

# MINING INDUSTRY WORKFORCE INFORMATION NETWORK



## Report on the Labour Market Demand Projections

Presented to the Saskatchewan Mining Association by the  
Mining Industry Human Resources (MiHR) Council July, 2008



MINING INDUSTRY  
HUMAN RESOURCES COUNCIL  
CONSEIL DES RESSOURCES HUMAINES  
DE L'INDUSTRIE MINIERE



SASKATCHEWAN  
MINING  
ASSOCIATION

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PHOTO:

**PCS Rocanville**

Rocanville, Saskatchewan

# Executive Summary

The world demand for natural resources and, in particular, mined commodities appear to be insatiable. The need for mine metals, minerals and fuels will be pronounced as both India and China broaden and define their growing economies and consumer tastes. This global desire for commodities will create significant resource challenges for exporting economies. Put simply, mining labour is scarce, demand has outstripped supply and a large labour shortage looms for both Canada and Saskatchewan.

This report details the expected mining labour force shortage for Saskatchewan over the period 2008 to 2017. This report is a follow-up report to the Mining Labour Market Transition study that identified a need for 92 000 new mine employees for the Canadian mining environment.

The challenge for this report and for all labour market forecasting is to be able to predict which factors are affecting the current supply and demand for workers and which factors will affect the labour market in the future. This report examines macro-economic variables pertinent to the mining industry, known advanced-development projects, and demographic factors of the existing workforce.

## The key findings of this report are:

- The Saskatchewan mining industry will expand by 7,800 new<sup>1</sup> jobs by 2017
- The total additional workers required for the Saskatchewan mining industry will by 2017 will be 18,052 resulting from industry expansion and worker replacement.
- Saskatchewan will require 561 additional engineers by 2017
- Saskatchewan's labour market will continue to experience employees exiting for jobs in the Alberta oil sands projects
- Saskatchewan growth estimates are expected to be strong as a result of global demand for commodities such as potash and uranium.

<sup>1</sup> In this report and all other reports from the MIWIN system "new" jobs or "new" employees/workers refers to the requirement to meet the needs of industry expansion, where as the term "additional" refers to the need for workers to fill new positions and those vacated by retirement and other exiting workers leaving the mining workforce in the province.

# Introduction and Background

In late 2007 the Mining Industry Human Resources Council (MiHR) began work on developing a pan-Canadian labour market information and analysis system for the Mining Industry known as the Mining Industry Workforce Intelligence Network (MIWIN). MiHR will identify potential areas of collaboration between provincial/territorial partners who are developing labour market analysis with forecasting tools that have the potential to be used at a national level.

MiHR was approached by the Saskatchewan Mining Association (SMA) in 2008 to undertake a labour forecast for Saskatchewan. This report is the culmination of the efforts of both MiHR, the SMA and numerous Saskatchewan mining firms to provide a meaningful labour forecast for the next 10 years.

MiHR met with a number of Saskatchewan mining firms in May 2008 to discuss data collection methods, job categories and timelines for this report. Special thanks are due to those who provided information and to Keiran Killick of Shore Gold and Pam Schwann of the SMA for championing this initiative.

## The Economic Environment

The mining industries supply and demand for labour does not exist in isolation from the broader Canadian economy. The health of both the Canadian and global economies is directly correlated with the demand for commodities.

Readers of this report should bear in mind that the current economic conditions are extremely volatile and hence economic forecasting is difficult and replete with caveats. The divergence of expert opinion on issues such as the future price of oil, commodity prices and inflation leaves the prognosticator in a difficult position. The methodology for economic forecasting and labour market modeling by the MiHR has been created by a thorough examination of estimates from financial institutions, think tanks and government budgets. If there is a significant alteration of the economic factors affecting the mining industry the estimates contained in this document will require revision.

Therefore to accurately assess a labour forecast it is imperative to examine the global, Canadian and provincial economies. A macroeconomic model has been developed to incorporate short- and long-term market conditions affecting the mining industry.

## The Global Economy

The following list is a summary of the key factors affecting the global economy:

### Commodity Prices

Strong commodity prices have continued through the first half of 2008. This unprecedented growth is due, in large part, to the emergence of China and India on the global economic scene. It is expected, however, that a short term slowdown in the consumption habits of American consumers will lower demand for commodities as production in China and India slows.

### The Canadian dollar

In the near future the Canadian dollar is expected to depreciate against the U.S. dollar as the Bank of Canada lowers its overnight lending rate. It is important to note, however, the performance of the Canadian dollar will move in lock step with the price of commodities. The reputation of the Canadian dollar as a petro currency and the commodity intensive structure of the TSX will ensure this pattern continues.

### Energy Prices

West Texas Intermediate (WTI) crude oil spot prices increased from \$101 to \$120 per barrel over the first three weeks of April due to supply disruptions in Nigeria and the North Sea. The continuing strong demand for growth in the emerging market countries also pressured oil markets<sup>2</sup>. WTI crude oil prices, which averaged \$72 per barrel in 2007, are projected to average \$110 per barrel in 2008 and \$103 per barrel in 2009<sup>3</sup>.

Long Term projections for 2016 by the Energy Information Administration have WTI lowering to approximately \$58 a barrel by 2018<sup>4</sup>.

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<sup>2</sup> Energy Information Administration  
<http://www.eia.doe.gov/emeu/steo/pub/contents.html>  
May 6, 2008

<sup>3</sup> Ibid

<sup>4</sup> Ibid

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### **Risk from Legislative Change to Commodity Markets**

There is a growing risk that lawmakers in the U.S. may attempt to further regulate the commodity markets and avoid what they deem to be speculation or manipulation. These policy risks should be viewed with caution as the intent of lawmakers is often grounded in public opinion and rarely on the fundamentals driving a market. As long as commodity prices including oil remain high, this risk will be ever present.

### **The Strength of the U.S. Economy**

The short term financial health of the U.S. economy is bleak with the country nearing recession. Consumer confidence and spending are both low, but are expected to rise as market intervention by the Federal Reserve resuscitates the financial landscape. Long term views for the U.S. economy are positive with a return to GDP growth in late 2009 and the anticipation of another upswing for the financial markets.

### **Interest Rates**

Interest rates are expected to fall in both Canada and the United States consistent with weaker economic growth in 2008, but increase thereafter as growth strengthens. A tightening labour market in Canada may cause interest rates to trend upward over the forecast period to allow the Bank of Canada to achieve its target inflation rate of about 2%.



# Saskatchewan



Saskatchewan's endowment of resources can be described as an "abundance of riches." This breadth of resources leaves Saskatchewan unrivalled when it comes to resources diversity. Supported by the rising demand from China and other developing markets, prices for Saskatchewan's commodity exports have been on fire in recent years<sup>5</sup>.

## Major Projects

Numerous advanced development mining operations will become viable during the period 2008 to 2017. MiHR understands that the development and implementation of these and other projects will have a strong impact on the demand for labour. MiHR has examined a large number of projects and in this section we highlight the key demand drivers moving toward 2017.

### The Demand for Potash

In 2007 almost 95% of the world's potash production was used in the agriculture industry as fertilizer. Potash is essential for plant growth and there is no substitute for it. Potash is also include in livestock feed supplements and industrial products such as television and computer screens, water softeners, soaps, perfumes, de-icers, aluminum recycling, metal electroplating, oil-well drilling mud, steel heat-treating, pharmaceuticals, ceramics, and in the chloralkali industry to produce potassium hydroxide.

Canada has the world's largest and best potash reserves, and approximately 95% of its reserves are found in the province of Saskatchewan. The province is home to over 50% of global potash reserves; large enough to supply global fertilizer demand for several hundred years, and it's the world's best place to mine potash as deposits are flat-lying evaporated sea beds that are relatively easy to mine.

The Saskatchewan government reports that there are 130 current potash mineral claims or leases in the province, more than half of which were entered this year.

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<sup>5</sup> The Saskatchewan Economy of 2008: The Resurgence of the Resourceful, TD Economics Special Report June 4, 2008

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## Fast Facts About Saskatchewan's Resource Sector

### Mining and Metals

- World's largest producer of potash, with 10 operating mines
- World's largest producer of uranium (1/4 of global output)
- Sufficient potash reserves to supply world needs for several hundred years
- Enough uranium in place to sustain production for another 40 years
- World's largest kimberlite field, with potential for a diamond mine being assessed
- Two new gold mines currently under development
- Significant interest in provincial endowments of copper, zinc, sodium sulphate, platinum, and tantalum

### Energy

- 33% of Canadian primary energy production, second to only Alberta
- Only province in Canada to generate all of crude oil, natural gas, coal, uranium, hydro, wind, wood, and bio-fuels
- Second largest Canadian crude oil producer
- Third largest Canadian natural gas producer
- Third largest producer of coal
- 23% of Canada's proven conventional oil reserves
- 6% of Canada's proven natural gas reserves
- Home to two large oil upgraders at Lloydminster and Regina, as well as a large oil refinery in Regina and a smaller asphalt refinery in Moose Jaw processing leanardite and kaolin

*(courtesy TD economics)*

## Saskatchewan Growth Prospects

- The most significant disturbances caused by exploration are access roads which are either retained for future use by local residents or reclaimed and returned to nature.
- Saskatchewan ranks #1 in Canada in terms of greenfield exploration expenditures for both 2006 and 2007 (18%) compared to 6th place in 2004 (6%).
- Our dramatic increase in exploration activity is being driven by renewed interest in uranium. The spot price for uranium increased from US \$7/lb in 2001 to over US \$120/lb in 2007, fueled by increasing demand by the nuclear fuel industry.
- Continued interest in diamond exploration, spurred on by activity in the Fort a la Corne area is also contributing to the high level of exploration expenditures.
- Exploration reached record levels in 2006 with expenditures of \$244 million and they are forecast to exceed \$277 million in 2007. Uranium accounts for 47% of total exploration expenditures, diamonds for 33%, gold, base metals, REE and other industrial minerals contribute 7% each.
- Potash exploration continues due to growth in the fertilizer industry.
- Over 14 million hectares of the province are being explored for its diverse mineral potential.
- Saskatchewan has significant untapped mineral resource potential, not only for the commodities that we are well known for —potash and uranium—but also for a variety of other minerals including diamonds, gold, platinum and palladium, rare earth elements, copper, zinc, nickel and mineralized brines.
- The bulk of the mineral exploration activity currently takes place in north and central Saskatchewan. The diamond exploration is currently being focused on an area east and northeast of Prince Albert. Gold exploration is primarily north-east of LaRonge, base metal activity is west and southwest of Creighton and uranium exploration activity is in the Athabasca region.

*(Courtesy: SMA)*

## Forecast 2008 to 2017

The table below provides a detailed look at the labour needs for Saskatchewan on a year-by-year basis. MiHR cautions the reader to use the year-by-year statistics with caution and prefers to report the findings on the 2, 5, and 10 year basis.

### Our Sample

The data submitted to MiHR is substantially robust and representative in scope to suggest strong meaning from the 2008-2017 forecast. The data was collected in a manner that allowed it to be delineated by geography, resources type, type of mine, and size. Additional information was collected on turnover rates, retirement rates, gender, average age and unionization. The demographic information collected is not occupation specific and has been used cautiously in conjunction with more detailed information from Statistics Canada.

### Forecasts

MiHR presents the reader with three scenarios for the labour market projections. They are entitled Strong growth, Neutral growth, and Weak growth.

#### The table below forecasts strong growth:

Strong growth for the Saskatchewan mining industry can be characterized by strong world demand for commodities, a strong global economy and commodity prices that are above what we are currently experiencing at the time of this report.

Year	Employment	Growth	Non-Retirement	Retirement	Total Exits	GRAND TOTAL
2008	17000	706*	510	425	935	1641
2009	17706	1416*	531	443	974	2390
2010	19122	1568*	574	478	1052	2620
2011	20690	724*	621	517	1138	1862
2012	21414	749	642	535	1178	1927
2013	22164	776	665	554	1219	1995
2014	22939	803	688	573	1262	2065
2015	23742	831	712	594	1306	2137
2016	24573	860	737	614	1352	2212
2017	25433	890	763	636	1399	2289
<b>Total</b>		<b>9323</b>	<b>6443</b>	<b>5370</b>	<b>11813</b>	<b>21136</b>

\* Based on the anticipated growth from new mines and expansion projects, growth rates in the short term have been adjusted.

### The table below forecasts neutral growth:

Neutral growth for the Saskatchewan mining industry can be characterized by adequate world demand for commodities, a growing global economy and commodity prices that are in the same range as of the timing of this report.

Year	Employment	Growth	Non-Retirement	Retirement	Total Exits	GRAND TOTAL
2008	17000	536*	408	425	833	1369
2009	17536	1227*	421	438	859	2087
2010	18763	1464*	450	469	919	2383
2011	20226	910*	485	506	991	1901
2012	21137	571	507	528	1036	1606
2013	21707	586	521	543	1064	1650
2014	22293	602	535	557	1092	1694
2015	22895	618	549	572	1122	1740
2016	23514	635	564	588	1152	1787
2017	24148	652	580	604	1183	1835
<b>Total</b>		<b>7800</b>	<b>5021</b>	<b>5230</b>	<b>10252</b>	<b>18052</b>

\* Based on the anticipated growth from new mines and expansion projects, growth rates in the short term have been adjusted.

### The table below forecasts weak growth:

Weak growth for the Saskatchewan mining industry can be characterized by low world demand for commodities, a slowing global economy and commodity prices that are lower than the current level as of the timing of this report.

Year	Employment	Growth	Non-Retirement	Retirement	Total Exits	GRAND TOTAL
2008	17000	425*	340	425	765	1190
2009	17425	871*	349	436	784	1655
2010	18296	951*	366	457	823	1775
2011	19248	770*	385	481	866	1636
2012	20018	300	400	500	901	1201
2013	20318	305	406	508	914	1219
2014	20623	309	412	516	928	1237
2015	20932	314	419	523	942	1256
2016	21246	319	425	531	956	1275
2017	21565	323	431	539	970	1294
<b>Total</b>		<b>4888</b>	<b>3933</b>	<b>4917</b>	<b>8850</b>	<b>13738</b>

\* Based on the anticipated growth from new mines and expansion projects, growth rates in the short term have been adjusted.

## MiHR Analysis

MiHR has utilized the neutral growth assumptions to examine the impact on a 2 year, 5 year and 10 year basis for occupations in the Saskatchewan mining industry.

**The chart below provides a breakdown of the additional employees required by occupation category:**

### ADDITIONAL EMPLOYEES REQUIRED BY 2017

JOB TITLE	BY 2010	BY 2013	BY 2017
TRADESPEOPLE INCLUDING APPRENTICES (ALL CATEGORIES)	766	2073	4005
MINE LABOURERS	386	1044	2016
MINERS (NON-AUTOMATED)	312	845	1632
SUPERVISORS, OFFICERS, FOREMAN, COORDINATORS	296	800	1546
HEAVY MACHINERY OPERATOR	278	751	1451
PROCESS/PLANT OPERATOR	272	735	1419
ADMINISTRATIVE SERVICES	149	403	779
GENERAL MANAGEMENT	118	319	615
ENGINEERS (ALL CATEGORIES)	107	290	561
SUPPORT SERVICES	83	226	436
TECHNOLOGIST	70	188	363
INSTRUMENTATION	52	140	270
LABORATORY	46	126	243
GEOLOGIST	42	113	218
TRUCK DRIVER	40	109	211
ACCOUNTANT	32	87	168
ENVIRONMENTAL OFFICER	32	86	166
HUMAN RESOURCES	27	72	138
METALLURGIST	25	67	129
PROJECT MANAGERS	25	67	129
DRAFTSMAN	13	36	70
DRILLER	13	35	68
SURVEYOR	12	33	64
BLASTER	9	25	48
FINANCE	9	25	48
GEOPHYSICIST	5	14	27
CHEMIST	5	14	27
OTHER	231	624	1205

The occupational breakdown left was created using the data collected from individual mining firms.

The table below breaks out the engineering job categories:

#### ADDITIONAL ENGINEERS

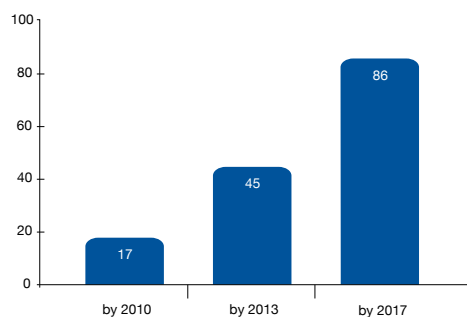
JOB TITLE	BY 2010	BY 2013	BY 2017
CHEMICAL ENGINEER	3	8	16
CIVIL ENGINEER	4	11	20
ELECTRICAL ENGINEER	14	38	73
MECHANICAL ENGINEER	24	64	125
MINE ENGINEER	35	94	182
STEAM ENGINEER	28	75	145

The table below breaks out the trades job categories:

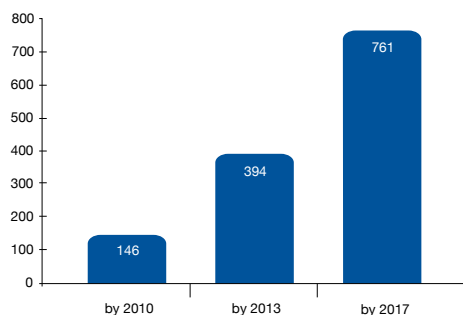
#### ADDITIONAL TRADES

JOB TITLE	BY 2010	BY 2013	BY 2017
CARPENTER (INCLUDES APPRENTICES)	17	45	86
HEAVY EQUIPMENT MECHANIC (INCLUDES APPRENTICES)	146	394	761
ELECTRICIAN (INCLUDES APPRENTICES)	155	420	810
MACHINIST (INCLUDES APPRENTICES)	13	34	66
MECHANIC (NON HEAVY EQUIPMENT) INCLUDES APPRENTICES	103	277	536
MILLWRIGHT (INCLUDES APPRENTICES)	203	549	1060
PIPEFITTER (INCLUDES APPRENTICES)	33	88	170
WELDER (INCLUDES APPRENTICES)	99	267	515

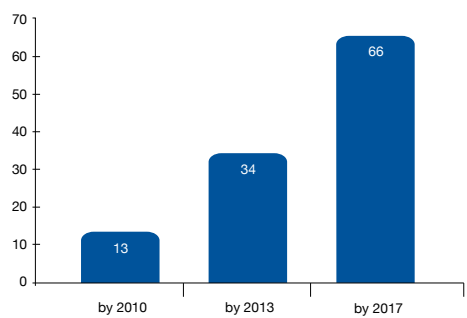
### Carpenter (includes apprentices)



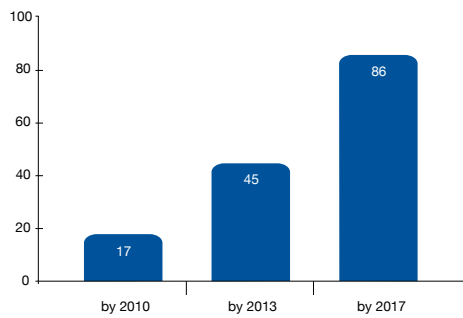
### Heavy Equipment Mechanic (includes apprentices)



### Electrician (includes apprentices)

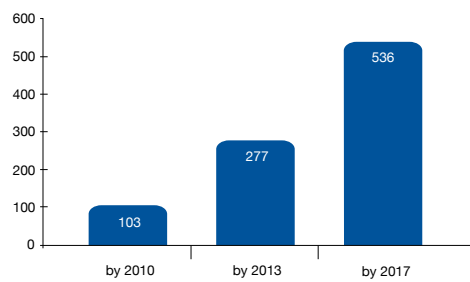


### Machinist (includes apprentices)

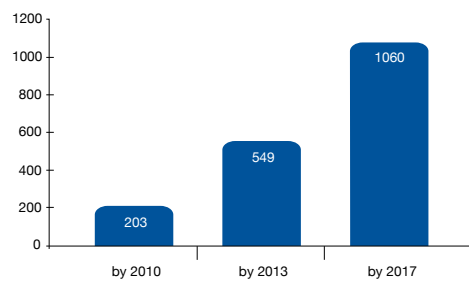




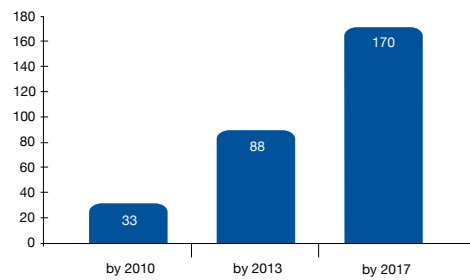
**Mechanic - non-heavy equipment  
(includes apprentices)**



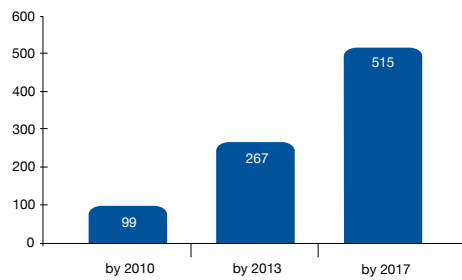
**Millwright (includes apprentices)**



**Pipefitter (includes apprentices)**



**Welder (includes apprentices)**



# Conclusion



The labour challenge for the Saskatchewan mining industry is expected to be pronounced and staffing issues will pose a significant risk to economic and sector growth. Failure to adopt proactive policies in the near future will result in curtailed economic growth for the province and create significant upward pressure on wages in this sector.

MiHR is currently engaged in numerous initiatives to address the mining industry's human resources challenge.

## **MiHR goals are to:**

- Increase participation of under-represented groups in the mining workforce (women, aboriginal people, immigrants, retirees, etc.)
- Dispel myths and misconceptions of the mining industry widely held by youth, parents, educators and career counselors
- Inform and educate Canadians about the wide range of rewarding career opportunities in the modern mining industry
- Promote and build upon industry best practices in workforce planning
- Build a national credentialing program which includes competency based certification of workers and a training and accreditation program. Research the potential of facilitating labour market transition into the mining industry, with a focus on forestry workers with transferable skills



# Appendix 1



## Saskatchewan Fact Sheet

SASKATCHEWAN FACT SHEET	CURRENT
LABOUR FORCE	538,700
EMPLOYED	517,500
FULL-TIME	425,300
PART-TIME	92,100
UNEMPLOYED	21,300
UNEMPLOYMENT RATE (%)	4
UNEMPLOYMENT RATE, SEASONALLY ADJUSTED (%)	4.1
PARTICIPATION RATE (%)	70.4

LABOUR FORCE	
MALE	288,300
FEMALE	250,500
15-24 YEARS OF AGE	105,500
25+ YEARS OF AGE	433,500

EMPLOYED	517,500
MALE	276,700
FEMALE	240,700
15-24 YEARS OF AGE	96,200
25+ YEARS OF AGE	421,300

UNEMPLOYED	21,300
MALE	11,500
FEMALE	9,700
15-24 YEARS OF AGE	9,300
25+ YEARS OF AGE	12,000

UNEMPLOYMENT RATE (%)	4.0
MALE	4.0
FEMALE	3.9

PARTICIPATION RATE (%)	70.4%
MALE	76.4
FEMALE	64.6
15-24 YEARS OF AGE	75.7
25+ YEARS OF AGE	69.2

## Saskatchewan Fact Sheet (cont.)

SASKATCHEWAN ECONOMIC REGIONS	EMPLOYMENT
REGINA-MOOSE MOUNTAIN	153,800
SWIFT CURRENT-MOOSE JAW	52,800
SASKATOON-BIGGAR	165,600
YORKTON-MELVILLE	38,200
PRINCE ALBERT & NORTHERN	96,400

LABOUR FORCE CHARACTERISTICS BY ABORIGINAL IDENTITY (15 AND OLDER)	CURRENT
<b>NON ABORIGINAL</b>	
UNEMPLOYMENT RATE (%)	3.6
PARTICIPATION RATE (%)	62.4
EMPLOYMENT RATE (%)	53.3

<b>ABORIGINAL</b>	
UNEMPLOYMENT RATE (%)	14.6
PARTICIPATION RATE (%)	69.8
EMPLOYMENT RATE (%)	67.3

<b>NORTH AMERICAN INDIAN</b>	
UNEMPLOYMENT RATE (%)	21
PARTICIPATION RATE (%)	58.3
EMPLOYMENT RATE (%)	46

<b>METIS</b>	
UNEMPLOYMENT RATE (%)	10
PARTICIPATION RATE (%)	65.8
EMPLOYMENT RATE (%)	59.2

Demographics	Saskatchewan
Median Age (%)	37.7
% of population with post secondary education (%)	53.9
% of population: Aboriginal (%)	14.6

# Appendix 2



## An Overview of the Macroeconomic Variables

	2006	2007	2008f	2009f	2010f	2011f	2012f	2013-2017f	2008-2017f
<b>Raw Materials Prices</b>									
AGRICULTURE PRODUCTS \$US INFLATION	7.9	14.7	2.1	2.2	2	1.7	2	4.7	3.3
OTHER NON ENERGY PRODUCTS \$US INFLATION	53.9	5.7	-12.9	-7.8	-1.5	-1.8	-0.5	5.0	0.1
WTI OIL PRICE (@ CUSHING) \$US/BBL	66.1	72	84	80	79.3	79.1	79	77.1	78.7
HENRY HUB GAS PRICE \$US/MMBTU	6.9	7.2	7.7	7.5	7.2	6.9	6.8	7.2	7.2
<b>UNITED STATES ECONOMY</b>									
REAL GDP GROWTH (%)	2.9	2.2	1.8	2.7	2.8	2.4	2.5	2.5	2.5
GDP DEFLATOR INFLATION (%)	3.1	2.7	2.1	2.2	2	1.7	1.9	2.2	2.1
3 MONTH TREASURY BILL RATE (%)	4.7	4.5	3.5	4	4.2	4	4.1	4.1	4.1
<b>CANADIAN ECONOMY</b>									
REAL GDP GROWTH (%)	2.8	2.5	1.8	2.4	2.6	3	2.9	2.6	2.6
GDP DEFLATOR INFLATION (%)	2.4	3.6	2.2	1.9	1.7	0.9	1.1	2.0	1.8
3 MONTH TREASURY BILL RATE (%)	4	4.2	3.6	3.9	4.2	4.4	4.5	4.1	4.1
EXCHANGE RATE \$US	0.88	0.93	0.98	0.95	0.92	0.91	0.93	0.9	0.9

*Continued on next page ...*

<b>SASKATCHEWAN</b>									
REAL GDP	-0.4	3.8	2.9	2.1	2	2	2	1.3	1.7
CONSUMER EXPENDITURES	3.9	2.7	2.6	2.5	2.1	2	1.9	1.2	1.5
GOVERNMENT CONSUMPTION EXPENDITURES	3	2.3	2.3	2.3	2.5	2.4	2.2	1.9	2.1
GOVERNMENT INVESTMENT EXPENDITURES	14.8	1.7	5.8	1.8	1.7	2.3	2.3	0.9	0.9
BUSINESS INVESTMENT EXPENDITURES	10	16	12.2	3.9	0.7	-5.4	-5.1	-4.1	-4.1
EXPORTS	1.7	3.3	1.8	1.3	2.2	3.5	3.4	1.7	1.8
IMPORTS	6.4	2.6	5.6	3.2	1.5	0.6	0.6	0.3	0.6
POPULATION	-0.3	0.9	0.8	1	1	0.7	0.7	0.2	0.4
EMPLOYMENT	1.7	2.1	1	0.8	0.4	0.4	0.6	-0.1	0.3
LABOUR FORCE	1.2	1.6	0.9	1	0.8	0.6	0.6	-0.1	0.2
UNEMPLOYMENT RATE (LEVEL %)	4.7	4.2	4	4.2	4.6	4.8	5	4.8	4.8
CPI	2.1	2.9	2	2	2.3	1.6	1.6	1.4	1.6
LABOUR INCOME PER HOUR (\$)	4.8	3.3	3.6	3.6	3.1	2.8	3	1.8	1.8





# Appendix 4



## LIST OF PARTICIPANTS

The following companies submitted data to this project.

- AGRIUM
- AREVA RESOURCES
- CAMECO
- HUDSON BAY MINING AND SMELTING CO. LIMITED
- MOSAIC
- POTASH CORP.
- SHERRIT COAL
- THYSSEN MINING

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## Mining Workforce Information Network (MIWIN)

### About the HR Challenge

The next 10 years pose a great challenge for the mining industry: an estimated 92,000 people will be required to fill a variety of jobs, ranging from engineers and managers to front line mine workers.

### Two factors are driving this resource shortage:

- Increasing worldwide demand for minerals and precious metals
- As many as 40 percent of industry professionals are expected to retire during the next 10 years

With no information available on the geographic or occupational distribution of these shortages, MiHR recognized the need to develop MIWIN—a mining-specific national LMI system.

## MIWIN

MIWIN will provide insightful analyses and reports on a full range of HR issues and opportunities, feature a comprehensive inventory of labour-market information sources, and offer recommendations on the best methods to obtain additional labour-market data. Reports will be published on a regular basis and specialized analyses provided upon request.

### MIWIN will enable industry stakeholders to:

- Undertake meaningful long-range HR planning
- Target investments in training, education and skills development
- Establish accurate industry benchmarks
- Make more informed business decisions
- Perform comparative analyses among multiple variables
- Collaborate to address emerging HR challenges
- Predict labour-market demand and supply across regions, provinces, commodities, occupations and skill sets

## Be a Part of the HR Solution

Contribute to the HR solution while gaining full access to valuable reports and analyses. This system has been created to provide supply and demand workforce information to the mining industry—while participation is voluntary, the more participants involved, the better the information available.

**The more you contribute, the more you benefit!**

## Contact Us

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