

DRAFT

SASKATCHEWAN DIAGNOSTIC

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A report prepared for:

**THE SASKATCHEWAN TASK FORCE
OF THE
WORKPLACE PARTNERS PANEL**

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Preface

This report was prepared for the Saskatchewan Task Force of the Workplace Partners Panel, a national initiative managed by the Canadian Labour and Business Council.

The purpose of the document is to provide up-to-date information, statistics, analysis, and commentary pertaining to the key issues stemming from the Workplace Partners Panel's Saskatchewan task force theme of "skills needs in the context of an aging workforce".

Every attempt is made to ensure that the statistics are chosen from reliable sources, typically Statistics Canada, but the reader should be aware that Statistics Canada routinely revises population and economic time series retroactively, sometimes in a significant way.

The opinions expressed in this document are those of the author and do not necessarily represent the views of the Canadian Labour and Business Council or of its employees.

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SECTION 1 POPULATION AND DEMOGRAPHICS

This section looks at the population of the province and the factors that determine how that population changes.

Section 1.1 provides a description of the components of growth and a forecast of the Saskatchewan population if present trends continue.

Three important aspects of Saskatchewan's population are examined in the remaining sections. In Section 1.2, the age distribution of the population is examined with an emphasis on the number of residents in the labour force age group. The Aboriginal population in Saskatchewan has dramatically different demographic characteristics and these are examined in Section 1.3. The regional distribution of the people living in Saskatchewan is examined in Section 1.4.

The demographic characteristics evident in the population projection will affect the size of the labour force in the future. This trend is examined Section 1.5.

Section 1 concludes with some observations about demographic trends in Saskatchewan.

1.1 The Drivers of Population Change

In the study of demographic trends, each particular element is easy enough to understand but there are a lot of them and they interact in complex ways. This section looks, in relatively simple terms, at the size of the Saskatchewan population and the factors that influence the total number of people living in the province.

The absolute number of residents changes over time because of two factors – **natural growth** and **migration**.

Natural growth is in turn, comprised of two components.

$$\text{natural growth} = \text{births less deaths}$$

Births and deaths arise as a consequence of both fertility and mortality rates and the number of persons in the relevant age groups.

Migration is normally expressed as the number of persons moving into the province less the number who have left, that is, on a net basis, and further broken down into international migration and inter-provincial migration.

$$\text{net inter-provincial migration} = \text{inter-provincial in-migration less inter-provincial out-migration}$$

$$\text{net international migration} = \text{immigration less emigration}$$

A change in any one these six individual elements leads to a change in the population of the province.

The only complication in this relatively simple picture is the presence of what Statistics Canada calls "non-permanent residents". These are persons and members of their immediate families living in the province who are in the province claiming (and not received) refugee status, with student visas, student permits or work permits. There are only a few such persons in Saskatchewan – 3,110 in 2001 according to the census – and the numbers do not change significantly from year. The statistics in this report do not include this.

Natural Growth

The number of births in the province continues to decline because fertility rates are declining, that is, there are fewer births for each woman in the child-bearing age group and because the population in the family formation age group is getting declining. The number of births in Saskatchewan peaked at 18,000 in the mid 1980s when the "baby boom" generation was in the family formation age group (see Figure 1.1).

There are two competing trends in the number of deaths. Mortality rates are declining, that is, people are living longer, but the aging of the population means that there are still an increasing number of deaths. The number of deaths in Saskatchewan is approximately 9,000 per year compared with 8,000 in the 1980s.

Taken together, the natural growth rate of the province has declined from a high of over 10,000 in the mid 1980s to approximately 3,000 per year. One of the implications of this change is that the overall size of the province's population is more sensitive to migration because there is a very small "built in" growth rate.

Figure 1.1 Births, Deaths, and the Natural Growth Rate in Saskatchewan, 1971 to 2005

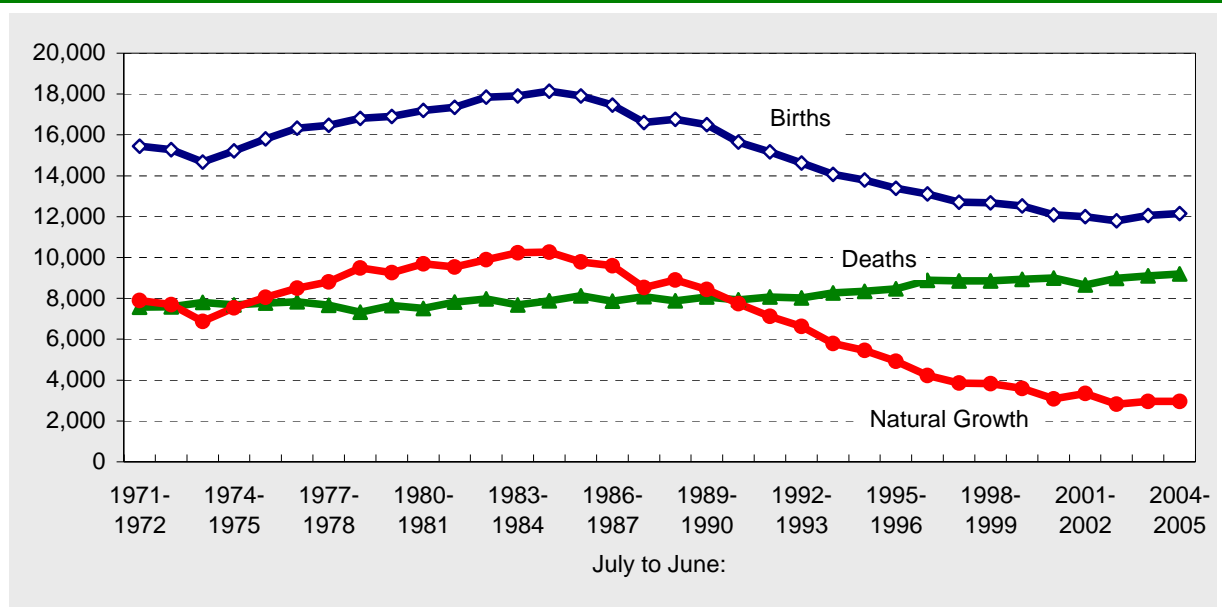
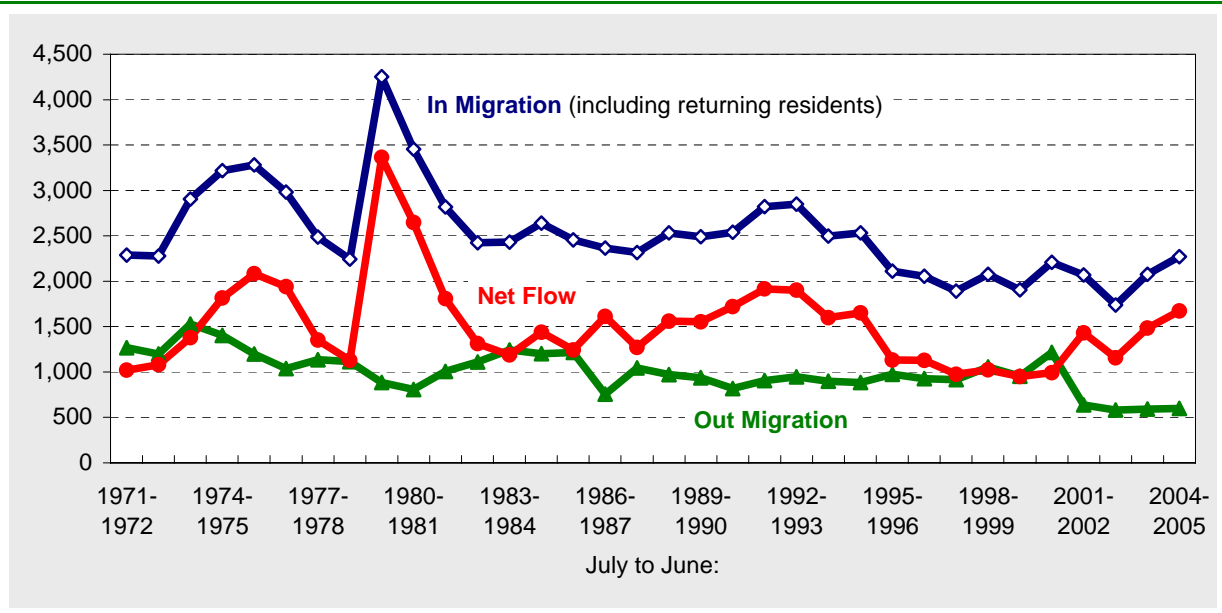


Figure 1.2 International Migration Flows to and from Saskatchewan



International and Interprovincial Migration

International migration has a very small impact on the overall size of the provincial population because the flows are relatively small. In a typical year, the province receives about 2,000 international immigrants, including residents who return after being temporarily abroad (see Figure 1.2). This is offset by the approximately 1,000 people who leave the province to live in another country. The net flow of 1,000 to 2,000 people per year is dwarfed by interprovincial migration flows which are an order of magnitude larger.

In each of the years since the early 1980s, Saskatchewan has had a negative interprovincial migration flow. The number of people moving to the province has fluctuated between 10,000 and 20,000 whereas the number people leaving is higher and reached a peak of over 30,000 in the late 1990s.

Alberta remains the destination of choice for interprovincial out-migrants. In the most recent twelve month period, 58% of out-migrants from Saskatchewan were moving to Alberta. The same is true for interprovincial in-migration; 51% of those moving to Saskatchewan were coming from Alberta.

More detail about interprovincial and international migration is included in Section 5 of this report.

Total Population

Depending on the time frame chosen, the provincial population has been nearly constant for either the last twenty or the last seventy years. In 1931, in the first few years of the great depression, the province's population was just over 900,000 according the census. It dropped to a low of 832,000 in 1951 before recovering to nearly one million in the mid 1950s.

Figure 1.3 Interprovincial Migration Flows to and from Saskatchewan

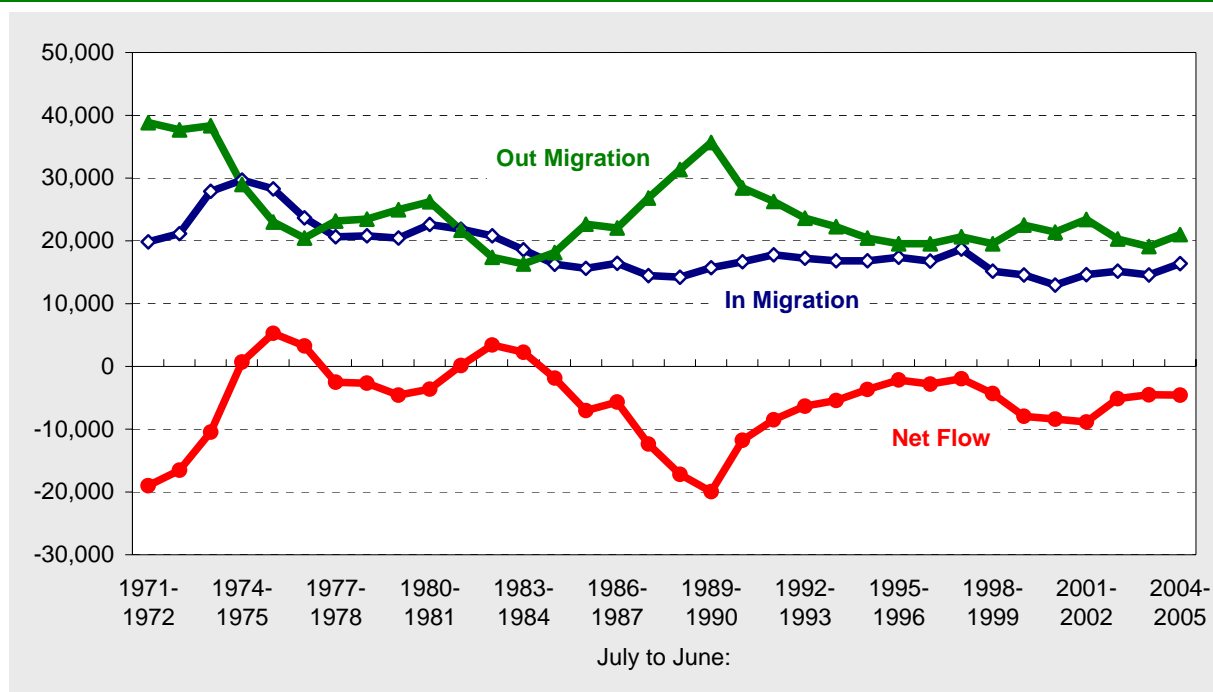
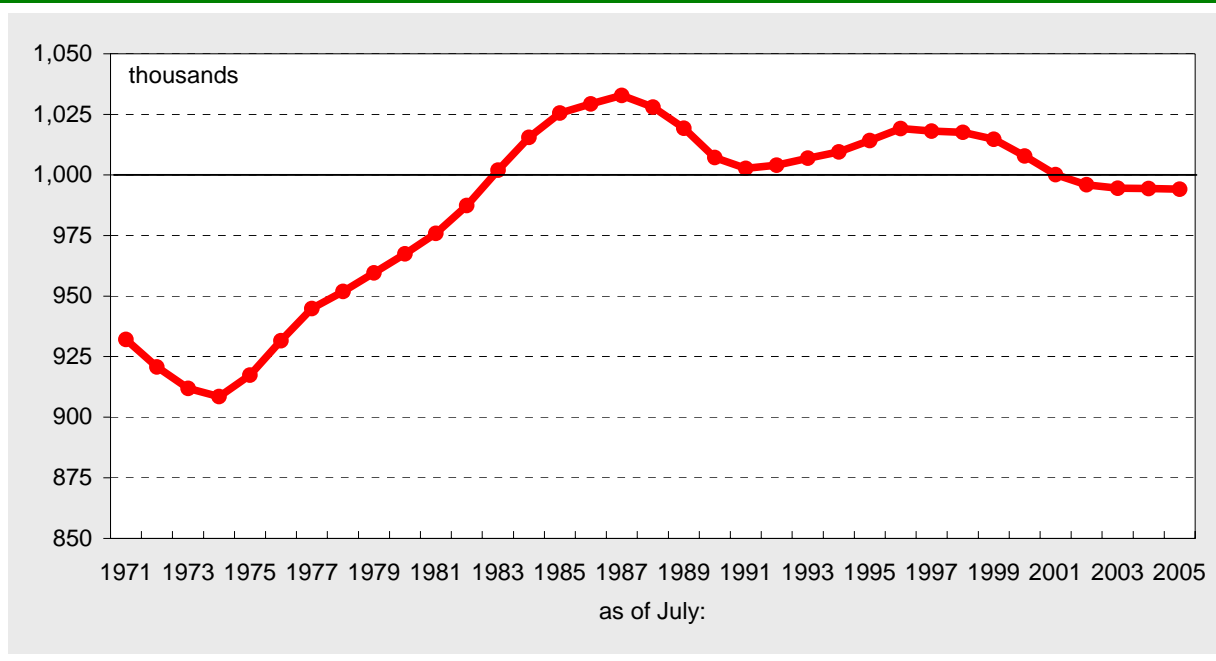


Figure 1.4 Saskatchewan Population, 1971 to 2005



The best estimates by Statistics Canada show the population first reached one million in 1983 and it has fluctuated near that psychological mark ever since. In recent years, there have been periods of both growth and decline in the overall size of the population but compared with Canada as a whole, there is no doubt that Saskatchewan's population is not growing.

Part of the reason for the anxiety about the provincial population is the fact that the population in most other provinces is growing whereas Saskatchewan's population is not. Using the twenty years from 1985 to 2005 for example, the population in Canada has grown by 1.1% per year on average compared with Saskatchewan's decline of 0.2% per year. The only province with a lower growth rate was Newfoundland and Labrador with a decline averaging 0.6% per year. Alberta's population in particular has grown by 1.5% per year over the past twenty years and the population in Manitoba has grown by 0.4% per year.

The slower growth rate in the province has resulted in Saskatchewan having a lower "share" of the national population, from 4.0% in 1985 to 3.1% in 2005.

Figure 1.5 Average Annual Growth in Population, 1985 to 2005 by Province/Territory

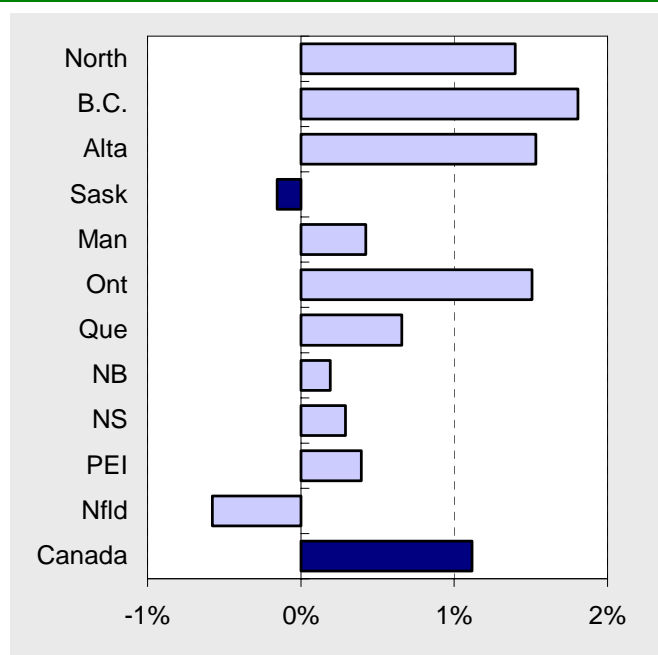
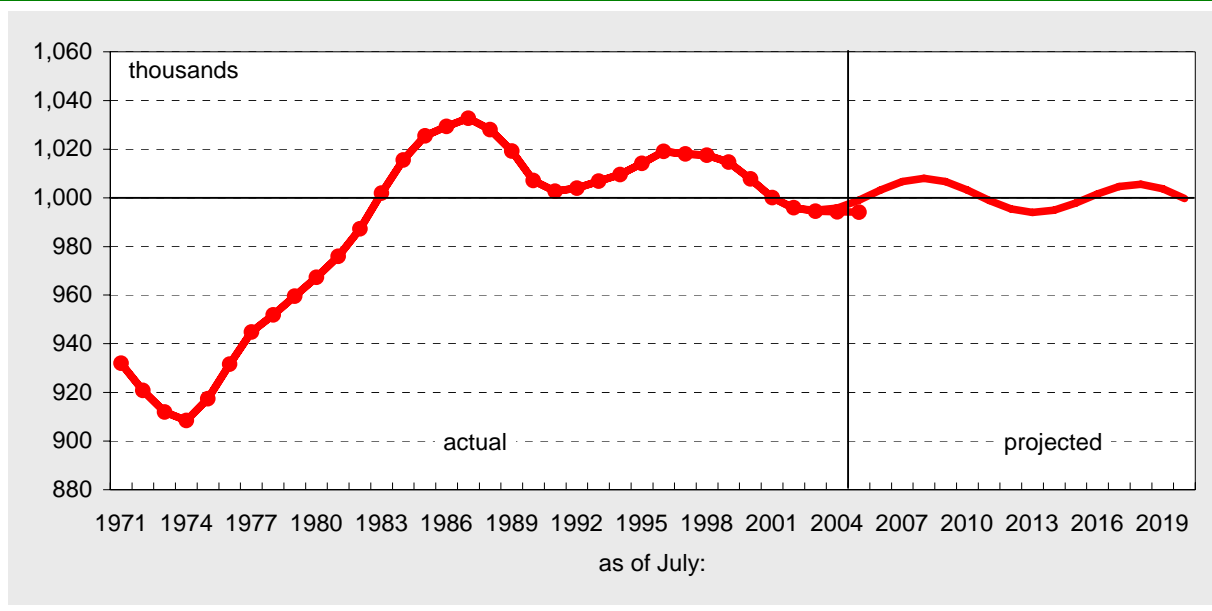


Figure 1.6 Actual and Projected Population, Saskatchewan



In a population projection prepared for Saskatchewan Learning, *Sask Trends Monitor* developed a forecast of the population in the short to medium term¹. The assumptions underlying the projection are based on a “present trends continue” scenario.

1. Fertility rates for Aboriginal women will continue to decline; rates for non-Aboriginal women will remain constant.
2. Net international migration will continue at its current level.
3. There will be a slight improvement in interprovincial migration rates with net flow remaining negative but small.

Given the assumptions, it is not a surprise that the projection shows the population continuing to fluctuate near one million people over the next ten to twenty years (see Figure 1.6).

That projection has been too optimistic in the short term as recent estimates show the population growing more slowly than forecast because interprovincial out-migration has been higher than anticipated.

¹ The detailed report “Labour Market Trends” is available under the “publications” tab at www.sasktrends.ca.

1.2 Age Structures

David Foote in his book *Boom, Bust, and Echo* has famously remarked that "age is 80% of everything". While this may be an overstatement it is certainly true for demographic analysis. The analysis that follows concentrates on age as a critical element of both the provincial population and the elements of population change.

While the size of the Saskatchewan population may be exhibiting little change, the demographic characteristics of the residents are certainly changing. The most important of these changing characteristics are age-related and the result of the so-called "baby boom" generation. In particular, the age structure of the province's residents shows the ongoing impact of the aging of this particular cohort.

Although there is some debate about the time frame, the generally accepted definition counts "baby boomers" as those who were born between 1947 and 1966 and therefore 39 to 58 years of age in 2005. As a group, these 278,000 individuals represent 28% of the provincial population, just under one third of the total. The period after the baby boom is usually characterized as the "baby bust". There are relatively few people in this age group, currently 25 to 38 years of age.

Children of the baby boomers form an age cohort called the "echo". The majority of these individuals are currently in their 'teens and early twenties. We shall see later in this report that the Saskatchewan demographic structure generally and the size of the echo generation in particular is strongly influenced by the presence of a relatively large Aboriginal population in the province. This helps explain why the echo generation in Saskatchewan is so large.

Saskatchewan's age structure is noticeably different than in other provinces. In fact, the province has the distinction of being the province with both the highest proportion of its population over the age of 65 and the highest proportion of its population under twenty. In

Figure 1.7 Age Distribution of the Saskatchewan Population in 2005

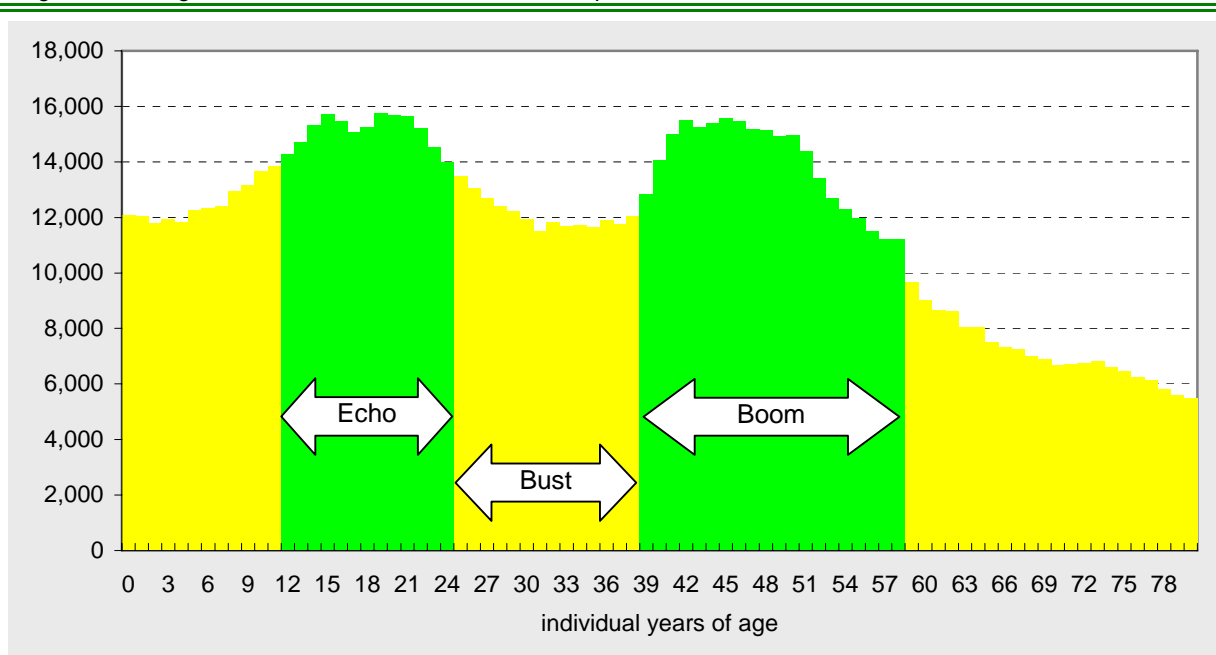
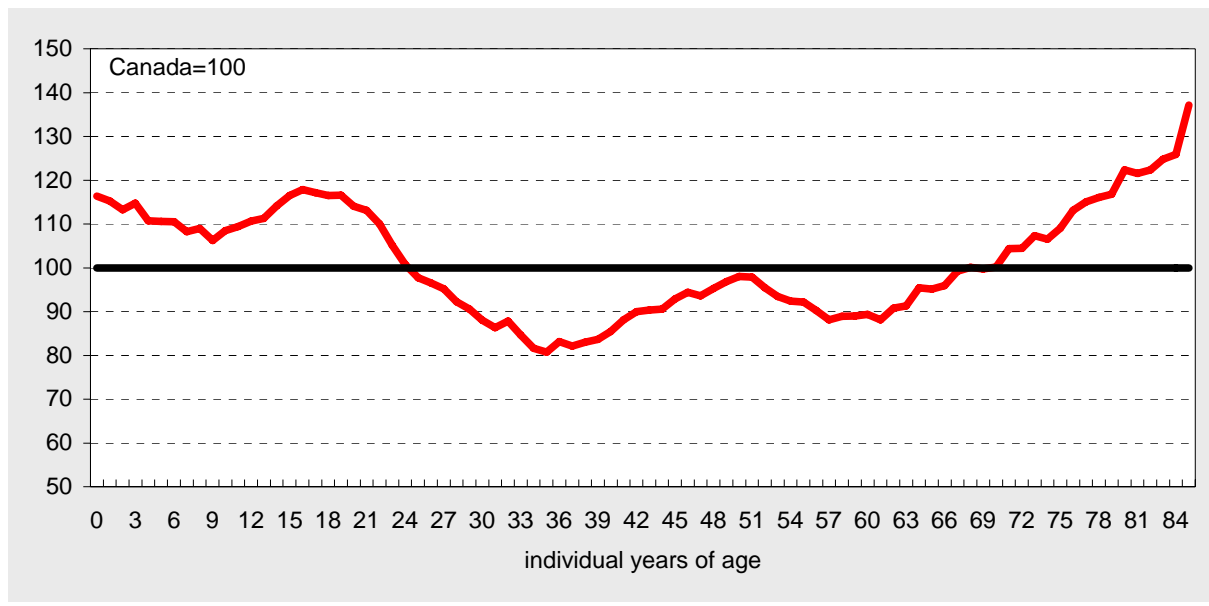


Figure 1.8 Saskatchewan's Population Age Structure Relative to the National Average, 2005



other words, there are, compared with other provinces, relatively few Saskatchewan residents in the 20 to 64 age group.

These different age structures are shown in Figure 1.8 by using the Canadian population as a reference point. The horizontal line (Canada = 100) is the "normal" age distribution in the sense that it represents the Canadian average. Where ages are over-represented the value will exceed 100 and the age distribution line will be above the horizontal line; in ages where there are relatively few persons in Saskatchewan, the index will be less than 100 and the line will be below the reference.

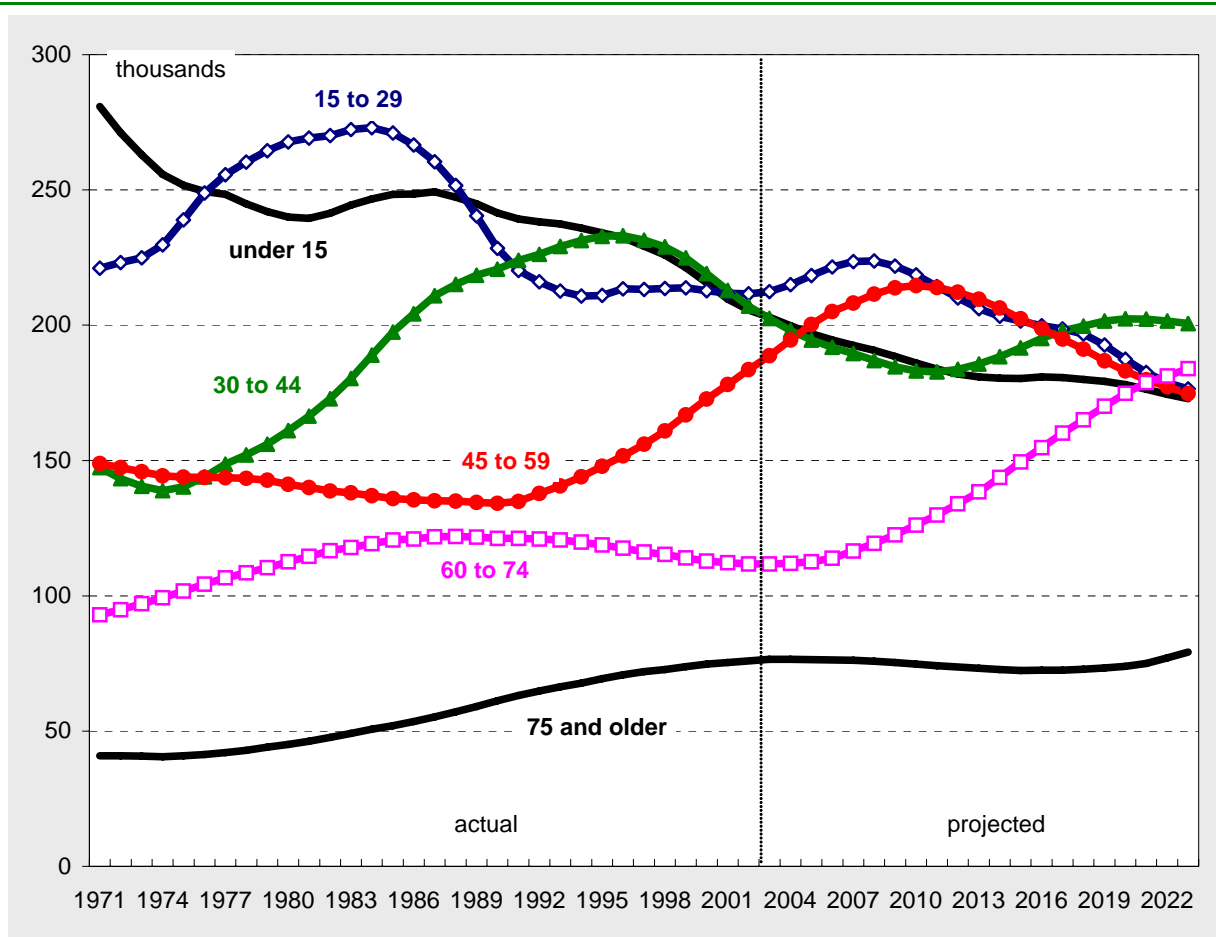
Relative to the national average, Saskatchewan has few persons in their thirties and fifties and a disproportionately high number of those under twenty years of age or over the age of seventy. One calculation is that relative to the country as a whole, Saskatchewan is "missing" 50,000 people in the 25 to 59 age group.

Population Projection

In the population projection, we will see, over the short term, a modest increase in the number of young adults – 15 to 29 years of age – and a continuing increase of those 45 to 59 years of age (see Figure 1.9). This will be accompanied by a continuing decline of those 30 to 44 years of age.

Later in the forecast period, the number of those 45 to 59 years of age begins to decline and the number 60 to 74 years of age increases as the baby boomers move decisively into their fifties and then into their sixties. The number of those 30 to 44 years of age stops declining around 2010 and then begins to increase. Throughout the forecast period, the number of residents under fifteen years of age declines and the number of older seniors is effectively

Figure 1.9 Projected Population by Age Group



constant¹.

The implications of this age shift for the labour market are examined in Section 1.5 of this report.

¹ The fact that the number of older seniors does not increase is because the population projection does not assume any improvement in mortality rates.

1.3 Subprovincial Population Patterns

With two exceptions, the provincial population is becoming more concentrated in urban areas as has been the case for many decades in both Canada and Saskatchewan and many other parts of the world as well.

As one indication of the recent pattern, Figure 1.10 shows that the most “rural” parts of Saskatchewan, namely the population living in rural municipalities and towns/villages with a population under 500 persons have experienced the greatest decline since 1991. The only category of community experiencing population growth over the decade were urban areas with a population of at least 4,000 persons.

The two exceptions are the Far North and the Reserves in the southern part of the province. In both cases the growth in the First Nations population is responsible for the increase.

This phenomenon is not unique to Saskatchewan. The map on the next page shows population change from 1990 to 2000 (to correspond with the time frames for the USA census) for the prairie provinces and the three adjacent US states.

In this larger region, census divisions/counties that have experienced the largest population declines (more than 25%) are concentrated in the Great Plains – North Dakota, the eastern part of Montana, and the southern parts of Saskatchewan. The largest population increases are in the foothills of the Rocky Mountains, around Winnipeg and in the North. Although not shown on the map, the pattern of population declines continues southward in a narrow band through Nebraska, Kansas, Oklahoma, into Texas and the Mexican border.

Figure 1.10 Population Change from 1991 to 2001 by Community Type and Size, Saskatchewan

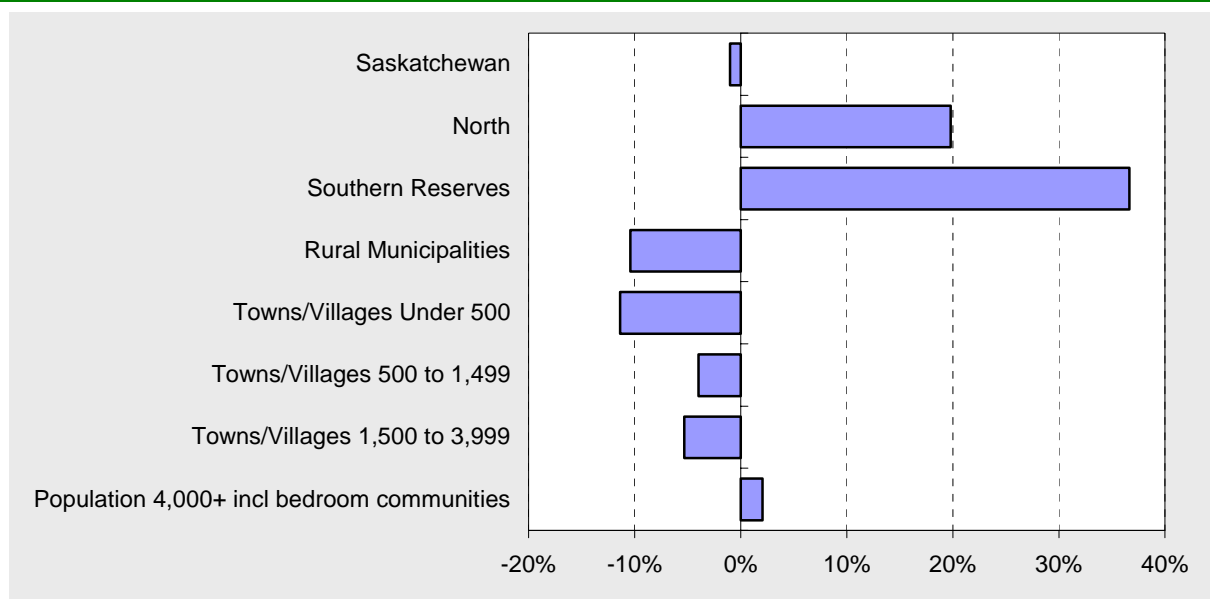
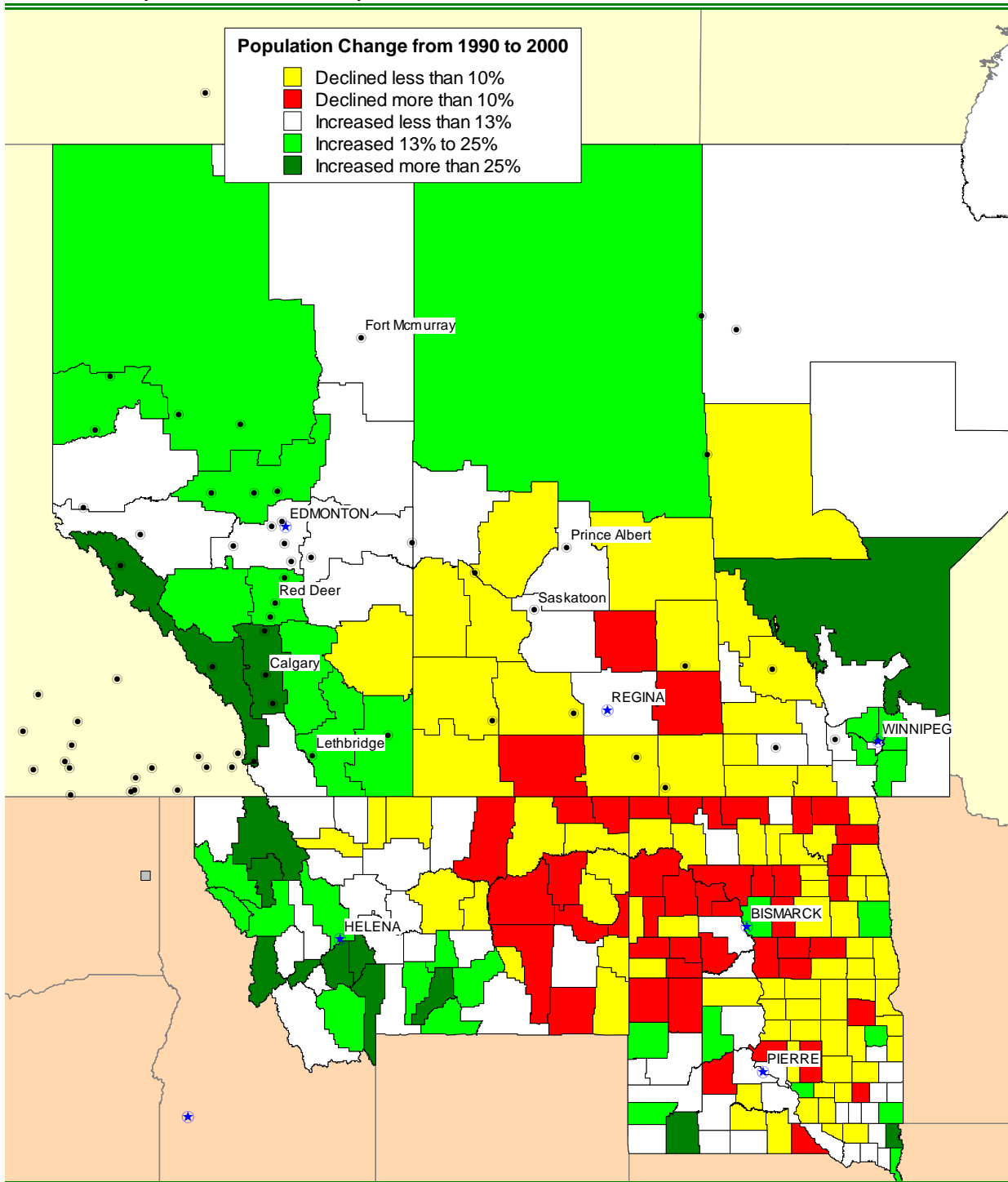


Figure 1.11 Population Change from 1990 to 2000, Prairie Provinces, North Dakota, South Dakota, and Montana, by Census Division/County



1.4 The Aboriginal Population

The term “Aboriginal” is used in this section to describe the population that, in the Statistics Canada census, answered “yes” to one or more of the questions:

- “Is this person an Aboriginal person, that is, North American Indian, Métis, or Inuit (Eskimo)?”; or
- “Is this person a member of an Indian Band/First Nation?”; or
- “Is this person a Treaty Indian or a Registered Indian as defined by *The Indian Act* of Canada?”.

As the table shows, approximately two thirds of Aboriginal people in the province identify themselves as “First Nation”, that is answered “North American Indian” to the first question. In 2001, the number of Registered Indians according to the census (84,075) is largely the same population who report First Nations identity (83,745).

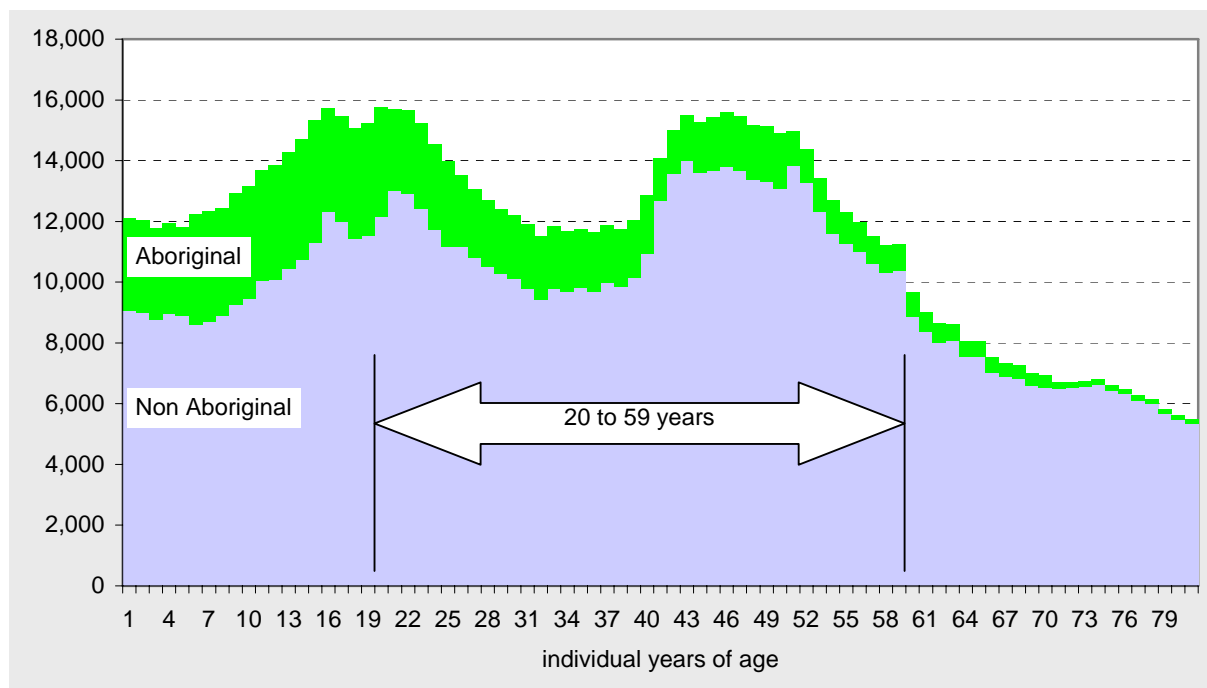
The Aboriginal population represented 13.5% of the provincial population in 2001 but the proportion will grow over time because the age structure of the Aboriginal population is concentrated in younger age groups. Even with the forecasted decline in the fertility rates, the population projection described in Section 1.1 shows that the Aboriginal population will continue to grow in Saskatchewan and that it will be

The Saskatchewan Aboriginal population in Private Households, 2001

	Total
Registered Indian	84,075
Not a Registered Indian	46,115
Total Aboriginal population	130,190
North American Indian single response	83,745
Métis single response	43,695
All other responses	2,750
Total Aboriginal population	130,190

Source: Statistics Canada Census

Figure 1.12 The Aboriginal and non-Aboriginal Population in Saskatchewan, 2005 Estimate

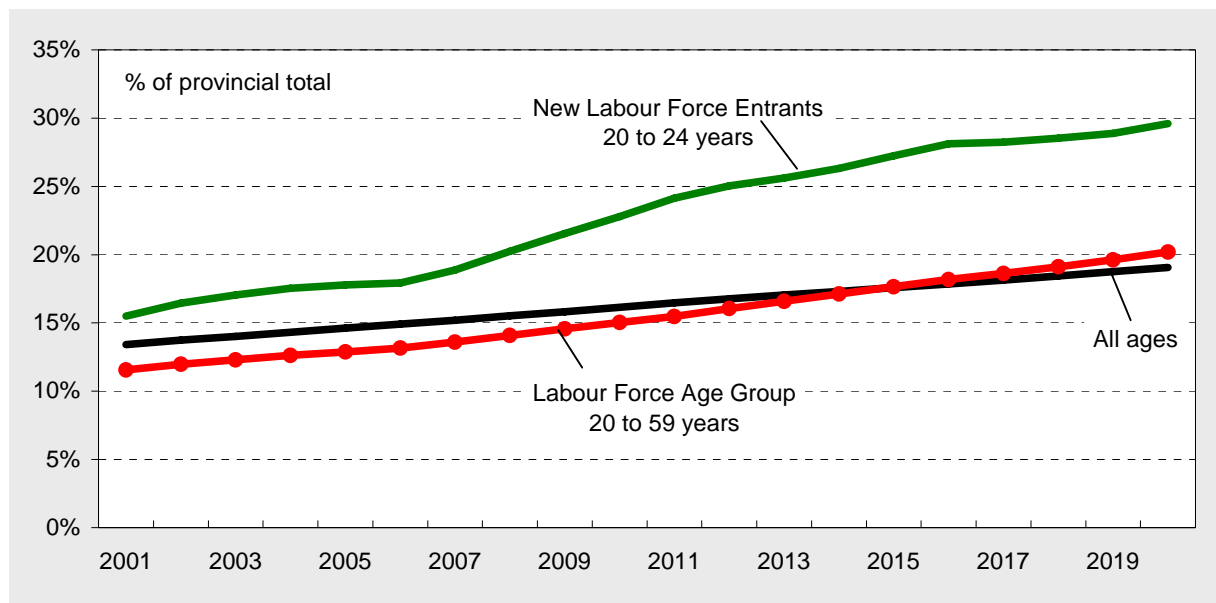


concentrated in the younger age groups.

Figure 1.12 shows how the Aboriginal population in the province is concentrated in the younger age groups and amplifies the size of the “echo” generation in the province. Over time, the population will increase from its current estimated level of 15% of the population to near 20% by 2020.

From a labour market standpoint, Saskatchewan has an opportunity that is not available to other provinces except Manitoba, namely an Aboriginal population that is ideally suited from a demographic standpoint to replace the baby boomers as they retire. Using the population projection, it is easy to see that the Aboriginal population will form an increasing proportion of those entering the labour market age group, taken as those 20 to 24 years of age. From 15% to 20% of new entrants, the proportion will increase to 25% by 2012 and 30% by 2020. So Aboriginal people will become a more important part of the labour force age group – growing from the current level of approximately 13% to 20% by the end of the forecast period. Whether or not they will have the necessary education levels to join the labour market is examined in Section 3.3.

Figure 1.13 Projected Aboriginal Population in Saskatchewan as Percentage of the Total Population, Selected Age Groups



1.5 Impact on the Labour Market

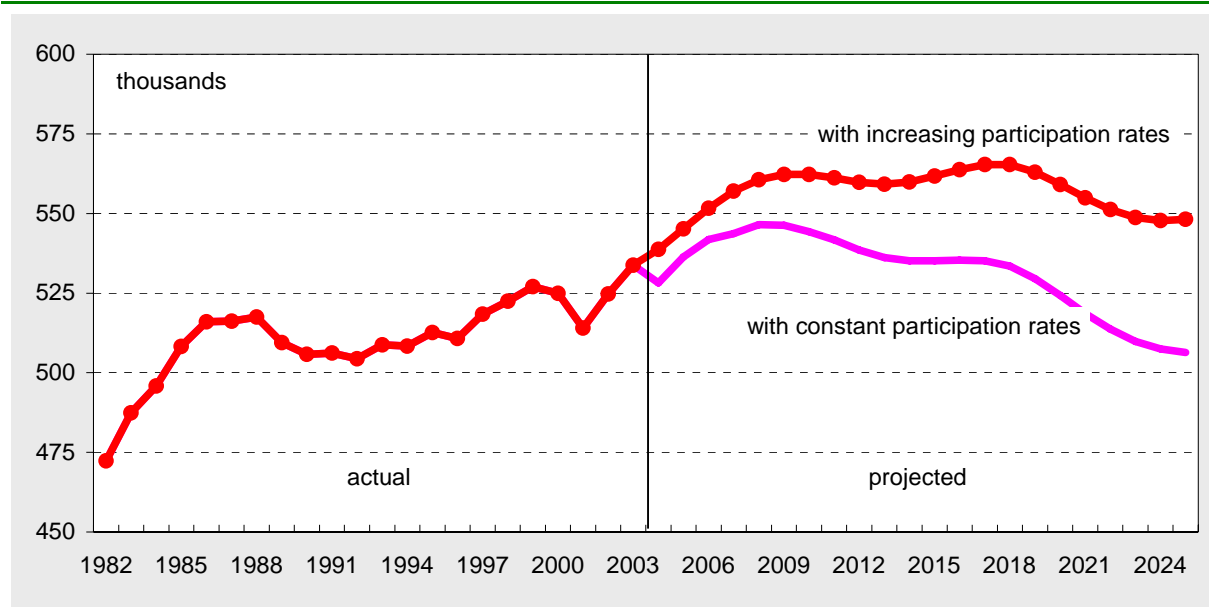
As the baby boomers approach retirement, the potential for a general shortage of labour in Saskatchewan increases. In the population project, this effect was examined by using the size of the labour force age group and, using projected labour force participation rates¹, calculating the size of the potential labour force in the future.

If participation rates remain at their current levels, the size of the labour force will peak later in this decade and then begin to decline, falling quite rapidly after 2020 (see Figure 1.14). If participation rates increase, which implicitly assumes increasing participation rates for the Aboriginal population, then the size of the labour force increases more rapidly in the short term and then, rather than declining, levels off.

There is certainly the potential for a general labour shortage in the province although this will not manifest itself as a sudden shortage of workers. Instead, there will be an increasing number of specific skill shortages in specific industries and occupations.

Some of these industry-specific economic impacts can be estimated by looking at the age of the labour force and average retirement ages. Figure 1.15 shows the average retirement age in Canada according to the Labour Force Survey². These data show that the average retirement age has been declining among paid workers although it remains at 65 for those who are self-employed. Those in the public sector tend to retire earlier, probably because of better pension plans, than those in the private sector. There is evidence that the average has stopped declining in the past few years, particularly among those in the private sector.

Figure 1.14 Potential Saskatchewan Labour Force



¹ The labour force participation rate is the proportion of the population that is either working or looking for work. Separate participation rates were examined by age, gender, and Aboriginal status.

² Saskatchewan data on retirements are not available because the sample size in the LFS is too small. These figures represent those who reported that they “retired” when asked why they had left their last job – this does not preclude the possibility that they will reenter the labour force in the future.

Figure 1.16 shows the age distribution of employees and self-employed in each of seventeen industry groups in the province. Those in which a higher proportion of employees are above the age of fifty can be expected to see the effects of an aging population sooner. This effect will be compounded when the sector has a relatively low proportion of employees under the age of thirty.

Excluding agriculture, which is clearly a special case, the data show that the public sector will face the biggest challenges in the short term, particularly given the earlier retirement ages among public sector employees.

The transportation sector has one of the highest proportions of older workers and relatively few under thirty years of age to replace them. The next four sectors are all dominated by public sector employees – health care, public administration, utilities, and education services.

With an average retirement age of 59, at least one half of public sector employees 50 years of age and older will retire in the next ten years. That represents 15% to 20% of those in health care and social assistance and education services. The proportion is smaller in the utilities but this is largely because many older workers have already retired. The utility sector has one of the lowest proportions of employees under the age of thirty.

Figure 1.15 Median Retirement Ages in Canada, 1981 to 2005

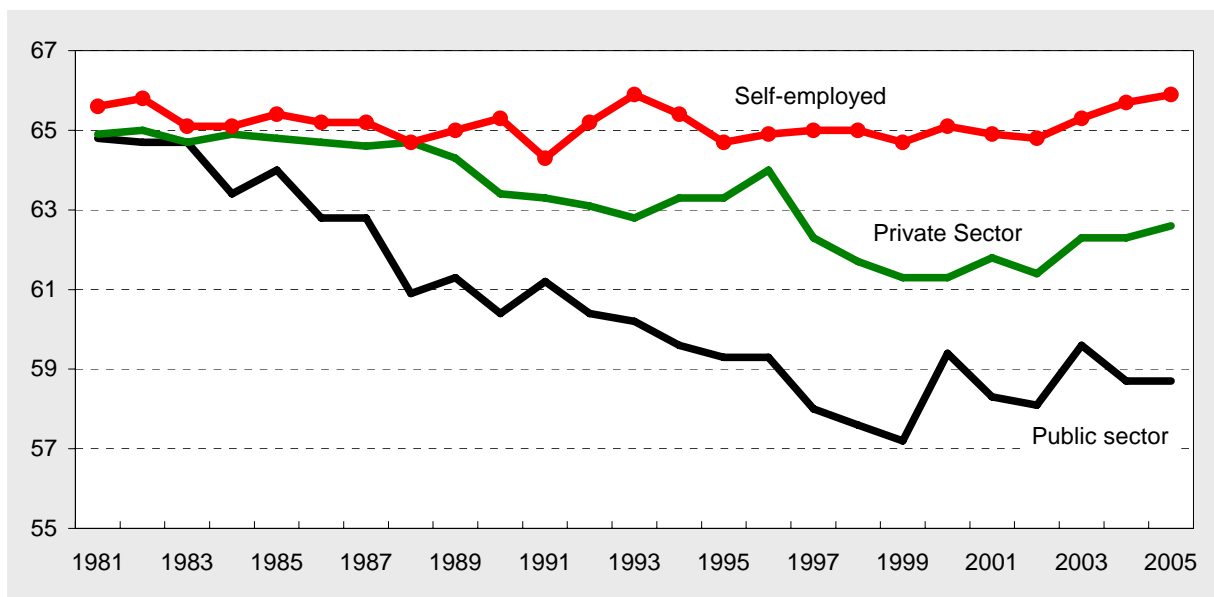
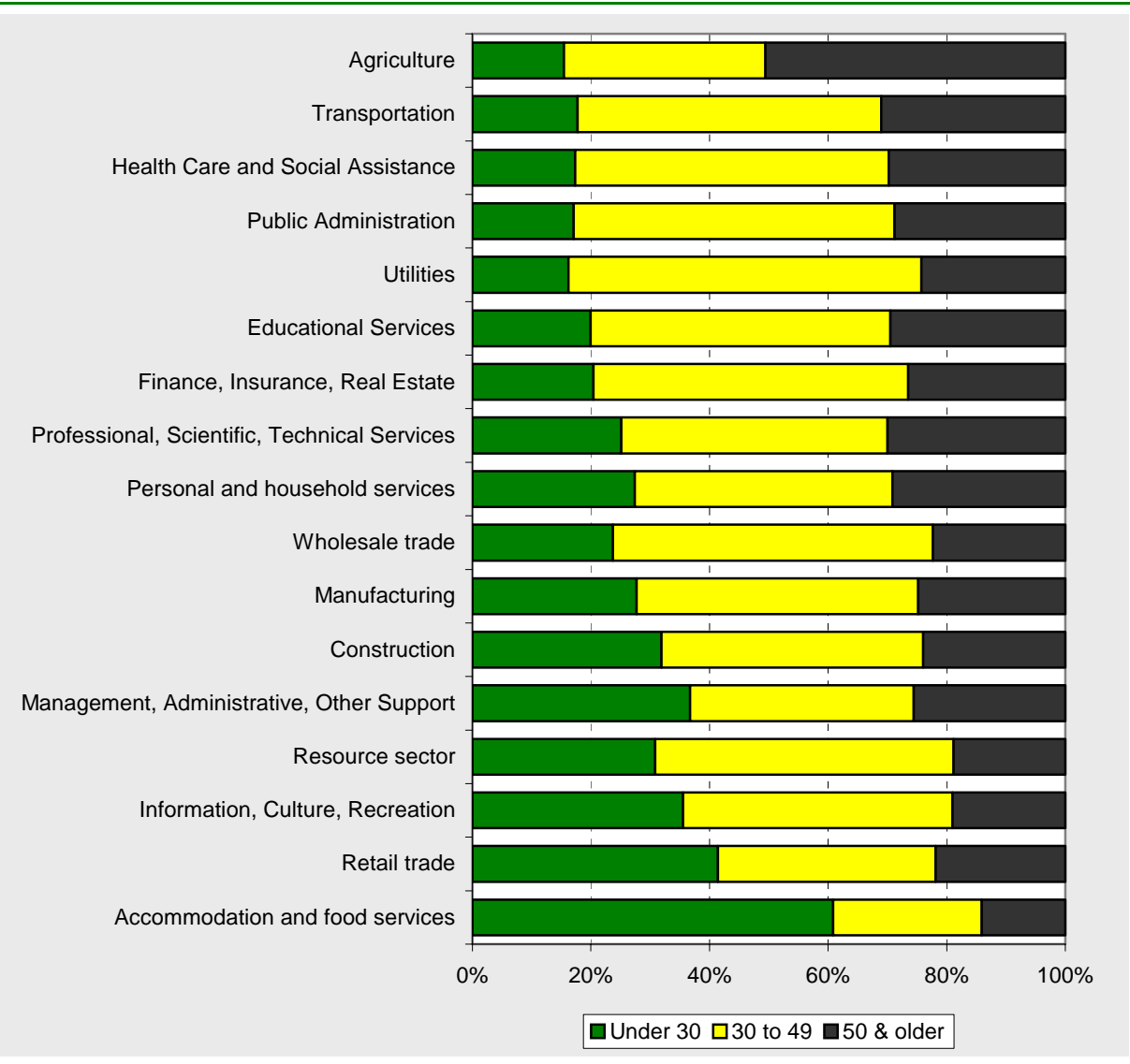


Figure 1.16 Age Distribution of Employment by Industry Groups, Saskatchewan, 2005



1.6 Viewpoints

There are a number of fundamental questions raised by the fact that the province's population is stagnant and is forecast to remain that way. The most difficult of these is whether or not this should even be considered as a problem. Does the province need to grow in size in order to prosper?

Those who feel that the province has a reasonable level of prosperity for its citizens and a positive environment would argue that growth is not necessary and even if it was, opposing what appear to be inevitable forces is counterproductive. The province should concentrate on maintaining that standard of living for the population regardless of its size.

This is a persuasive argument but it may not hold in the future and it may not hold for those who live in rural Saskatchewan. Outside of the major cities, the population is not stable but is declining; the infrastructure is deteriorating and access to public and private sector services is limited. Even if the province is content with having a population of one million, it is clear that we will need a larger population of well-educated people in the labour market age group in order to sustain the current level of prosperity.

Not all observers are concerned about a general labour shortage. Some point to the complexity of the labour market's interaction with economic growth, productivity growth, and employment growth. The market may automatically intervene when labour demand begins to approach labour supply. The most obvious response will be a limiting of the growth rate in the economy; in effect the declining labour supply will have a dampening effect on economic growth. Other less negative labour market responses are possible.

- The business sector can replace some of its labour inputs with capital (thereby increasing productivity) although the degree to which this can be done depends on the sector. The goods-producing part of the economy is more conducive to this kind of replacement than the service-producing part of the economy. This implies that the labour force will require higher levels of completed education.
- Migration into the province can occur on its own if labour demand approaches labour supply, wage rates rise, and jobs become plentiful in the province. This depends on the availability of a) surplus labour in other parts of Canada, an unlikely circumstance because the same aging of the population will be occurring elsewhere, or b) increased international immigration to Saskatchewan, something which has not occurred for a number of years.
- The tightening of the labour market will raise wage rates, thereby attracting more persons into the labour force or retaining those near retirement age. In particular, those in the 55 and older age group represent a particularly large pool of potential labour market participants and/or re-entrants. There is already evidence that this is happening although this trend can, at best, postpone the effects of an aging labour force by a few years.

The economic implications of a general shortage of workers are not fully understood because such a shortage would be unprecedented in the Saskatchewan economy. So it would be prudent to anticipate a tightening of the labour market over the next ten to fifteen years and take reasonable steps to avoid it by ensuring that a) productivity (GDP per employee) continues to grow, b) that we retain current workers to the province, and c) work to encourage new migration to the province. Otherwise, the declining labour force will limit economic growth and prosperity.

If one accepts the possibility of a general labour shortage then how to avoid it is the second of the fundamental questions. The best strategy is clearly a continuing focus on education and employment for Saskatchewan's young and growing Aboriginal population. Increasing employment levels among the Aboriginal population presents significant challenges and may not be sufficient so other approaches should also be pursued at the same time.

These other measures suggested by some have included increasing employment rates among disadvantaged groups such as the visible minority population, the immigrant population, the disabled, and those receiving social assistance. Potential employment increases from these groups are, however, limited. Higher employment rates among those at or past retirement age may not be realistic and, regardless, would only delay the impact of any general shortage of labour. The same short term improvement might be possible if the average retirement age were delayed.

If the province is to increase in size (both economically and in terms of population), a retention and an attraction strategy will be required. Unfortunately, the statistical evidence suggests that out-migration of current residents is cyclical and largely beyond our control. It does not appear to be driven by controllable factors such as taxes or labour demand but by perception and momentum. Consequently, a strategy to attract people from other provinces and countries would probably be more successful than a strategy to stop current residents from leaving.

SECTION 2 ECONOMIC CONTEXT

There are a host of ways to examine economic activity and covering all the aspects of economic activity is well beyond the scope of this report so this section focuses on two general measures.

The first is the **Gross Domestic Product** (GDP or sometimes GPP for Gross Provincial Product) which is defined as the value of goods and services produced in the economy. This is the statistic chosen by most economists to measure general economic activity. The examination of GDP in Section 2.1 focuses on the four economic “players” that purchase these goods and services¹, that is an expenditure-based approach.

While economists use GDP as a measure of an economy’s well being, individuals tend to look at their job or lack of one as the best indicator of economic well being. So the second indicator examined in Section 2.2 is more focussed on the individual resident – **employment and employment earnings**.

Some aspects of the important interaction between the demographic characteristics of Saskatchewan and its economic activity are examined in Section 2.3.

The section concludes with some observations about economic issues facing the province.

¹ Other approaches include an industry-based analysis describing which sectors produce the goods and services and an examination of how the benefits are shared among residents, corporations, and governments.

2.1 Gross Domestic Product and the Four Engines

One measure of an economy is the Gross Domestic Product or GDP – an estimate of the value of goods and services produced in the economy. While the GDP as a measure of economic prosperity has its detractors, it is certainly the most commonly used and most comprehensive economic statistic. When the GDP is adjusted for price change, that is, measured in constant dollars, it is referred to as real GDP.

Preliminary estimates for 2004 show Saskatchewan's GDP at \$40 billion in nominal terms and \$33.2 billion in constant 1997 dollars. Over the ten year period from 1994 to 2004, real GDP has grown by an average of 2.1% per year in Saskatchewan (see Figure 2.1). This is much lower than the 3.3% average growth rate for Canada as a whole.

A "recession" is defined as a period when real GDP declines. That is the value of goods and services produced in the economy, after adjusting for inflation, declines. (There is no accepted definition of a "depression".) There have been three recessionary periods in Saskatchewan in recent times - 1988, 1992, and the 2001/02 period. The 1991 recession was national in scope whereas the 1988 and 2001/02 recessions were unique to Saskatchewan and largely the consequence of poor grain crops.

One way to look at economic activity is to examine the expenditure side of the GDP equation, the players in the economy that purchase the goods and services produced. These are sometimes referred to as the economic engines and there are four.

Figure 2.2 shows the relative sizes of the four economic engines in Saskatchewan using 2004 figures as an example. Of the \$40 billion dollars, more than one half is accounted for by consumer spending. The other economic engines – government spending and business investment – account for much smaller shares, 23% and 20% respectively.

Figure 2.1 Annual Growth in Real GDP, Saskatchewan

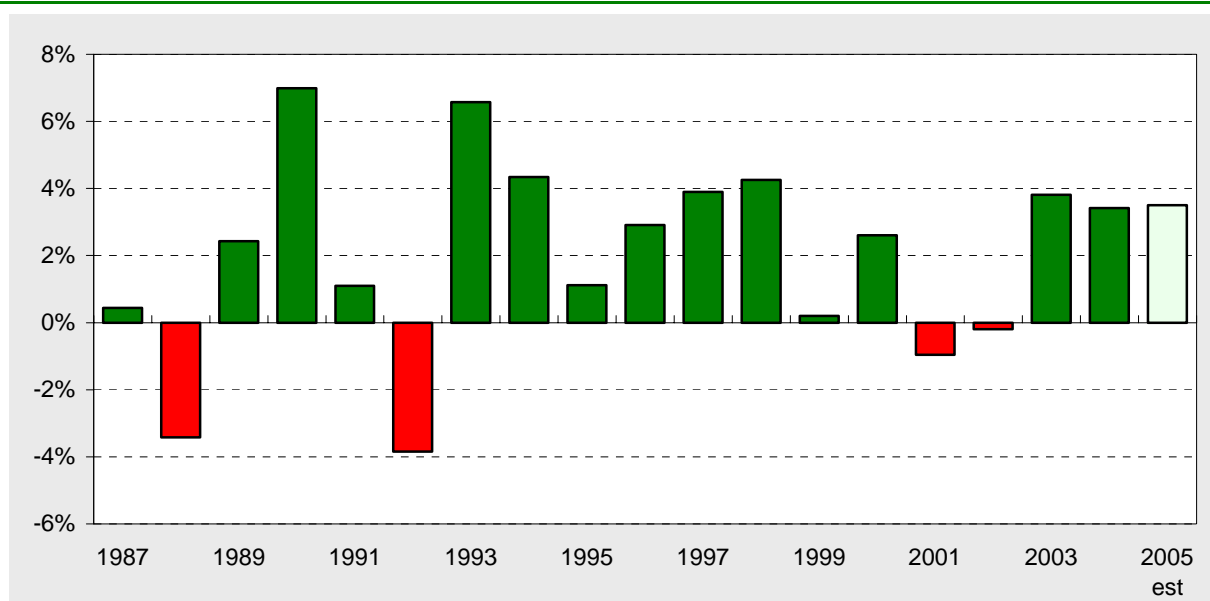
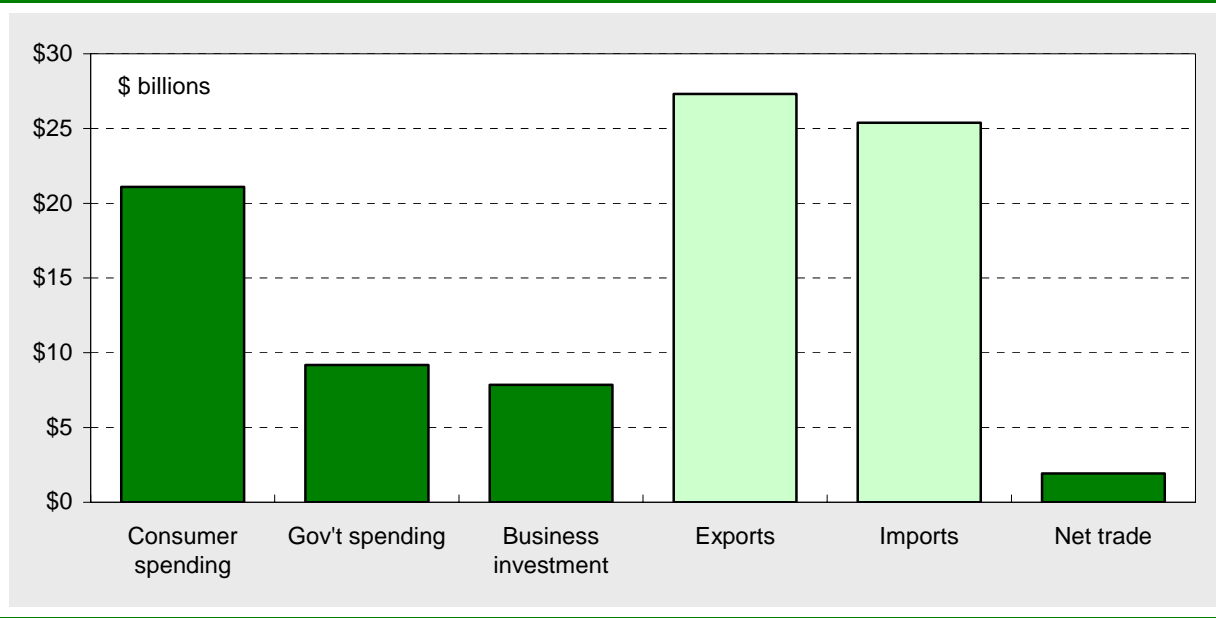


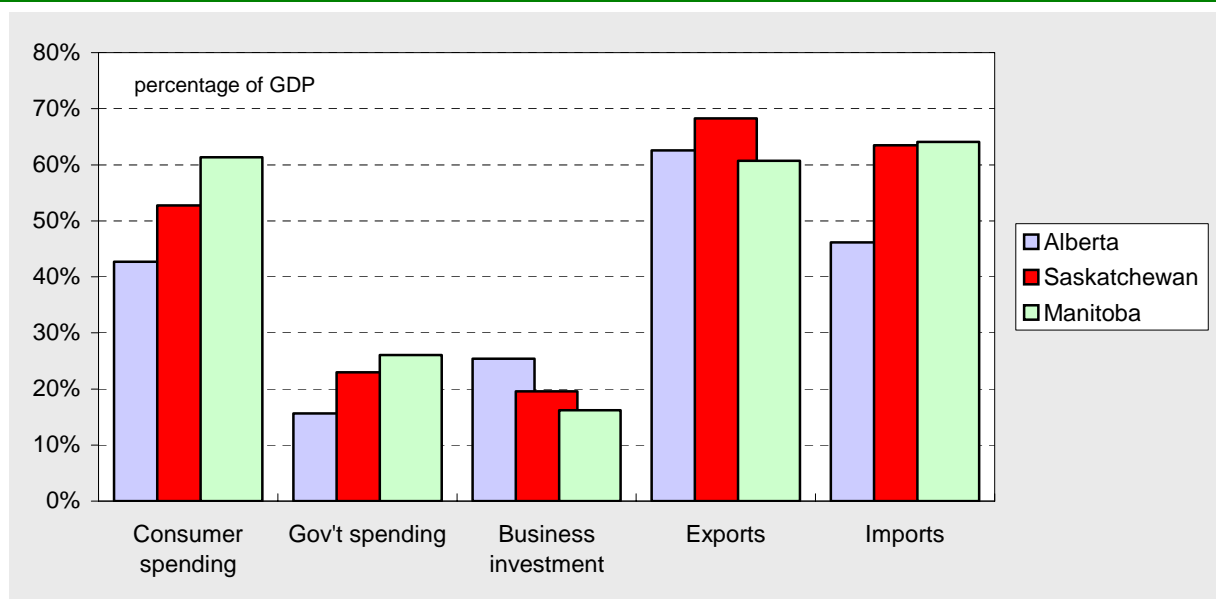
Figure 2.2 Expenditure Based Shares of the Saskatchewan Gross Domestic Product, 2004



The fourth engine – international and interprovincial trade – is comprised of offsetting measures with exports accounting for a positive contribution of \$27 billion and imports representing a negative contribution of \$25 billion. The net contribution (exports less imports) to the provincial economy is small because these very large contributions almost exactly offset one another.

Relative to other provinces, trade is an important part of the provincial economy. Among the ten provinces in 2003, exports represented a larger share of GDP in Saskatchewan than in any other province except Nova Scotia. As Figure 2.3 shows, Saskatchewan is midway between Alberta and Manitoba in terms of the size of the other three economic engines.

Figure 2.3 Expenditure Based Shares of Provincial Gross Domestic Product, 2004, by Province



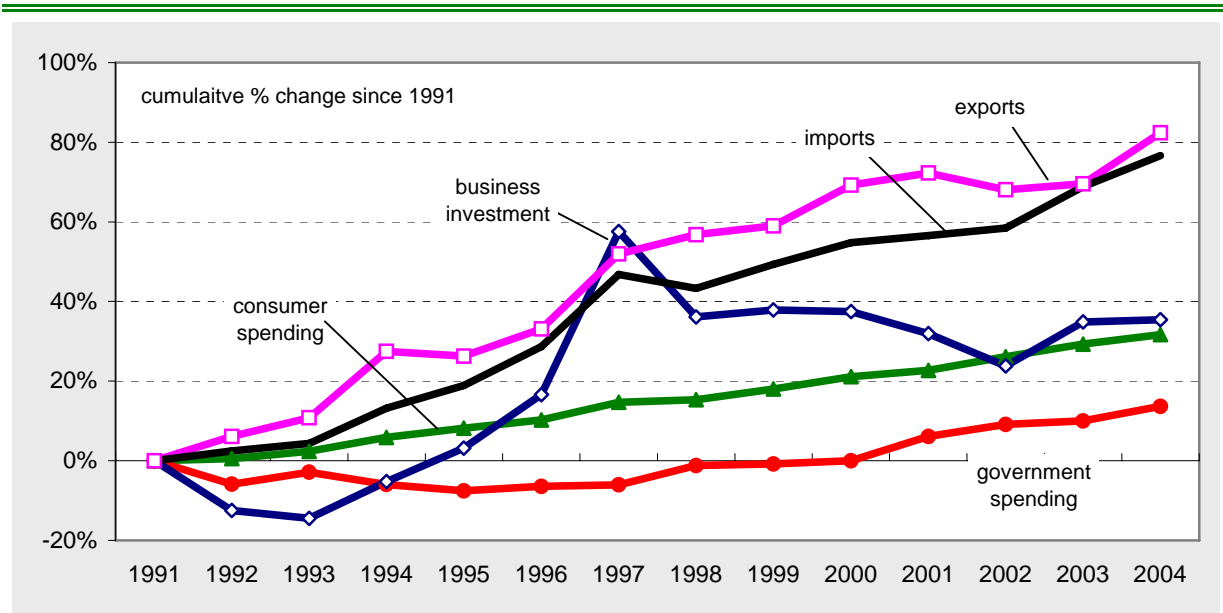
The four engines have shown different patterns in growth since 1991 (see Figure 2.4). Consumer spending has increased at a steady pace and, after a period of declines in the early 1990s, government spending has also been increasing steadily. Both imports and exports have grown dramatically but at similar rates so that their effects continue to offset one another.

The one exception to this pattern has been business investment. This dropped in 1992 during the post-recession period and then grew sharply to 1997. Since then it has declined or remained constant.

In summary, the Saskatchewan economy is heavily dependent upon trade, both international and interprovincial trade. Relative to the other prairie provinces, Saskatchewan's economic drivers are positioned midway between those of Manitoba which has a higher contribution from consumer and government spending and a lower contribution from business investment and Alberta which has a lower contribution from government and consumer spending and a higher contribution from business investment.

In the remaining pages of this section, we look briefly at these four economic drivers and the factors underlying their changing patterns.

Figure 2.4 Changes in Expenditure Based Shares of Provincial Gross Domestic Product, Saskatchewan, 1991 to 2004



Consumer Spending

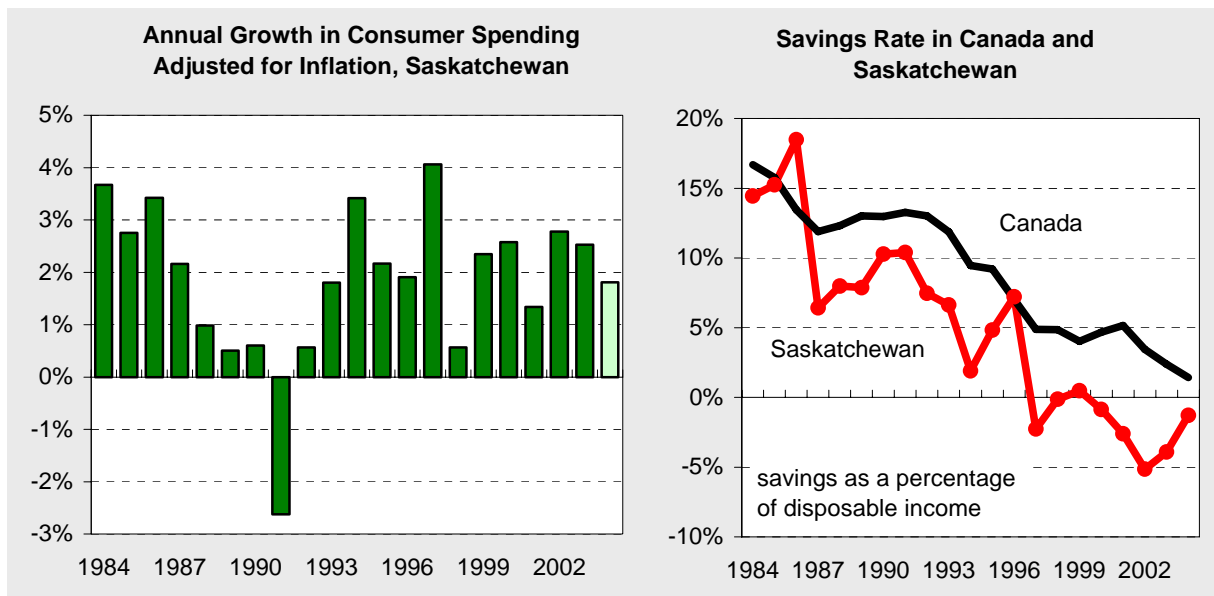
Consumer spending is a good measure of confidence, particularly if that spending is on big ticket items such as houses and vehicles. This is because these purchases are usually made by borrowing and the ability to repay a loan is dependent on future income. Going in debt requires some significant level of confidence that the future income will be there to repay the loan.

Saskatchewan consumers have been, to a fault, displaying a good deal of confidence in their future income. After adjusting for inflation, spending increased at an average annual rate of 2.3% per year in the most recent ten years, a period that included a two-year economic recession and an increase in the provincial sales tax. Much of that increase in spending has been on durable items such as vehicles, houses, furniture, and appliances.

The figure below shows that it would be a mistake to count on this spending to continue indefinitely. Consumer spending has exceeded disposable income in each of the past five years, yielding a negative saving rate and increasing personal debt. The savings rate is also declining for Canadian consumers as a whole but the rate is still positive and the decline is not as pronounced.

An aging population will naturally lead to a lower overall savings rate so some of the decline is normal as retirees draw down their savings in the form of annuities or pensions. But this is a decade too early for the baby boomers to be drawing down their savings in retirement so most of the increase in spending is the result of low interest rates and the aforementioned confidence in their future income.

Figure 2.5 Consumer Spending Indicators, 1984 to 2004



Government Spending

Government spending figures from the economic accounts include all three levels of government and include both spending on capital equipment and infrastructure and on ongoing operations.

Figure 2.6 shows that both the provincial and federal government have significant spending in Saskatchewan although the provincial government spending has increased more rapidly. In 2003, the most recent year available, 46% of spending was made by the province.

The majority of government spending is for non-capital expenditure. Of the \$16 billion in operating spending in 2003, just under one half was for the delivery of programs and services and 28% was transferred to individuals under programs such as CPP, Social Assistance, and Employment Insurance. The remainder was almost evenly split between interest on the public debt (12%) and transfer payments to businesses (10%).

Figure 2.6 Government Operating and Capital Spending in Saskatchewan

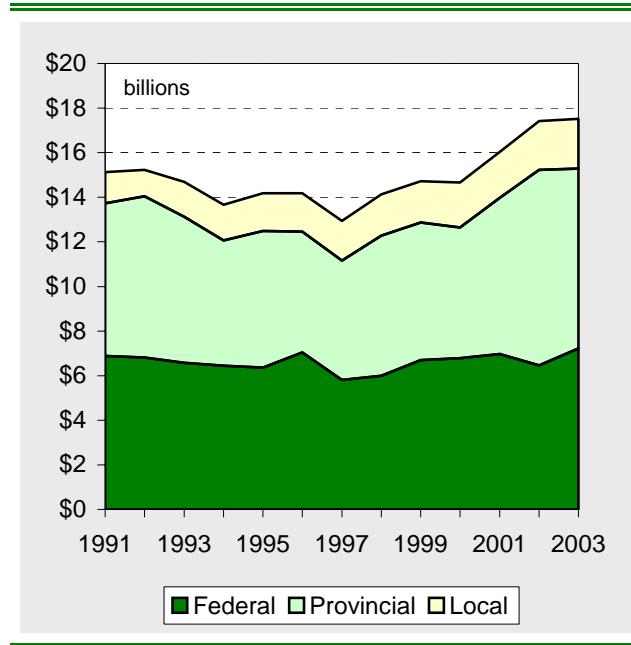
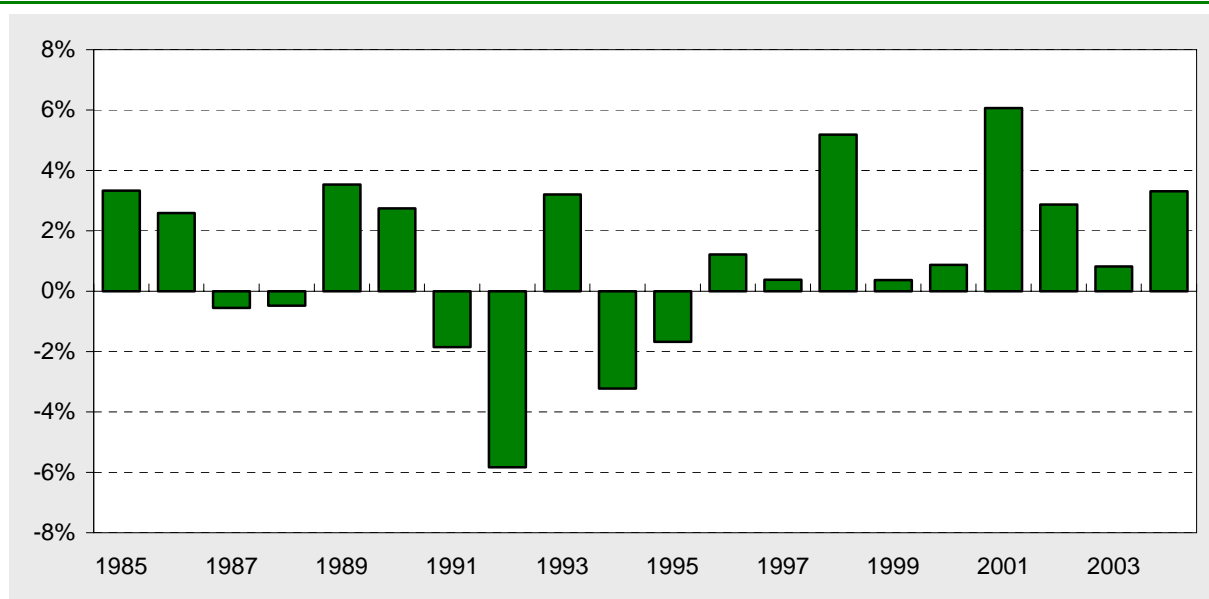


Figure 2.7 Annual Growth in Total Government Spending in Saskatchewan, Adjusted for Inflation



Business Investment

Business investment is the only one of the four economic drivers in the province that has not increased since the mid 1990s. Figure 2.9 shows that, relative to GDP, Saskatchewan and Alberta followed similar patterns from 1981 to 1997. This is to be expected as both are resource-based economies that tend to require a good deal of capital investment. Since then, investment in Saskatchewan has slowed in both provinces but the decline is more pronounced in Saskatchewan.

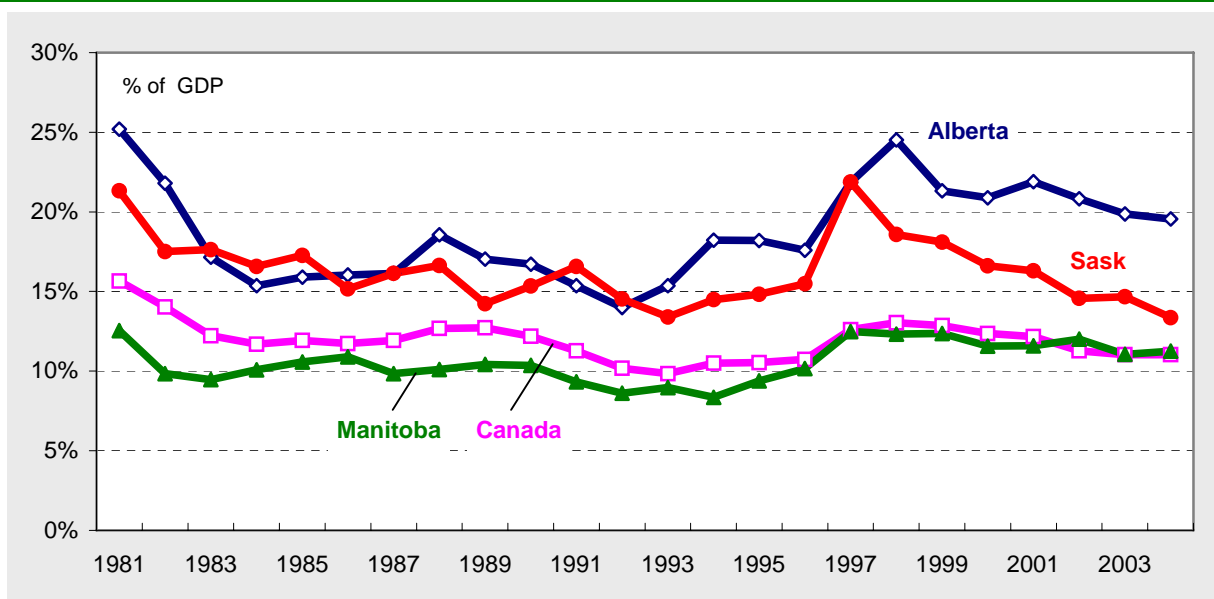
We noted earlier that Saskatchewan consumers are showing a good deal of confidence by virtue of their spending. These figures show that the same cannot be said of the business community. In spite of a rapid growth in corporate profits, high commodity prices, and low interest rates, business investment is not keeping pace with the growth in the economy.

Capital investment is a good leading indicator of economic growth so the downturn will have a negative effect on the province's growth in future years.

Figure 2.8 Business Gross Fixed Capital Investment (excluding residential) as Percentage of Pre-Tax Corporate Profits



Figure 2.9 Business Gross Fixed Capital Investment (excluding residential) as Percentage of GDP



International and Interprovincial Trade

Saskatchewan's economy has traditionally been based on the export of goods to other provinces and countries. In the past, this was largely agricultural products in general and grain in particular. More recently, increases in the value of energy and mineral products combined with poorer growing conditions has led to a shift in the type of commodities exported but the province remains heavily dependant on exports in general and the export of raw materials in particular.

The three largest commodities exported to other countries last year accounted for 61% of the total – crude oil, potash, and wheat. The three largest imports were herbicides, truck trailers, and front end loaders. As Figure 2.10 shows, manufactured products accounted for only 23% of international exports (by value) in 2005.

Figure 2.11 below shows that the province runs a trade surplus internationally and that it is increasing in constant dollar terms. Offsetting this is a trade deficit with other parts of Canada.

Figure 2.10 Commodity Exports from Saskatchewan, 2005

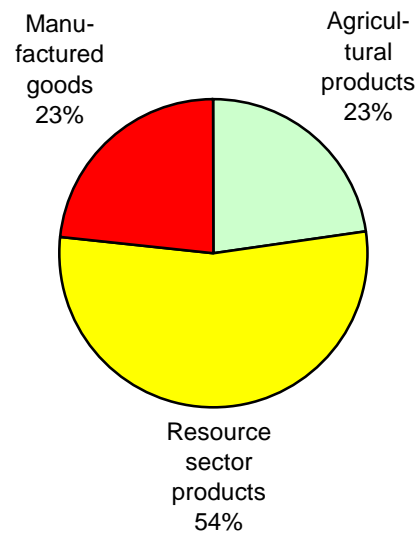
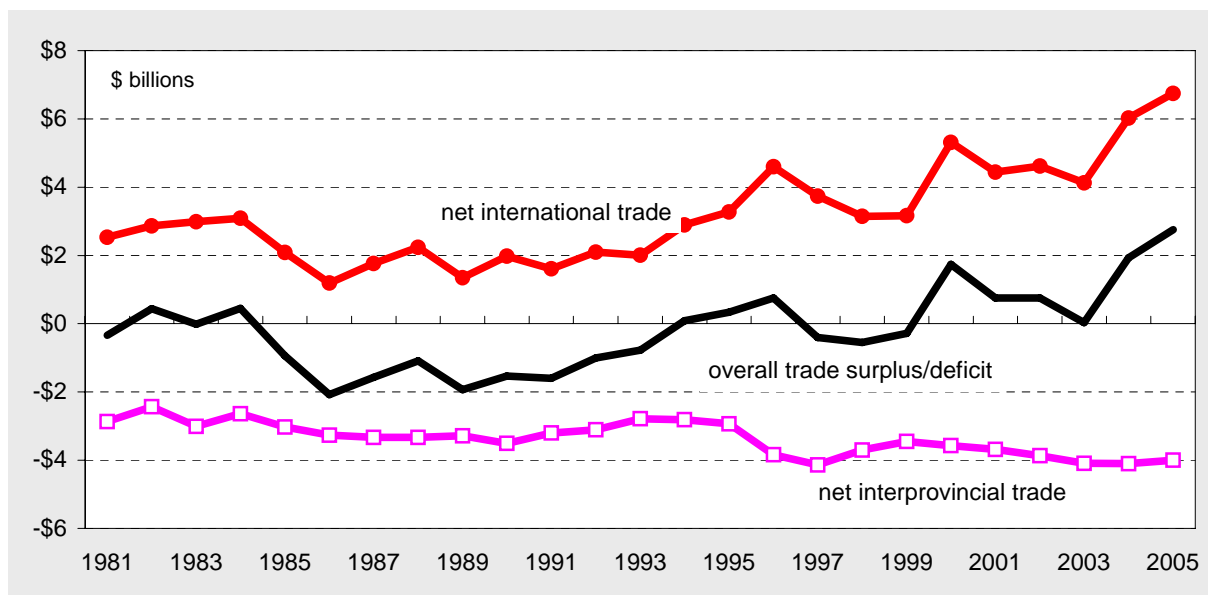


Figure 2.11 International and Interprovincial Trade in Goods and Services, Constant 1997 Dollars



2.2 Employment and Earnings

The other major indicator of economic activity chosen in this report is employment. As an indicator of economic prosperity it also has drawbacks because higher levels of employment may be economically beneficial to the individual but they may also be indicative of lower levels of productivity which, over the long term, has a negative effect on the economy.

Two sources of data describing labour market activity are examined in this section. The first is the Labour Force Survey (LFS) which provides a comprehensive measure of total employment in the province although it excludes the on Reserve population. The LFS measures all kinds of employment – full-time, part-time, paid work, self-employment. Those who hold two or more jobs at the same time are counted only once.

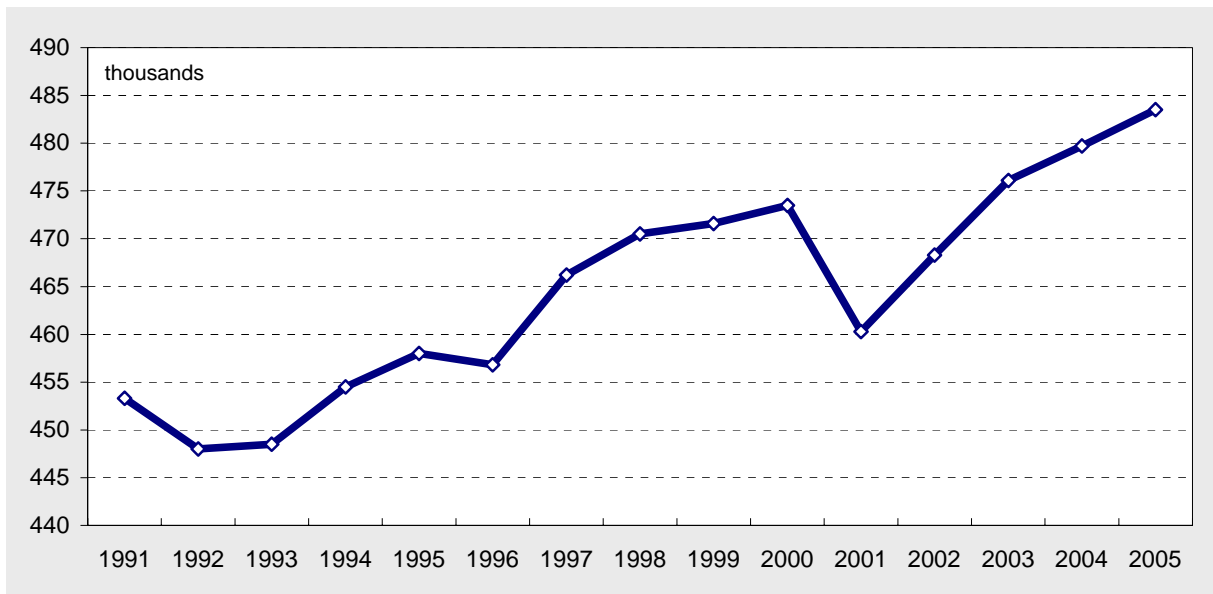
The second is the Survey of Employment, Payrolls, and Hours (SEPH) which is based on administrative data, namely the monthly payroll returns submitted by employers to the Canada Revenue Agency. These reports include the number of employees and gross payrolls for the establishment. Dividing one into the other yields a measure of average gross earnings per employee. Earnings from SEPH data are affected by overtime and, more significantly, the number of hours worked by part-time staff so this is more properly a measure of gross earnings rather than wage rates. SEPH also excludes the relatively few (under 10,000) paid workers in agriculture.

Employment

According to the LFS, employment in Saskatchewan grew from 448,000 persons in 1992 to reach 474,000 in 2000. After a sharp drop in 2001, growth has continued into 2005.

In the balance of this section, we look at the ten-year pattern in employment growth, that is, the period from 1995 to 2005.

Figure 2.12 Employment in Saskatchewan, 1991 to 2005



Employment is growing more slowly in Saskatchewan than in most other provinces. Over the last ten years, the average annual rate of growth in Saskatchewan has been 0.5% per year, the lowest rate of increase among the ten provinces. Over the same period, employment in Alberta and Manitoba has grown by 2.7% and 1.2% respectively.

Types of Employment

Statistics Canada defines a person as a part-time worker if they usually work fewer than 30 hours/week at their main job. In 2005, part-time employment accounted for 19% of employment in the province.

In the past ten years, full-time employment has increased more quickly than part-time employment, growing by an average of 0.9% per year whereas part-time employed has declined by an average of 0.9% per year (see Figure 2.14).

In 2005, 87% of positions were classified as permanent. Growth rates from 1995 are not available but since 1997, the average annual increase in the number of temporary jobs has been higher than among those with permanent positions – 1.5% compared with 1.2%. Most of the increase is in seasonal or contract work rather than casual employment.

The number of multiple job holders, that is, persons who hold more than one job simultaneously, has grown since 1995 but not as quickly as the number of people with only one job. In 2005, there were still 41,000 multiple job holders in Saskatchewan, one of the highest proportions in Canada.

Self-employment in agriculture has dropped dramatically in the past ten years with an average annual decline of 3.8% per year since 1995. This category now represents six out of ten self-employed workers but only 8% of employment in the province. Self-employment outside agriculture has grown by an average of 0.9% per year.

Figure 2.13 Average Annual Growth in Employment, 1995 to 2005, by Province

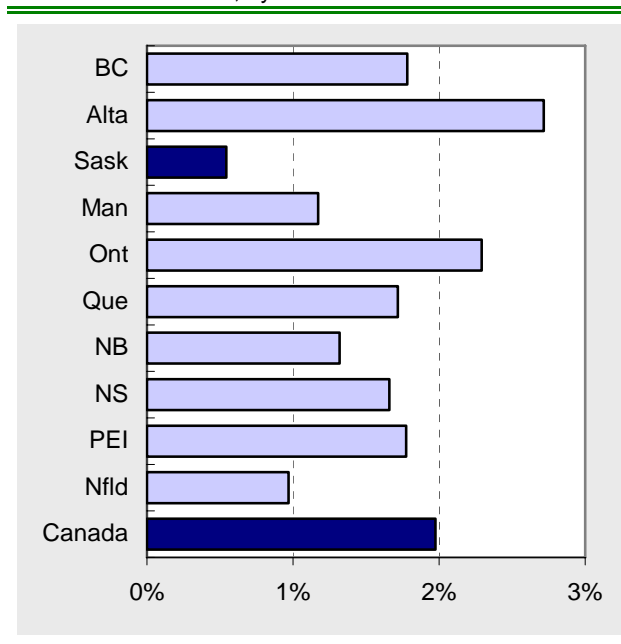
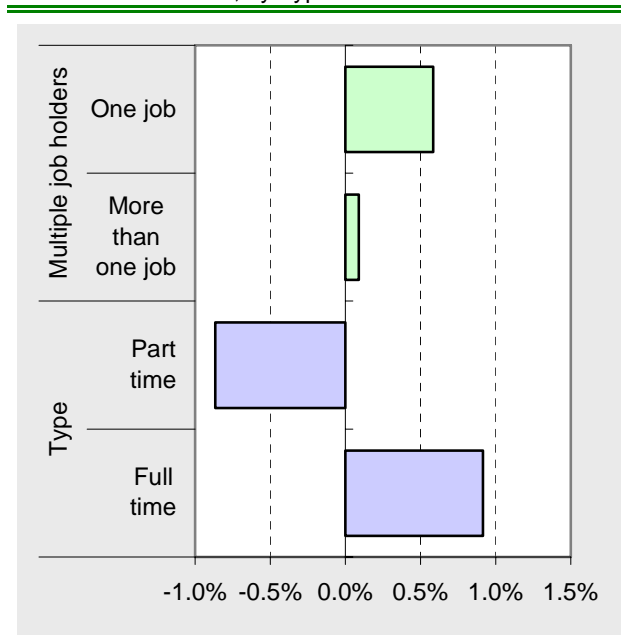


Figure 2.14 Average Annual Growth in Employment, 1995 to 2005, by Type of Job



The number of employees, that is, those who work for someone else, has grown by 1.1% in the past ten years. The growth rate is higher (1.4% per year) in the public sector, broadly defined to include health, education, and the crown corporations as well as government proper. More detail on employment growth by industry will be provided later in this section.

Employment among women has been growing more quickly than among men in the past ten years – 0.9% compared with 0.3% per year. By 2005, women accounted for 46.3% of employment compared with 44.8% in 1995.

Over the past ten years, employment has declined among those 25 to 39 years of age. Some of this decline is a consequence of demographics – there are fewer such people living in Saskatchewan.

Recently there has been unprecedented growth in the number of older workers – those 55 years of age and older. Some of this is also related to demographics but the employment rate among those 55 and older is rising as well. Over the past two years, all of the growth in employment has been in this age group – one quarter of the increase is because there are more persons 55 and older in the province and three quarters is because of the growth in the employment rate.

Among the seven “economic regions” for which Statistics Canada publishes employment data (see map on the next page), there has been consistent growth in only two – the Saskatoon and Region Census Metropolitan Areas (CMAs). By 2005, 49% of employment was accounted for by people living in these two regions compared with 44% in 1995.

Figure 2.15 Average Annual Growth in Employment, 1995 to 2005, by Job Class

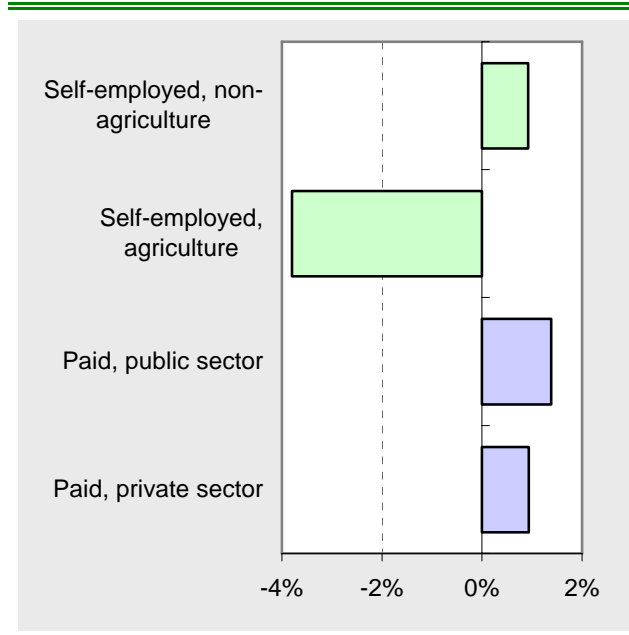


Figure 2.16 Average Annual Growth in Employment, 1995 to 2005, by Gender and Age Group

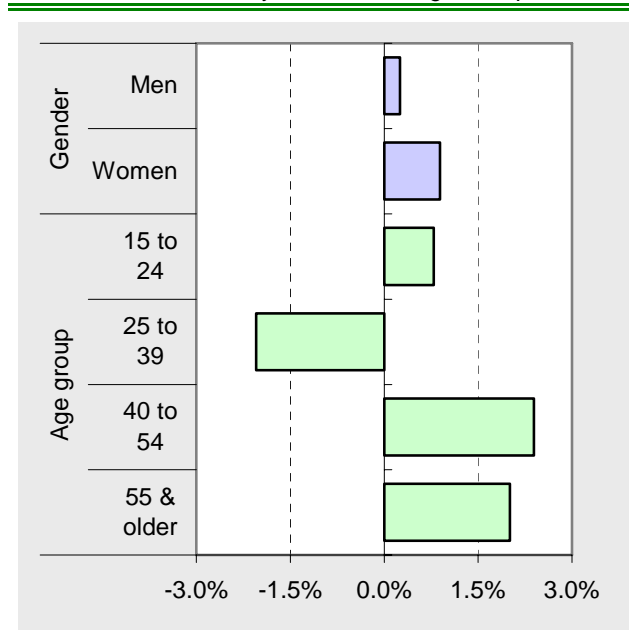
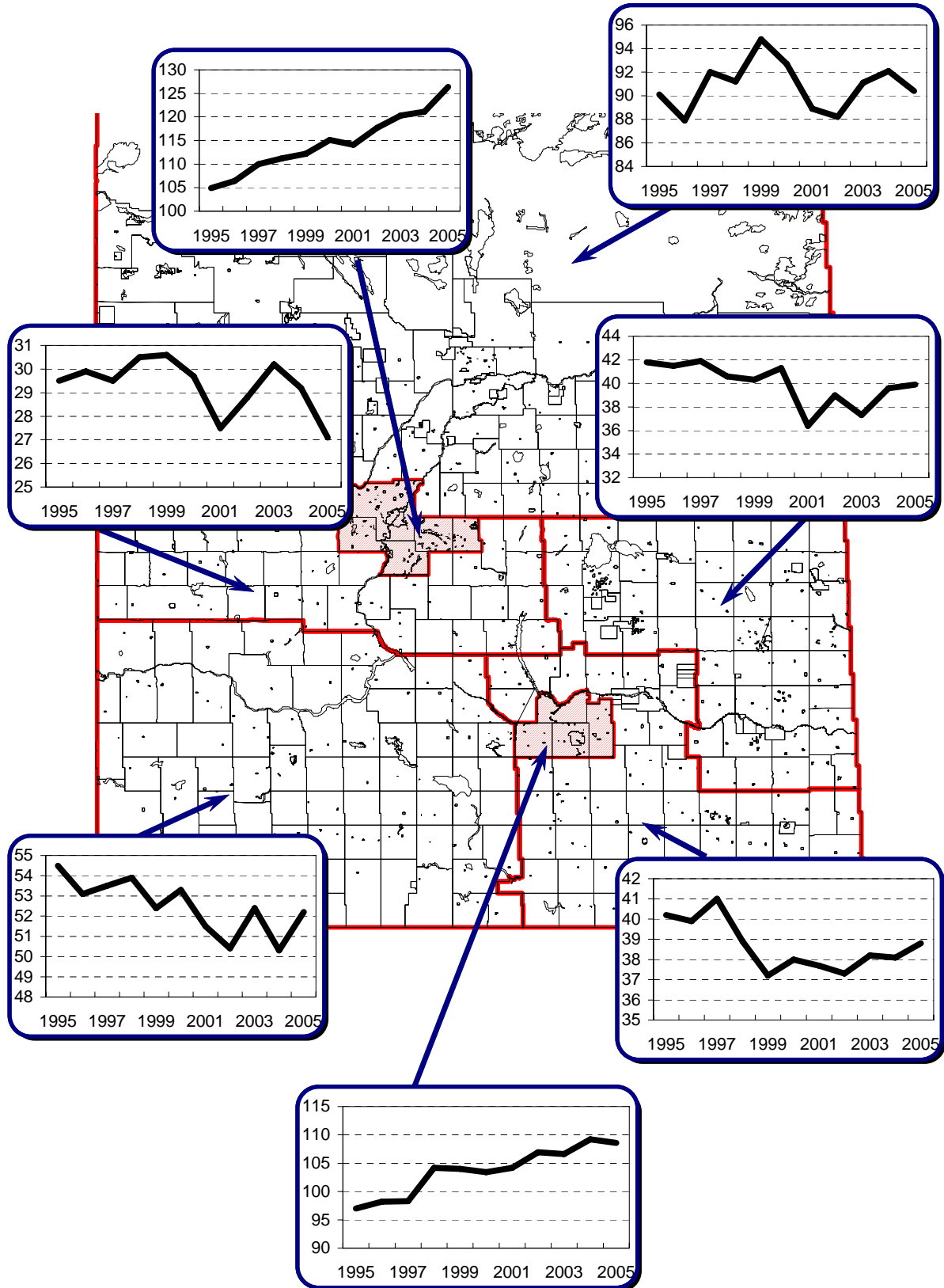


Figure 2.17 Employment by Economic Region, 1995 to 2005

vertical scales in thousands



Employment Growth By Industry

Figure 2.18 shows the growth in employment over the past ten years broken down into fourteen industry groups. Note that we are measuring the industry that people report as their main job if they have more than one.

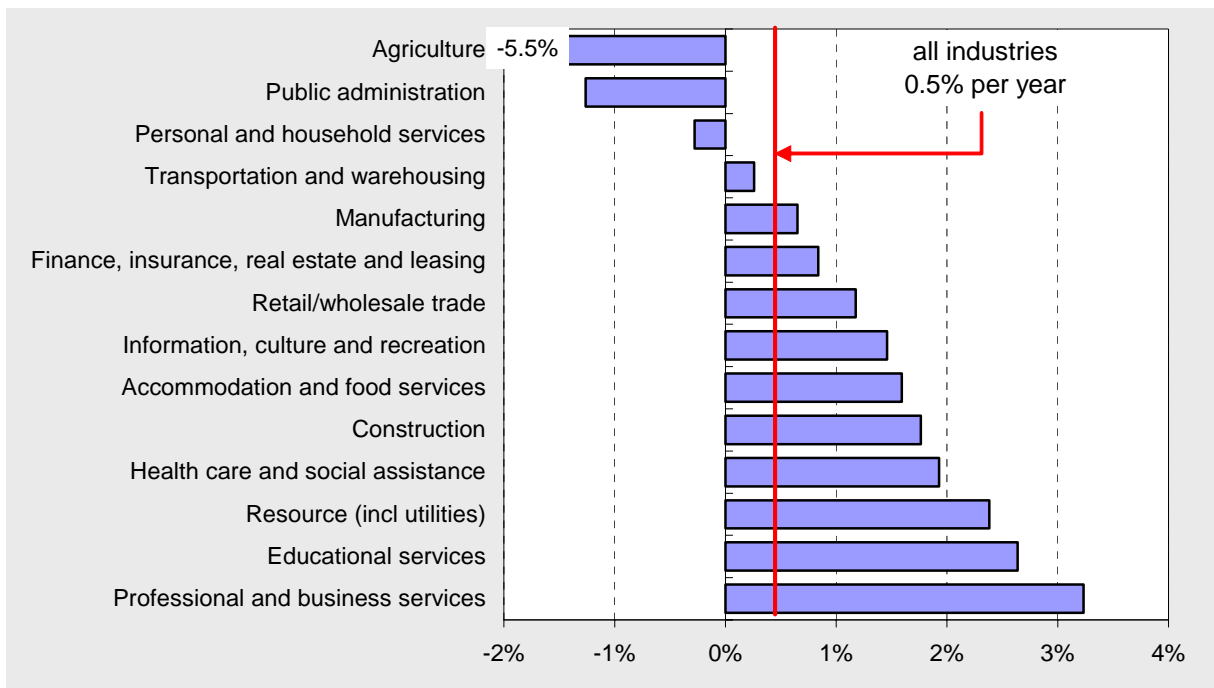
Three industries show a decline in employment over this time period. Agriculture is the most obvious with an average decline of 5.5% per year. This is the equivalent of 27,000 jobs over the ten years and is the primary reason why Saskatchewan's employment growth is so low. Excluding agriculture, employment has grown by an average of 1.3% per year since 1995 compared with the actual growth rate of 0.5% per year.

The other two industry groups showing a decline are public administration and the personal and household services group. The former is government proper for all three levels of government in the province. The latter is comprised of a variety of industries such as religious and membership organizations, personal care organizations such as funeral homes and lawn care centres, and repair shops. The other industry with a below-average growth rate is the transportation and warehousing group. This industry saw a sharp decline in the middle of the period, from 2000 to 2003, but employment has been growing sharply in recent years.

The fastest growing industry group is the so-called business services group. It includes professional and consulting services such as lawyers, accountants, and information technology services. It also includes companies that provide building cleaning services and waste removal services. Head offices of holding companies are also in this category.

Two of the three next largest category are dominated by the public sector – education services and health and social assistance and the third (resources and utilities) has a large public sector component in the form of the crown corporations.

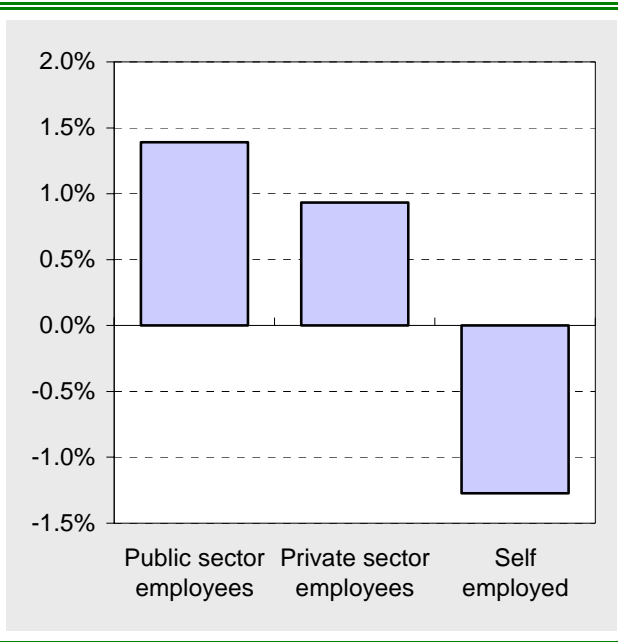
Figure 2.18 Employment Growth by Industry, Annual Average from 1995 to 2005



Two summary observations can be made about the recent employment growth rates. The first is that except for the decline in agriculture, the growth in goods-producing sectors has been higher than in the services-producing sector. Over the ten years, the goods producing sector excluding agriculture has grown by an average of 1.5% per year compared with a 1.3% growth for the services producing sector. This is contrary to the general trend in the national economy and in many of the developed countries.

The second observation is that the public sector, with the notable exception of government proper, is growing more quickly than the private sector. Excluding the self-employed to remove the effects of agriculture, employment in the public sector has grown by an average of 1.4% per year compared with a growth rate of 0.9% per year for the private sector.

Figure 2.19 Average Annual Growth Rate, 1995 to 2005, by Sector



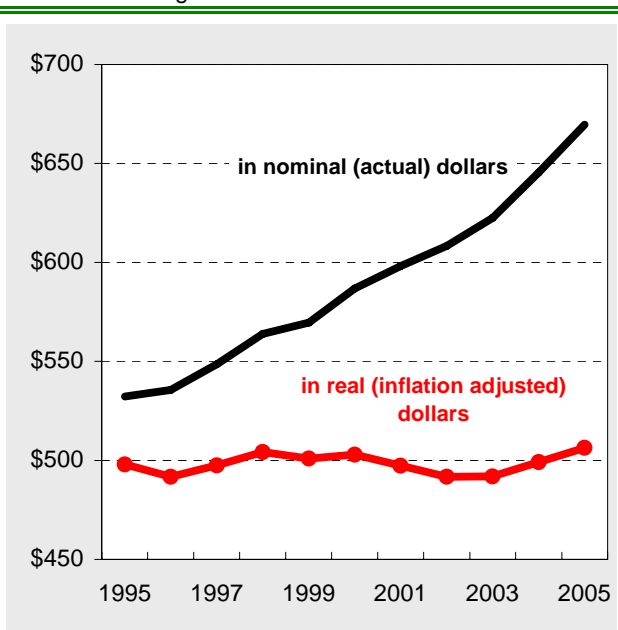
Average Weekly Earnings

In 2005, gross earnings among the 411,000 paid non-agricultural workers in the province averaged \$670 per week. There is a wide variation of average earnings in the province ranging from a high of over \$1,000 per week in the resource and utility sectors to less than \$300 per week in the accommodation and food service sector.

As Figure 2.20 shows, gross earnings have been growing strongly and steadily in the past ten years. The average rate of increase since 1995 has been 2.3% per year but the growth rate has been higher in the past few years with an increase of 3.7% in 2005, for example.

Adjusted for inflation, the line flattens out considerably. Since 1995, the average rate of increase in "real" earnings has been effectively zero. In terms of purchasing power, average weekly earnings have only recently recovered the ground lost during the 2000 to 2002 period and are still a bit below the level in the early 1990s.

Figure 2.20 Average Weekly Earnings, Paid Non Agricultural Workers in Saskatchewan



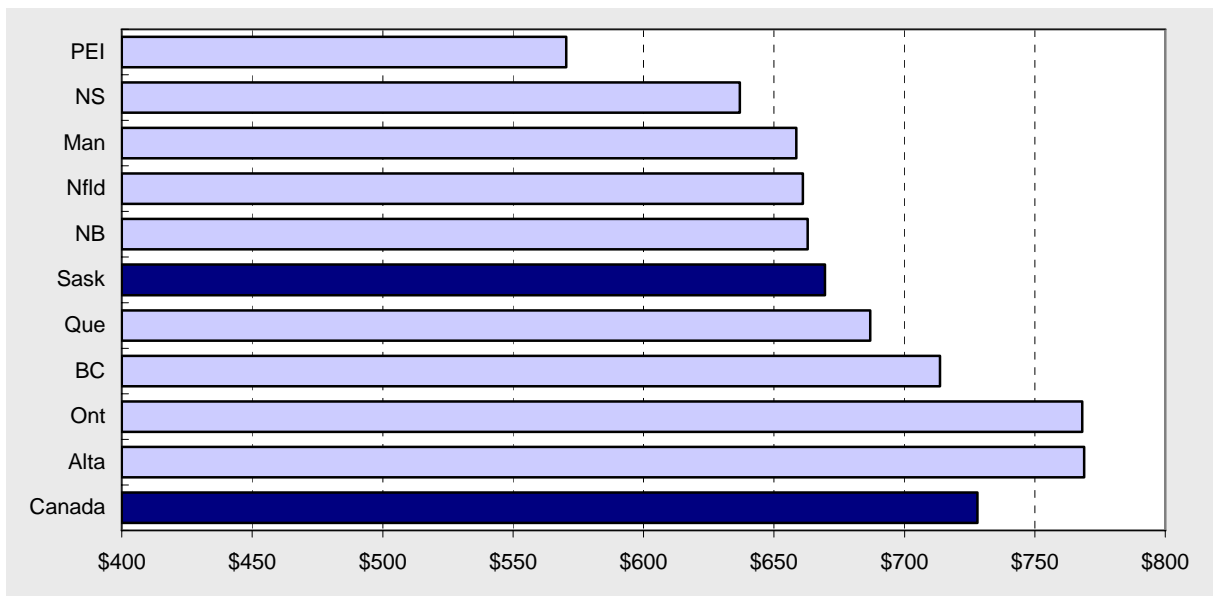
Even with the recent increases, average earnings in Saskatchewan are still well below the national average. In 2005, earnings in Saskatchewan were near those in Manitoba and above those in the four Atlantic provinces. But they are below those in British Columbia and Quebec and well below those in Alberta and Ontario.

The differential between Alberta and Saskatchewan is one of the draws for interprovincial migrants. On average, earnings in Alberta are 15% higher than in Saskatchewan. This differential has not changed significantly in the past ten years.

The recent growth in Saskatchewan earnings is also evident in other provinces. The 3.7% increase in the province last year is above the national average of 3.2% and similar to Manitoba's growth rate but pales in comparison to the 5.2% increase in Alberta.

The higher inflation rate in Alberta erodes some of that increase in gross earnings. In 2005, real earnings grew by 1.5% in Saskatchewan compared with 0.9% for Canada as a whole, 0.8% in Manitoba, and 3.0% in Alberta. Over the course of the past ten years, Saskatchewan's real earnings have maintained the differential with Alberta and gained some ground against the national average.

Figure 2.21 Average Weekly Earnings (including overtime), by province, 2005



2.3 Linking Economic Activity and Demographic Characteristics

Demographic trends and economic trends are intertwined in a number of ways. The most obvious is that employment is one of the main generators of economic activity and virtually all employees are also residents of the province. So demographic patterns in general and the size of the labour force age group in particular strongly affect and are affected by economic activity.

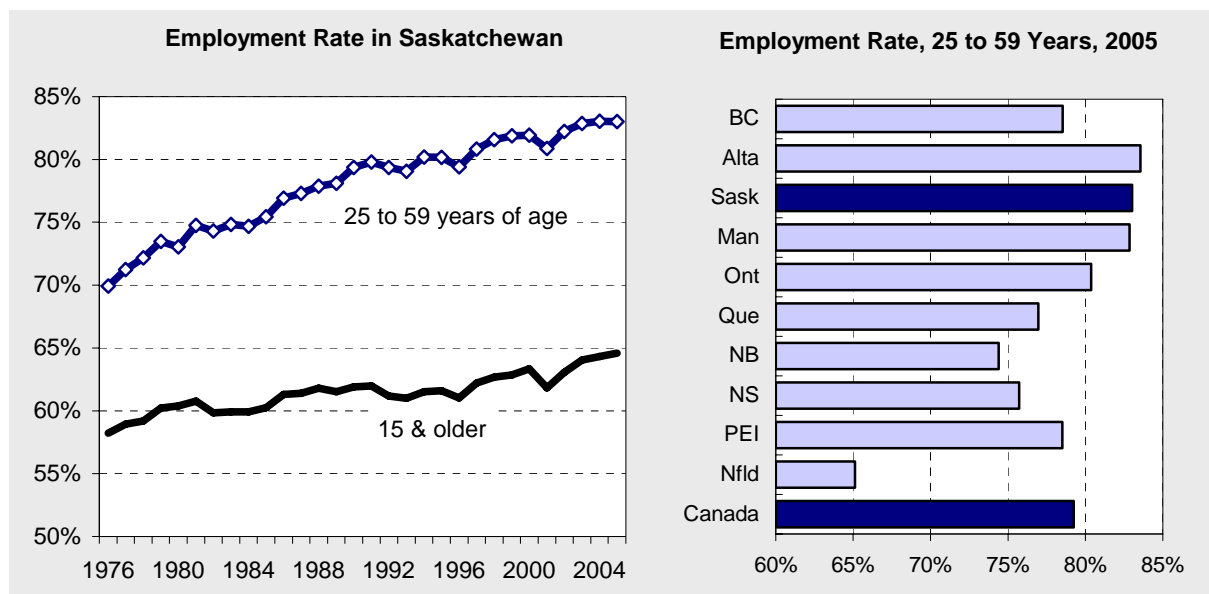
The employment rate is one of the ways to measure this. This is a measure of what proportion of the population is employed. Normally a higher employment rate will indicate more job opportunities and a better match between employment opportunities and employee skills. It can also have negative consequences if the high employment rate is indicative of a shortage of workers.

Saskatchewan's employment rate is one of the highest in Canada and it is growing as Figure 2.22 shows. This supports the view that the lack of employment growth in the province is a result of a shortage of qualified labour – a high proportion of those who are willing or able to work are already doing so. The high rate also means that any dramatic increases in employment will require an increase in the population of the province.

Another way that an economy and the people are related is in the measure of economic activity per capita. The interpretation of this figure is more complex. Looked at in one way, GDP per capita is a measure of economic well being because it is the amount of income that can be shared with each of the residents – economies with a higher GDP per capita will normally have higher personal income levels, lower taxation rates, better public services, or a combination of these.

Another interpretation reverses the cause and effect relationship. Economies tend to grow or decline when the population grows or declines because people in and of themselves generate economic activity by building houses, using public services, getting a haircut, or paying taxes. So GDP per capita can be used to indirectly measure what proportion of economic growth is

Figure 2.22 Employment Rate Indicators



attributable to population growth and which part is attributable to productivity growth with the latter defined as the amount of GDP generated by the same number of people.

A comparison of GDP per capita in Saskatchewan with other provinces yields some unexpected results, namely that Saskatchewan's figure, while much lower than the average in Alberta, is at the national average and higher than in British Columbia or Manitoba (see Figure 2.23). So Alberta residents are "richer" in the sense that their economy produces more wealth for each resident but Saskatchewan is on a par with other Canadians.

The growth rate in GDP per capita tells an interesting story as well. It shows that a great deal of the economic growth in Canada as a whole and Alberta in particular can be attributed to population growth. Figure 2.24 shows that on a per capita basis, Saskatchewan's economy has outperformed the economies of both neighbouring provinces and Canada as a whole since 1984.

Figure 2.23 GDP per Capita, 2004, Selected Provinces

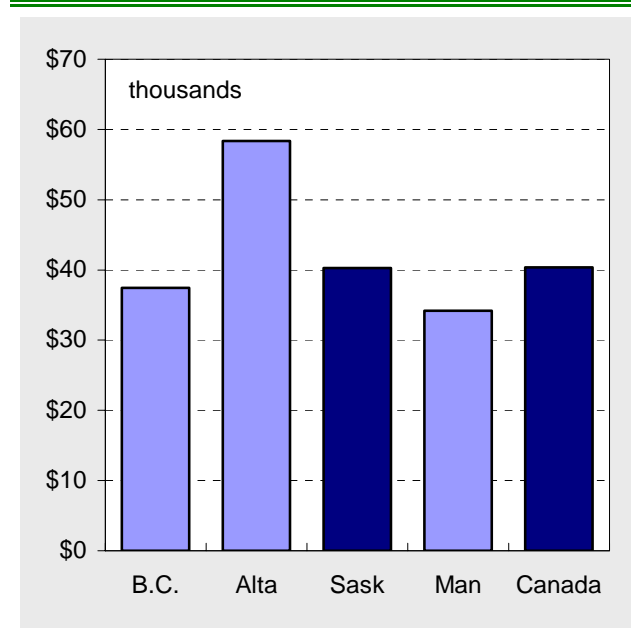
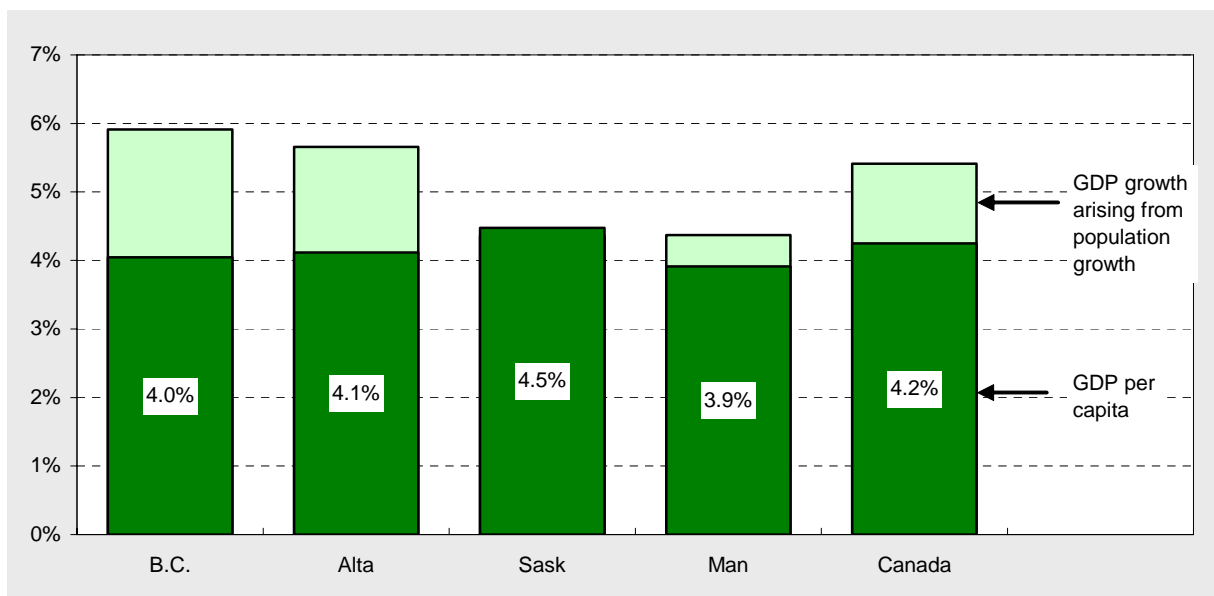


Figure 2.24 Growth in GDP, 1984 to 2004, Selected Provinces



2.4 Viewpoints

Some of the questions that arise from the economic indicators examined in this section are similar to the questions arising from the demographic trends.

- The first is whether or not the province should be content with the status quo. GDP per capita is relatively high compared with other provinces and growing strongly. The additional economic growth that both requires and would be caused by a growth in the population is not seen as necessarily desirable by all.

All of the concerns that arise with population growth also arise with regard to economic growth. It is highly unlikely that this level of economic prosperity can be sustained if there is a general shortage of labour in the province. And the economic prosperity is not evenly shared by rural and urban areas or by Aboriginal and non-Aboriginal residents.

- Some in the business community have pointed to the large public sector in the province as a problem, believing that the public sector “crowds out” the private sector. That debate is focussed on the crown corporations because only a few suggest that government proper or the health and education sectors should be reduced in size. This is intertwined with the fact that the vast majority of employees in the public sector are union members and relatively few private sector employees are.
- The other issue that has been the focus of debate in Saskatchewan for decades is the province’s economic reliance on the export of raw materials in general and agricultural products in particular. The province has always been a “hewer of wood and drawer of water” with the lack of a significant “value added” sector. Notwithstanding the fact that the export of commodities is a good business to be in these days, the long term sustainability of this approach continues to be in doubt.

SECTION 3 EDUCATION, SKILLS DEVELOPMENT, AND TRAINING

There are a variety of data sources that measure various aspects of education but the linkage with the labour market implies that for consistency, the same Labour Force Survey used elsewhere in this report is used for the majority of statistics in this section. Section 3.1 looks at the level of educational attainment among Saskatchewan residents. School attendance is examined in Section 3.2.

The one exception is the information about educational levels and school attendance for the Aboriginal population which uses census data because the Labour Force Survey does not include the on-Reserve population. Their educational levels and participation rates are examined in Section 3.3.

Saskatchewan residents, relative to those in other provinces, have low levels of completed education. In Section 3.4, data about the number of graduates from Saskatchewan's post-secondary institutions show that this is not the result of having too few university graduates.

The section concludes with some observations on skills development issues facing the province.

3.1 Completed Education Levels

Compared with other Canadians, Saskatchewan residents have lower levels of completed education. In 2005, for example, 73% of Saskatchewan adults had completed grade 12 compared with 76% nationally and 42% were post-secondary graduates compared with 48% nationally. The proportion is lower for both university graduates (13% vs. 18%) and, to a lesser extent, those with a diploma or certificate (29% vs. 30%). This is in spite of the fact that the LFS does not include the on Reserve population where completed education levels are lower.

Some of this difference is explained by the fact that Saskatchewan has a relatively large proportion of seniors relative to other provinces and seniors tend to have a lower level of completed education. It is also partly but not completely explained by the relatively large proportion of Aboriginal people in Saskatchewan, another demographic group with lower average levels of completed education. For that reason, the statistics in the balance of this section include only the population in the primary labour force age group, taken as 25 to 54 years of age. This also helps ensure that most students attending high school or a post-secondary institution will have completed their education.

The education levels of the population are increasing. Figure 3.1 shows that the proportion of the population 25 to 54 years of age with at least grade 12 has grown from 75% in 1990 to nearly 90% by 2005. The proportion who are post-secondary graduates has grown from 42% to 58% over the same period.

With the restricted age group, Saskatchewan fares somewhat better in the interprovincial comparison – 86% of adults 25 to 54 years of age have at least grade 12 compared with the national average of 87% (see Figure 3.2) – the fourth highest among the provinces. But only 55% have a post-secondary education compared with 60% nationally. For post-secondary graduates, Saskatchewan has the third lowest proportion in this age group after Manitoba and New Brunswick.

Figure 3.1 Completed Education of the Population 25 to 54 Years of Age, Saskatchewan

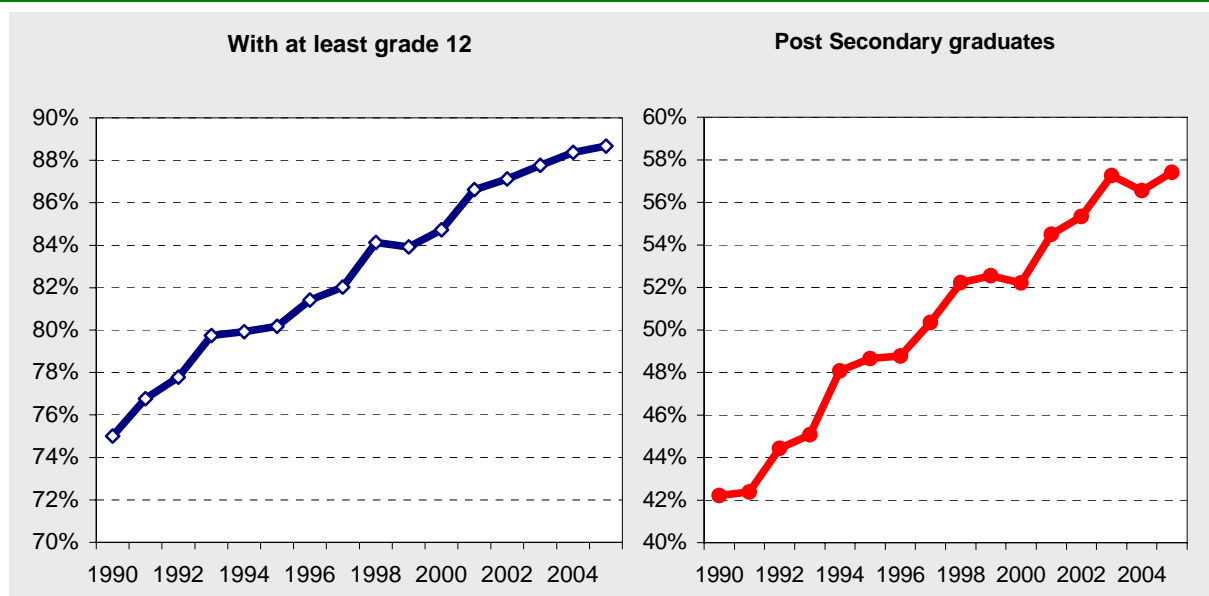
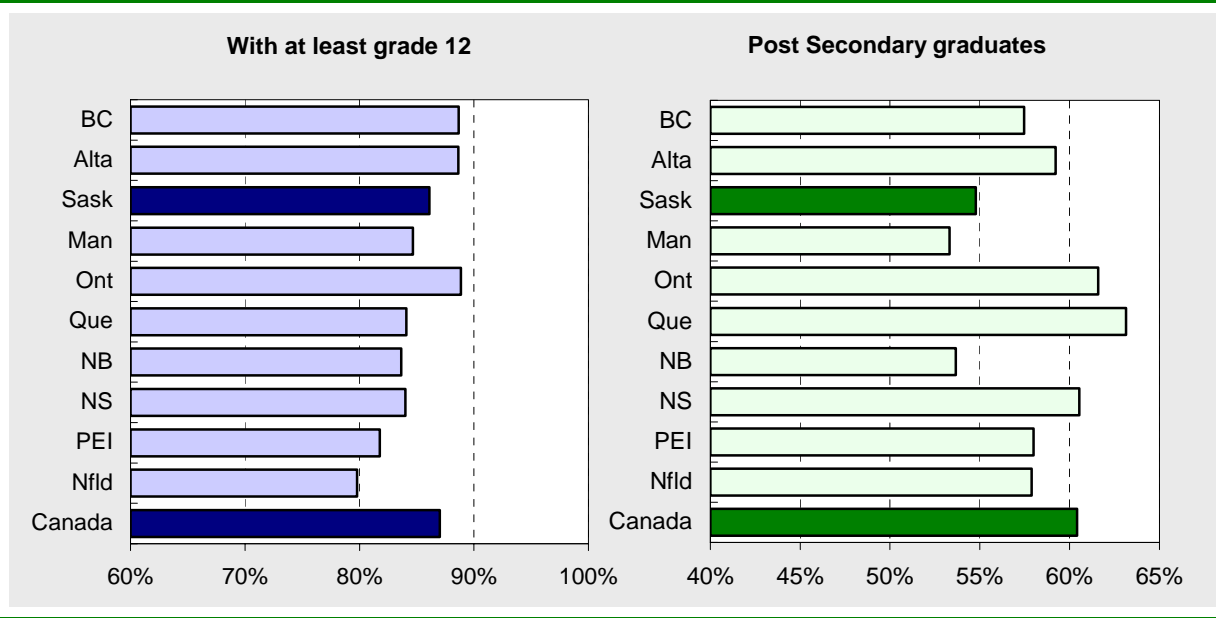


Figure 3.2 Completed Education by Province in 2005, Population 25 to 54 Years of Age



Restricting the population to those who were employed in 2005 provides a measure of the demand for education in the labour market. Figure 3.3 shows that 57% of the employed population 25 to 54 years of age has a post-secondary education compared with 64% nationally and the second lowest proportion in Canada after Manitoba.

Another measure of the labour market demand for education uses the employment rate. That is, the percentage of those with less than grade 12 or a post-secondary education who are employed. These figures are shown in Figure 3.4.

Figure 3.3 Completed Education by Province in 2005, Employed Population 25 to 54 Years of Age

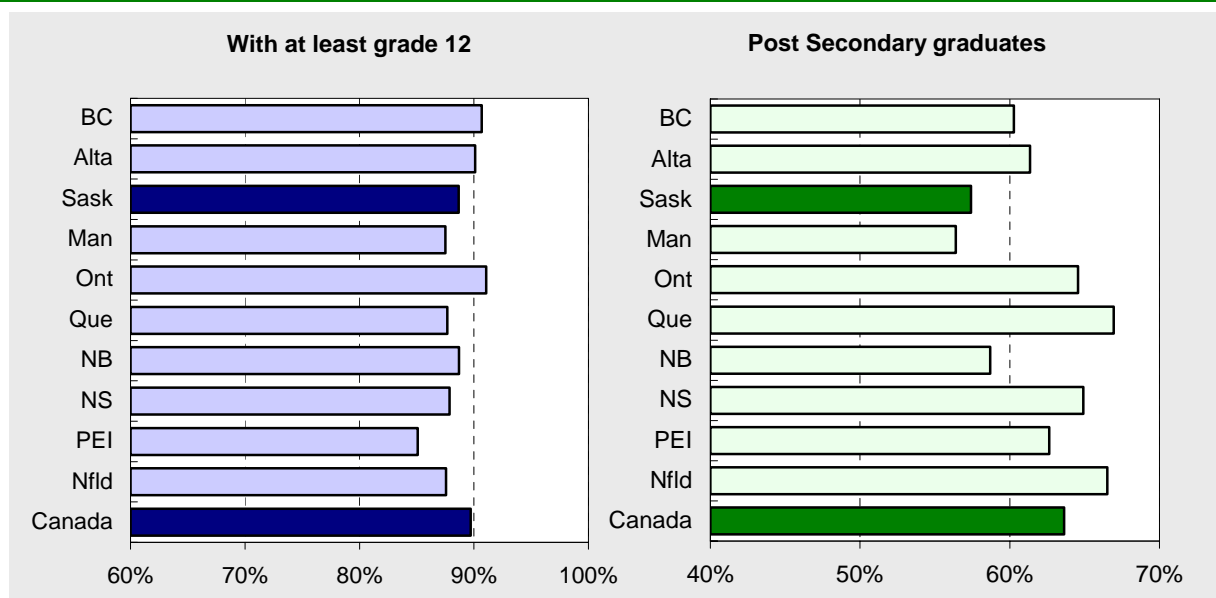
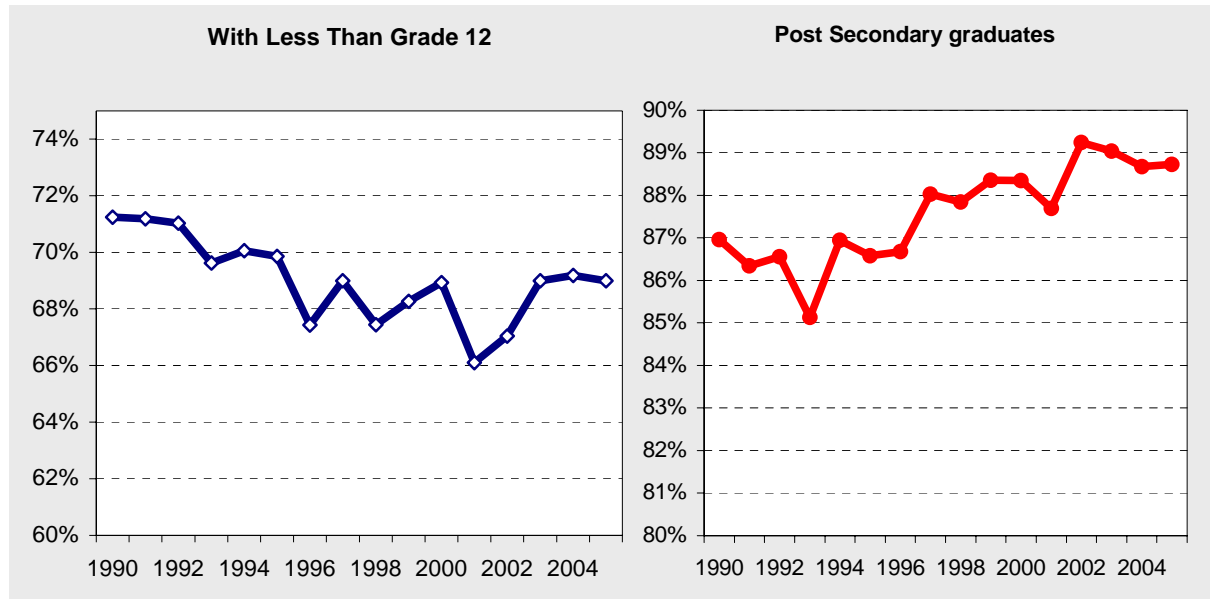


Figure 3.4 Employment Rates by Level of Completed Education, Saskatchewan, Population 25 to 54 Years of Age



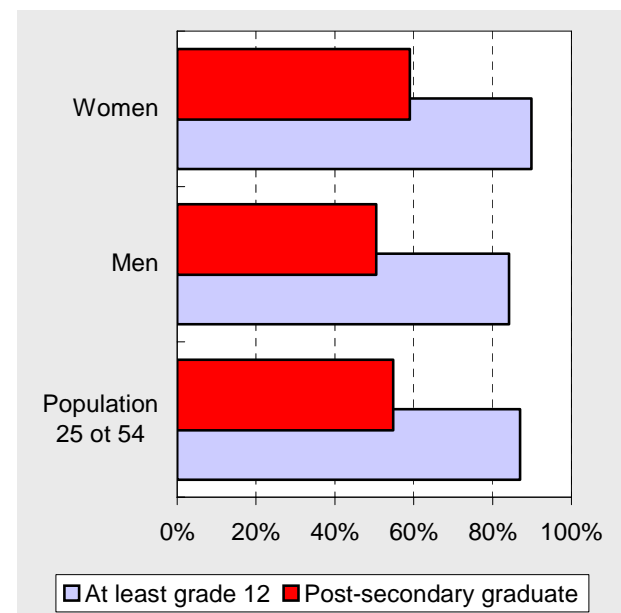
The labour market demand for those with less than grade 12 declined slowly from 1990 to 2001 but has increased somewhat since then. This may be partly the result of a shortage of skilled staff as employers “make do” with those who have lower levels of completed education and partly the result of shifts in demand toward more low-skill jobs. Over the same period, the employment rate among post-secondary graduates has increased but only slightly – from 87% to 89%.

Age, Gender, and Aboriginal Identity

Women in Saskatchewan have higher levels of completed education than men. Figure 3.5 shows that, for example, 59% of women are post-secondary graduates compared with 51% of men.

Figure 3.6 shows that young people tend to have higher levels of completed education than those in older age groups. For example, 60% of those 30 to 34 years of age are post-secondary graduates compared with 50% of those 45 to 49 years of age.

Figure 3.5 Completed Education by Gender, Population 25 to 54 Years of Age, Saskatchewan, 2005



A trial project by Statistics Canada, restricted to the western provinces, includes the Aboriginal identity question on the monthly Labour Force Survey. This enables a comparison of completed education levels for the Aboriginal and non-Aboriginal populations but only for those living off Reserve. Published data are for the population 15 to 64 years of age.

Figure 3.7 shows that, as expected, the completed education levels for the Aboriginal population are lower than those in the non-Aboriginal population. The differences may, however, be less than expected.

For example, 35% of Aboriginal off Reserve residents 15 to 64 years of age are post-secondary graduates compared with 50% of the non-Aboriginal population in the same age group.

Although not shown here, the differences between the Aboriginal and non-Aboriginal populations are less pronounced for the Métis population than they are for the First Nations population. As with the non-Aboriginal population, the level of completed education for women is higher than for men.

Figure 3.6 Completed Education by Age Group, Population 25 to 54 Years of Age, Saskatchewan, 2005

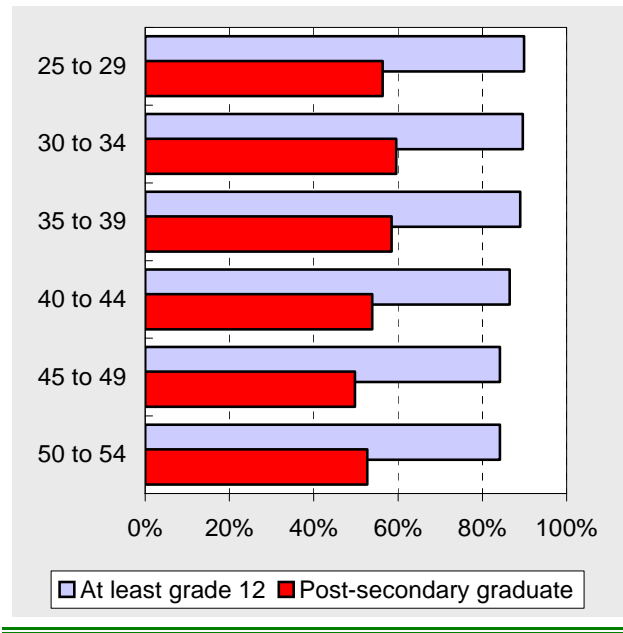
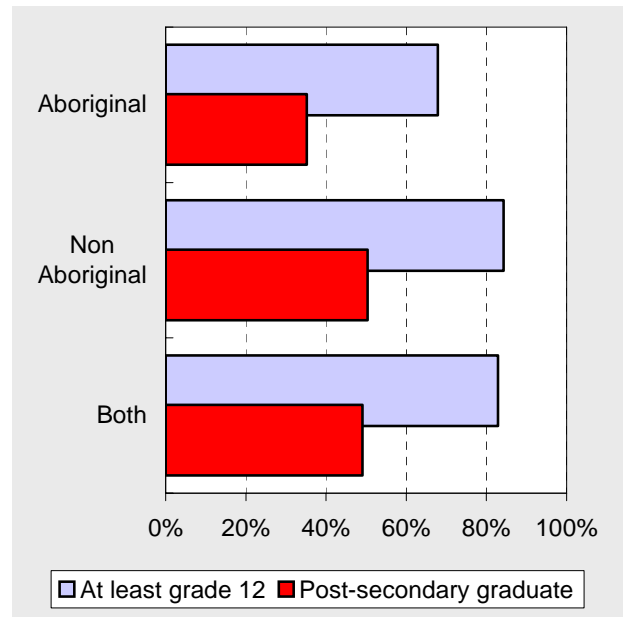


Figure 3.7 Completed Education, Off Reserve Residents 15 to 64 Years of Age, Saskatchewan, 2005



3.2 School Attendance

The Labour Force Survey can also be used to determine who is going to school, either high school for younger people, or a post-secondary institution for those in the older age groups. These figures cover the winter months only – the eight months from September to April period.

The population 15 to 29 years of age will typically be either attending school, particularly if they are in the younger age groups, working or both. A small proportion will be neither working nor going to school either because they are unable to find employment or have temporarily left the labour market to raise a family.

In 2005, just under one half of the population (47%) in this age group was working and not going to school. One quarter were attending school and 18% were doing both. One in ten (11%) were doing neither.

An examination of the 47% who were employed shows that 13% had less than grade 12, that is, had dropped out of high school to work. Another 42% were post-secondary graduates and the remaining 45% had grade 12 with or without a partial or incomplete post-secondary education.

Among the 11% who were neither working nor going to school, 40% had less than a grade 12 education.

An interprovincial comparison shows that a the proportion of Saskatchewan residents in this age group who are going to school (including those who are also working) is below the national average – the 42% in Saskatchewan compares with 45% nationally and 39% in Alberta. This comparison demonstrates one of the challenges of a tight labour market namely that young people will be tempted to leave school or delay a post-secondary education and enter the labour market. Apparently this is happening in Saskatchewan and Alberta.

The 11% of Saskatchewan residents who are neither working nor going to school is near the national average and much lower than in the Atlantic provinces.

The attraction of the labour market is also shown in Figure 3.10 which shows the trend in Saskatchewan since 1990. The proportion of the Saskatchewan population 15 to 29 years of age who are going to school was increasing throughout the 1980s, stabilized during the early 1990s and increased in the late 1990s. Since 2002, the percentages have been declining.

On a more positive note, the proportion of young Saskatchewan residents who are neither going to school nor working is declining.

Figure 3.8 Labour Market and Student Activity for the Saskatchewan Population 15 to 29 Years of Age, Winter Months, 2005

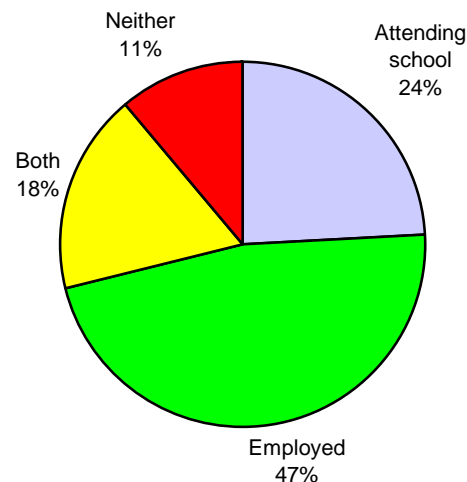


Figure 3.9 Labour Market and Student Activity for the Population 15 to 29 Years of Age, Winter Months, 2005

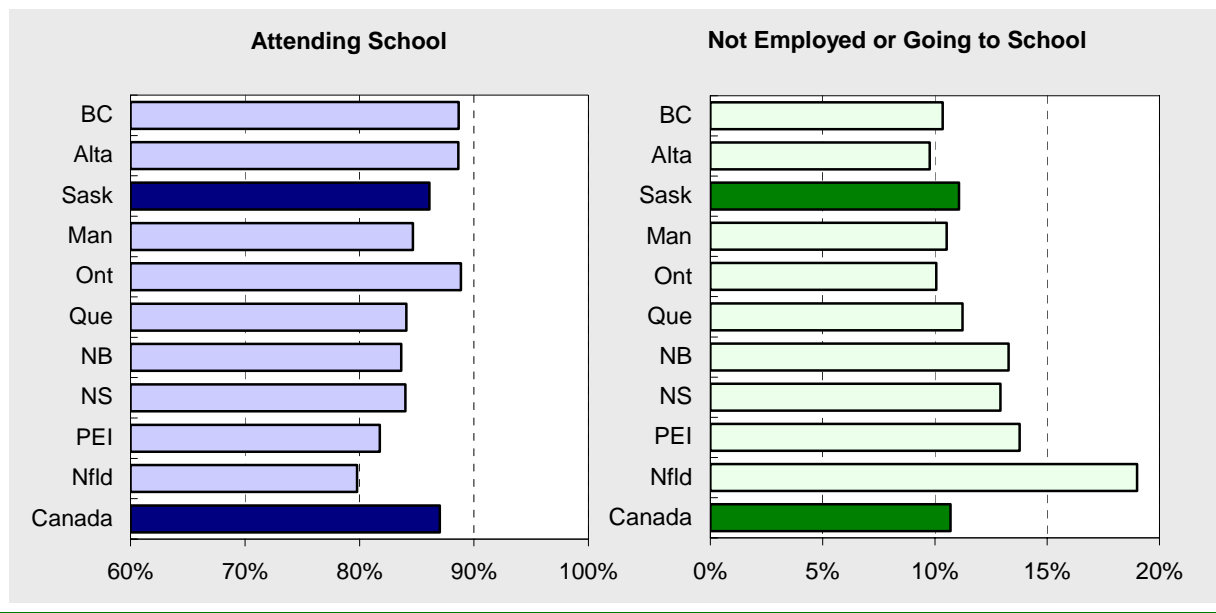
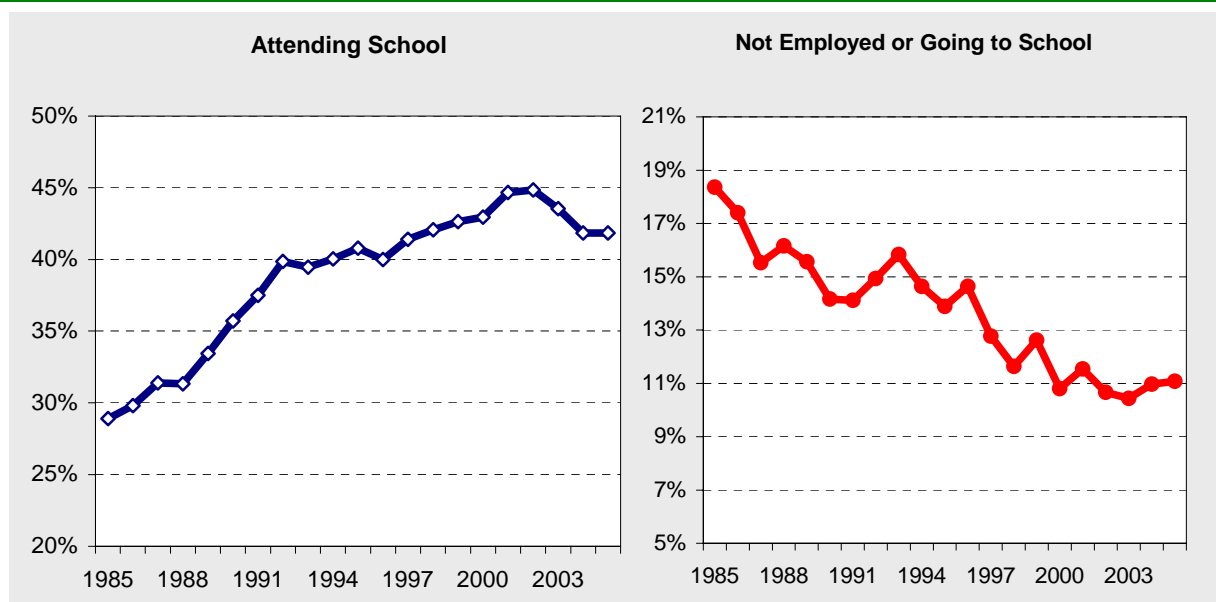


Figure 3.10 Labour Market and Student Activity for the Saskatchewan Population 15 to 29 Years of Age, Winter Months



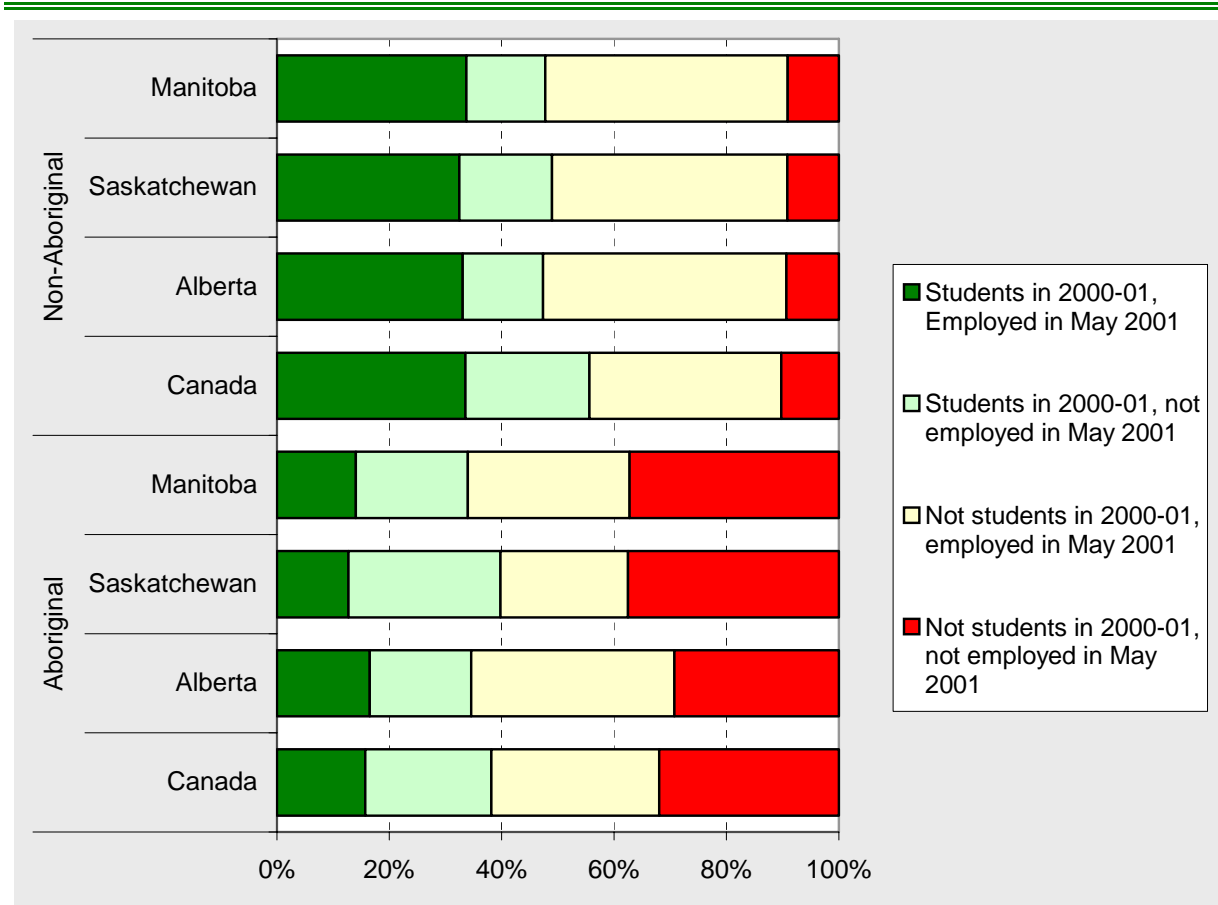
3.3 Aboriginal Education Levels and School Attendance

The census allows a breakdown of the school attendance by Aboriginal identity. These figures from the census relate to the 2000-01 academic year and cover the population 18 to 24 years of age.

Figure 3.11 shows that the prairie provinces have relatively low levels of school attendance in the non-Aboriginal population but relatively high levels among the Aboriginal population. Within the Aboriginal population, Saskatchewan has the highest levels – 40% compared with 35% in Alberta, 34% in Manitoba, and the national average of 38%. These Saskatchewan students were, however, less likely to be employed in May 2001 than were students in Manitoba or Alberta.

Among Aboriginal non-students, a lower proportion in Saskatchewan were employed in May 2001 than in Manitoba or Alberta.

Figure 3.11 Proportion of the Population 18 to 24 Years of Age Attending School in 2000-01 and Employed in May 2001, by Province and Aboriginal Identity



Looking at all age groups, school attendance in the Aboriginal population is higher than in the non-Aboriginal population as would be expected given the age distribution of the population. The differences are, however, quite significant and a positive indication for the future.

Figure 3.12 shows that fully 24% of the adult Aboriginal population (15 and older) was attending school in the 2000-01 school year compared with 14% of the non-Aboriginal population.

The proportion of the Aboriginal population who attended school in 2000-01 was higher in the First Nations population than in the Métis population and higher among women than men. It was also somewhat higher among those living off Reserve than among those living on Reserve as would be expected if the school attendance was at a post-secondary institution.

In the older age group, 25 to 44 years of age, 16% of Aboriginal people are attending school.

These higher levels of school attendance in the Aboriginal population will help raise the average level of completed education over time but completed education levels are still low compared with the non-Aboriginal population in the province.

As of 2001, 73% of the non Aboriginal population 25 to 64 years of age had at least completed grade 12 (see Figure 3.14). This compares with 58% of the Aboriginal population. In the same age group, 52% of the non-Aboriginal population were post-secondary graduates compared with 36% of the Aboriginal population.

The figures also show that the levels of completed education are higher in the Métis population than in the First Nations population and higher among women than among men. Those living off Reserve are also more likely to have higher levels of completed education than those living on Reserve.

Figure 3.12 School Attendance in the 2000-01 School Year, Population 15 and Older, Saskatchewan

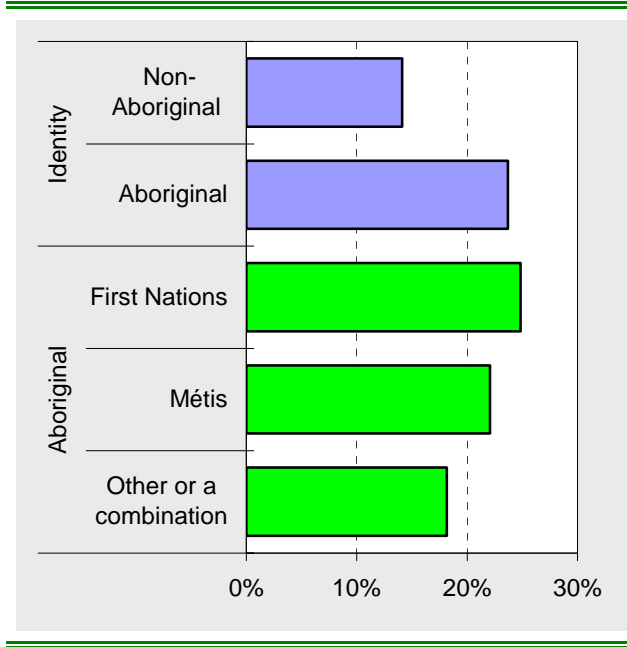


Figure 3.13 School Attendance in the 2000-01 School Year, Aboriginal Population 15 and Older, Saskatchewan

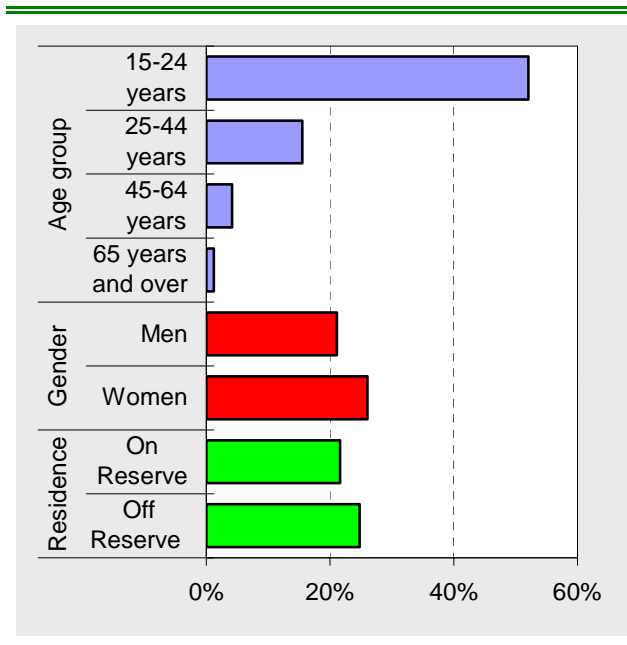


Figure 3.14 Completed Education Levels for the Population 25 to 64 Years of Age, Saskatchewan

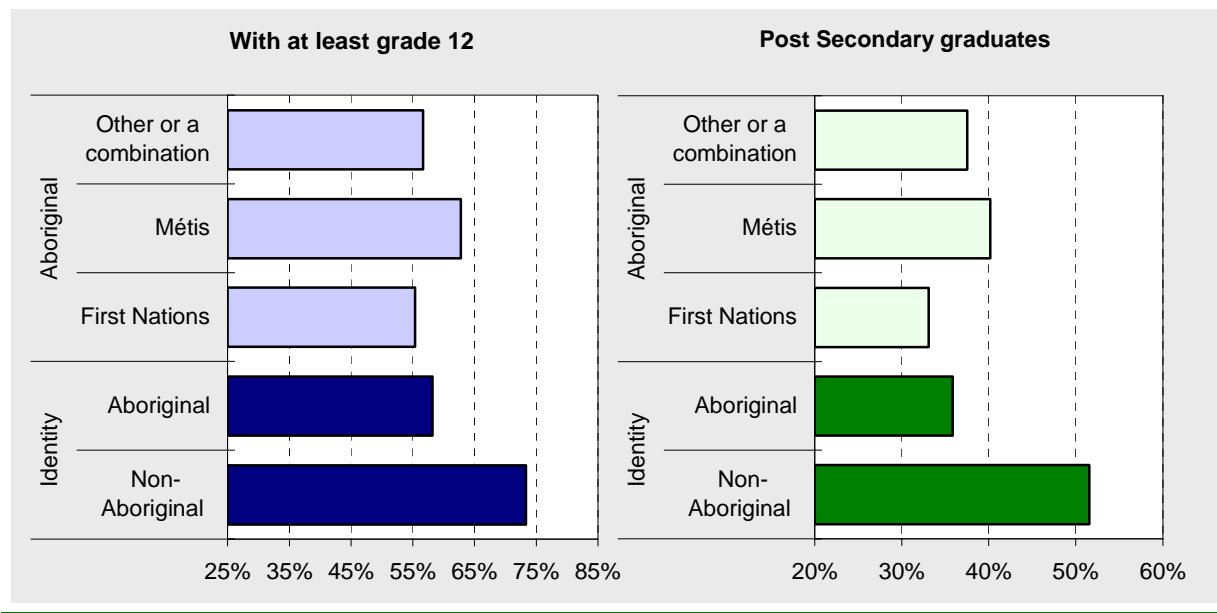
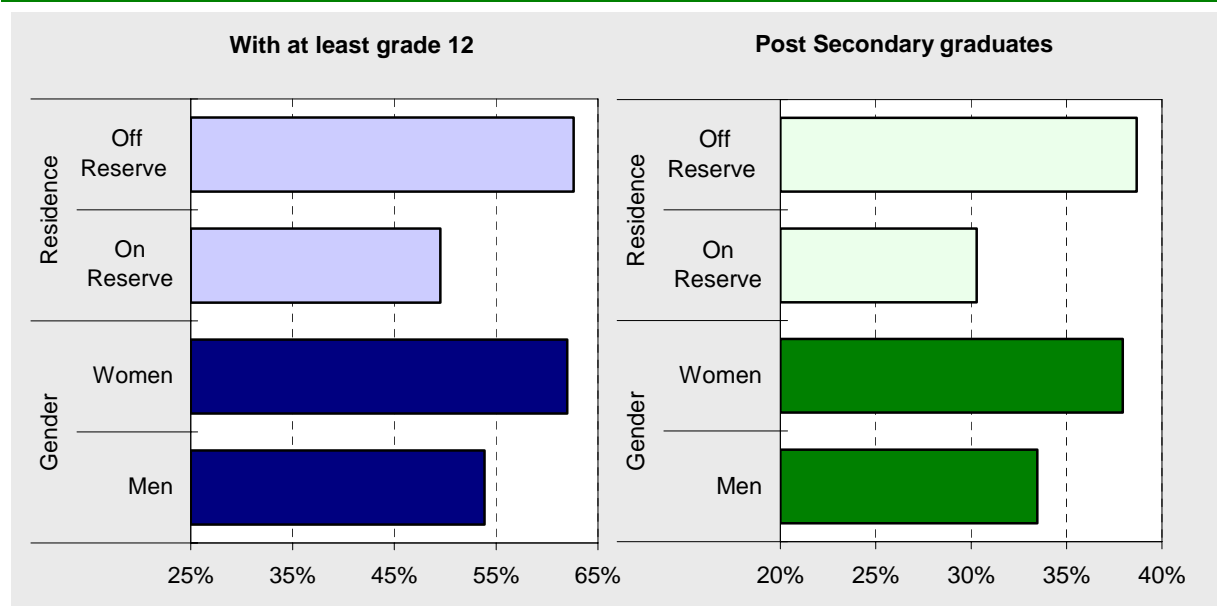


Figure 3.15 Completed Education Levels for the Aboriginal Population 25 to 64 Years of Age, Saskatchewan



3.4 Post-secondary Institutional Training

Statistics Canada tracks the number of graduates from Saskatchewan's post-secondary institutions. Although some of these figures are badly out of date, they are used here to enable an interprovincial comparison of the number of graduates across different post-secondary education systems.

Apprenticeship Completions

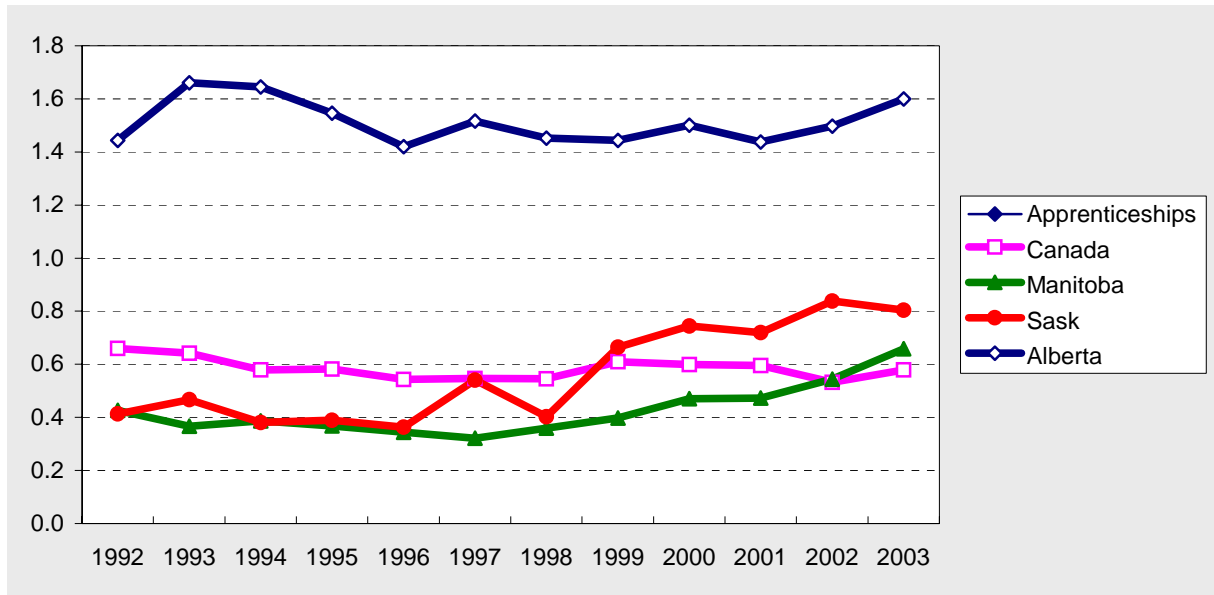
In 2003, the most recent year available, there were 800 apprenticeship completions in Saskatchewan. The number of completions has doubled from the early 1990s at least partly because of the inclusion of new apprenticeable trades. Figure 3.16 shows that on a per capita basis, Saskatchewan graduates more apprentices than the national average. Alberta is a notable exception with over 5,000 apprenticeship completions in 2003, double the number in Saskatchewan on a per capita basis.

Diplomas and Certificates

Data on graduates from technical schools such as SIAST and SIIT covers the period up to 1999 and does not correspond with information from SIAST on the number of graduates¹. These figures include graduates from non-degree programs at universities.

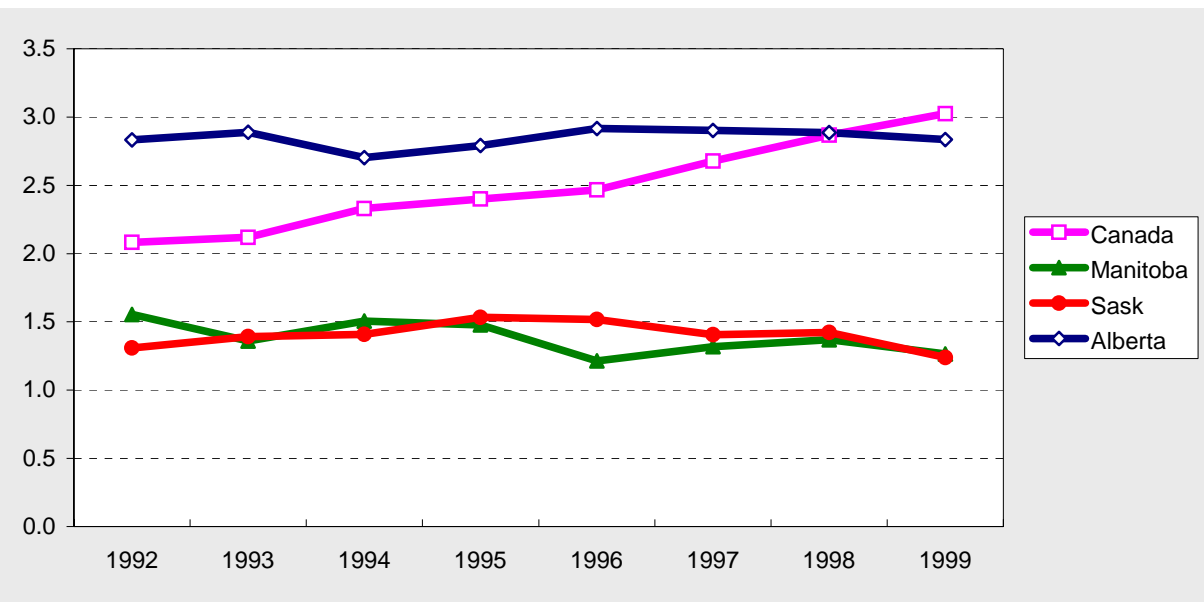
The number of people who graduate with diplomas and certificates is increasing in Canada but there is no evidence up to 1999 that this is occurring in Saskatchewan (see Figure 3.17). As with apprentices, the number of graduates in Alberta is much higher than in Saskatchewan.

Figure 3.16 Apprenticeship Completions per 1000 Population, Selected Provinces



¹ Many of SIAST's certificate programs are "too short" to qualify according to the definition used by Statistics Canada. Only one third to one half of SIAST graduates are recognized by Statistics Canada. A reorganization of Stats Canada's educational tracking program is currently in progress.

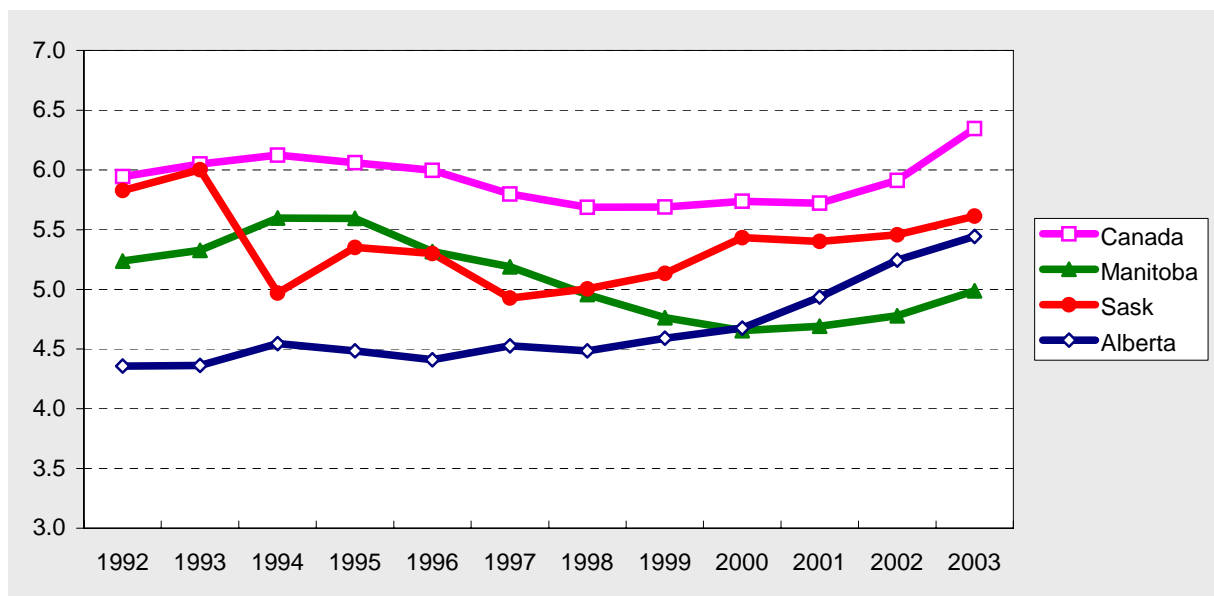
Figure 3.17 Diploma and Certificate Program Graduates per 1000 Population, Selected Provinces



University Degrees

The situation with university graduates in Saskatchewan is different than for non-university post-secondary programs. Adjusted for population, the number of graduates from Saskatchewan universities is near the national average and above the number in Alberta and Manitoba (see Figure 3.18).

Figure 3.18 University Degree (Undergraduate and Graduate) Graduates per 1000 Population, Selected Provinces



3.5 Viewpoints

All of the scenarios arising from the labour shortage described in Section 1 of this report point to the need for increased levels of post-secondary education. Increased labour force participation for the Aboriginal population or other disadvantaged groups, increased productivity to enable fewer workers to do more, or a shift to a more capital intensive or knowledge-based economy would all require higher levels of completed education.

- The low level of completed education among Saskatchewan residents and employees is not because post-secondary institutions are producing too few graduates. Although there are data quality problems, there does seem to be a mismatch between the post-secondary education system and the labour market requirements. The province is generating an average number of university graduates but they are not remaining in the province to work.

This is the fundamental question about education and the labour market. Is the role of the post-secondary education system in general and the universities in particular education as citizens or as a stepping stone to the labour market. At one extreme, some observers have suggested that we are producing too many degree graduates and not enough people with diplomas and certificates – while collar workers for a blue collar economy. At the other extreme, there are those that argue Saskatchewan students should be free to study what they wish and if we restrict their choices, they will simply move elsewhere for that education.

- The educational attainment statistics for the Aboriginal population while low, are increasing at an encouraging rate and a significant number of Aboriginal people are going to school although too many, particularly young men living on Reserve, are not.
- Educational participation among the province's young people has been on an upward trend for decades so the recent downturn is probably temporary. Still, it points out one of the challenges facing the province when the baby boomers begin to retire. There will be an increasing demand from the labour market and many young people will be tempted to drop out of high school or not pursue a post-secondary education in favour of an immediate paycheque.

SECTION 4 MIGRATION AND LABOUR MOBILITY

The demographic and economic characteristics of Saskatchewan residents are obviously affected by the number of people entering and leaving the province. The relative size of this population flow tends to be small in absolute terms, typically 0.5% of the population per year on a net basis, but it is one of the most visible. This is partly because the issue is political and partly because migration tends to be higher among young people who have higher levels of education – the so-called “best and brightest”.

In this section we examine interprovincial migration patterns by age, education, and labour force activity. Interpretation of the data is complex because we are dealing with a “flow” rather than a “stock” variable. Measuring a flow is complicated by the fact that the three key characteristics – age, education, and labour force activity – can and often do change during the course of the migration.

There is a relative scarcity of key information data in this area. The Statistics Canada census is the major source of information but the interpretation of the information is problematic because the census measures only the characteristics of interprovincial migrants at their destination and doesn't have any information at all about people who move to other countries. Census data covers the period from 1996 to 2001 when interprovincial out-migration was relatively stable and interprovincial in-migration was declining.

The characteristics of interprovincial in-migrants to Saskatchewan are not dissimilar to the characteristics of out-migrants although there are fewer of them. Section 4.1 deals with interprovincial in-migrants to the province and the corresponding outward flows. The two flows are combined to yield a net flow in Section 4.2. International immigrants to Saskatchewan are examined in Section 4.3.

The section ends with some observations on interprovincial migration in the province.

4.1 Interprovincial In and Out Migration

As of May 2001, 42,605 Saskatchewan residents were interprovincial in-migrants in the sense that they had been living in another province in 1996. The vast majority of these would have made a single move to Saskatchewan during those five years. There are, however, other complex combinations of migration patterns which could have led to people living in Saskatchewan in 2001 but not in 1996. Almost four out of ten (39%) of these in-migrants were born in Saskatchewan so there is clearly some aspect of “returning home” among these migrants.

For the labour market, we are primarily interested in the population in the labour force age group (taken as 15 to 64) and in their education and labour force status. To reiterate, we are measuring the educational attainment and labour force status in Saskatchewan at the end of the five-year period. A Saskatchewan in-migrant who had a university degree in 2001, for example, may not have had a degree in 1996. This is particularly true because many interprovincial migrants are in younger age groups and are thought to have moved to attend a Saskatchewan post-secondary institution. And because so much of interprovincial migration is thought to be related to the labour market, the employment status at the end of the five-year period may very well differ from the status at the beginning.

Interprovincial migrants to the province have high levels of completed education (see Figure 4.2). Among those who moved to the province from 1996 to 2001, for example, 51% had a post-secondary degree, diploma, or certificate in 2001 compared with 42% for the resident population in 2001. The prevalence of a university degree, in particular, is much higher among in-migrants than it is among residents. The same is not true for those with a trade certificate or diploma; in-migrants were less likely to have a trade certificate than the resident population.

Figure 4.1 Interprovincial In Migration by Age Group

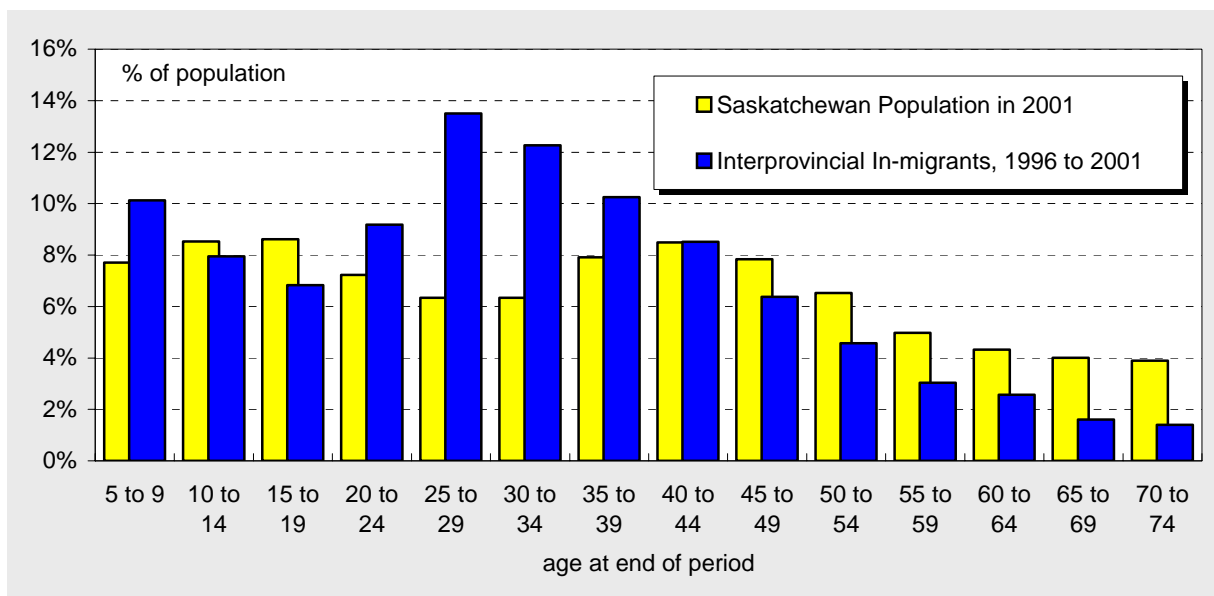
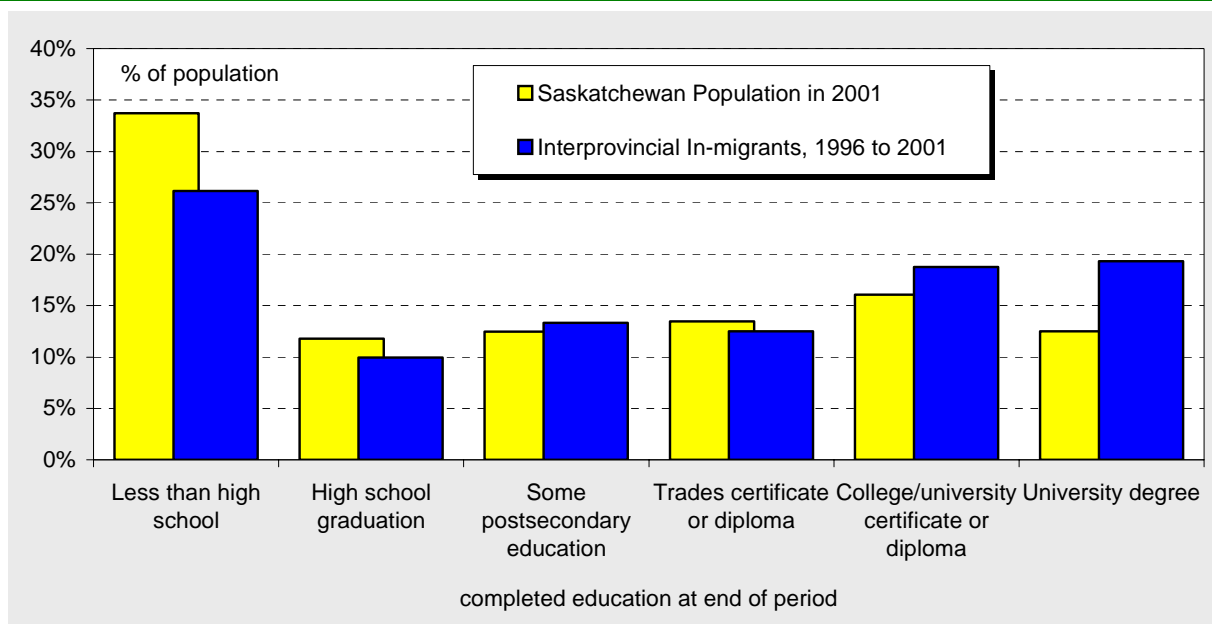


Figure 4.2 Interprovincial In Migration by Level of Completed Education, 15 to 64 Years



The labour market activity of in-migrants in May 2001 is compared with the resident population in Figure 4.3. Here we see little difference and in fact interprovincial in-migrants were somewhat less likely to be employed than the resident population – 70% compared with 74%. Given their age and higher levels of completed education, one would have expected that in-migrants would be more rather than less likely than the resident population to be employed.

Interprovincial Out-Migration

The mirror image of interprovincial in-migrant flow is the flow in the opposite direction, that is, persons living elsewhere in Canada in 2001 who were living in Saskatchewan in 1996. As with in-migrants, caution needs to be exercised in ascribing the characteristics of the out-migrants in 2001 to their characteristics in 1996. And as with in-migrants, not all of these out-migrants are long-time Saskatchewan residents; 18% of out-migrants from 1996 to 2001 were born in the province to which they were migrating.

Women out-migrants slightly outnumber their male counterparts in the 1996 to 2001 period.

Figure 4.3 Interprovincial In Migration by Labour Force Status in 2001, 15 to 64 Years

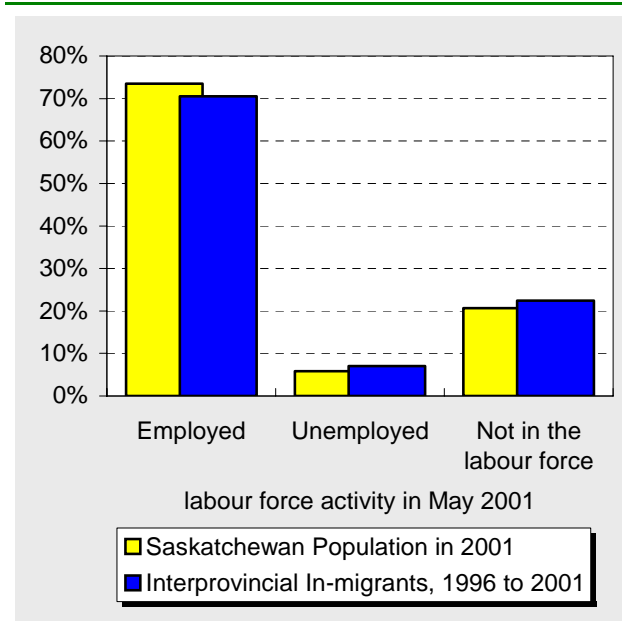
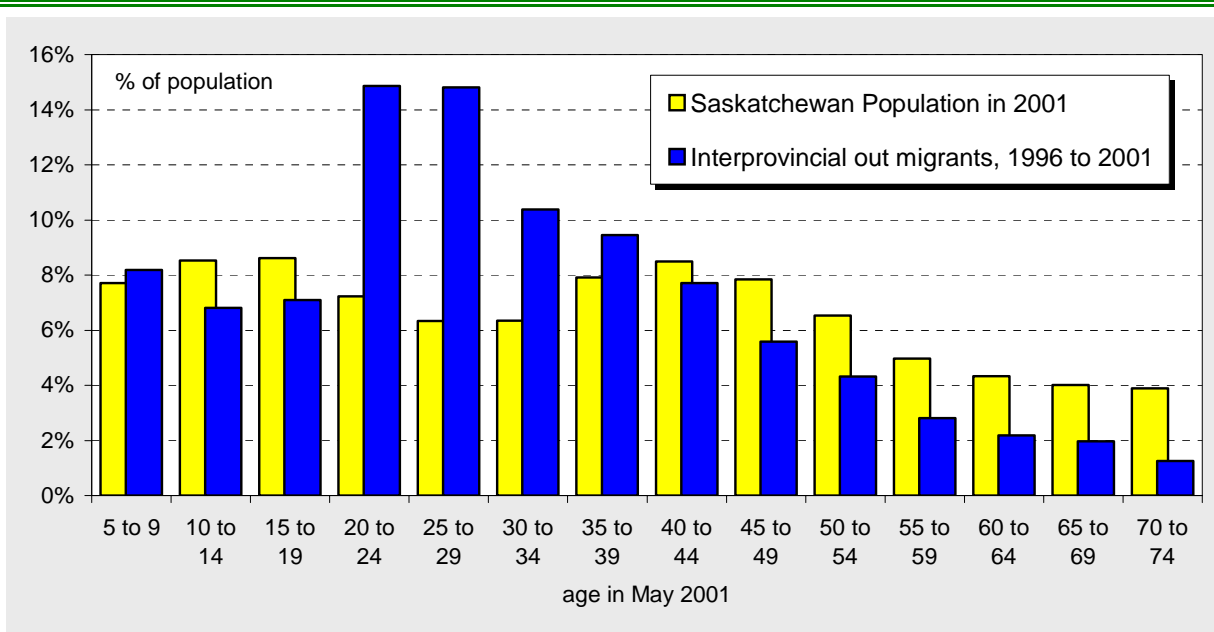


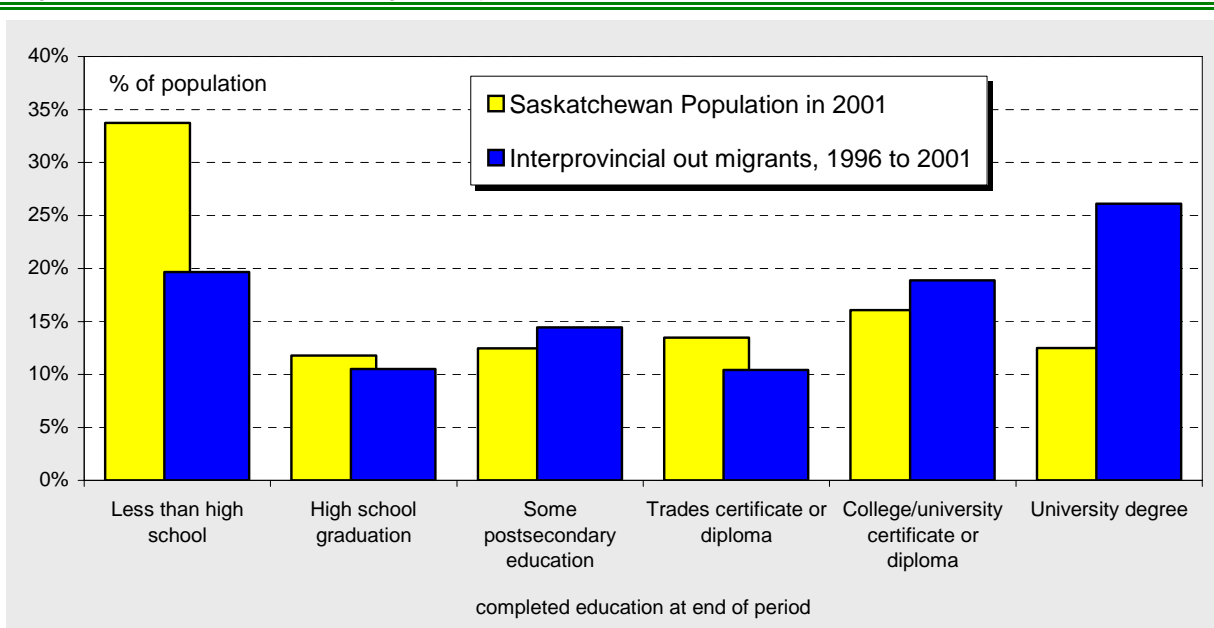
Figure 4.4 Interprovincial Out Migration by Age Group



For labour market analysis, we are primarily interested in the population in the labour force age group (taken as 15 to 64) and in their education and labour force status. Once again, we are measuring the educational attainment and labour force status of persons who were living in Saskatchewan in 1996 and were living in other provinces in 2001.

Interprovincial out-migrants clearly have higher levels of completed education than non-migrants (see Figure 4.5). Among those who moved to another province from 1996 to 2001, for example, 55% had a post-secondary degree, diploma, or certificate in 2001 compared with

Figure 4.5 Interprovincial Out Migration by Level of Completed Education, 15 to 64 Years



42% of the provincial population in 2001. The prevalence of a university degree, in particular, is much higher among out-migrants than it is among residents. The same is not true for those with a trade certificate; out-migrants are less likely to have a trade certificate than the resident population.

Compared with the resident population in Saskatchewan, a higher proportion of those who leave the province are employed – 77% compared with 74%. The labour market situation is not as straight forward as that, however, because these interprovincial migrants are in a different labour market after they migrate. Figure 4.7 shows the employment rate (the percentage of the population 15 to 64 years of age who were employed in May 2001) for migrants from Saskatchewan compared with the employment rates in the destination province among non-migrants.

In most cases, Saskatchewan interprovincial out-migrants are more likely to be employed in the destination province than those who lived there from 1996 to 2001. British Columbia is an exception where Saskatchewan out-migrants are somewhat less likely to be employed (70% compared with 71%) than those who were living in British Columbia in both 1996 and 2001.

Figure 4.6 Interprovincial Out Migration by Labour Force Status in 2001, 15 to 64 Years

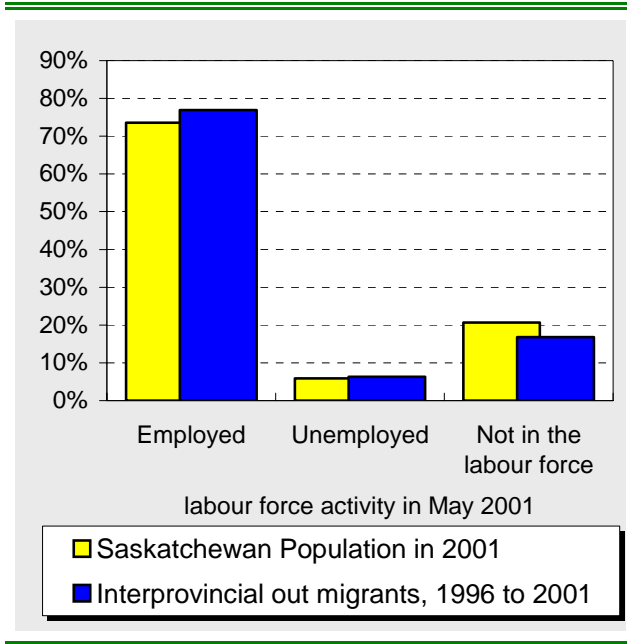
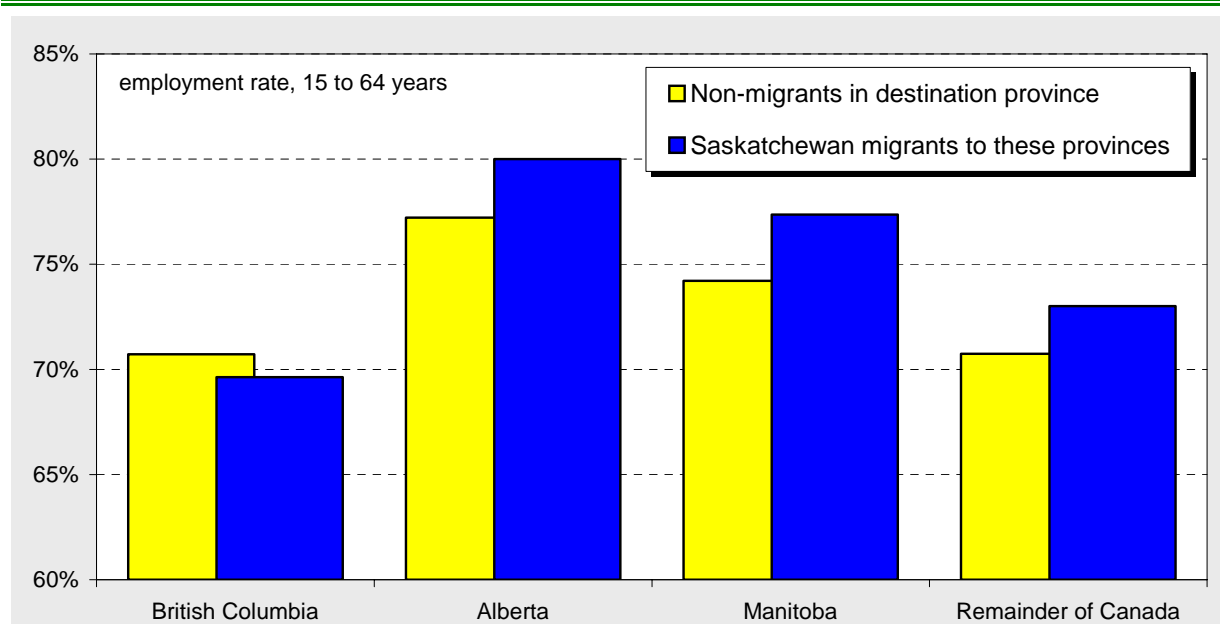


Figure 4.7 Employment Rate of Interprovincial Out Migrants from Saskatchewan



4.2 Net Interprovincial Migration

The inward and outward flows arising from interprovincial migration are combined in this section to yield figures for net interprovincial migration, namely interprovincial in-migration less interprovincial out-migration.

In many ways, the net flow is more important than either the flow of in-migrants or the flow of out-migrants. The province's demographic and labour market characteristics are determined by the difference between those who move to the province and those who leave more than by the magnitude of the flows in either direction.

As with in and out migration, caution needs to be exercised in ascribing the characteristics of the migrants in 2001 to their situation five years earlier.

Between 1996 and 2001, the province lost 24,930 people because of interprovincial migration, a higher number than the 19,780 loss in the previous five year period. Expressed as a percentage of the population at the start of the period to yield a net interprovincial migration rate, the highest rate of net outflow was among those 20 to 29 years of age (see Figure 4.8). Over the course of the five years, for example, Saskatchewan lost almost one tenth of those 20 to 24 years of age as a consequence of interprovincial migration.

Saskatchewan's population has a lower level of completed education than many other provinces in Canada and interprovincial migration appears to be one of the reasons. Figure 4.9 shows a higher rate of net migration from the province among those with a university degree. Whereas the equivalent of 3% of the 1996 population in the 15 to 64 age group left the province from 1996 to 2001 on a net basis, the percentage rises to 11% among those with a university degree and 4% among those with a certificate or diploma. The rate of net out migration is, however, lower than 3% for those with a trade certificate although the percentage increased compared with the earlier five-year period. At the other end of the scale, net outflow

Figure 4.8 Net Interprovincial Migration by Age Group

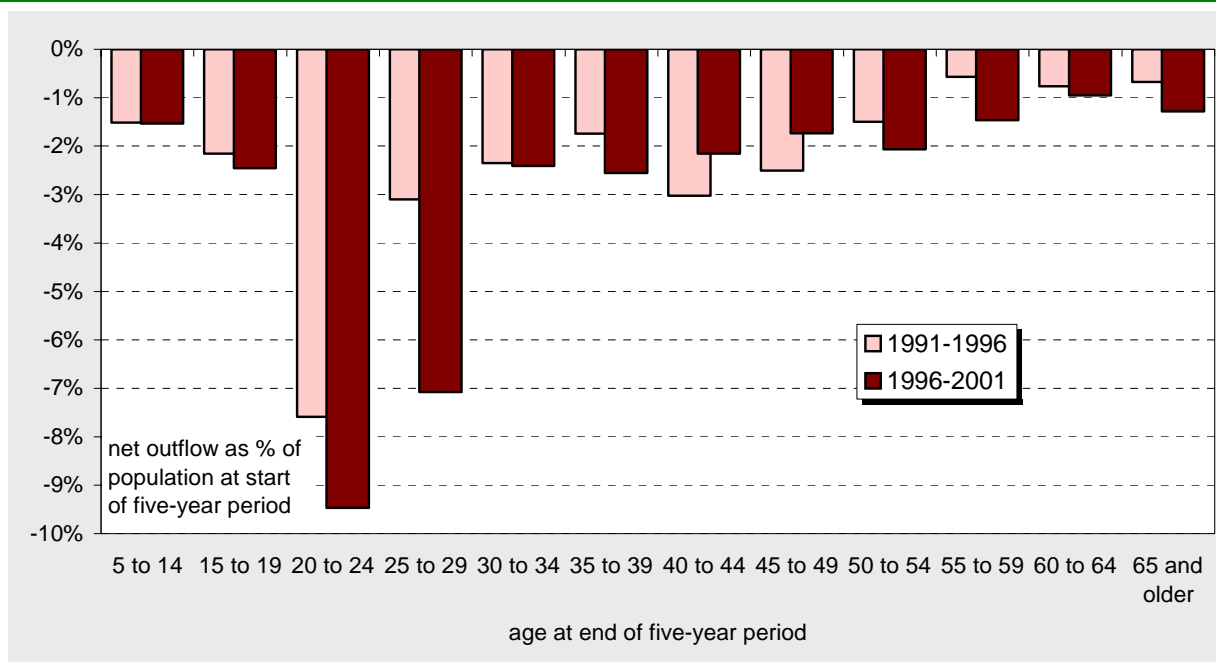
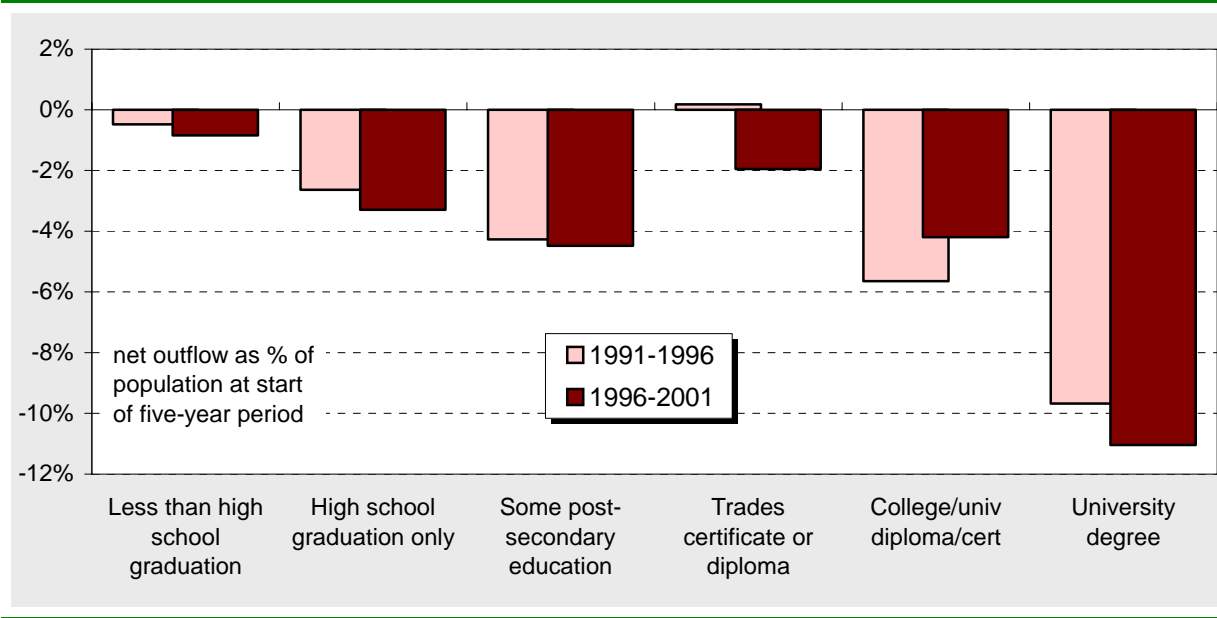


Figure 4.9 Net Interprovincial Migration by Level of Completed Education at End of Period, 15 to 64 Years



of those with less than high school was 1%.

The labour force numbers show a different picture. On a net basis, net migration is highest among those who were employed at the end of the five-year period and lowest among those who were out of the labour force. This will be indicative of the fact that interprovincial migration is often the result of a person moving to a new position so they are likely to be employed in the destination province.

The figures also confirm, however, that a relatively high proportion of the net migrants are unemployed at the end of the five-year period. In 2001, for example, 5.2% of the provincial population in the 15 to 64 age group was unemployed. On a net basis, 5.0% of those who migrated from 1996 to 2001 were unemployed in 2001.

The obvious question that arises is “Who are these (net) interprovincial migrants?” and we turn to an age breakdown in Figure 4.11 to examine these flows in more detail.

Figure 4.10 Net Interprovincial Migration by Labour Force Status at End of Period

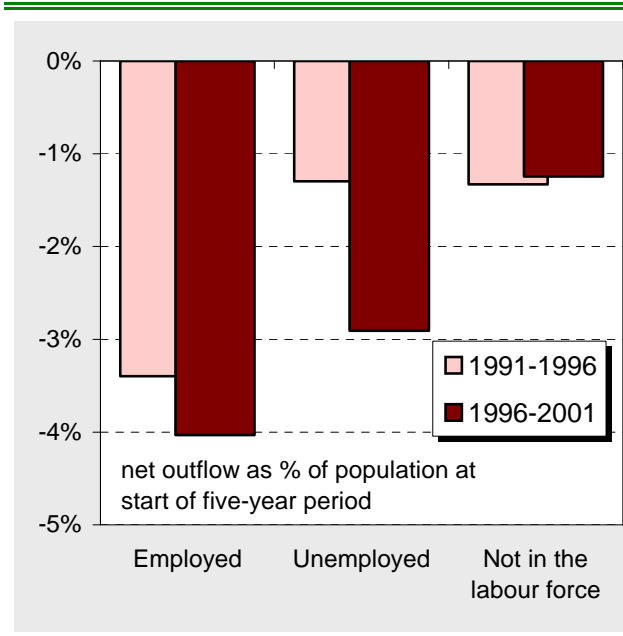


Figure 4.11 Net Migration Rates by Age Group, Education Level and Employment Status in 2001

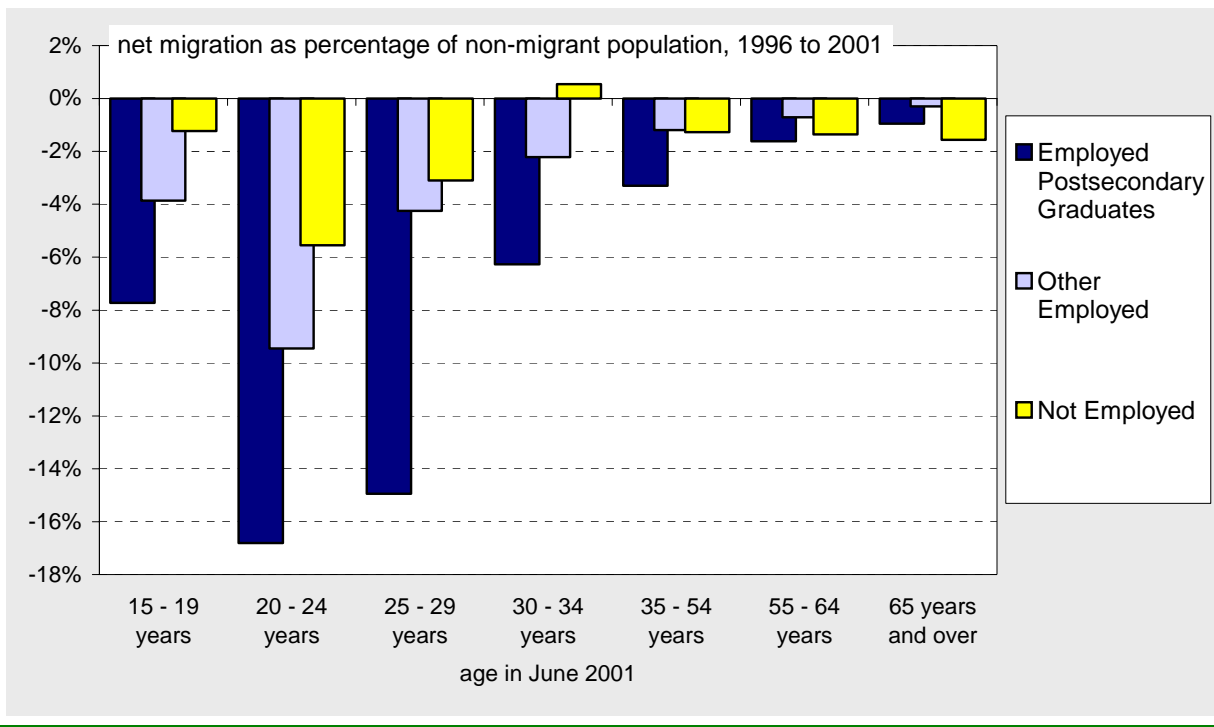
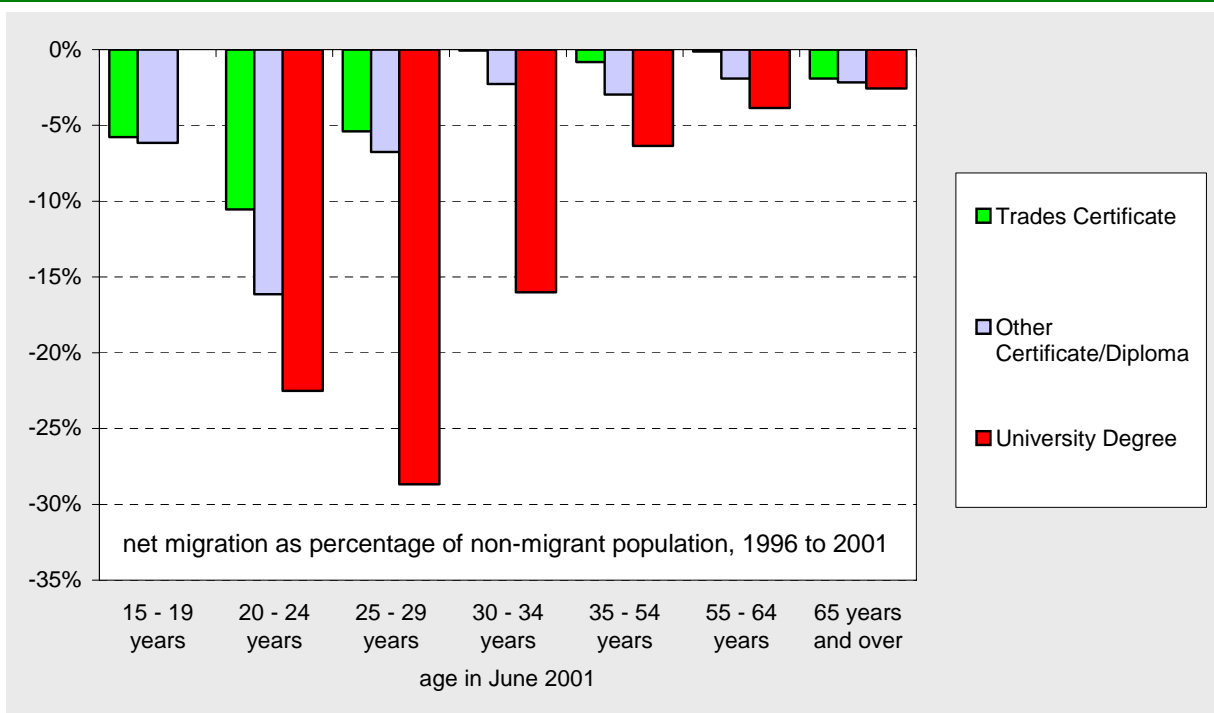


Figure 4.12 Net Migration Rates by Age Group and Type of Education, Post-Secondary Graduates in 2001



The interpretation of these data is complex but some general observations can be made. Firstly, the single group with the largest net outflow from the province are those who, in 2001, were 25 to 34 years of age, had a university degree, and were employed in the destination province. There was a net loss of 3,545 such persons. The second largest group was 35 to 54 years of age and employed in 2001 but had at most a grade 12 education. There was a net loss of 3,240 such persons.

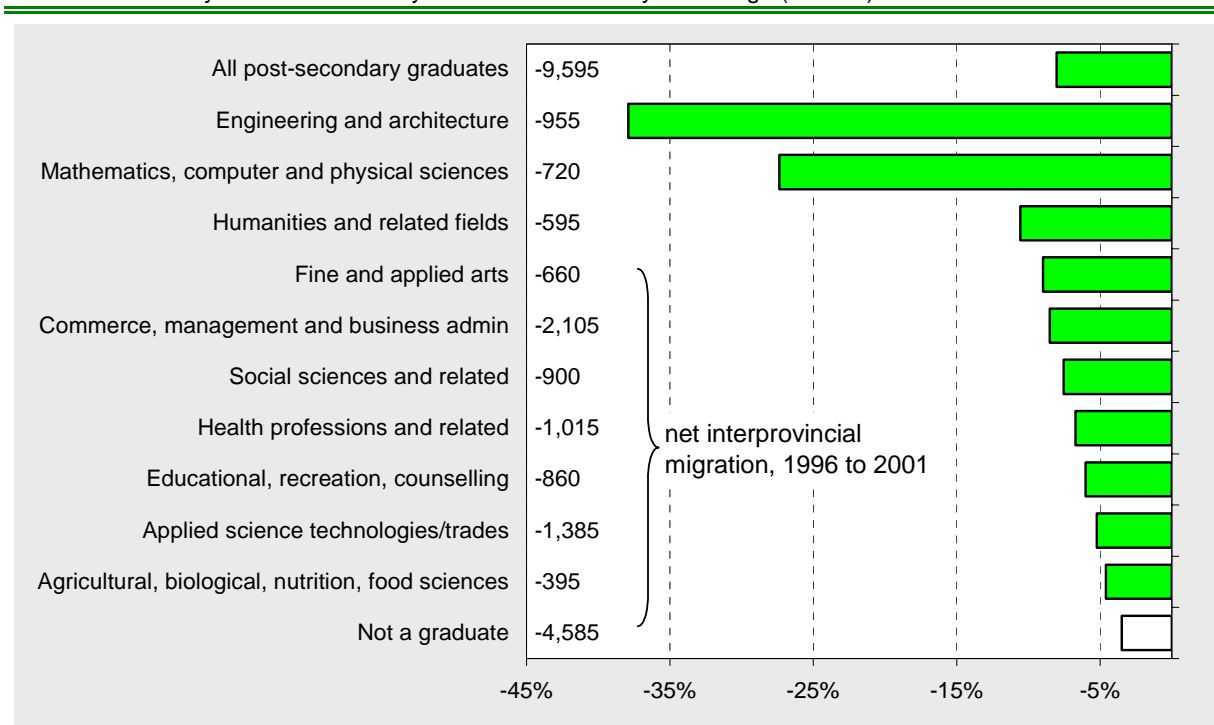
Secondly, there are relatively few groups that show a positive net migration over the five years. The largest of these are 25 to 34 years of age, with no post-secondary education and not employed. There was a net gain of 125 such persons to the province between 1996 and 2001. The second largest group are those 35 to 54 years of age with a trades certificate and not employed; there was a net gain of 100 such persons to the province over the five years.

The net migration flows are expressed as a rate in Figure 4.12. The rate is calculated by dividing the net flow by the number of non-migrants over the five-year period, that is, the number of persons who were living in Saskatchewan in both 1996 and 2001.

The rates confirm that the largest outflows are among younger well-educated people, particularly those with a university degree. The extreme example is for persons who, in 2001, were 25 to 29 years of age and had a university degree. The net migration rate is -29% which is calculated as follows. In 2001, there were 8,660 such persons in Saskatchewan who were residents of the province in 1996. Over the course of the previous five years, 1,445 such people moved to Saskatchewan and 3,930 left to yield a net migration flow of -2,485 or 29% of the 2001 population of 8,660.

With the level of out-migration being so high among post-secondary graduates, it would be constructive from the point of view of the labour market supply to examine the field of study for

Figure 4.13 Net Interprovincial Migration (1996 to 2001) as Percentage of Resident Population in 2001, by Field of Study for Post-secondary Graduates 20 to 39 years of age (in 2001)



these migrants. To that end, Figure 4.13 shows the field of study for interprovincial in-migrants and out-migrants for young people (20 to 39) during the 1996 to 2001 period.

There are also dramatic differences by field of study. In absolute terms, the largest net out-migration occurs among those with a post-secondary degree, diploma, or certificate in commerce, management, and/or business administration. In percentage terms, however, the higher outflow rates occur among those with an education in the “hard sciences” – engineering, mathematics, computer science, for example – and among those in humanities or fine arts. There are lower levels of out-migration among graduates who have specialized in agriculture, biology, and the food sciences, education, and the trades.

4.3 International In-Migration

The flow of people into the province from other provinces is only one source of new labour market participants. There are also the residents of the province who have moved here from other countries.

Ideally, we would also examine those who have left for other countries but because the census examines only Canadian residents, there is no information about international emigration from that source and precious little from other sources. The numbers are known to be small, however, so we risk little in ignoring those who leave the province for other countries. From 1996 to 2001, for example, an annual average of 800 people in the labour market age group emigrated from Saskatchewan. This compares with interprovincial out-migration of over 10,000 per year.

Note that these data do not refer to immigrants who came to Saskatchewan during the five years but to those who came to Canada from 1996 to 2001 and who were living in Saskatchewan in 2001. That is, the figures will include those who originally immigrated to Saskatchewan and remained here together with those who originally immigrated to another province and then moved to Saskatchewan; they will exclude those who originally immigrated to Saskatchewan and then moved to another province.

International immigrants, like their interprovincial counterparts, tend to be young and well educated. Figure 4.14 shows that almost one half (49%) are in the 25 to 44 age group compared with 29% of the general population. Figure 4.15 shows that immigrants are much more likely to be university graduates (36% compared with 12%) although they are less likely to have a post-secondary certificate or diploma (22% compared with 30%). Given that they have immigrated to Canada in the 1996 to 2001 period, it will normally be the case that their post-secondary education was obtained outside Canada.

Figure 4.14 Age Distribution of International In-Migrants 1996 to 2001 Compared with Resident Population in 2001

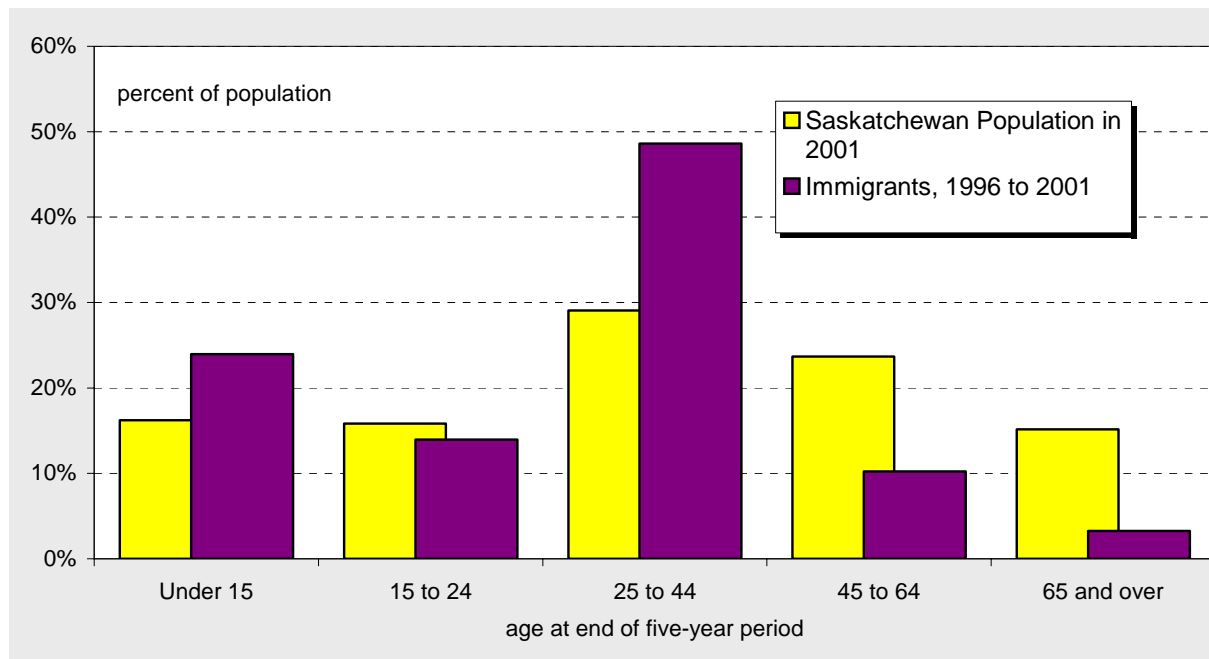


Figure 4.15 Completed Education of International In-Migrants 1996 to 2001 Compared with Resident Population in 2001

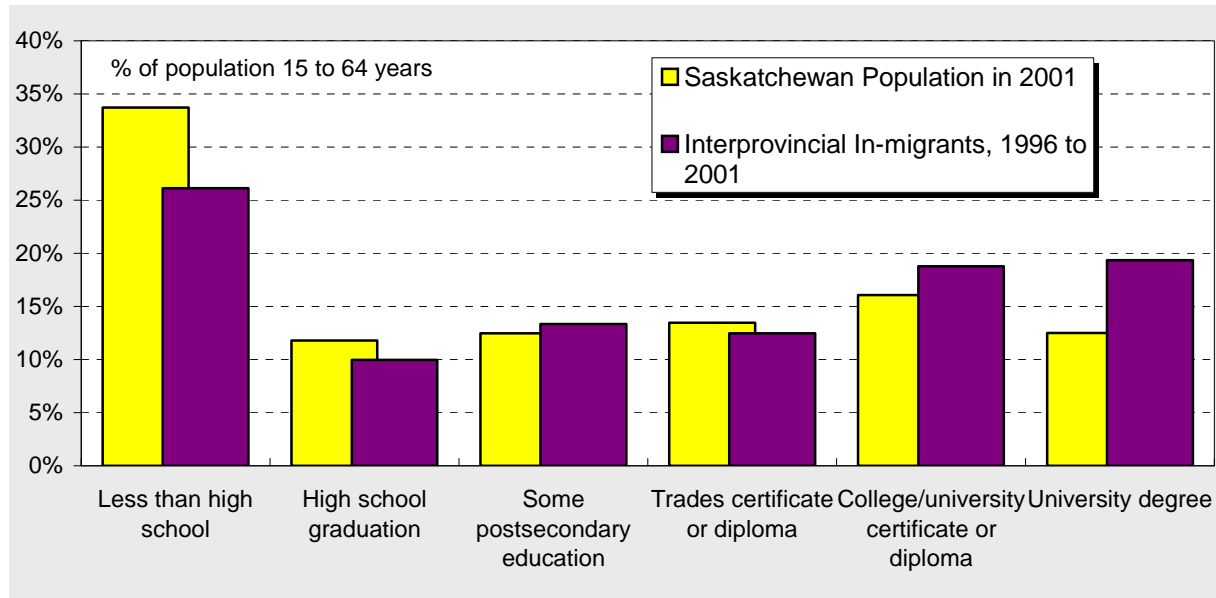
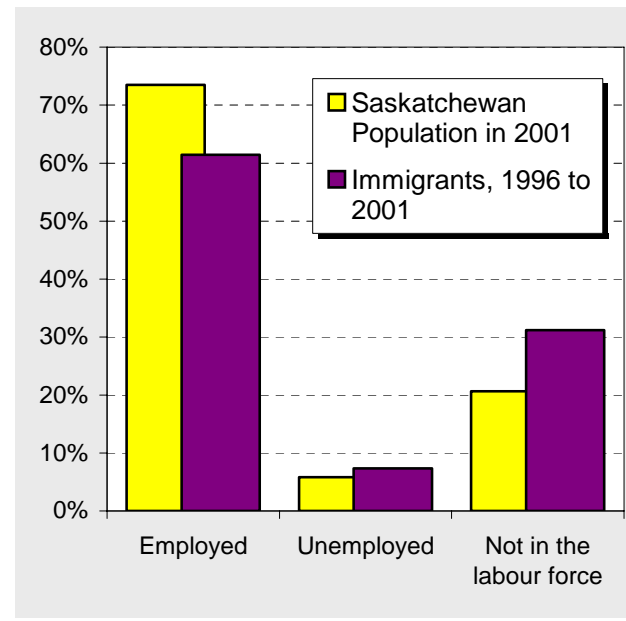


Figure 4.16 shows that, like interprovincial in-migrants, international immigrants are less likely to be employed than the resident population. In particular, 61% of the population 15 to 64 years of age was employed in May 2001 compared with 74% of the resident population.

Figure 4.16 Labour Force Status in 2001 for International In-Migrants 1996 to 2001 Compared with Resident Population



4.4 Viewpoints

The demographic and educational attainment characteristics of interprovincial migrants are quite different from the characteristics of Saskatchewan residents but there are relatively few differences between those who move to the province and those who leave.

- In 2001, 28% of the provincial population was 20 to 39 years of age whereas from 1996 to 2001,
 - 45% of interprovincial in-migrants and
 - 49% of out-migrants were in this age group (at the end of the five-year period).
- In 2001, 42% of the provincial population in the 15 to 64 age group had a post-secondary certificate, diploma, or degree whereas from 1996 to 2001,
 - 51% of interprovincial in-migrants and
 - 55% of out-migrants were post-secondary graduates (at the end of the five-year period).

In other words, the loss of young well-educated people from the province is a simple consequence of the interprovincial migration, not the fact that those who leave are young and well educated. Changing the overall flows not only changes the size of the population but changes the age and education levels as well.

Interprovincial migration clearly results in a net loss of young post-secondary graduates. From 1996 to 2001, the province lost the equivalent of 13,000 post-secondary graduates in the labour market age group. Only 12% of this loss, however, arises from the difference in education levels between in-migrants and out-migrants – the remaining 88% is a simple consequence of the fact that the province lost more than 20,000 people between 1996 and 2001 and that many were well educated. In other words, the loss of young graduates from the province is a consequence of out-migration, not the result of any inherent inclination for Saskatchewan graduates to leave.

Other findings from this section are summarized below in point form.

- Interprovincial migrants, both in-migrants and out-migrants, have a similar employment rate to the resident population. In 2001, 74% of the provincial population in the 15 to 64 age group were employed whereas from 1996 to 2001, 70% of interprovincial in-migrants and 77% of out-migrants were employed (at the end of the five-year period).
- Among post-secondary graduates, those with a university degree are more mobile than those with a diploma or certificate. In particular, those with an education in the “hard sciences” such as engineering and computer science are the most likely to leave the province than those with other kinds of university education.
- Measured on a net basis, the largest single group of people who left Saskatchewan were, in 2001, 25 to 34 years of age, had a university degree, and were employed in the destination province.
- International migrants to the province, like interprovincial migrants, tend to be young and well educated. Unlike interprovincial migrants, they are less likely than non-migrants to be employed.