A REGIONAL ECONOMIC PROFILE OF:

- *The Municipality of Lorne (Rural Municipality of Lorne, Village of Notre Dame, Village of Somerset);*
- *Municipality of Louise (Rural Municipality of Louise, Village of Crystal City, Town of Pilot Mound);*
  Municipality of Glenboro South Cypress (Rural Municipality of South Cypress, Village of Glenboro) Municipality of Norfolk Treherne (RM of South Norfolk, Town of Treherne);
- *Rural Municipality of Victoria;*
- *Rural Municipality of Thompson; and the*
- *Municipality of Pembina (Town of Manitou and Rural Municipality of Pembina)*

PREPARED FOR:

THE GROWTH AND PROSPERITY STAKEHOLDERS GROUP

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MANITOBA GROWTH ENTERPRISE AND TRADE

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TABLE OF CONTENTS

1.0 INTRODUCTION

This report contains demographic, job and business data prepared for the "Growth and Prosperity Strakeholders Group" (GPSG), a collaborative working group with representation from 10 municipalities and Hutterite colonies. GPSG was formed to advocate for an extension of natural gas service into the region.

The data and the analysis provide basic information about the economy of the region in order to inform the strategic economic development initiatives of regional stakeholders. This report, in and of itself, does not advocate for one course of action over another.

The data in the report includes what is referred to as the South Central Proposed Natural Gas Region. It includes the:

- Municipality of Lorne (formerly the Rural Municipality of Lorne, the Village of Notre Dame and the Village of Somerset);
- Municipality of Louise (formerly the Rural Municipality of Louise, the Village of Crystal City and the Town of Pilot Mound,);
- Municipality of Glenboro South Cypress (formerly the Rural Municipality of South Cypress and the Village of Glenboro);
- Municipality of Norfolk Treherne (formerly the Rural Municipality of South Norfolk and the Town of Treherne);
- Rural Municipality of Victoria;
- Rural Municipality of Thompson; and the
- Municipality of Pembina (formerly the Town of Manitoba and the Rural Municipality of Pembina).

Several proponents of this initiative are Hutterite colonies. It is not known whether Hutterite colonies report jobs and businesses statistics in the same manner as other participants in the economy.

2.0 POPULATION

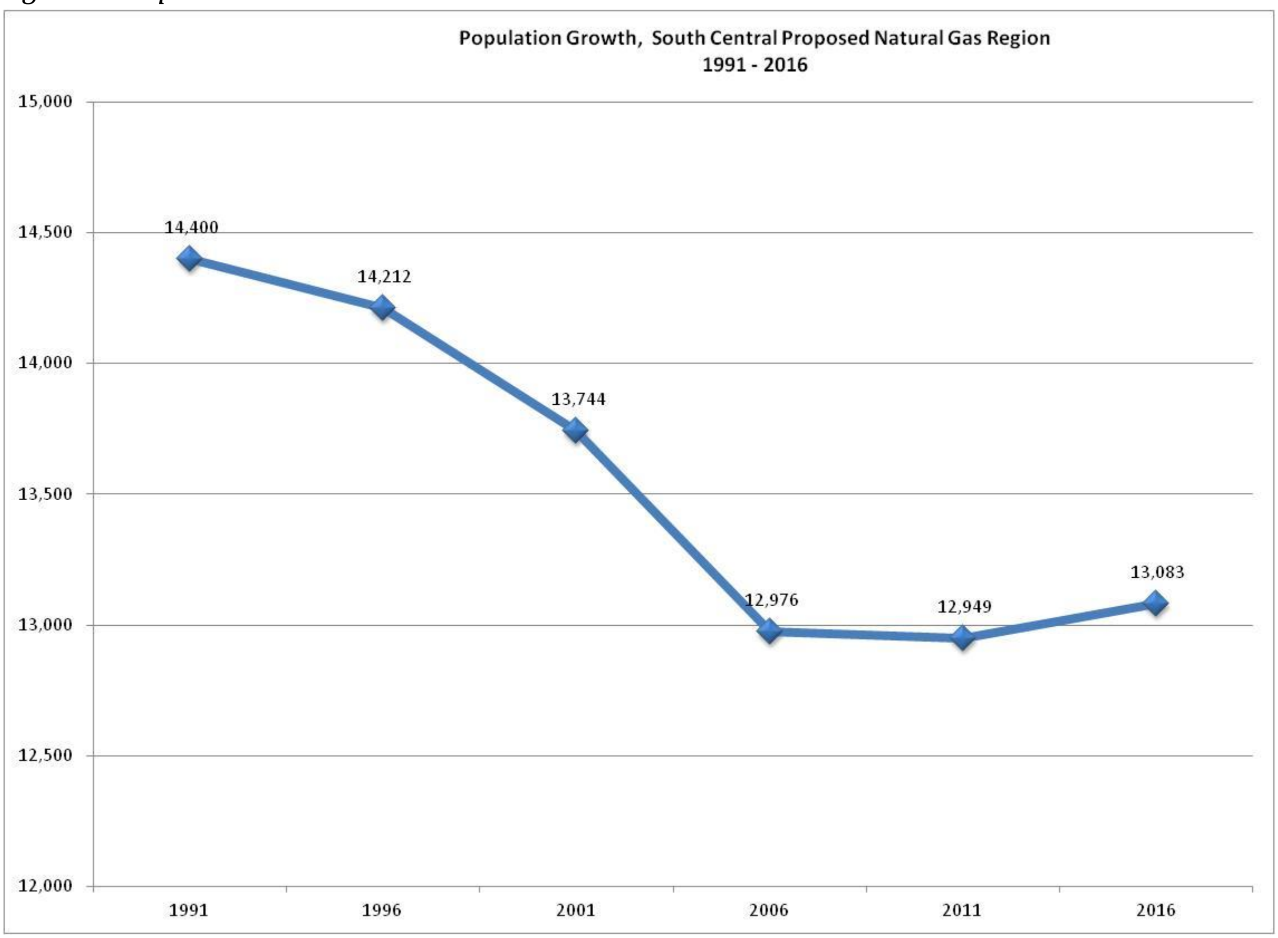
Population growth or decline over a period of time illustrates the historical trends of a region. It is often used to indicate the region's ability to grow over time.

Figure 1 shows that:

- According to the Manitoba Health Population Report (June 2016), there were 13,083 people living in this area in 2016.
- The population of the region declined by 1,451 (10%) from 1991 to 2011.
- The population of the region increased by134 (0.7%) from 2011 to 2016.

For reference, in Manitoba, the overall population increase from 1991 to 2016 was 22%.

Figure 1: Population Growth 1991 - 2016

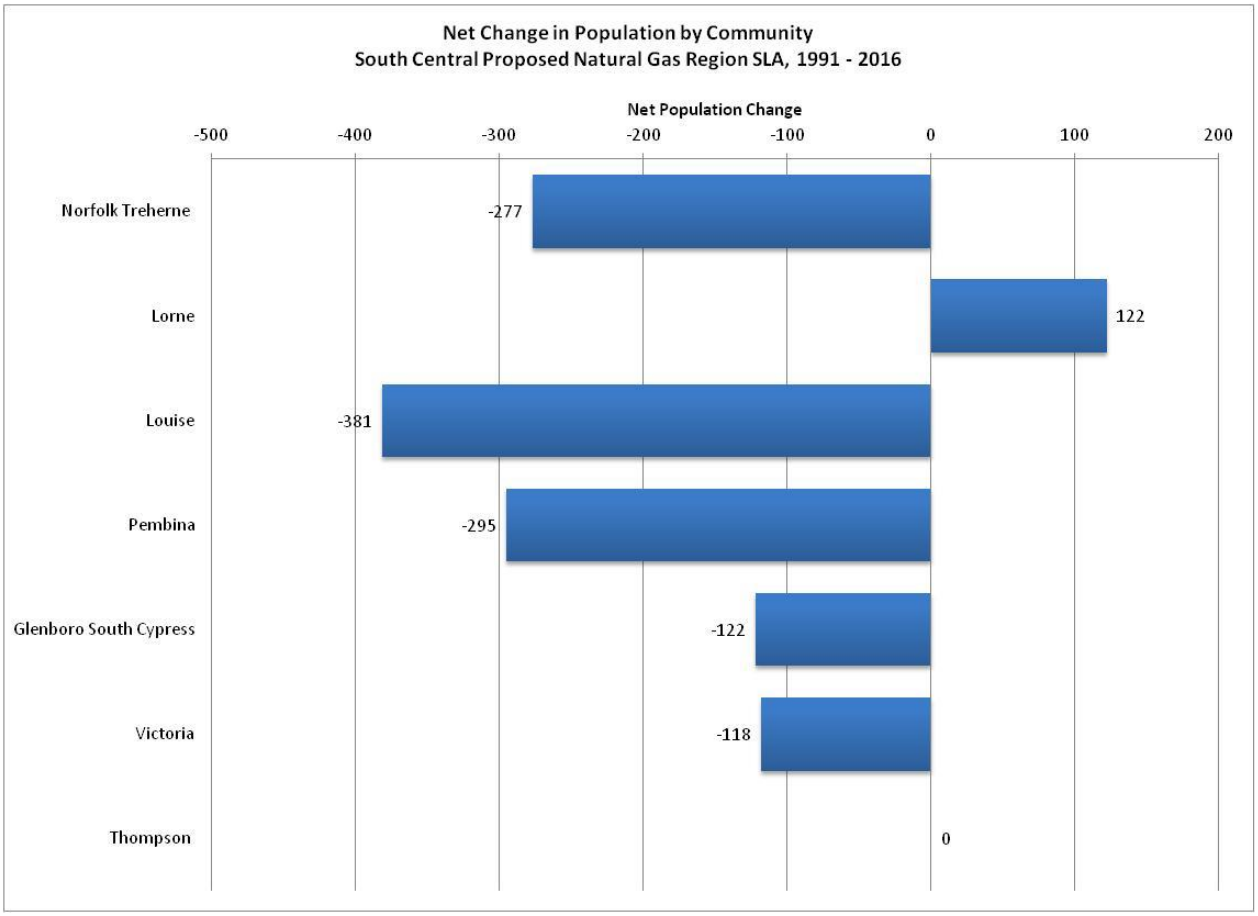


Data sources: Manitoba Health Population Reports: June 1 2016; June 1, 2011; June 1, 2006; June 1, 2001; June 1, 1996; and June 1, 1991.

Figure 2 shows that:

- All municipalities in the designated region showed a population decline from **1991 to 2016** with the exception of the Municipality of Lorne ((formerly the RM of Lorne, the Village of Notre Dame and the Village of Somerset) with an increase of 122 people (5.1%) and the Municipality of Thompson with no change.

Figure 2: Net Population Change by Community 1991 - 2016

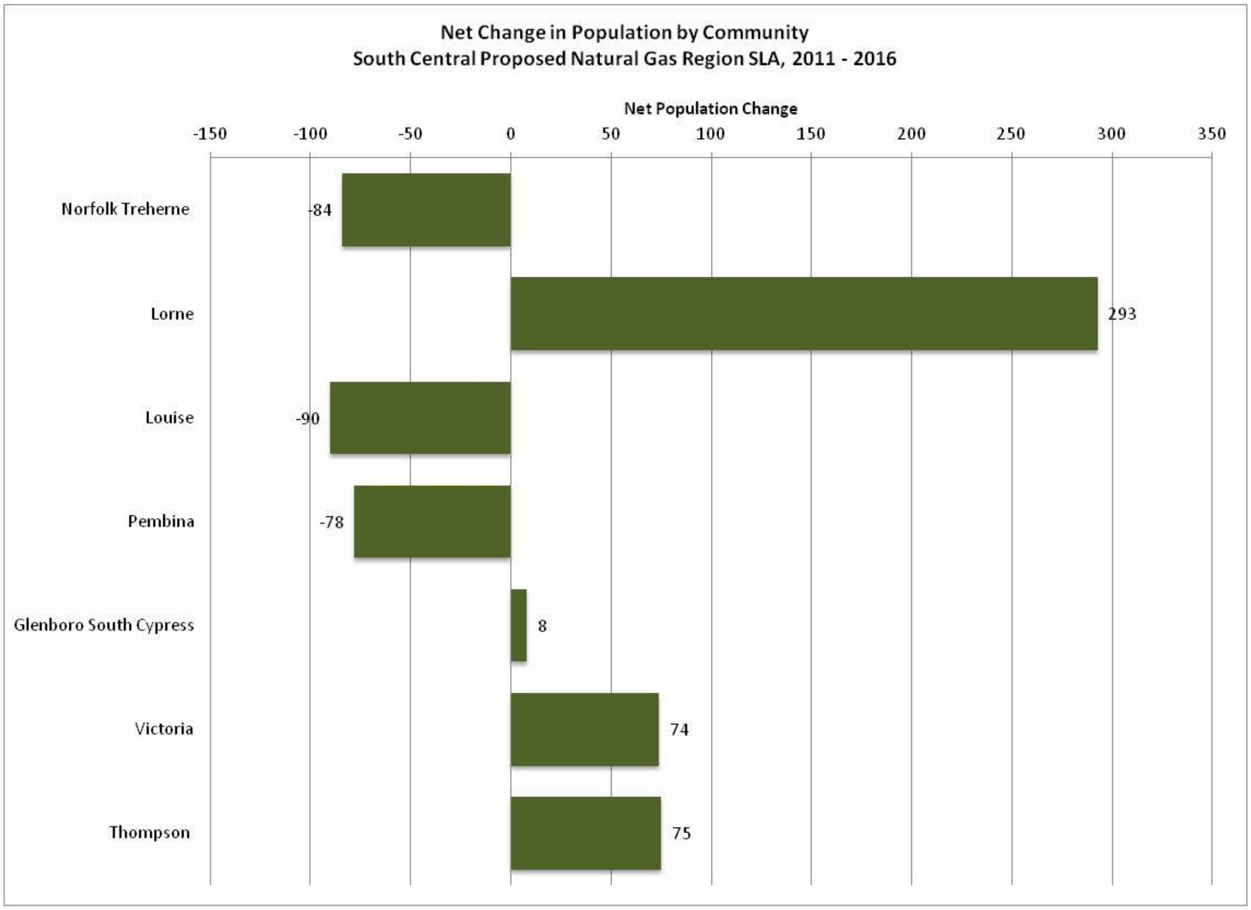


Data sources: Manitoba Health Population Reports: June 1 2016, June 1, 1991

Figure 3 shows that:

- From 2011 to 2016, the population of three municipalities has increased: Lorne by 293 people (9%), Glenboro South Cypress by 8 people (0 .6%) Thompson by 75 people (7%) and Victoria by 74 people (6%)

Figure 3: Net Change in Population by Community, 2011-2016



Data sources: Manitoba Health Population Reports: June 1 2016, June 1, 2011

3.0 JOBS

3.1 Jobs by Industry

The strength and diversity of the labour force can be analyzed by dividing industries into three types:

- the **Primary** sector – industries that extract and produce raw materials; for example **Agriculture.**
- the **Secondary** sector – industries that change raw materials into goods; for example **Manufacturing.**
- the **Tertiary** sector – industries that provide goods and services to business and consumers; for example **Accounting, Retail.**

Traditional analysis suggests that jobs in the primary and secondary industry sectors are responsible for the development of a sound economic base. They are the based industries referred to as "Goods Producing Industries". They also spur on job creation in the tertiary sector.

The knowledge economy is becoming increasingly important for economic success. This includes jobs within the tertiary sector such as **Education, Professional/scientific.**

Sectors such as **Healthcare and social assistance** (62), **Education services** (61) and **Public Administration** (91) are often dependent on government funding.

Industries and Jobs are classified by the North American Industry Classification System (NAICS) The structure of NAICS is hierarchical. It is composed of sectors (two-digit codes), subsectors (three-digit codes), industry groups (four-digit codes), and industries (five-digit codes).

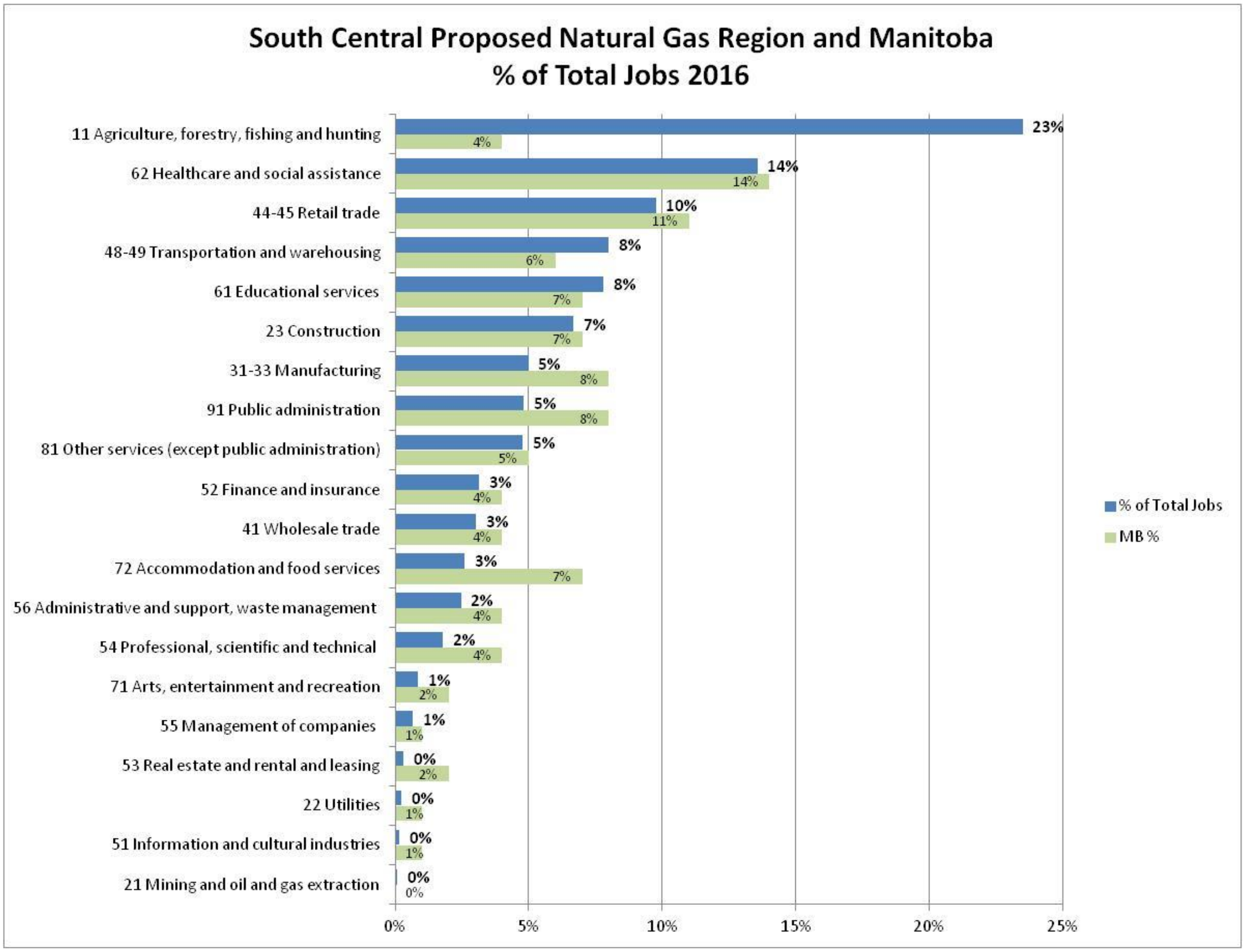
Throughout this section, industries in the Primary sector are highlighted in a lighter shade, the Secondary sector in a medium shade and the Tertiary sector in a darker shade.

Primary
Secondary
Tertiary

Figure 4 shows that:

- 23% of the jobs in the region are in the primary sector of **Agriculture, forestry, fishing and hunting.** More specifically in this region, almost all of these jobs are in the Agriculture industry. In Manitoba 4% of jobs are in this sector.
- 12% of the jobs are in the secondary sectors of **Construction** and **Manufacturing.** In Manitoba, 16% of jobs are in these sectors.
- 65% of the jobs are in the tertiary sector. In Manitoba, 80% of the jobs are in this sector.
- 27% of the jobs are in sectors traditionally funded by government. In Manitoba 29% of jobs are in these sectors.

Figure 4: Percentage of Total Jobs by Sector. 2016



Data source: Economic Modeling Specialists International, 2017

Figure 5: Jobs by Sector, Region 2011 and 2016.

	South Central Proposed Natural Gas Region			
	Number of Jobs 2011	Number of Jobs 2016	Real Change 2011 - 2016	% Change 2011 - 2016
ALL INDUSTRIES	**7,671**	**8,243**	**572**	**7.46%**
Goods Producing Industries	**2,955**	**2,918**	**-38**	**-1.3%**
Agriculture, forestry, fishing and hunting	2,068	1,934	-134	-6.5%
Mining and oil and gas extraction	10	5	-5	-51.4%
Utilities	16	20	4	23.2%
Construction	457	548	91	20.0%
Manufacturing	404	410	7	1.7%
Service Industries	**4,716**	**5,326**	**610**	**12.9%**
Wholesale trade	264	249	-15	-5.8%
Retail trade	714	805	91	12.8%
Transportation and warehousing	502	656	154	30.7%
Information and cultural industries	16	13	-3	-21.7%
Finance and insurance	246	257	12	4.7%
Real estate and rental and leasing	23	24	2	7.8%
Professional, scientific and technical	141	148	6	4.4%
Management of companies	35	55	20	56.8%
Administrative and support, waste management	209	203	-6	-3.0%
Educational services	593	642	49	8.2%
Healthcare and social assistance	939	1,118	179	19.1%
Arts, entertainment and recreation	64	70	6	9.5%
Accommodation and food services	221	229	8	3.5%
Other services (except public administration)	326	394	68	20.8%
Public administration	353	396	43	12.1%
Unclassified	71	69	0	0.0%

Source: Economic Modelling Specialists International, 2017 Note: Totals may not add up due to rounding

Figure 5 and 6 show that:

Total Jobs

- In 2016, there were 8,243 jobs in the region; an increase of 7.5% (572 jobs) between 2011 and 2016. This is compared to an increase of 4% for Manitoba.

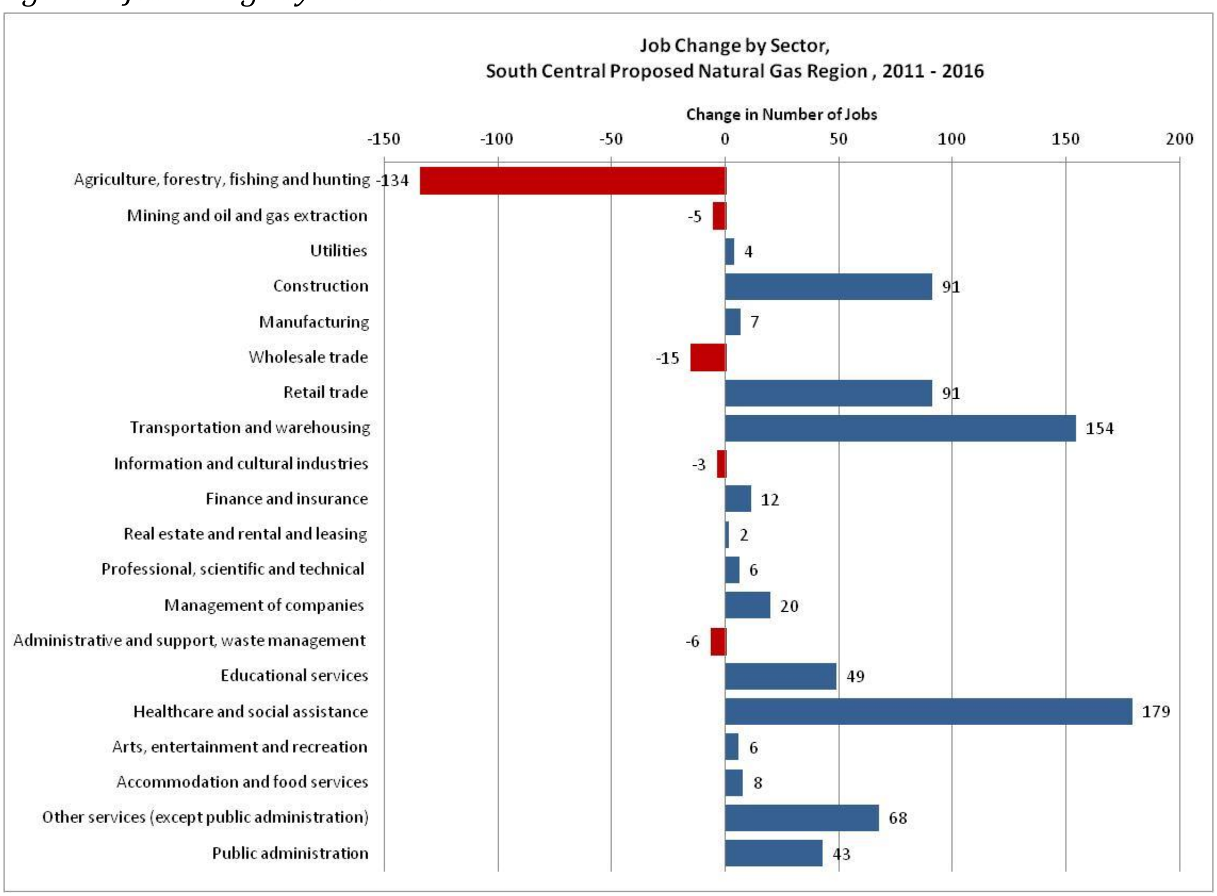
Goods Producing Sectors

- In 2016, there were 2,918 jobs in the region in goods producing industries; a decrease of 1.3% (38 jobs). The increase in other industries specifically **Construction**, (20 % or 91 jobs) countered the loss of jobs in **Agriculture** (-6.5% or 134 jobs).
- From 2011 to 2016, Manitoba gained 4% (2,973 jobs) in the goods producing industries

Service Sector

- In 2016, there were 5,326 jobs in the service sector; a gain of 12.9% (610 jobs) from 2011.
- From 2011 to 2016, Manitoba gained 4.7% (24,488) in the service industries.
- In 2016 there was an increase of 8.2% (49 jobs) in **Educational services** and 19.1% (179) jobs in **Healthcare and social services.**
- There were also job gains in **Transportation and warehousing** with an increase of 30.7% (154 jobs) and **Retail trade** with an increase of 12.8% (91 jobs).

Figure 6: Job Change by Sector 2011 – 2016



Data source: Economic Modeling Specialists International, 2017

The three digit NAICS code represents industry subsectors. Figure 7 shows that:

- In 2016, the greatest number of jobs by industry group in the region are in **Farms** (1,919), followed by **Educational services** (642).

Primary
Secondary
Tertiary

Figure 7: Jobs by Industry Subsectors:

NAICS	Description	2016 Jobs
111-2	Farms	1,919
611	Educational services	642
623	Nursing and residential care facilities	556
484	Truck transportation	398
238	Specialty trade contractors	294
624	Social assistance	242
622	Hospitals	216
445	Food and beverage stores	212
913	Local, municipal and regional public administration	206
811	Repair and maintenance	195
561	Administrative and support services	180
237	Heavy and civil engineering construction	180
522	Credit intermediation and related activities	173
452	General merchandise stores	170
541	Professional, scientific and technical services	148
721	Accommodation services	141
444	Building material and garden equipment and supplies dealers	123
311	Food manufacturing	116
333	Machinery manufacturing	112
621	Ambulatory health care services	104
417	Machinery, equipment and supplies merchant wholesalers	99
812	Personal and laundry services	94
722	Food services and drinking places	88
491	Postal service	77
236	Construction of buildings	75

Data source: Economic Modeling Specialists International, 2017

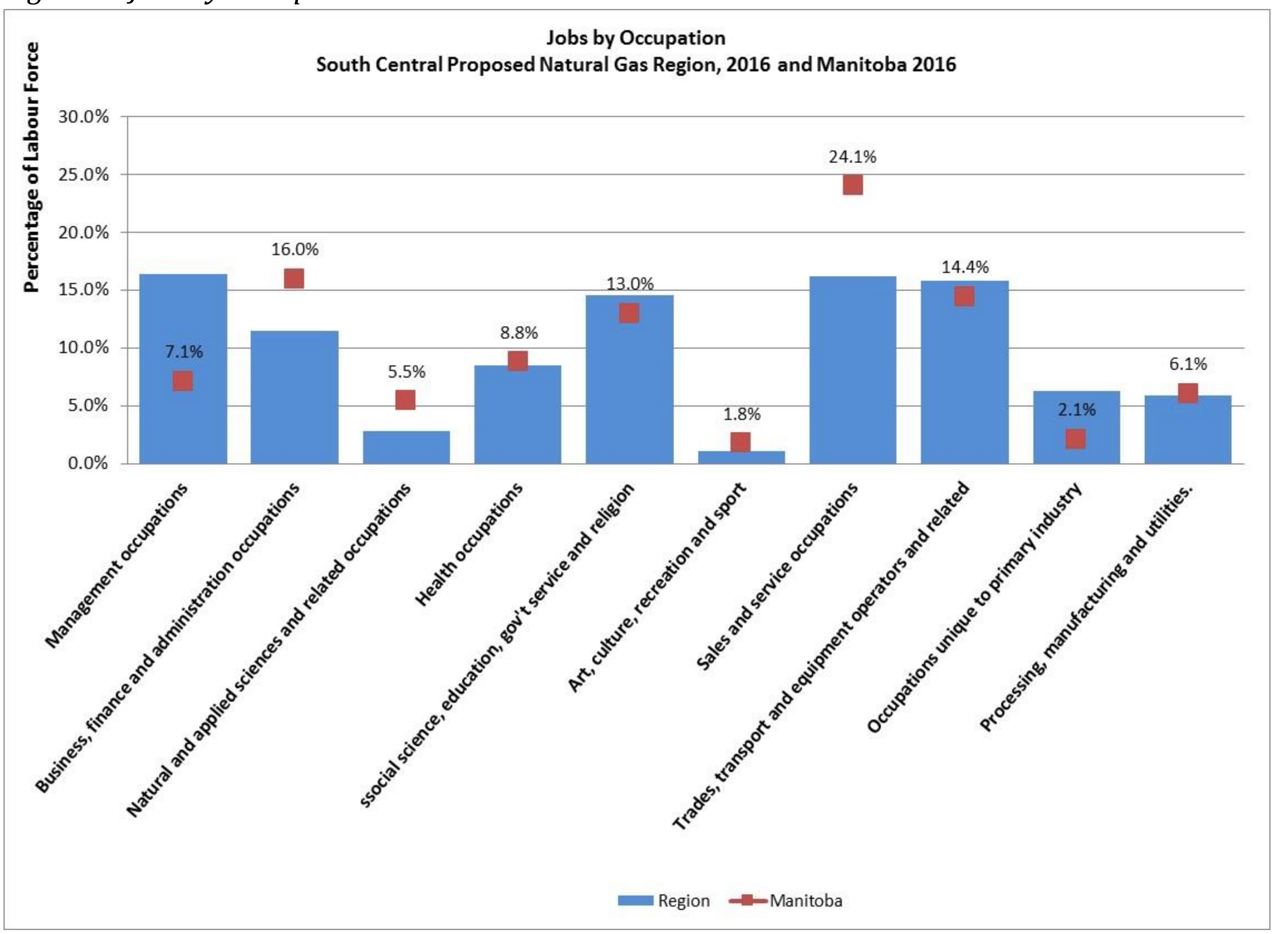
3.2 Jobs by Occupation

Another way to identify characteristics of the jobs of a region is to examine the make up of occupations within the region. These are classified by the North American Occupations Classification System (NOCS).

Figure 8 shows that:

- The region has a higher percentage than the average of Manitoba who are in **Occupations unique to primary industry** and **Management occupations.**
- The region has a lower percentage than the average of Manitoba who are in **Business, finance and administration** occupations; **Sales and service** occupations; **Trades, transport and equipment** operators and **Natural and applied sciences.**

Figure 8: Jobs by Occupation



Data source: Economic Modeling Specialists International, 2017

4.0 BUSINESS BY SECTOR

Another perspective in reviewing a regional economy is to determine the number of businesses in the region.

Figure 8 shows that:

- In 2016, there were 3,096 businesses in the region. Of these, 1,776 or 57% were in the primary and secondary sectors.
- In this region, of all the businesses in the region 75% or 2,349 are self employed individuals. This may indicate an opportunity for business expansion.

Figure 8: Businesses by Sector

NAICS Code	Description	Self Employed	Total
11	Agriculture, forestry, fishing and hunting	1,271	1,530
21	Mining, quarrying, and oil and gas extraction	3	5
22	Utilities	4	4
23	Construction	118	198
31-33	Manufacturing	21	39
41	Wholesale trade	32	49
44-45	Retail trade	51	117
48-49	Transportation and warehousing	104	158
51	Information and cultural industries	4	10
52	Finance and insurance	49	71
53	Real estate and rental and leasing	333	347
54	Professional, scientific and technical services	41	63
55	Management of companies and enterprises	8	11
56	Administrative and support, waste management and remediation services	26	32
61	Educational services	3	7
62	Health care and social assistance	21	58
71	Arts, entertainment and recreation	16	31
72	Accommodation and food services	22	44
81	Other services (except public administration)	90	150
91	Public administration	2	11
X0	Unclassified	130	161
		2,349	3,096

Data source: Economic Modeling Specialists International, 2017

5.0 Economic Analysis

5.1 Industries by Relative Strength

The relative strength of an sector or industry is calculated using a measurement called a Location Quotient (LQ). This measures the concentration of jobs within a particular sector within a region, relative to a larger region – in this case Manitoba. Location quotient values can reveal unique qualities about a region.

- **LQ less than 1 (below. 08) –** indicates proportionally fewer people are employed in this sector, which means there are fewer jobs per capita, compared to the rest of the province. A low LQ can also indicate that this sector is not producing enough goods or services to satisfy the local population – so people may be leaving the region to purchase these goods and services. It can also indicate business gaps.
- **LQ equal to 1 (0.8 – 1.2) –** indicates that the proportion of people employed in this sector is the same as the provincial proportion and that sector is satisfying local demand for any goods and services produced in this sector.
- **LQ greater than 1 (higher than 1.2) –** indicates proportionally more people are employed in this sector than the province, which means labour is specialized or concentrated in these sectors within this region. Location Quotients greater than 1.2 indicate a unique regional labour strength and may also indicate a sector that is exporting its' goods and services out of the region.

Figure 9: Location Quotient Analysis, South Central Natural Gas Region 2011 and 2016
Note: Data source for this analysis is by license with Economic Modelling Specialist International, July 2017.

Sector	2011	2016
11. Agriculture, forestry, fishing and hunting	8.62	6.28
21. Mining and oil and gas extraction	0.40	0.16
22. Utilities	0.29	0.26
23. Construction	1.37	0.99
31-33 Manufacturing	0.85	0.62
41. Wholesale trade	1.23	0.80
44-45. Retail trade	1.15	0.90
48-49. Transportation and warehousing	1.60	1.39
51. Information and cultural industries	0.16	0.11
52. Finance and insurance	0.81	0.57
53. Real estate and rental and leasing	0.25	0.18
54. Professional, scientific and technical	0.70	0.49
55. Management of companies	1.26	0.90
56. Administrative and support, waste management	0.89	0.67
61. Educational services	1.45	1.04
62. Healthcare and social assistance	1.29	0.97
71. Arts, entertainment and recreation	0.68	0.49
72. Accommodation and food services	0.60	0.41
81. Other services (except public administration)	1.24	1.04
91. Public administration	0.80	0.63

5.2 Jobs, Business and Location Quotient by Sub Sector 2016

Figure 9 shows examples of businesses within key sectors, along with the number of jobs and the provincial location quotients. They are listed in order of the number of jobs they support. These industries and institutions combine job strength, high relative strength and business strength.

Figure 9: Jobs, Business and Location Quotient by Sub Sector 2016

NAICS	Description	2016 Jobs	Business	2016 Location Quotient
111-112	Farms	1,919	1,481	14.37
611	Educational services	642	7	1.13
623	Nursing and residential care facilities	556	8	3.07
484	Truck transportation	398	140	3.16
238	Specialty trade contractors	294	117	0.82
624	Social assistance	242	18	1.32
622	Hospitals	216	5	0.79
445	Food and beverage stores	212	31	0.93
913	Local, municipal and regional public administration	206	9	1.09
811	Repair and maintenance	195	70	1.65
561	Administrative and support services	180	26	0.45
237	Heavy and civil engineering construction	180	16	2.54
522	Credit intermediation and related activities	173	15	1.05
452	General merchandise stores	170	11	1.62
541	Professional, scientific and technical services	148	63	0.26
721	Accommodation services	141	24	1.55
444	Building material and garden equipment and supplies dealers	123	20	1.89
311	Food manufacturing	116	9	1.15
333	Machinery manufacturing	112	10	1.94
621	Ambulatory health care services	104	27	0.35
417	Machinery, equipment and supplies merchant wholesalers	99	12	1.00

Data source: Economic Modeling Specialists International, 2017

5.3 Industry Sector by Number of Jobs, Change in Jobs 2011 – 2016 and Relative Strength

In Figure 10, the top ten sectors (by size of employment) are examined by comparing the growth or decline of jobs (vertical axis) from 2011 to 2016 and the relative strength of the industry in 2016 measured by the Location Quotient (horizontal axis).

The size of the bubble is relative to the number of jobs in that sector – the larger the bubble, the more jobs there are in that sector.

Figure 10 shows:

Areas of Growth and High Relative Strength

- The industry sectors in the top right hand quadrant have experienced growth in the number of jobs in the region, and they also have high relative strength (concentrated labour) in relation to the rest of the province. The sector in this quadrant is **Transportation and warehousing.**
- The sectors in the top right hand quadrant are often considered the "stars" of your economy.

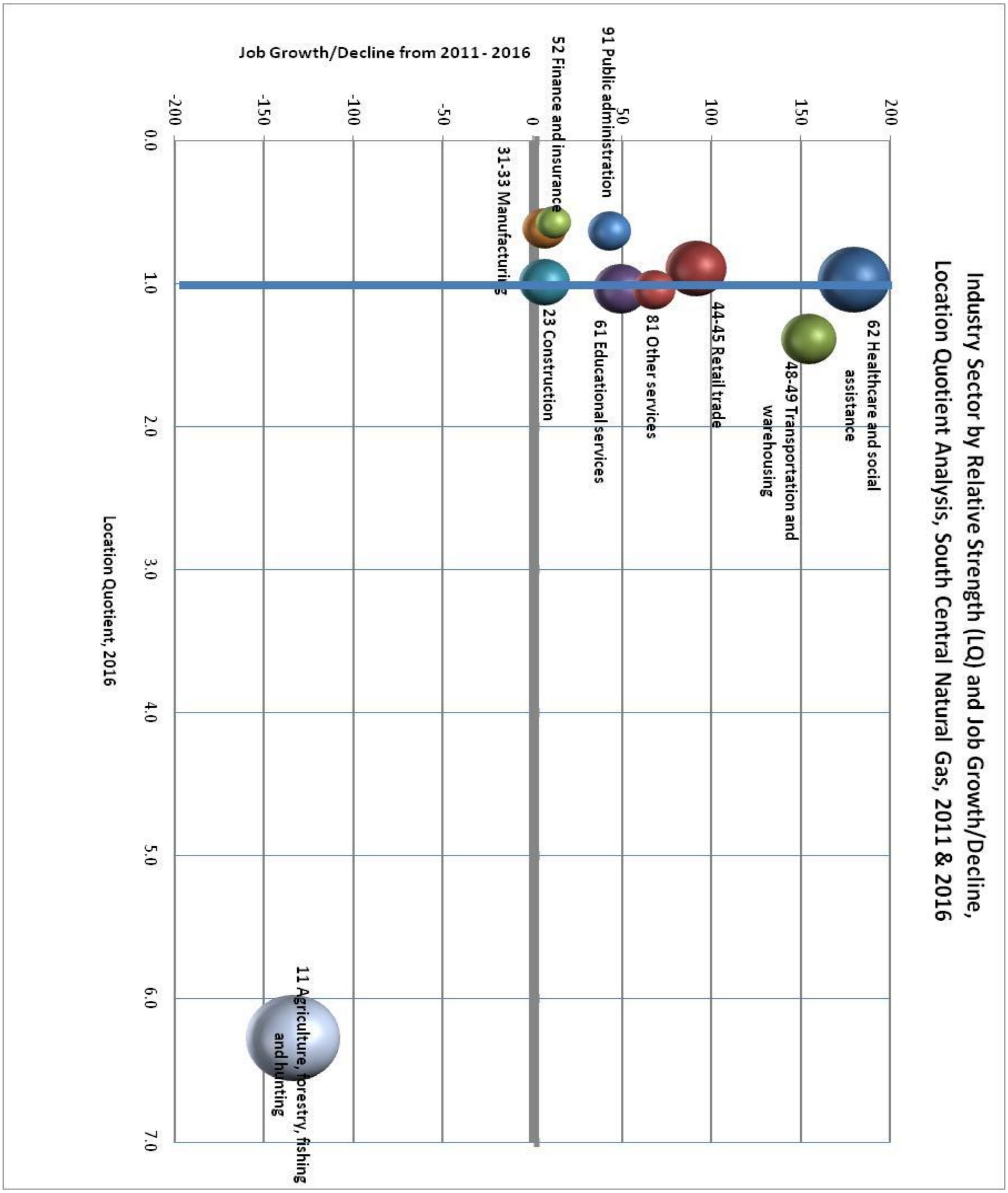
Areas of Growth

- Industries in the top left hand quadrant are experiencing an increase in the number of jobs, but the sectors do not have high relative strength (specialized labour). The sectors in this quadrant are: **Healthcare and social assistance, Educational services, Construction, Other services, Manufacturing, Public administration.**
- The sectors in the top left hand quadrant are considered to be emerging sectors.

Areas of Job Loss

- **Agriculture** is in the bottom right hand quadrant which indicates a mature industry. While still a major driver in the economy, the sector is shedding jobs.

Figure 10: Industry Sector by Relative Strength, Job Growth/ Decline



5.4 "Shift Share" Effects on Labour Force Growth and Decline

Shift Share is a standard method of regional economic analysis that separates the causes for job growth into three main causes. The three main causes of growth (or decline) are:

The Growth Effect – measures how much a sector would have grown if the only influence was the growth of the national economy.

The Industry Mix Effect – measures how much an individual sector would have grown if the only influences were the national trends in that industry sector.

The Shift Effect – is the change in jobs that can't be explained by national economy growth or industrial strength. This shows unique competitive strengths and weaknesses of a regional economy; for example large business investment within a particular industry that is unique to that region.

According to a shift share analysis for your region:

- The loss of jobs in Agriculture is due primarily to a negative industry effect. In other words, this is a national trend in that industry.
- The gain of jobs in **Transportation and warehousing, Construction, Retail trade** and **Other services** is due to a positive shift effect, or because of an increase of investment into these sectors in your location.
- The gain of jobs in **Healthcare and social services** is primarily due both to the Industry Mix effect and the Shift Effect; in other words a combination of national trends and investment in your locality.

Note: Data source for this analysis is by license with Economic Modelling Specialist International, July 2017.

5.5 Economic Base Analysis

The Economic Base Analysis technique divides an economy into two categories: basic and non basic. Basic industries are those that produce goods that are exported from the region and/or bring outside dollars into the economy. Agriculture, manufacturing and construction are usually considered basic industries. Some economists also consider tourism to be a basic industry. Others include industries and jobs in the knowledge economy as base industries.

Non basic industries are dependent on the local market. They are usually service industries that provide goods or services to the local population and the basic industries.

The economic base theory assumes that the basic sector is the prime cause of local economic growth. Growth or decline in the basic sector has an impact on the non basic sector and the total economy.

The **economic base ratio** is the ratio between employment in the basic sector and employment in the non basic sector. For example a ratio of 1:2 would indicate that for every 1 basic job, there are 2 non basic jobs in an economy.

The **economy base multiplier** is used to project the impact of either an increase or a decline of jobs in the basic sector on the non basic sector and the total economy. For example, a multiplier of 2 would suggest that an increase of 1 basic job would have the equivalent impact of adding 2 additional jobs to the economy. Conversely, the loss of a basic job could result in the additional loss of 2 other jobs in the economy. A large multiplier means that initial positive changes in the basic sector generate more additional overall economic activity in the regions.

Using 2016 data from Economic Modeling Specialists International, the **Economic Base Ratio** for the South Central Proposed Natural Gas region is **1:2.8**. In other words, for every one basic job there are 2.8 non basic jobs in the region.

The **Economic Base Multiplier** for the region is **2.7**. This calculation is used for projections. It estimates that for every basic job created in the region, the impact will be an additional 2.7 jobs in the economy.

6.0 REGIONAL COMPARISONS

The following chart was prepared in order to compare demographic and industrial growth between the region in South Central Manitoba seeking to access natural gas infrastructure and 3 other regions in Manitoba who have access to natural gas infrastructure. Natural gas infrastructure was first constructed in the Interlake region in 2004, the South West region in 1996 and the South East region in 1994. Expansion to the initial infrastructure occurred in years following. While the impact of the accessibility of natural gas cannot be singled out as a specific cause of growth in an economy, one could say that it is an element in creating a more favourable environment for economic growth.

The regions studied are not formal economic regions but groups of self selected communities. As such, the data presented may not give a full picture of the regional economies. For example, the South West natural gas region does not include data from the City of Brandon, which has a very strong impact on the surrounding area.

Note that the economic comparisons are based on data from 2001 to 2016. Data collected previous to 2001 used different methodology. It would be difficult to compare data pre 2001 because of this. Dates when infrastructure was in place is included in the chart. The population charts and relative strength charts for each region are included in the Appendix.

The South East region includes:

- Municipality of De Salaberry
- Town of St. Pierre-Jolys
- Municipality of Hanover
- City of Steinbach
- Town of Niverville
- Municipality of La Broquerie
- Town of Ste. Anne
- Municipality of Ste. Anne
- Municipality of Richot
- Town of Morris
- Municipality of Morris
- Municipality of Montcalm

The Interlake region includes:

- Municipality of Woodlands
- Town of Teulon
- Town of Arborg
- Municipality of Bifrost Riverston (formerly the Rural Municipality of Bifrost and the Village of Riverton)

The South West Region includes:

- Municipality of Killarney Turtle Mountain

- Municipality of Boissevain Morton (formerly the Town of Boissevain and the Rural Municipality of Morton)
- Municipality of Deloraine Winchester (formerly the Town of Deloraine and the Rural Municipality of Winchester
- Municipality of Souris Glenwood (formerly the Town of Souris and the Rural Municipality of Glenwood)
- Municipality of Grasslands (formerly the Town of Hartney and the Rural Municipality of Cameron and the Rural Municipality of Whitewater)
- Town of Melita

Figure 12 shows a comparison of population, jobs, the causes of job growth and economic multipliers for each region.

- Populations charts for each region illustrate that since 1991:
    - Interlake and South East have shown tremendous population growth. The South East region exceeds the Manitoba growth rate by 3 times.
- Job numbers for each region show that since 2001:
    - Interlake, South West and South East have shown growth in the Goods Producing Sectors.
    - Interlake and South East have also show significant growth in the Knowledge economy and the Service sector.
- Shift Share analysis of the South East, Interlake and South West regions shows that:
    - all but two of the star sectors in each region, (those sectors that are growing in number and relative strength) grew due the Shift Effect, i.e. investment in the locality rather that national or industrial trends. This type of investment has increased for a reason; often a perceived opportunity.
    - in the South West, **Agriculture, forestry, fishing and hunting.** bucked the trend and grew both in relative strength and job numbers due to both the Growth effect and the Shift effect.
    - in the South East, the top two star sectors have grown due to the Shift effect, again investment in the locality, rather than national or industrial trends.
- The Base Multipliers show that for each region:
    - Adding jobs to basic sectors will produce 2 ½ - 3 additional jobs in the tertiary sector.
- The South Central and the South West regions showed decline in population, good producing jobs and jobs in the knowledge economy.
- Agriculture is still the main economic driver in rural Manitoba.

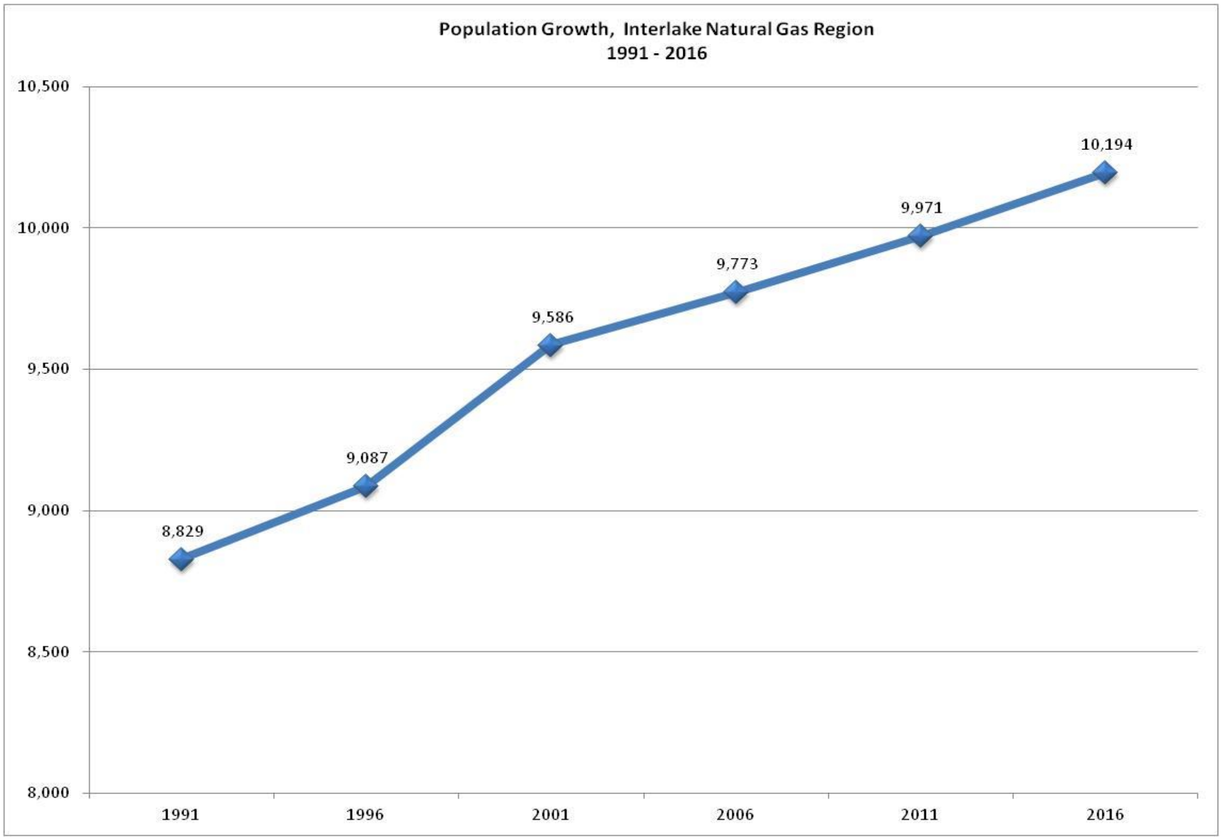
Figure 12: Regional Comparisons: Population and Economy

	South Central Proposed	**Interlake**	**South West**	**South East**
Population 1991 – 2016	-1071 - 9.1%	+ 1,355 15.5%	- 236 -1.9%	+ 28,921 + 68.4%
Jobs: Total 2001 – 2016	+726 + 9.7%	+ 823 20.4%	-342 - 5.3%	+6,387 +28.0%
Jobs :Goods Producing	-379 - 11.5%	+ 104 6.0%	+54 + 2.9%	+ 1,697 + 19.9%
Jobs: Service	+ 1,104 26.6%	+719 31.4%	- 396 - 8.7%	+4,690 +33.1%
Jobs - Knowledge **- 54 Professional, scientific and technical** **- 61 Educational Services** **- 62 Healthcare and social assistance**	- 111 - 6.2%	+261 36%	- 38 - 1%	+ 1,846 +41%
Star sectors (Shift share)	48-49 Transportation and warehousing ***(Shift Effect)***	55. Management of Companies ***(Shift Effect)***	11. Agriculture, forestry, fishing and hunting (Growth Effect and ***Shift Effect)***	23. Construction ***(Shift Effect)*** 31-33. Manufacturing ***(Shift Effect)*** 61. Educational services (Growth Effect, ***Shift Effect)*** 48-49. Transportation and warehousing (Growth Effect and **Shift Effect)** 81. Other services ***(Shift Effect)*** 44-45. Retail trade (Growth Effect) 52. Finance and insurance (***Shift Effect*** and Growth Effect) 72. Accommodation and food services (Growth Effect and Industry Mix Effect)
Goods Producing Drivers (Shift share)	11. Agriculture, forestry, fishing and hunting (Industry Mix Effect) 23. Construction ***(Shift Effect)***	11. Agriculture, forestry, fishing and hunting (Industry Mix Effect) 23. Construction (Industry Mix Effect) 31-33. Manufacturing ***(Shift Effect)***	11. Agriculture, forestry, fishing and hunting (Growth Effect and ***Shift Effect)***	23. Construction (***Shift Effect***) 31-33. Manufacturing ***(Shift Effect)*** 11. Agriculture, forestry, fishing and hunting (Mix Industry Effect)
Emerging sectors (Shift share)	61. Educational services ***(Shift Effect*** and Growth Effect) 81. Other services (***Shift Effect)*** 44-45. Retail trade (Growth Effect) 31-33. Manufacturing (Growth Effect)	44-45 Retail trade (Growth Effect ***& Shift Effect)*** 62. Healthcare and social assistance (Industry Mix Effect) 61. Educational services (Industry Mix Effect)	62. Healthcare and social services (Growth Effect and Industry Mix Effect) 48-49 Transportation and warehousing (Growth Effect) 72. Accommodation and food services ***(Shift Effect)*** 81. Other services (Growth Effect)	
Economic Base Multiplier	2.7	2.5	3	2.8
Economic Base Ratio	1:2.8	1:1.6	1:2.1	1:1.8

APPENDIX

A. Interlake Natural Gas Region:

Figure 13: Interlake Population Growth 1991 - 2016



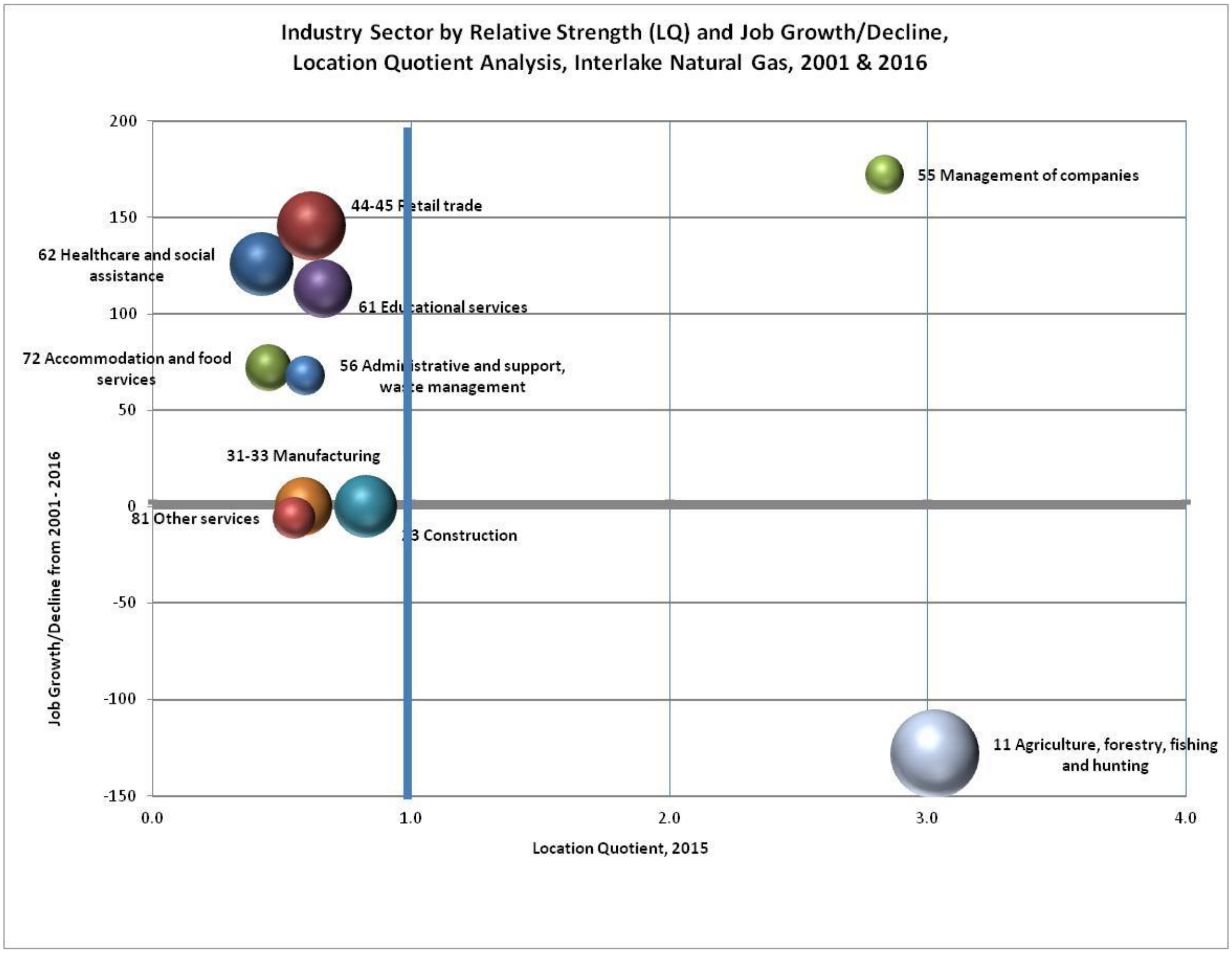
Data sources: Manitoba Health Population Reports: June 1 2016; June 1, 2011; June 1, 2006; June 1, 2001; June 1, 1996; and June 1, 1991.

Figure 14: Interlake Job Growth/Decline 2001 - 2016

	Interlake Natural Gas Region			
	Number of Jobs 2001	**Number of Jobs 2016**	**Real Change 2001 - 2016**	**% Change 2001 - 2016**
ALL INDUSTRIES	**4,027**	**4,884**	**823**	**20.44%**
Goods Producing Industries	**1,725**	**1,829**	**104**	**6.0%**
Agriculture, forestry, fishing and hunting	1,061	933	-129	-12.1%
Mining and oil and gas extraction	0	33	33	#DIV/0!
Utilities	5	16	11	224.3%
Construction	268	457	188	70.2%
Manufacturing	390	390	0	0.0%
Service Industries	**2,294**	**3,014**	**719**	**31.4%**
Wholesale trade	145	131	-14	-9.7%
Retail trade	408	553	145	35.6%
Transportation and warehousing	112	83	-29	-26.2%
Information and cultural industries	5	26	21	421.6%
Finance and insurance	176	149	-27	-15.4%
Real estate and rental and leasing	21	41	20	95.3%
Professional, scientific and technical	55	77	22	39.6%
Management of companies	0	172	172	#DIV/0!
Administrative and support, waste management	113	181	68	60.1%
Educational services	295	408	113	38.2%
Healthcare and social assistance	363	488	126	34.6%
Arts, entertainment and recreation	59	78	19	31.5%
Accommodation and food services	179	251	72	40.1%
Other services (except public administration)	213	207	-6	-2.8%
Public administration	150	170	19	12.8%
Unclassified	5	42	0	0.0%

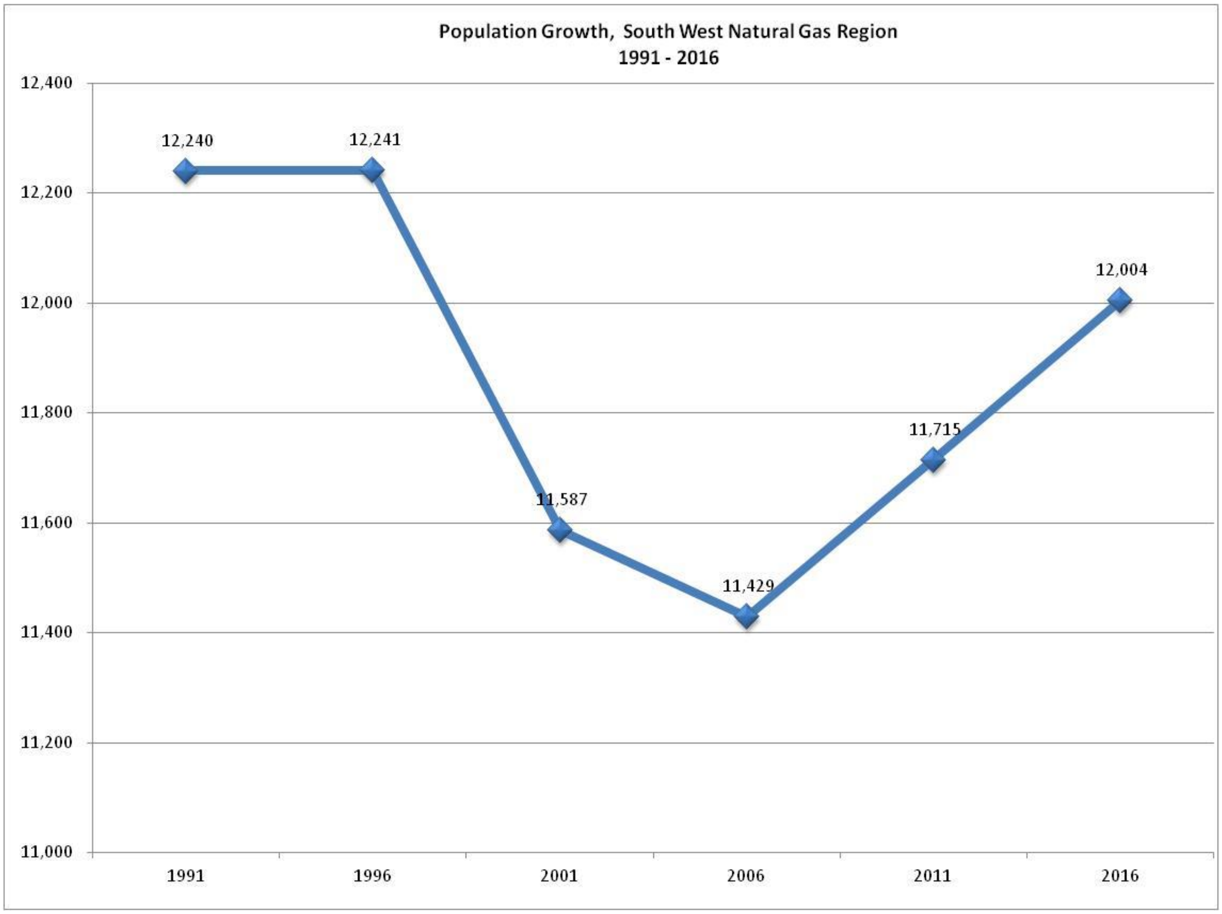
Source: Economic Modelling Specialists International, 2017 Note: Totals may not add up due to rounding

Figure 15: Interlake Industry Sector by Relative Strength and Job Growth/Decline



B. South West Natural Gas Region

Figure 16: South West Population Growth 1991-2016



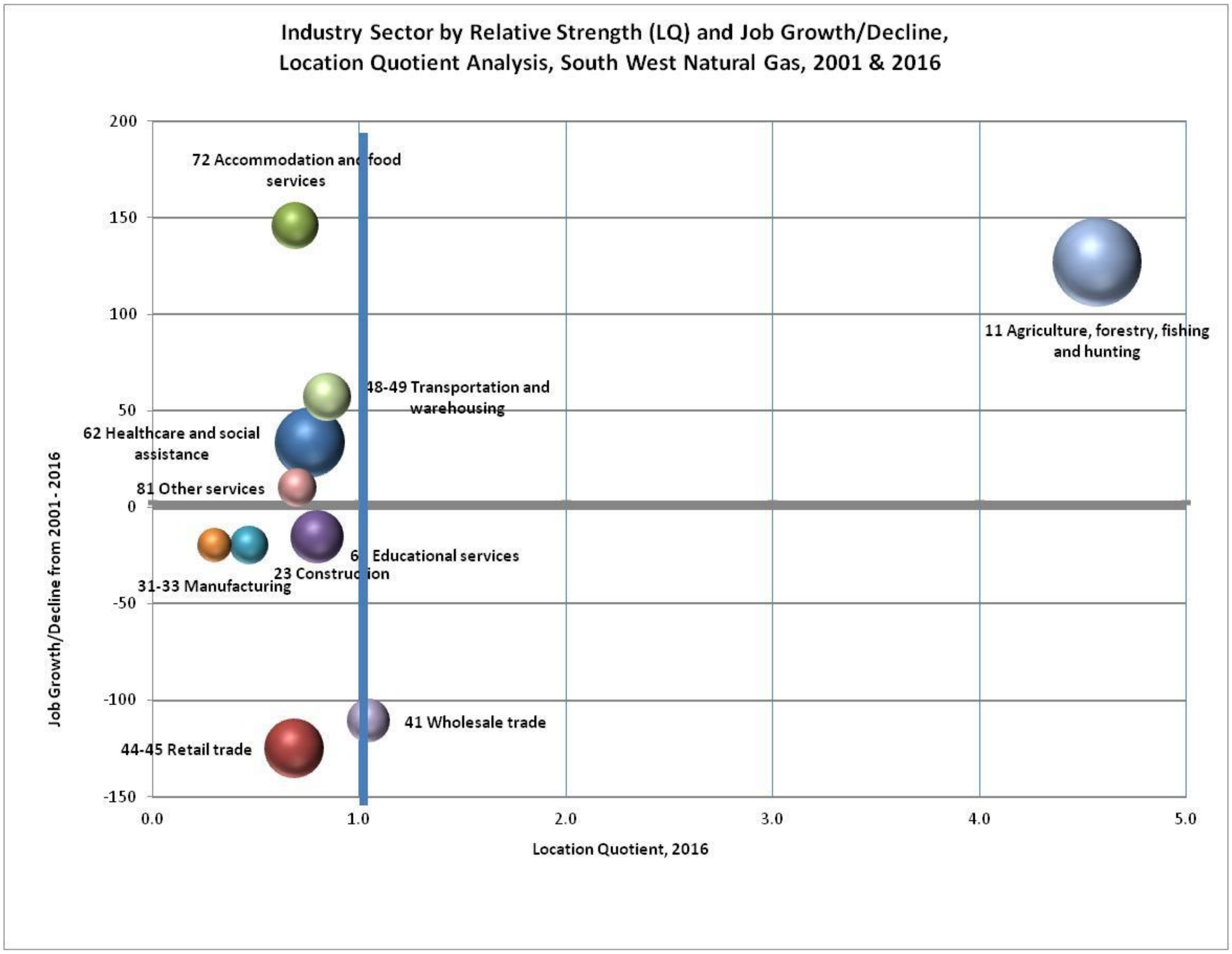
Data sources: Manitoba Health Population Reports: June 1 2016; June 1, 2011; June 1, 2006; June 1, 2001; June 1, 1996; and June 1, 1991.

Figure 17: South West Job Growth/Decline 2001 - 2016

	Number of Jobs 2001	Number of Jobs 2016	Real Change 2001 - 2016	% Change 2001 - 2016
ALL INDUSTRIES	**6,431**	**6,125**	**-342**	**-5.32%**
Goods Producing Industries	**1,877**	**1,931**	**54**	**2.9%**
Agriculture, forestry, fishing and hunting	1,282	1,409	127	9.9%
Mining and oil and gas extraction	0	35	35	#DIV/0!
Utilities	57	28	-29	-51.4%
Construction	318	259	-58	-18.4%
Manufacturing	220	200	-20	-9.1%
Service Industries	**4,535**	**4,138**	**-396**	**-8.7%**
Wholesale trade	438	327	-111	-25.3%
Retail trade	744	619	-125	-16.8%
Transportation and warehousing	342	399	57	16.6%
Information and cultural industries	32	48	15	47.3%
Finance and insurance	310	175	-135	-43.4%
Real estate and rental and leasing	5	40	35	701.2%
Professional, scientific and technical	186	132	-55	-29.3%
Management of companies	62	0	-62	-100.0%
Administrative and support, waste management	177	179	1	0.7%
Educational services	510	494	-16	-3.1%
Healthcare and social assistance	845	879	33	3.9%
Arts, entertainment and recreation	74	19	-55	-74.3%
Accommodation and food services	240	386	146	60.6%
Other services (except public administration)	255	265	10	3.9%
Public administration	313	178	-135	-43.2%
Unclassified				#DIV/0!

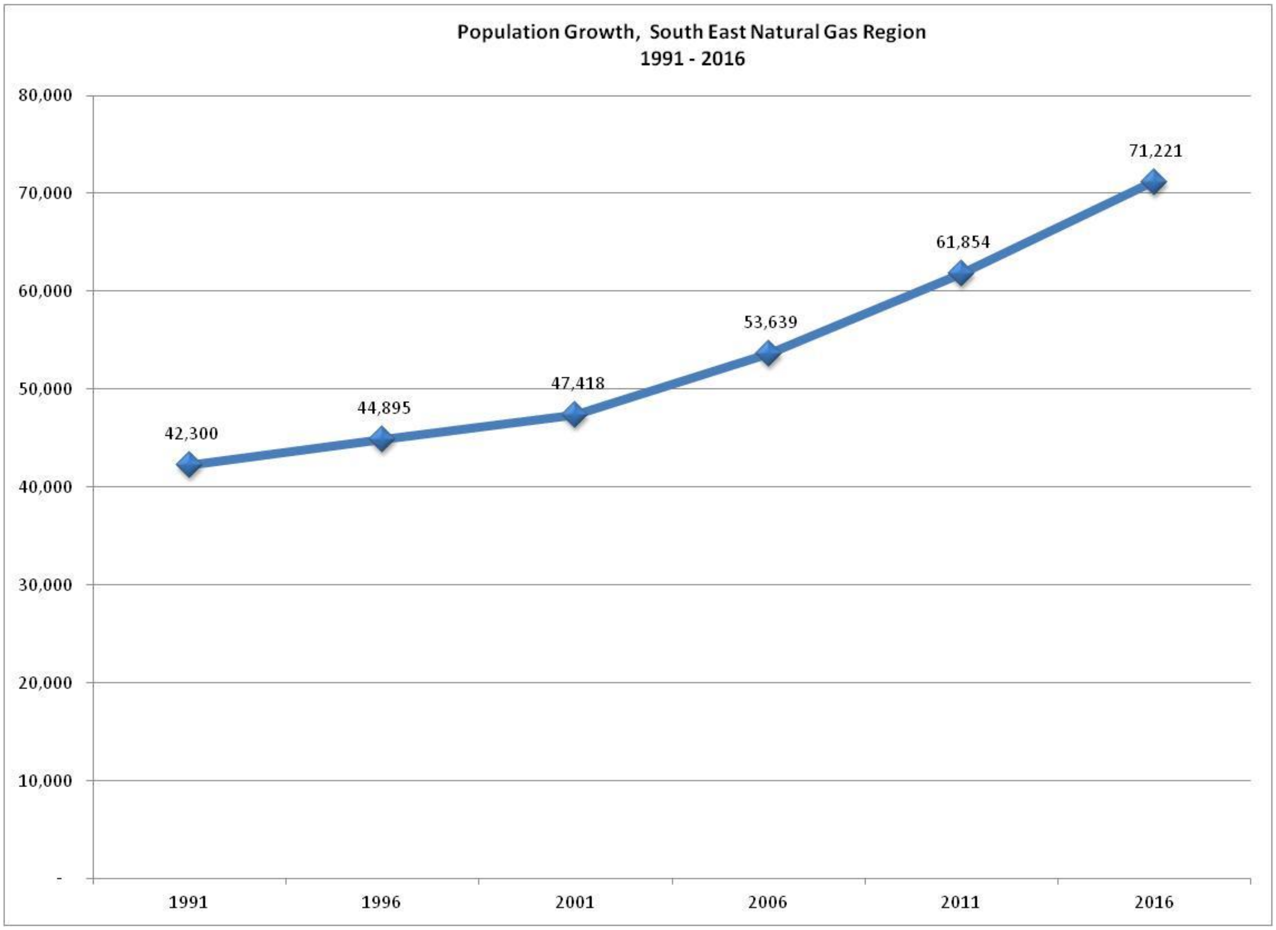
Source: Economic Modelling Specialists International, 2017 Note: Totals may not add up due to rounding

Figure 18: South West Industry Sector by Relative Strength and Job Growth/Decline 2001 - 2016



C. South East Natural Gas Region

Figure 19: South East Population Growth 1991 - 2016



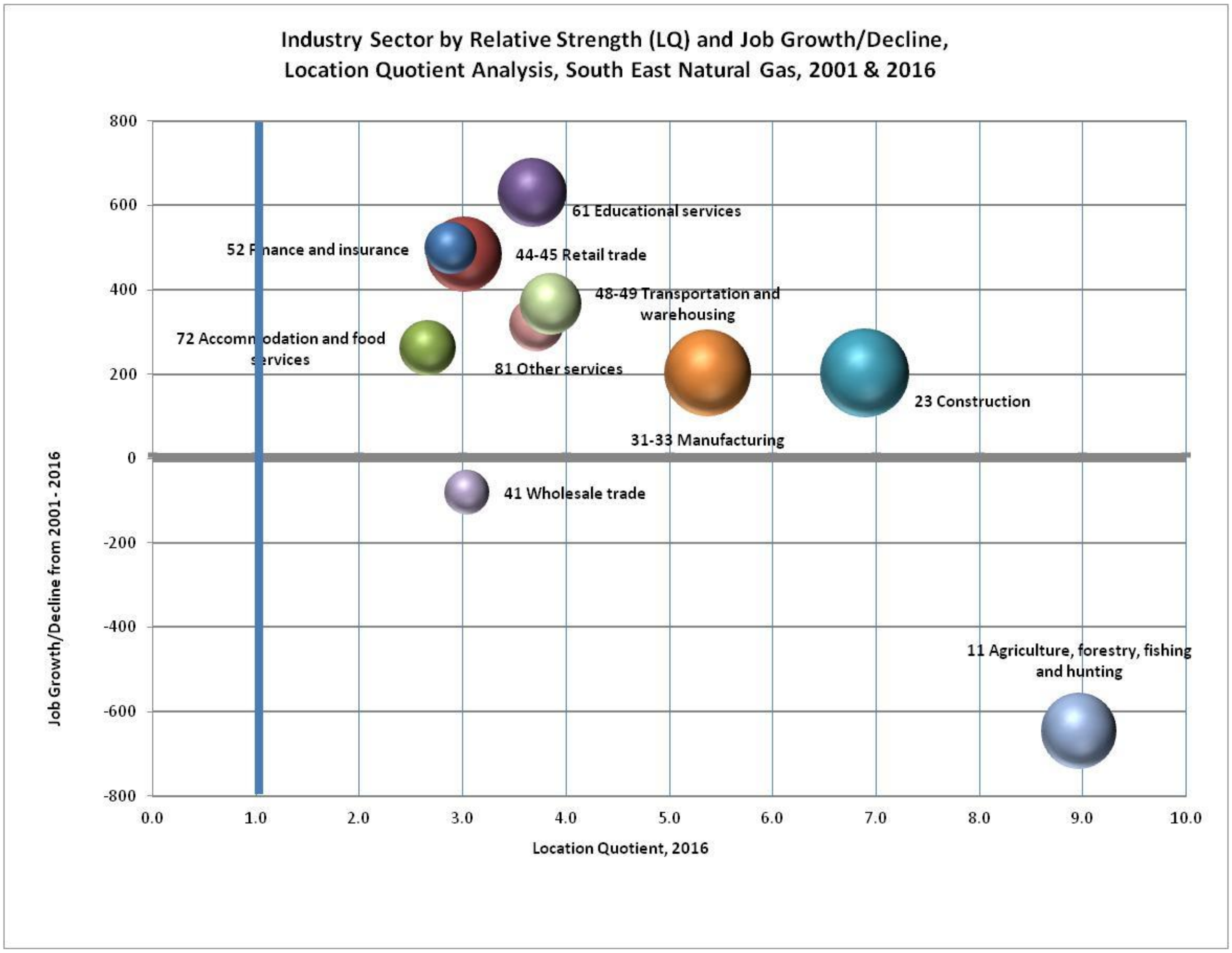
Data sources: Manitoba Health Population Reports: June 1 2016; June 1, 2011; June 1, 2006; June 1, 2001; June 1, 1996; and June 1, 1991.

Figure 20: South East Job Growth/Decline 2001 - 2016

	South East Natural Gas Region			
	Number of Jobs 2001	**Number of Jobs 2016**	**Real Change 2001 - 2016**	**% Change 2001 - 2016**
ALL INDUSTRIES	**22,799**	**29,375**	**6,387**	**28.01%**
Goods Producing Industries	**8,539**	**10,236**	**1,697**	**19.9%**
Agriculture, forestry, fishing and hunting	3,410	2,762	-648	-19.0%
Mining and oil and gas extraction	0	23	23	#DIV/0!
Utilities	75	60	-14	-19.3%
Construction	1,680	3,814	2,135	127.1%
Manufacturing	3,375	3,576	201	6.0%
Service Industries	**14,153**	**18,844**	**4,690**	**33.1%**
Wholesale trade	1,034	953	-81	-7.8%
Retail trade	2,230	2,714	484	21.7%
Transportation and warehousing	1,451	1,817	366	25.3%
Information and cultural industries	173	207	34	19.4%
Finance and insurance	795	1,292	497	62.5%
Real estate and rental and leasing	181	513	332	184.2%
Professional, scientific and technical	416	734	318	76.3%
Management of companies	160	72	-89	-55.4%
Administrative and support, waste management	514	914	399	77.7%
Educational services	1,644	2,273	629	38.2%
Healthcare and social assistance	2,461	3,359	899	36.5%
Arts, entertainment and recreation	309	485	176	56.9%
Accommodation and food services	1,219	1,480	261	21.4%
Other services (except public admin.)	1,084	1,402	318	29.3%
Public administration	481	629	148	30.8%

Source: Economic Modelling Specialists International, 2017 Note: Totals may not add up due to rounding

Figure 21: South East Industry Sector by Relative Strength and Job Growth/Decline 2001 - 2016



D. South Central Proposed Natural Gas Region

Figure 22: South Central Industry Sector by Relative Strength and Job Growth/Decline 2001 - 2016