour force of the municipalities and total North Okanagan Regional District. The labour force characteristics are identified by industry at the comparable level as identified by BC Stats in the *Regional Employment Projection Model* for the Okanagan College Region (BC Stats. nd). Moving forward, each of these key labour force industries is forecast to grow at a different rate.

Overall, the municipalities have 28.2% of their labour force in the goods producing sector and 70.4% in the service producing sector, with the remaining 1.4% unclassified. Conversely, the electoral areas and First Nation reserves have 38.0% of their labour force in the goods producing sector and 60.1% in the service producing sector, with the final 1.9% remaining unclassified.

Table 2-2 Experienced Labour Force RDNO Electoral Areas and First Nation Reserves, 2006

	Electoral Area B	Electoral Area C	Electoral Area D	Electoral Area E	Electoral Area F	First Nation Reserves	Total EAs & Reserves
Agriculture, Fishing, Hunting, Trapping	65	75	220	65	410	35	870
Forestry	30	60	85	50	135	45	405
Mining/ Oil and Gas	25	0	40	0	10	20	95
Utilities	0	10	0	0	10	0	20
Construction	195	260	190	90	280	150	1,165
Manufacturing	250	280	270	15	250	165	1,230
• Food & Beverage	35	25	25	0	20	0	105
• Wood Products	75	90	95	10	115	75	460
• Fabricated Metal and Machinery	25	15	25	0	40	0	105
• Transportation Equip. Manufacturing	25	25	0	0	10	20	80
• Other Manufacturing	90	125	125	5	65	70	480
Total Goods Producing Sectors	565	685	805	220	1,095	415	3,785
Wholesale	90	60	35	0	70	40	295
Retail	180	305	90	45	195	130	945
Transportation & Warehousing	65	65	70	10	90	60	360
Finance & Insurance/Real Estate & Leasing	100	130	35	10	45	50	370
Professional, Scientific and Technical Services	100	175	25	10	85	30	425
Management/Admin/Other services	195	230	140	60	115	115	855
Education services	105	75	110	20	150	50	510
Health Care & Social Assistance	200	335	165	25	245	150	1,120
Accommodation and food services	160	125	100	45	125	60	615
Arts, entertainment & rec./ Information services	15	65	50	0	95	35	260
Public Administration	45	0	30	10	40	75	200
Total Service Producing	1,255	1,565	850	235	1,255	795	5,955
Unclassified	45	25	35	10	0	70	185
Total	1,865	2,275	1,690	465	2,350	1,280	9,925

Source: Statistics Canada.

Note: First Nation Reserves includes Okanagan IR #1; Enderby IR #2; and, Priest's Valley IR #6. These are the three most populated reserves in RDNO.

Table 2-3 Experienced Labour Force RDNO Municipalities, 2006

	Armstrong	Coldstream	Enderby	Lumby	Spallumcheen	Vernon	Total Municipal	Total RDNO
Agriculture, Fishing, Hunting, Trapping	50	155	35	10	505	290	1045	1,915
Forestry and Logging	45	155	15	75	50	310	650	1,055
Mining/ Oil and Gas	20	40	10	0	25	140	235	330
Utilities	10	50	0	0	25	185	270	290
Construction	175	500	175	95	300	1,665	2,910	4,075
Manufacturing	355	485	160	125	395	1,605	3,125	4,355
• Food & Beverage	95	45	15	10	65	110	340	445
• Wood Products	110	190	20	45	95	450	910	1,370
• Fabricated Metal and Machinery	10	55	65	0	80	185	395	500
• Transportation Equip. Manufacturing	55	25	15	0	50	160	305	385
• Other Manufacturing	85	170	45	70	105	700	1,175	1,655
Total Goods Producing Sectors	655	1,385	395	305	1,300	4,195	8,235	12,020
Wholesale	35	190	85	35	100	610	1055	1,350
Retail	305	770	125	80	215	2,575	4,070	5,015
Transportation & Warehousing	75	150	25	25	115	615	1005	1,365
Finance & Insurance/Real Estate & Leasing	110	255	65	50	80	870	1430	1,800
Professional, Scientific and Technical Services	60	285	70	20	135	925	1495	1,920
Management/Admin/Other services	195	425	90	80	175	1,710	2,675	3,530
Education services	100	445	50	45	175	1,035	1,850	2,360
Health Care & Social Assistance	170	540	150	70	255	2,120	3,305	4,425
Accommodation and food services	165	275	105	70	75	1,245	1,935	2,550
Arts, entertainment & rec./ Inform. services	100	170	15	10	60	720	1075	1,335
Public Administration	65	155	50	0	55	560	885	1,115
Total Service Producing	1,380	3,660	830	485	1,440	12,785	20,580	26,535
Unclassified	15	75	40	30	25	430	615	800
Total	2,050	5,120	1,265	820	2,765	17,410	29,430	39,355

Source: Statistics Canada.

Note: The bulleted manufacturing categories (ie., food & beverage, wood, fabricated metal, transportation, other manufacturing) are sub-components of total manufacturing and are included in the number highlighted for manufacturing.

2.1.3 Labour Force Mobility

Table 2-4 highlights the mobility characteristics for the employed labour force for the municipalities, electoral areas, and First Nation Reserves in the North Okanagan Regional District.

Table 2-4 Employed Labour Force Mobility, 2006

	Worked At Home		Worked Outside of Canada		No Workplace Address	Fixed	Worked At Usual Place		Total Force	Labour
Municipalities										
Armstrong	140	7.4%	20	1.1%	210	11.1%	1,520	80.4%	1,890	100.0%
Coldstream	525	10.7%	25	0.5%	540	11.0%	3,810	77.8%	4,900	100.0%
Enderby	80	7.0%	0	0%	105	9.1%	965	83.9	1,150	100.0%
Lumby	40	5.4%	0	0%	150	20.5%	545	74.1	735	100.0%
Spallumcheen	685	26.1	10	0.4	290	11.1	1,635	62.4	2,620	100.0%
Vernon	1,265	7.8%	85	0.5%	2,145	13.1%	12,820	78.6%	16,315	100.0%
Total	2,735	9.9%	140	0.5%	3,440	12.5%	21,295	77.1%	27,610	100.0%
Electoral Areas										
RDNO EA B	250	14.2%	0	0%	190	10.8%	1,320	75.0%	1,760	100.0%
RDNO EA C	335	15.7%	0	0%	325	15.3%	1,470	69.0%	2,130	100.0%
RDNO EA D	375	23.4%	10	0.6%	330	20.6%	890	55.5%	1,605	100.0%
RDNO EA E	105	23.9%	0	0%	75	17.0%	260	59.1%	440	100.0%
RDNO EA F	505	22.9%	0	0%	375	17.0%	1,330	60.2%	2,210	100.0%
Total	1570	19.3%	10	0.1%	1295	15.9%	5,270	64.7%	8,145	100.0%
First Nations Reserves										
Okanagan IR 1	70	9.6%	0	0%	125	17.1%	535	73.3%	730	100.0%
Enderby IR 2	10	6.9%	10	6.9%	15	10.3%	110	75.9%	145	100.0%
Priest's Val. IR 6	35	11.9%	0	0	65	22.0%	195	66.1%	295	100.0%
Total	115	9.1%	10	0.2%	205	16.0%	840	73.7%	1,170	100.0%
Total RDNO	4,420	12.0%	160	0.4%	4,940	13.3%	27,405	74.3%	36,925	100.0%

Source: Statistics Canada. 2006 Census.

The RDNO employed labour force is 36,925, which is slightly smaller than the total experienced regional labour force of 39,385. Of the employed labour force a full 31,825 or 86.2% of the employed labour force participants had a regular place of work, with 4,420 or 12.0% working from home and the remaining 74.3% have a usual place of work.

Table 2-5 shows the community flows between jurisdictions for employed persons having a usual place of work. The first jurisdiction in the table below identifies the residency of the worker while the second jurisdiction listing identifies the location of the work place. Not all of the employed labour force that had a usual place of work could be identified; however, 26,070 of the 27,405 employed labour force is identified below.

Table 2-5 Commuting for Employed Labour Force with Usual Place of Work By Jurisdiction, 2006

Residency	Place of Work																
	EA B	EA C	EA D	EA E	EA F	Vern	Arm	Cold	End	Lum	Ok IR	Spall	Kel	S Arm	CORD	Other	Total
EA B	100	35	0	0	0	820	40	65	0	0	0	80	80	0	0	0	1220
EA C	40	175	0	0	0	900	0	60	0	30	0	125	75	0	0	0	1,405
EA D	0	0	0	0	0	315	0	60	25	330	0	35	0	25	0	0	790790
EA E	0	0	0	95	0	70	0	0	0	60	0	0	0	0	0	0	225
EA F	0	0	0	0	65	85	115	0	415	20	0	0	0	470	0	25	1195
Vernon	320	180	0	0	0	9,525	40	430	60	125	0	765	745	145	150	65	12,550
Armstrong	45	0	0	0	20	460	690	0	90	0	0	90	0	50	0	0	1445
Coldstream	50	35	0	0	0	2,720	30	415	0	105	0	120	185	20	0	25	3,705
Enderby ^(Note 2)	0	0	0	0	0	125	115	0	500	0	0	25	0	160	0	0	925
Lumby	0	0	0	0	0	215	0	25	0	185	0	30	0	0	0	0	455
Okanagan IR ^{Note 3)}	0	0	0	0	0	350	75	25	0	0	75	45	30	0	30	0	630
Spallumcheen	60	0	0	0	0	440	100	0	100	20	0	670	20	95	0	0	1505
Totals In RDNO	615	425	0	95	85	16,025	1205	1080	1190	875	75	1985					
Totals Outs RDNO													1,135	965	180	115	
Total																	26,070

Source: Statistics Canada. 2006 Census.

Note 1: Abbreviations include: North Okanagan Electoral Area= EA; Vernon=Vern; Armstrong=Arm; Coldstream=Cold; Enderby=Enderby; Lumby=Lum; Okanagan Indian Reserve 1= OK IR; Spallumcheen=Spall; Kelowna=Kel; Salmon Arm= S Arm; Central Okanagan Regional District=CORD.

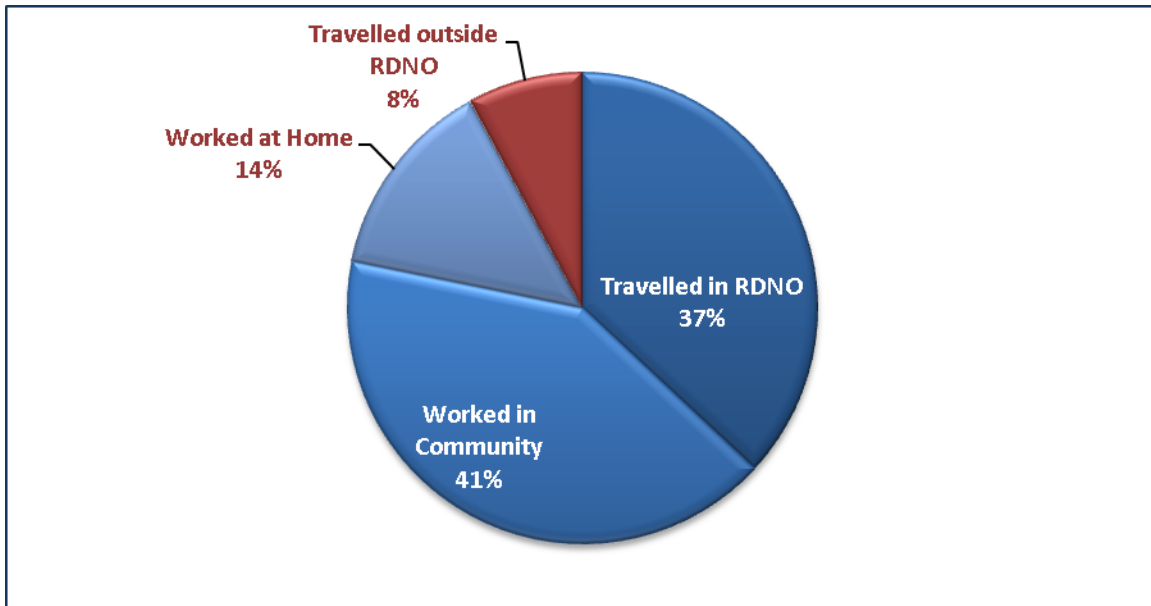
Note 2: City of Enderby also includes labour force participants from Enderby IR # 2.

Note 3: Okanagan Indian Reserve also includes the labour force from Priest's Valley Indian Reserve.

Note 4: Employed (in reference week) is for persons who, during the week (Sunday to Saturday) prior to Census Day (May 16, 2006):
 (a) did any work at all for pay or in self-employment or without pay in a family farm, business or professional practice
 (b) were absent from their job or business, with or without pay, for the entire week because of a vacation, an illness, a labour dispute at their place of work, or any other reasons.

Figure 2-1 highlights the usual place of work labour force and the work force that workers from home. In total, this represents a labour force of 31,825 or 86.3% of the total labour force of 36,925 in RDNO. If we add those workers that work from home, approximately 55% of the labour force workers within the same community as they reside. However, a full 8% of the labour force or approximately 2,520 workers travel outside RDNO to their usual place of work.

Figure 2-1 At home and Usual Place of Work Labour Force Mobility, 2006



Source: Statistics Canada. 2006 Census.

3 Future Experienced Labour Force

3.1 Total Experienced Labour Force

Table 3-1 outlines the anticipated experienced labour force for each municipality and electoral area within the North Okanagan Regional District between 2006 and 2031. The table also highlights the change in labour force and population over the period.

Table 3-1 RDNO Experienced Labour Force Forecast By Jurisdictions, 2006 to 2031

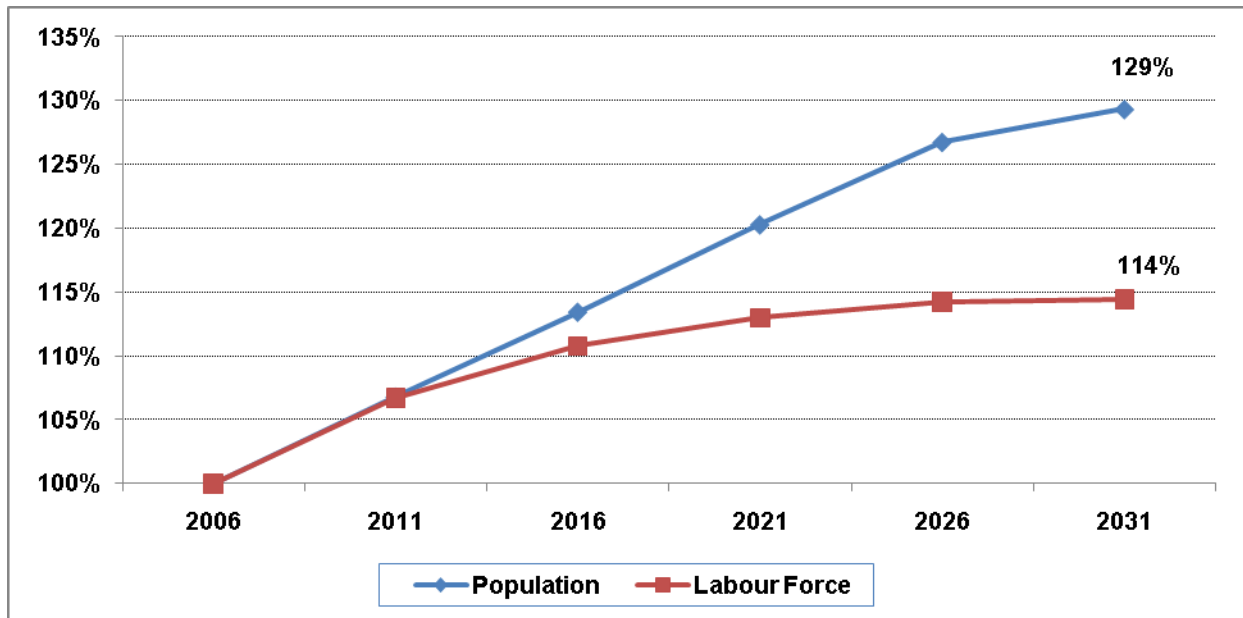
	2006	2011	2016	2021	2026	2031	Labour Force (% Change 2006 to 2031)	Population (% Change 2006 to 2031)
Municipalities								
Armstrong	2,050	2,230	2,335	2,375	2,370	2,360	+15.1%	+44.8%
Coldstream	5,120	5,470	5,640	5,675	5,640	5,640	+10.2%	+33.1%
Enderby	1,265	1,395	1,480	1,520	1,515	1,535	+21.3%	+41.1%
Lumby	820	870	875	850	805	765	-6.7%	+27.4%
Spallumcheen	2,765	2,835	2,805	2,680	2,520	2,375	-14.1%	+10.1%
Vernon	17,410	19,115	20,385	21,180	21,855	21,955	+26.1%	+47.4%
Total	29,430	31,915	33,520	34,280	34,705	34,630	+17.7%	+39.6%
Electoral Areas								
Electoral Area B	1,865	1,880	1,875	1,880	1,880	1,895	+1.6%	+5.4%
Electoral Area C	2,305	2,350	2,405	2,485	2,570	2,665	+15.6%	+18.0%
Electoral Area D	1,690	1,660	1,620	1,635	1,625	1,635	-3.3%	+3.8%
Electoral Area E	465	460	445	450	440	445	-4.3%	+0.2%
Electoral Area F	2,350	2,385	2,345	2,325	2,315	2,335	-0.6%	+5.1%
Total	8,675	8,735	8,690	8,775	8,830	8,975	+3.5%	+8.0%
Total RDNO	38,105	40,650	42,210	43,055	43,535	43,605	+14.4%	+29.3%

Note 1: The Experienced Labour Force on First Nations Reserves inside the North Okanagan Regional District have been excluded from the forecasts.

As illustrated, the population for municipalities between 2006 and 2031 is forecast to increase by almost 40%; however, the labour force is only anticipated to grow by less than 18%. Meanwhile, the population in the electoral areas are anticipated to increase by almost 8%, while the labour force will grow more slowly at just over 3%. Collectively, the Regional District can anticipate the labour force to grow at about half the rate that population will grow between 2006 and 2031.

Figure 3-1 illustrates the change in labour force and the population for RDNO from a base year of 2006. Over the course of the period between 2006 and 2031, the population will increase at approximately twice the rate as the labour force. This becomes particularly pronounced in the ten year period from 2016 and 2026. The main driver in this deviation is the large and growing population over the age of 65 years. The labour force participation rate falls significantly after 65 years of age, and thus the corresponding number in the experienced labour force does not keep pace with the growing population forecast for RDNO.

Figure 3-1 Percentage Change in RDNO Population and Experienced Labour Force, 2006 to 2031 (2006=100%)



Note 1: The Experienced Labour Force on First Nations Reserves inside the North Okanagan Regional District have been excluded from the forecasts.

3.2 Experienced Labour Force By Sector

Table 3-2 to Table 3-5 outline the forecast experienced labour force by sector for the period from 2006 to 2031. Each jurisdiction is outlined individually and is produced below by the key labour force sectors. Table 3-6, provides greater detail of the experienced labour force and is produced at the regional district level. The regional district labour force numbers do not include a forecast of the three most populated First Nation reserves in the regional district so are not precisely comparable to the 2006 labour force for the total North Okanagan Regional District reproduced in Table 2-3.

Table 3-2 Experienced Labour Force By Sector By Community, 2006 to 2031

	Armstrong			Coldstream			Lumby		
	2006	2016	2031	2006	2016	2031	2006	2016	2031
Total labour force	2,050	2,335	2,360	5,120	5,640	5,640	820	875	765
Industry - Not applicable	15			75			10		
All industries	2,035	2,335	2,360	5,045	5,640	5,640	810	875	765
11 Agriculture, forestry, fishing and hunting	95	120	90	310	390	300	75	105	65
• 111-112 Farms	50	55	50	140	160	145	10	10	10
• 113 Forestry and logging	35	50	30	120	160	95	55	75	40
• 1150 Support activities for farms (1151 to 1152)	0	0	0	10	10	10	0	0	0
• 1153 Support activities for forestry	10	15	10	40	60	50	15	20	15
21 Mining and oil and gas extraction	20	15	15	40	35	30	0	0	0
213 Support activities for mining and oil and gas extraction	10	10	10	15	15	15	10	10	10
22 Utilities	10	10	10	50	50	45	0	0	0
23 Construction	175	150	120	500	395	305	95	70	50
31-33 Manufacturing	355	425	430	485	565	545	125	145	125
• 321 Wood product manufacturing	110	135	120	190	235	200	45	55	45
41 Wholesale trade	35	40	45	190	220	230	35	40	35
44-45 Retail trade	305	355	370	770	875	920	80	90	85
48-49 Transportation and warehousing	75	90	95	150	175	185	25	30	30
51 Information and cultural industries	10	10	10	35	40	40	10	10	10
52 Finance and insurance	80	90	95	160	180	190	35	40	35
53 Real estate and rental and leasing	30	35	35	95	110	115	15	15	15
54 Professional, scientific and technical services	60	70	70	285	320	335	20	20	20
55 Management of companies and enterprises	0	0	0	0	0	0	0	0	0
56 Administrative and support, waste management and remediation services	50	55	60	165	185	195	60	65	60
61 Educational services	100	115	120	445	490	515	45	45	45
62 Health care and social assistance	170	210	220	540	660	690	70	90	85
71 Arts, entertainment and recreation	90	105	110	135	155	165	0	0	0
72 Accommodation and food services	165	195	205	275	320	340	70	80	75
81 Other services (except public administration)	145	165	175	260	290	305	20	20	20
91 Public administration	65	70	75	155	170	175	0	0	0

Note: Where possible the unclassified labour force in the 2006 Census have been reassigned to other industry sectors and the specific categories are not exactly comparable to data in Table 2-2 and Table 2-3.

Table 3-3 Experienced Labour Force By Sector By Community, 2006 to 2031

	Spallumcheen			Enderby			Vernon		
	2006	2016	2031	2006	2016	2031	2006	2016	2031
Total labour force	2,765	2,805	2,375	1,265	1,520	1,535	17,410	20,385	21,955
Industry - Not applicable	30			25			240		
All industries	2,735	2,805	2,375	1,240	1,480	1,535	17,170	20,385	21,955
11 Agriculture, forestry, fishing and hunting	560	585	455	45	55	50	595	790	605
• 111-112 Farms	485	495	400	35	35	35	265	300	270
• 113 Forestry and logging	25	35	15	15	20	15	180	265	170
• 1150 Support activities for farms (1151 to 1152)	20	20	15	0	0	0	25	30	20
• 1153 Support activities for forestry	25	35	25	0	0	0	130	195	145
21 Mining and oil and gas extraction	25	20	15	10	10	10	140	125	95
213 Support activities for mining and oil and gas extraction	0	0	0	15	15	15	90	95	70
22 Utilities	25	25	20	0	0	0	185	200	150
23 Construction	300	220	145	175	150	110	1,665	1,390	1,120
31-33 Manufacturing	395	415	355	160	225	230	1,605	2,025	1,710
• 321 Wood product manufacturing	95	110	80	20	25	25	450	580	495
41 Wholesale trade	100	110	95	85	105	115	610	745	730
44-45 Retail trade	215	230	205	125	155	165	2,575	3,095	4,580
48-49 Transportation and warehousing	115	125	115	25	30	35	615	765	725
51 Information and cultural industries	20	20	20	15	20	20	255	305	255
52 Finance and insurance	55	60	50	25	30	35	510	610	580
53 Real estate and rental and leasing	25	25	25	40	50	55	360	430	385
54 Professional, scientific and technical services	135	125	125	70	85	90	925	1,095	1,160
55 Management of companies and enterprises	0	0	0	0	0	0	15	20	15
56 Administrative and support, waste management and remediation services	45	45	40	30	35	40	955	1,130	1,080
61 Educational services	175	180	160	50	60	65	1,035	1,210	1,435
62 Health care and social assistance	255	290	260	150	195	210	2,120	2,730	3,585
71 Arts, entertainment and recreation	40	45	40	0	0	0	465	565	530
72 Accommodation and food services	75	80	75	105	130	145	1,245	1,540	1,630
81 Other services (except public administration)	130	135	120	60	70	80	740	875	905
91 Public administration	55	55	50	50	60	65	560	645	610

Table 3-4 Experienced Labour Force By Sector By Electoral Area, 2006 to 2031

	Electoral Area B			Electoral Area C			Electoral Area D		
	2006	2016	2031	2006	2016	2031	2006	2016	2031
Total labour force	1,865	1,875	1,895	2,305	2,405	2,665	1,690	1,620	1,635
Industry - Not applicable	30			20			20		
All industries	1,835	1,875	1,895	2,285	2,405	2,665	1,670	1,620	1,635
11 Agriculture, forestry, fishing and hunting	85	95	75	135	150	135	305	310	270
• 111-112 Farms	55	55	50	65	65	70	220	205	205
• 113 Forestry and logging	30	40	25	30	40	25	70	85	50
• 1150 Support activities for farms (1151 to 1152)	0	0	0	10	10	10	0	0	0
• 1153 Support activities for forestry	0	0	0	25	35	30	15	20	15
21 Mining and oil and gas extraction	25	20	15	0	0	0	40	30	25
213 Support activities for mining and oil and gas extraction	0	0	0	0	0	0	30	25	25
22 Utilities	0	0	0	10	10	10	0	0	0
23 Construction	195	150	110	260	200	175	190	130	110
31-33 Manufacturing	250	265	265	280	105	100	270	105	100
• 321 Wood product manufacturing	75	85	75	90	105	100	95	105	100
41 Wholesale trade	90	95	105	60	65	75	35	35	40
44-45 Retail trade	180	190	205	305	330	385	90	90	95
48-49 Transportation and warehousing	65	70	75	65	75	85	70	75	80
51 Information and cultural industries	0	0	0	15	15	20	35	35	35
52 Finance and insurance	35	35	40	45	50	55	25	25	25
53 Real estate and rental and leasing	65	70	75	85	90	105	10	10	10
54 Professional, scientific and technical services	100	105	110	175	185	215	25	25	25
55 Management of companies and enterprises	0	0	0	0	0	0	0	0	0
56 Administrative and support, waste management and remediation services	95	100	105	90	95	110	50	45	50
61 Educational services	105	110	115	75	80	90	110	100	110
62 Health care and social assistance	200	230	240	335	390	450	165	185	200
71 Arts, entertainment and recreation	15	15	15	50	55	65	15	15	15
72 Accommodation and food services	160	175	185	125	140	160	100	105	115
81 Other services (except public administration)	100	105	110	140	150	170	90	85	90
91 Public administration	45	45	50	30	30	35	30	25	30

Table 3-5 Experienced Labour Force By Sector By Electoral Area, 2006 to 2031

	Electoral Area E			Electoral Area F		
	2006	2016	2031	2006	2016	2031
Total labour force	465	445	445	2350	2345	2335
Industry - Not applicable	0			5		
All industries	460	445	445	2345	2345	2335
11 Agriculture, forestry, fishing and hunting	120	125	110	545	565	505
111-112 Farms	65	60	65	380	365	355
113 Forestry and logging	50	65	45	95	120	70
1150 Support activities for farms (1151 to 1152)	0	0	0	30	30	30
1153 Support activities for forestry	0	0	0	40	50	50
21 Mining and oil and gas extraction	0	0	0	10	10	5
213 Support activities for mining and oil and gas extraction	0	0	0	0	0	0
22 Utilities	0	0	0	10	10	10
23 Construction	90	65	55	280	200	165
31-33 Manufacturing	15	10	10	250	260	260
321 Wood product manufacturing	10	10	10	115	125	110
41 Wholesale trade	0	0	0	70	70	80
44-45 Retail trade	45	45	55	195	200	215
48-49 Transportation and warehousing	10	10	10	90	95	100
51 Information and cultural industries	0	0	0	10	10	10
52 Finance and insurance	10	10	10	30	30	35
53 Real estate and rental and leasing	0	0	0	15	15	15
54 Professional, scientific and technical services	10	10	10	85	85	90
55 Management of companies and enterprises	0	0	0	0	0	0
56 Administrative and support, waste management and remediation services	10	10	10	25	25	25
61 Educational services	20	20	25	150	150	160
62 Health care and social assistance	25	30	30	245	270	290
71 Arts, entertainment and recreation	0	0	0	85	90	95
72 Accommodation and food services	45	50	55	125	130	140
81 Other services (except public administration)	50	50	55	90	90	95
91 Public administration	10	10	10	40	40	40

Table 3-6 Experienced Labour Force By Sector For North Okanagan RD, 2006 to 2031

	2006	2016	2031
Total labour force	38,105	42,210	43,605
Industry - Not applicable	470		
All industries	37,630		
11 Agriculture, forestry, fishing and hunting	2,870	3,290	2,660
• 111-112 Farms	1,770	1,805	1,655
• 113 Forestry and logging	700	955	580
• 1150 Support activities for farms (1151 to 1152)	95	100	85
• 1153 Support activities for forestry	300	430	340
21 Mining and oil and gas extraction	310	265	210
213 Support activities for mining and oil and gas extraction	170	170	145
22 Utilities	290	305	245
23 Construction	3,925	3,120	2,465
31-33 Manufacturing	4,190	4,900	4,540
• 311 Food manufacturing	300	340	330
• 312 Beverage and tobacco product manufacturing	145	170	155
• 321 Wood product manufacturing	1,295	1,570	1,360
• 322 Paper manufacturing	50	55	50
• 323 Printing and related support activities	110	95	90
• 326 Plastics and rubber products manufacturing	290	355	330
• 327 Non-metallic mineral product manufacturing	430	520	500
• 332 Fabricated metal product manufacturing	305	360	360
• 333 Machinery manufacturing	195	230	220
• 334 Computer and electronic product manufacturing	135	155	150
• 336 Transportation equipment manufacturing	365	430	420
• 337 Furniture and related product manufacturing	225	260	245
• 339 Miscellaneous manufacturing	180	210	190
41 Wholesale trade	1,310	1,525	1,550
44-45 Retail trade	4,885	5,655	7,280
48-49 Transportation and warehousing	1,305	1,540	1,535
51 Information and cultural industries	405	465	420
52 Finance and insurance	1,010	1,160	1,150
53 Real estate and rental and leasing	740	850	835
54 Professional, scientific and technical services	1,890	2,140	2,250
55 Management of companies and enterprises	15	20	15
56 Administrative and support, waste management and remediation services	1,575	1,790	1,775
61 Educational services	2,310	2,560	2,845
62 Health care and social assistance	4,275	5,280	6,260
71 Arts, entertainment and recreation	895	1,045	1,035
72 Accommodation and food services	2,490	2,945	3,125
81 Other services (except public administration)	1,825	2,035	2,125
91 Public administration	1,040	1,150	1,140

Note: The RDNO totals in this table do not compare to the RDNO totals in Table 2-3 for 2006 as the table above does not include First Nation reserve.

3.3 Future Labour Force Mobility

As illustrated in Table 3-1 above, the labour force in the six incorporated municipalities and five electoral areas will grow by an estimated 14.4% between 2006 and 2031. This will represent an increase in the local experienced labour force of 5,500. Most of this will be concentrated in the City of Vernon where the labour force is anticipated to rise by 4,545. At the same time the labour force in Spallumcheen, Lumby, Electoral Area D, E and F are anticipated to decline. This change in the size of the labour force by 2031 will cause a corresponding change in the size of the employed labour force that has an “usual place of work.”

While a portion of the change in experienced labour force will occur among “workers who work from home” and “workers who have no fixed workplace address”, the majority of new workers will work at a specific address. For those workers who have “a usual place of work” it is assumed that mobility patterns that existed in 2006 will be similar in 2031. Therefore in Table 3-7 the employed labour force is highlighted by jurisdiction and the size in 2031.

Overall Table 3-7 illustrates several key transitions between 2006 and 2031, including:

- The commuting employed labour force rises by almost 13% or by 3,365;
- Vernon will host the majority of additional commuting workforce, increasing by 18% or 2,895; and,
- A total of 2,525 employed workers or 8.5% of workers with a usual place of work, will travel outside of RDNO each day for work, an increase of 310 workers that did this in 2006.

Table 3-8 follows Table 3-7 and provides an illustration of the change in the mobility of the labour force by subtracting the employed labour force number in 2031 from 2006 to outline the net labour force change. As illustrated in Table 3-8 confirms Vernon as the key jurisdiction with 2,810 new employed labour force participants or 64% of the increase to 2031 residing and working inside of Vernon.

Table 3-7 Commuting for Employed Labour Force with Usual Place of Work By Jurisdiction, 2031

Residency	Place of Work														
	EA B	EA C	EA D	EA E	EA F	Vernon	Arm	Cold	Enderby	Lumby	Spall	Kelowna	CORD	Other	Total
EA B	100	35	0	0	0	835	40	65	0	0	80	80	0	0	1,235
EA C	45	200	0	0	0	1,040	0	70	0	35	145	85	0	0	1,620
EA D	0	0	0	0	0	305	0	60	25	320	35	0	25	0	770
EA E	0	0	0	90	0	65	0	0	0	55	0	0	0	0	210
EA F	0	0	0	0	65	85	115	0	415	20	0	0	465	25	1,190
Vernon	415	0	0	0	0	12,335	50	555	80	160	990	965	190	85	15,825
Armstrong	50	0	0	0	25	530	795	0	105	0	105	0	60	0	1,670
Coldstream	55	40	0	0	0	2,995	35	455	0	115	130	205	20	30	4,080
Enderby	0	0	0	0	0	150	140	0	605	0	30	0	195	0	1,120
Lumby	0	0	0	0	0	200	0	25	0	175	30	0	0	0	430
Spallumcheen	50	0	0	0	0	380	85	0	85	15	575	15	0	80	1,285
Total In RDNO	715	275	0	90	90	18,920	1,260	1,230	1,315	895	2,120				
Total Outside RDNO												1,350	955	220	
Total															29,435

Source: 2006 Census and Peak Solutions Forecast, January 2010.

Note: Does not include the labour force from the three populated Indian Reserves located inside of RDNO.

Table 3-8 Change in Commuting By Employed Labour Force with Usual Place of Work By Jurisdiction Between 2006 and 2031

Residency	Place of Work														
	EA B	EA C	EA D	EA E	EA F	Vernon	Arm	Cold	Enderby	Lumby	Spall	Kelowna	CORD	Other	Total
EA B	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15
EA C	5	25	0	0	0	140	0	10	0	5	20	10	0	0	215
EA D	0	0	0	0	0	(10)	0	0	0	(10)	0	0	0	0	(20)
EA E	0	0	0	(5)	0	(5)	0	0	0	(5)	0	0	0	0	(15)
EA F	0	0	0	0	0	0	0	0	0	0	0	0	(5)	0	(5)
Vernon	95	0	0	0	0	2,810	10	125	20	35	225	220	45	20	3,605
Armstrong	5	0	0	0	5	70	105	0	15	0	15	0	10	0	225
Coldstream	5	5	0	0	0	275	5	40	0	10	10	20	0	5	375
Enderby	0	0	0	0	0	25	25	0	105	0	5	0	35	0	195
Lumby	0	0	0	0	0	(15)	0	0	0	(10)	0	0	0	0	(25)
Spall	(10)	0	0	0	0	(60)	(15)	0	(15)	(5)	(95)	(5)	0	(15)	(220)
Total In RDNO	100	30	0	(5)	5	3,245	130	175	125	20	180				
Total Outside RDNO												245	85	10	
Total															4,345

Note 1: Derived from 2006 Census and Peak Solutions 2031 Forecast. January 2010.

Note 2: Does not include the labour force from the three populated Indian Reserves located inside of RDNO.

Appendix A Data Tables

The Regional Employment Projection Model (REPM) produced by BC Stats actually models the projects employment at the Regional District level and then aggregates back up to the College or Development Region level for reporting purposes. This aggregation has proved necessary as many of the labour markets by Regional District are too small to enable the creation of reliable data. In addition, BC Stats undertakes the REPM forecasts for periods of up to five years. The current forecast from BC Stats covers the period from 2008 to 2013. (BC Stats. Nd)

In this report the actual experienced labour force data from the Statistics Canada Census in 2006 is used to establish the base. From this base the REPM industrial employment rates for the Okanagan College Region produced by BC Stats are reported at the sub-regional level and are intended to provide an illustrated of the approximate change in the labour force. The REPM forecasts are used in this report and are outlined in Table A-1. For the period 2016 to 2031, RDNO staff and the consultant have used their insights to the region to provide an approximate change for some labour force sectors including:

- **Note 1** – Forestry and logging is forecast to experience strong growth over the next few years by BC Stats; however, this growth is associated with the current uplifts in timber harvests associated with the Mountain Pine Beetle epidemic. As the wood supply is utilized logging activities will subside resulting in the change to a neutral growth rate in 2021.
- **Note 2** – Construction is forecast to fall by 2.3% by BC Stats, the loss of jobs in construction is anticipated to eventually subside and return to a more sustainable level in RDNO and therefore has been given a neutral growth rate for the period 2021 and beyond.
- **Note 3** – sawmilling is anticipated to experience a similar trend as logging.
- **Note 4** – Transportation equipment manufacturing is considered to gain momentum in the region as it has been a targeted economic development area and should grow slightly quicker in the future.

Table A-1 Experienced Labour Force Percentage Change Forecast for Periods from 2006 to 2031

Total labour force	2011	2016	2021	2026	2031	Note
11 Agriculture, forestry, fishing and hunting						
111-112 Farms	0.60%	0.60%	0.60%	0.60%	0.60%	
113 Forestry and logging	3.50%	3.50%	0.00%	-3.50%	-3.50%	Note 1
1150 Support activities for farms (1151 to 1152)	0.60%	0.60%	0.60%	0.60%	0.60%	
1153 Support activities for forestry	3.50%	3.50%	0.00%	0.00%	0.00%	
21 Mining and oil and gas extraction	-1.60%	-1.60%	0.00%	0.00%	0.00%	
213 Support activities for mining & oil/gas	0.10%	0.10%	0.00%	0.00%	0.00%	
22 Utilities	0.10%	0.10%	0.10%	0.10%	0.10%	
23 Construction	-2.30%	-2.30%	-2.30%	0.00%	0.00%	Note 2
31-33 Manufacturing						
311 Food manufacturing	1.30%	1.30%	1.30%	1.30%	1.30%	
312 Beverage and tobacco product man.	1.30%	1.30%	1.30%	1.30%	1.30%	
313 Textile mills	1.50%	1.30%	1.30%	1.30%	1.30%	
314 Textile product mills	1.50%	1.30%	1.30%	1.30%	1.30%	
315 Clothing manufacturing	1.50%	1.30%	1.30%	1.30%	1.30%	
316 Leather and allied product manufacturing	1.50%	1.30%	1.30%	1.30%	1.30%	
321 Wood product manufacturing	2.80%	1.30%	0.00%	0.00%	0.00%	Note 3
322 Paper manufacturing	0.60%	1.30%	0.00%	0.00%	0.00%	
323 Printing and related support activities	-5.00%	1.30%	1.30%	1.30%	1.30%	
324 Petroleum and coal products man.	2.70%	1.30%	1.30%	1.30%	1.30%	
325 Chemical manufacturing	2.70%	1.30%	1.30%	1.30%	1.30%	
326 Plastics and rubber products manufacturing	2.70%	1.30%	1.30%	1.30%	1.30%	
327 Non-metallic mineral product man.	2.00%	1.30%	1.30%	1.30%	1.30%	
331 Primary metal manufacturing	2.50%	1.30%	1.30%	1.30%	1.30%	
332 Fabricated metal product manufacturing	2.50%	1.30%	1.30%	1.30%	1.30%	
333 Machinery manufacturing	2.50%	1.30%	1.30%	1.30%	1.30%	
334 Computer and electronic product man.	1.80%	1.30%	1.30%	1.30%	1.30%	
335 Electrical equipment, appliance man.	1.80%	1.30%	1.30%	1.30%	1.30%	
336 Transportation equipment manufacturing	1.70%	1.30%	1.70%	1.70%	1.70%	Note 4
337 Furniture & related product manufacturing	1.50%	1.30%	1.30%	1.30%	1.30%	
339 Miscellaneous manufacturing	1.50%	1.30%	1.30%	1.30%	1.30%	
41 Wholesale trade	1.50%	1.30%	1.30%	1.30%	1.30%	
44-45 Retail trade	1.20%	1.30%	1.30%	1.30%	1.30%	
48-49 Transportation and warehousing	1.90%	1.30%	1.30%	1.30%	1.30%	
51 Information and cultural industries	1.00%	1.30%	1.30%	1.30%	1.30%	
52 Finance and insurance	1.10%	1.30%	1.30%	1.30%	1.30%	
53 Real estate and rental and leasing	1.10%	1.30%	1.30%	1.30%	1.30%	
54 Professional, scientific and technical services	0.90%	1.30%	1.30%	1.30%	1.30%	
55 Management of companies and enterprises	0.90%	1.30%	1.30%	1.30%	1.30%	
56 Admin & support, waste management s	0.90%	1.30%	1.30%	1.30%	1.30%	
61 Educational services	0.60%	1.30%	1.30%	1.30%	1.30%	
62 Health care and social assistance	2.70%	1.30%	1.30%	1.30%	1.30%	
71 Arts, entertainment and recreation	1.50%	1.30%	1.30%	1.30%	1.30%	
72 Accommodation and food services	1.80%	1.30%	1.30%	1.30%	1.30%	
81 Other services (except public administration)	0.80%	1.30%	1.30%	1.30%	1.30%	
91 Public administration	0.30%	1.30%	1.30%	1.30%	1.30%	

Appendix B References

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