



Tracking economic, social, and demographic trends from a Saskatchewan perspective.

## Competitive Advantage Analysis North Central Saskatchewan

Presentation to

# The North: Unleashed

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## Outline

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- In 2007, the former Department of Rural Economic and Cooperative Development, now the Ministry of Enterprise and Innovation, contracted with Sask Trends Monitor to:
  - Develop social and demographic profiles of ten regions in Saskatchewan; and
  - Do a competitive advantage analysis for these regions.
- The results of this analysis were first presented in Prince Albert in March 2007.
- The presentation today is a short form of the second part of that analysis – the Competitive Advantage Analysis (CAA)
- The main purpose of the presentation is to generate an informed debate about what Prince Albert's regional economy looks like and how it has changed.

## What is a Competitive Advantage Analysis?

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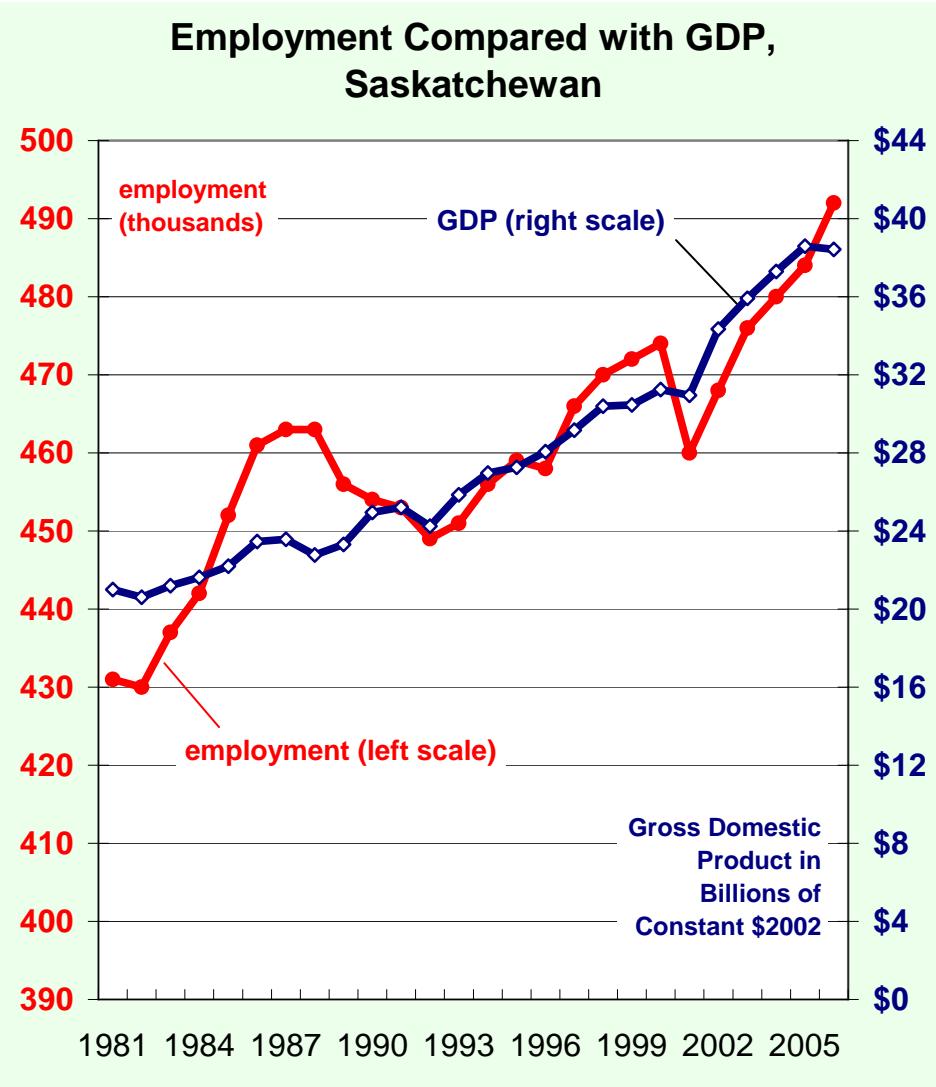
- The methodology used in the Competitive Advantage Analysis (CAA) was developed by economist Dr. Emanuel Carvalho from the University of Waterloo. It is based on work done for the Ontario Ministry of Municipal Affairs.
- A competitive advantage analysis is not a forecast of future opportunities. It is, instead, an examination of past trends with a view to identifying industry sectors that have under-performed or over-performed relative to other industries and other regions. While this may help inform future growth, it is not a blueprint for it.
- Unfortunately the information is based on 2001 census data because the necessary detail from the 2006 census won't be released for another six months.
- Post 2001 information will be used to update the analysis although it is for a different geographic region.

# Competitive Advantage Analysis: Analytical Framework

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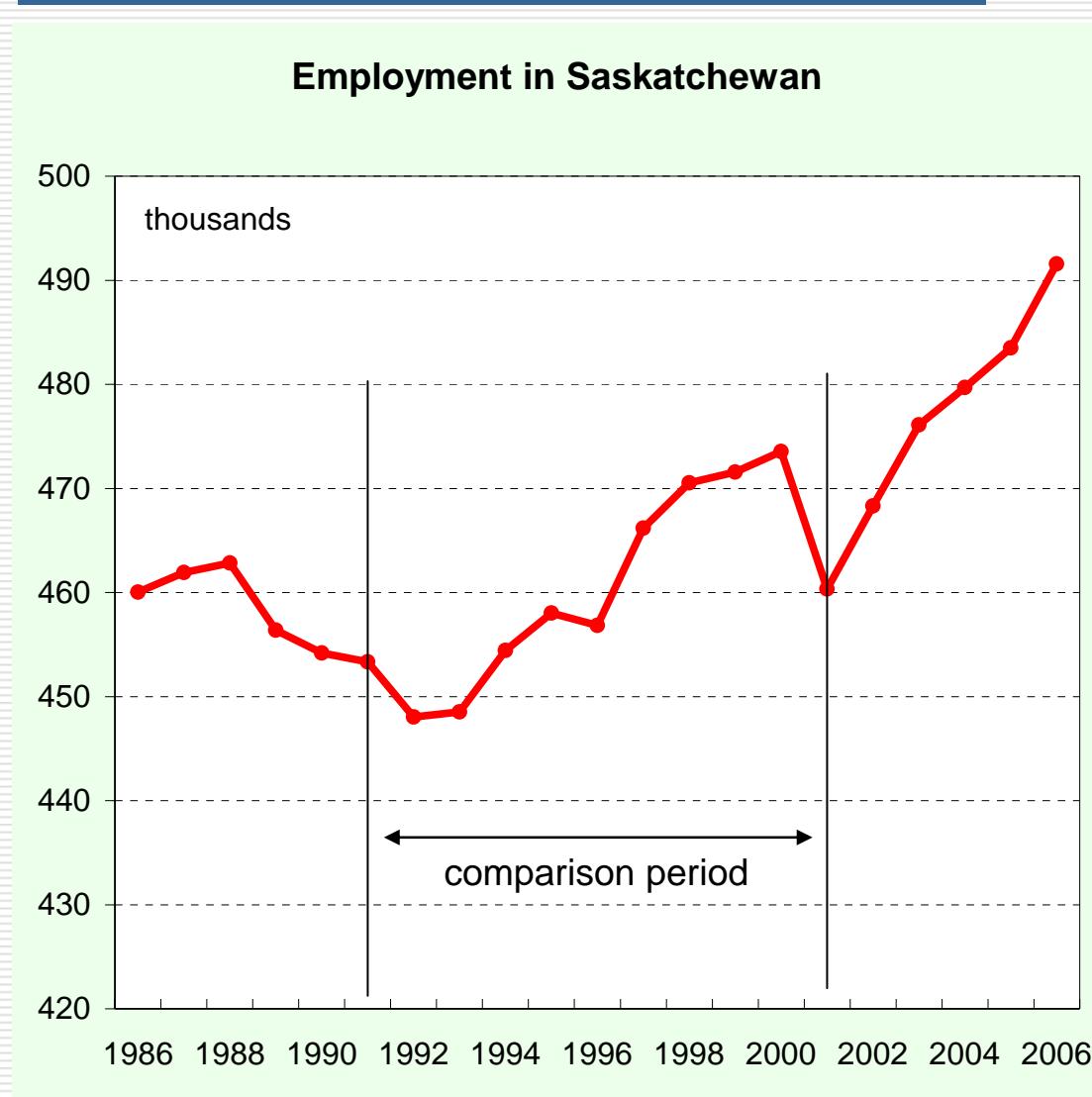
- A CAA compares a region's economic performance by industry group over a period of time compared with those same industries in another economy over the same period. So there are five choices to make before embarking on the analysis. The kind of data available limits the possible choices.
- Choosing the Economic Measure: By necessity, employment was used as the economic measure.
- Choosing the Time Frame: A longer (1991 to 2001) period was chosen over the shorter (1996 to 2001) option.
- Choosing the Comparison Economy: The provincial economy was used as the reference point.
- Choosing the Industry Groups: We went with the most detailed possible industry breakdown which translates into thirteen industry groupings.
- Choosing the Region: The region was customized to non-standard boundaries, meaning that the only source of economic data that could be used for the analysis was the census.

# Choosing the Economic Measure



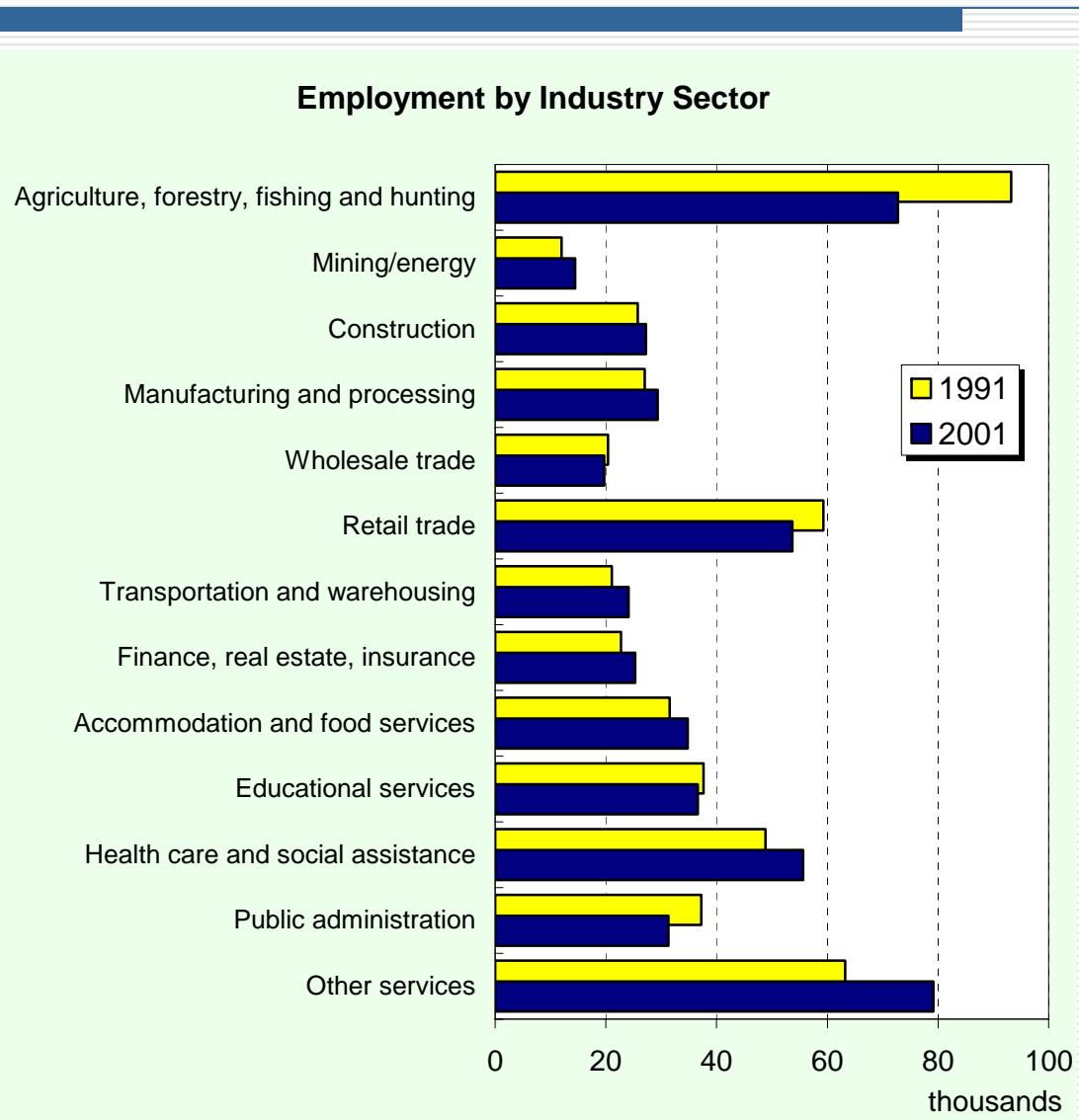
- The choice of employment as the economic measure was necessary because there is no reliable subprovincial data about other economic measures such as gross domestic product.
- Employment has the advantage of being easy to understand – a job is a readily identifiable measure of economic success for an individual if not an economy.
- Relatively detailed data from Statistics Canada's decennial census provides employment by industry group at the sub-provincial level.
- Changes in productivity can affect employment; a firm or industry may be more successful by every other measure except employment.
- Changes in hours of work, multiple job holdings, and commuting can cause problems in the employment data.

## Choosing the Time Frame



- By using the 1991 and 2001 census, we are measuring what happened to employment in the province during the 1990s.
- The was a period that started with a recession and government restraint and ended with Y2K and the "dot.com" bust.
- Saskatchewan's economy over this period was influenced by technology and the Internet, globalization and trade liberalization trends. Consumer confidence was generally high. After booming early in the period, business investment declined.
- Commodity prices, including crude oil, did not start to increase until after 2001.

# Choosing the Industry Groups



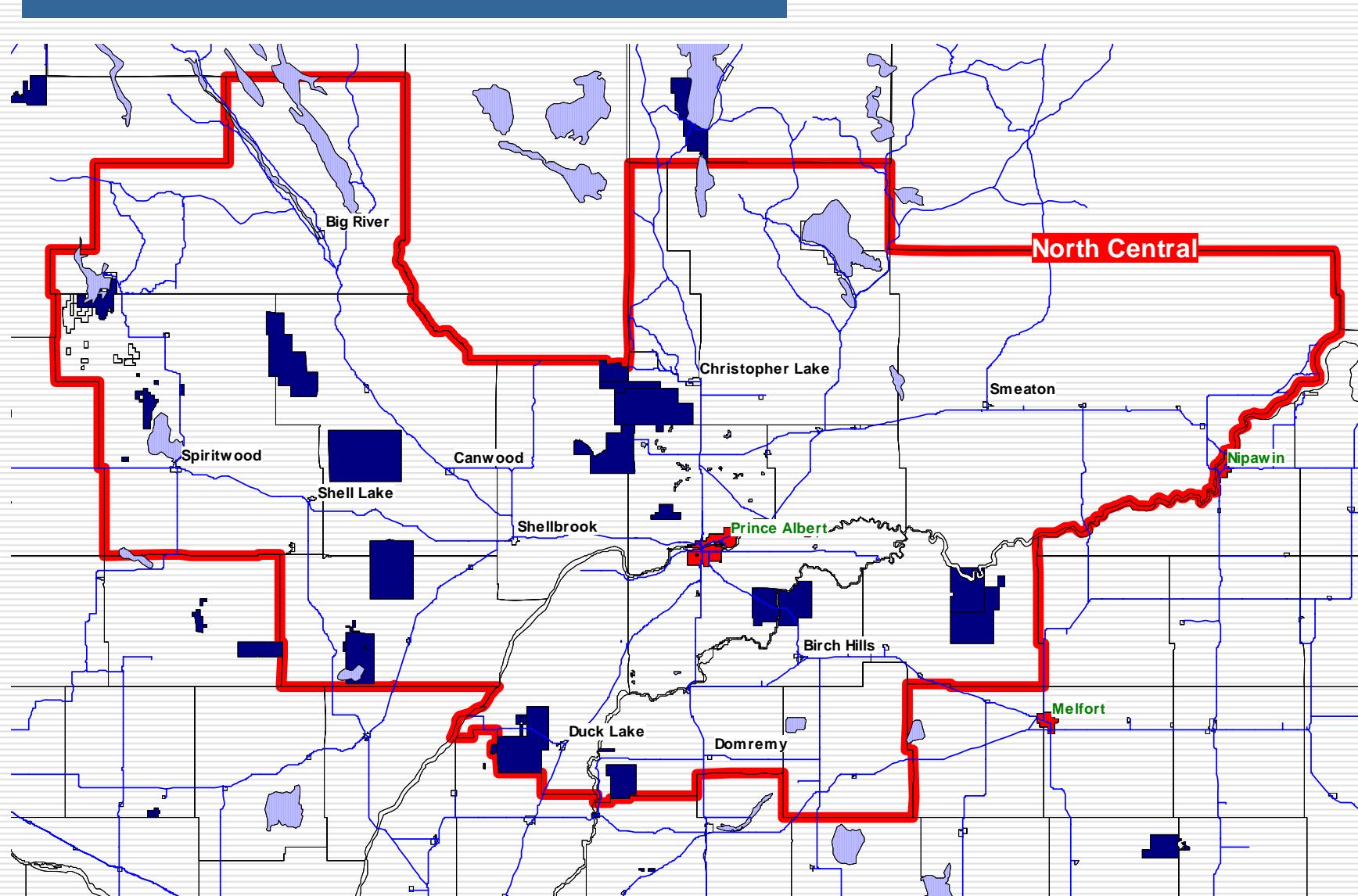
- There are 13 industry groups used in the analysis.

- The large "other services" group is a disparate collection of sectors that had to be amalgamated to avoid data comparison problems between 1991 and 2001. It includes:

- utilities;
- information, culture, and recreation
- head offices;
- professional and technical services; and
- personal services.

- More information about which particular industries are included in each category is available from the supplementary analysis report.

# Choosing the Region



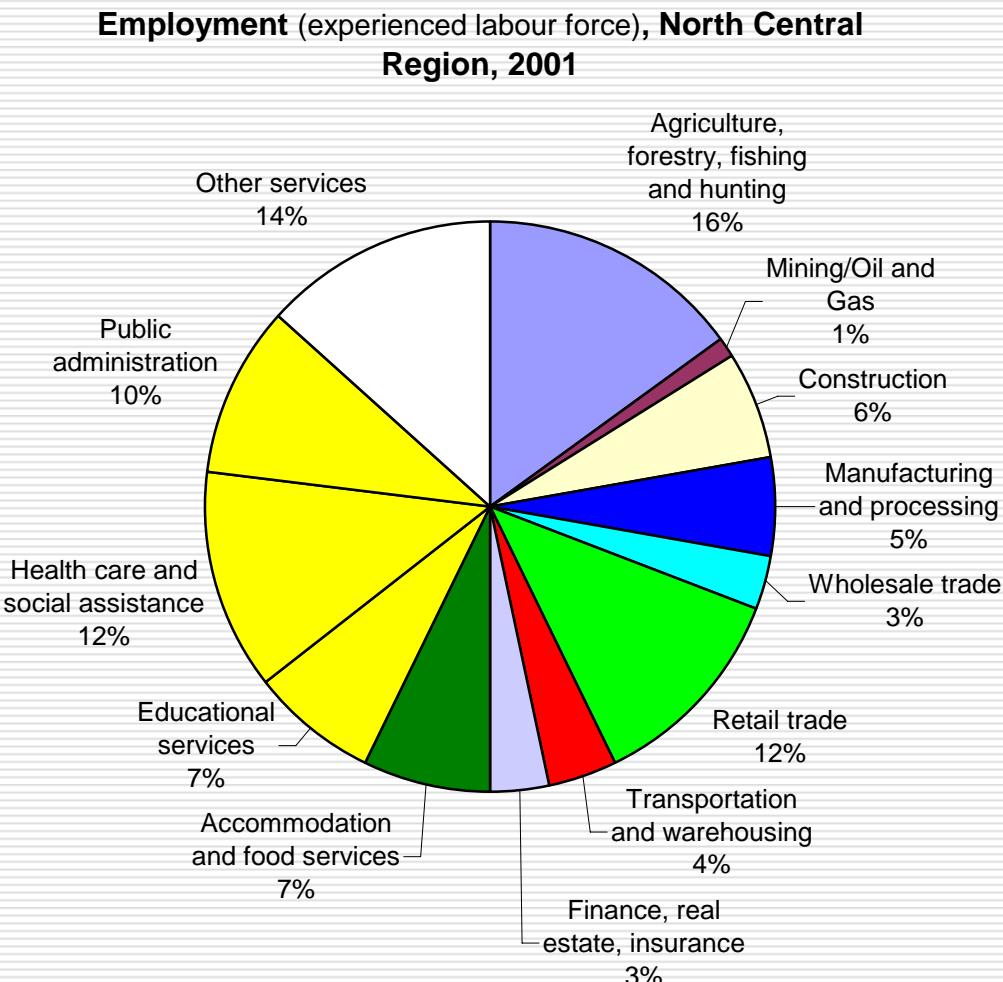
## **Components of the Competitive Advantage Analysis**

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There are four components to the CAA that are applied to each industry sector. All are interesting and useful in their own right.

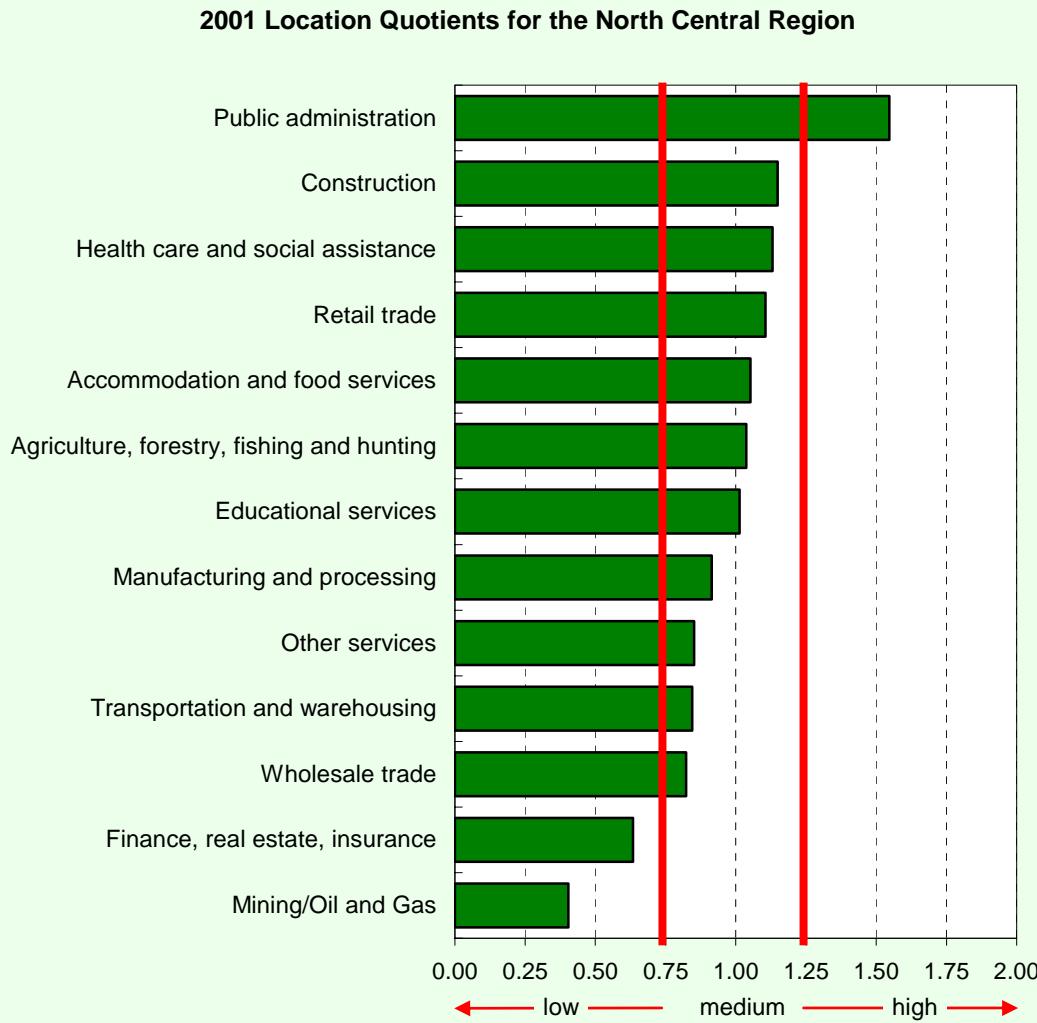
- **Location Quotients – a measure of industry concentration**
- **Shift/Share Analysis – a measure of growth adjusted for “normal” patterns**
- **Leading/Lagging Analysis – measures relative growth rates**
- **Industry Classification – a summary of the three measures**

# Employment in North Central Saskatchewan



- Within the region, agriculture and forestry represented 16% of employment in 2001.
- Three industry groups dominated by the public sector (public administration, health, and education) account for almost one in three jobs (29%).
- The retail trade sector is also quite large (12% of employment) because of Prince Albert's large retail trade sector.

# Location Quotients



The location quotient measures the size of the industry in the region relative to the province as a whole. Industries with a location quotient in excess of 1.25 are classified as "high"; those less than 0.75 are classified as "low".

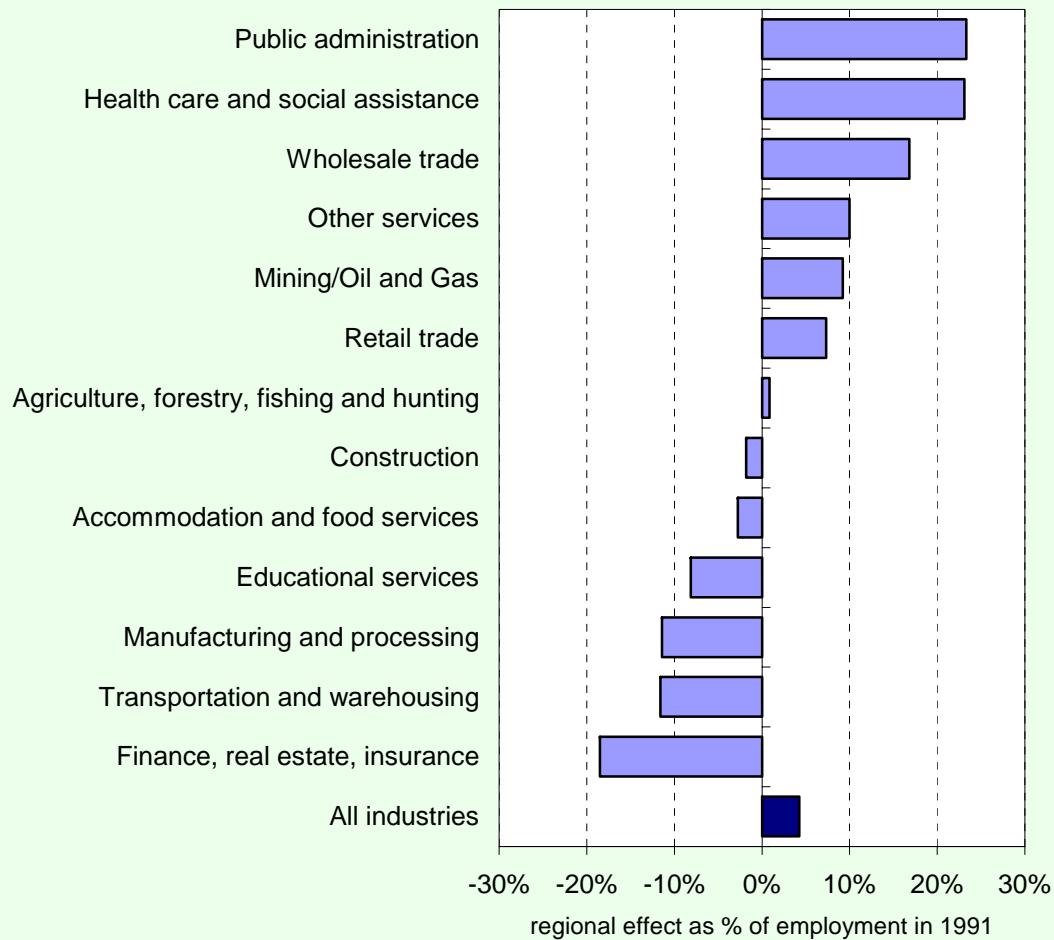
This doesn't mean the industries are small or large, just that they are relatively smaller or larger than in the province as a whole. For example, 2001 employment in "other services" was 4,730; in construction it was 2,200.

The graph shows the location quotients for the North Central Region. Public administration is the only industry group ranked as "high".

The finance group and the mining/oil and gas group are classified as "low".

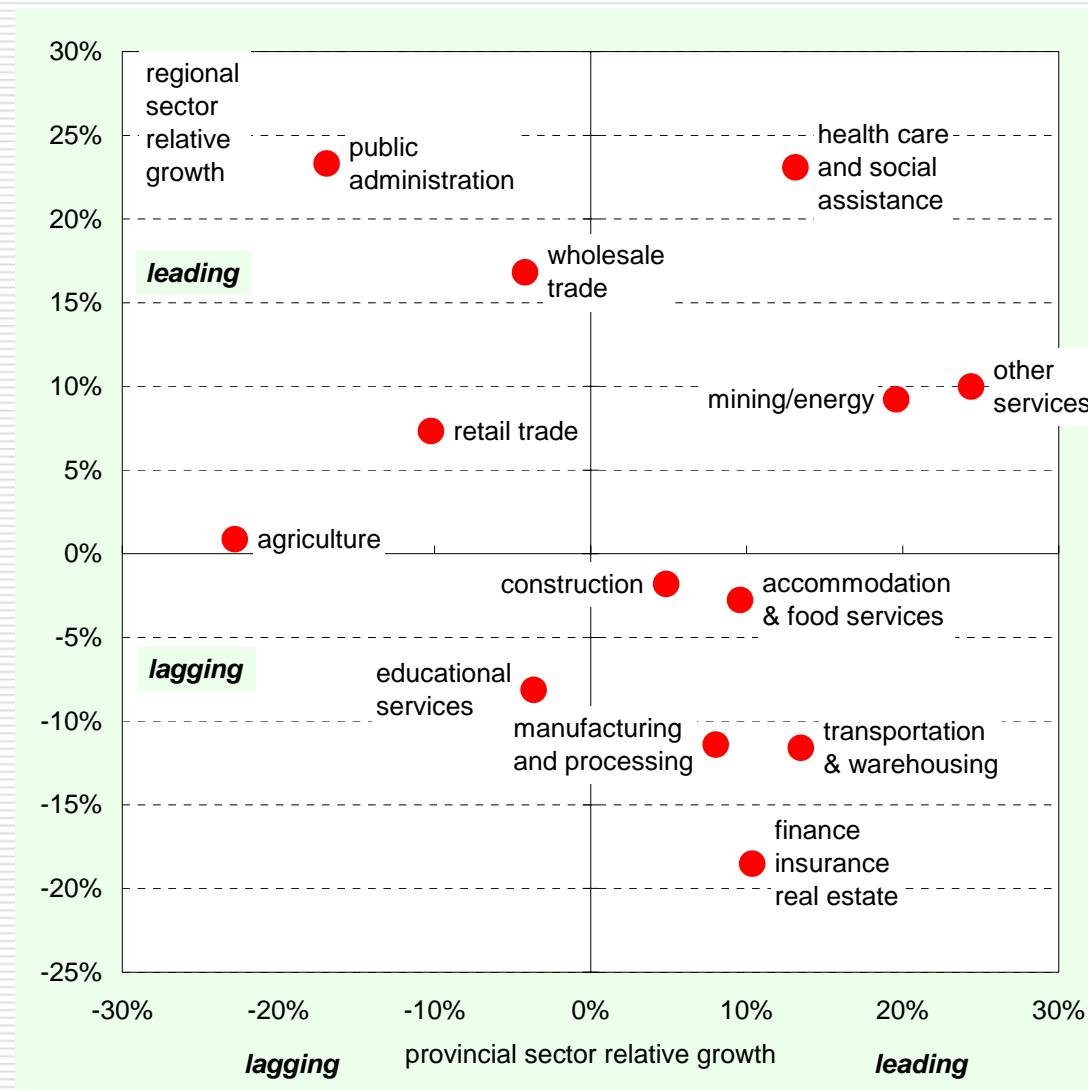
# Shift/Share Analysis, 1991 to 2001

## Regional Effects in the North Central Region



- The shift/share analysis breaks down the employment change into three components:
  - the provincial effect;
  - the industry effect; and
  - the regional effect.
- The regional effect is the most interesting. It measures what part of the employment increase or decrease is attributable to factors unique to the region. That is, these are changes that cannot be explained by the performance of the sector at the provincial level.
- During the 1990s, the region was generally doing worse than expected in the manufacturing, transportation, and the finance group. It was doing better than expected in public administration, retail and wholesale trade, and in health care.

# Leading/Lagging Analysis, 1991 to 2001



- The leading/lagging analysis compares, for each industry group:
  - employment growth in the region relative to growth provincially in the same group; and
  - employment growth provincially relative to total employment growth.
- Industry groups in the upper right quadrant are leading growth both in the region and provincially. They are classified as "drivers".
- Those in the lower left are lagging in both cases and are classified as vulnerable or challenging.
- Those in the upper left quadrant are typically in a state of evolution. Those in the lower right are classified as either modest, yielding, or promising, depending on their size.

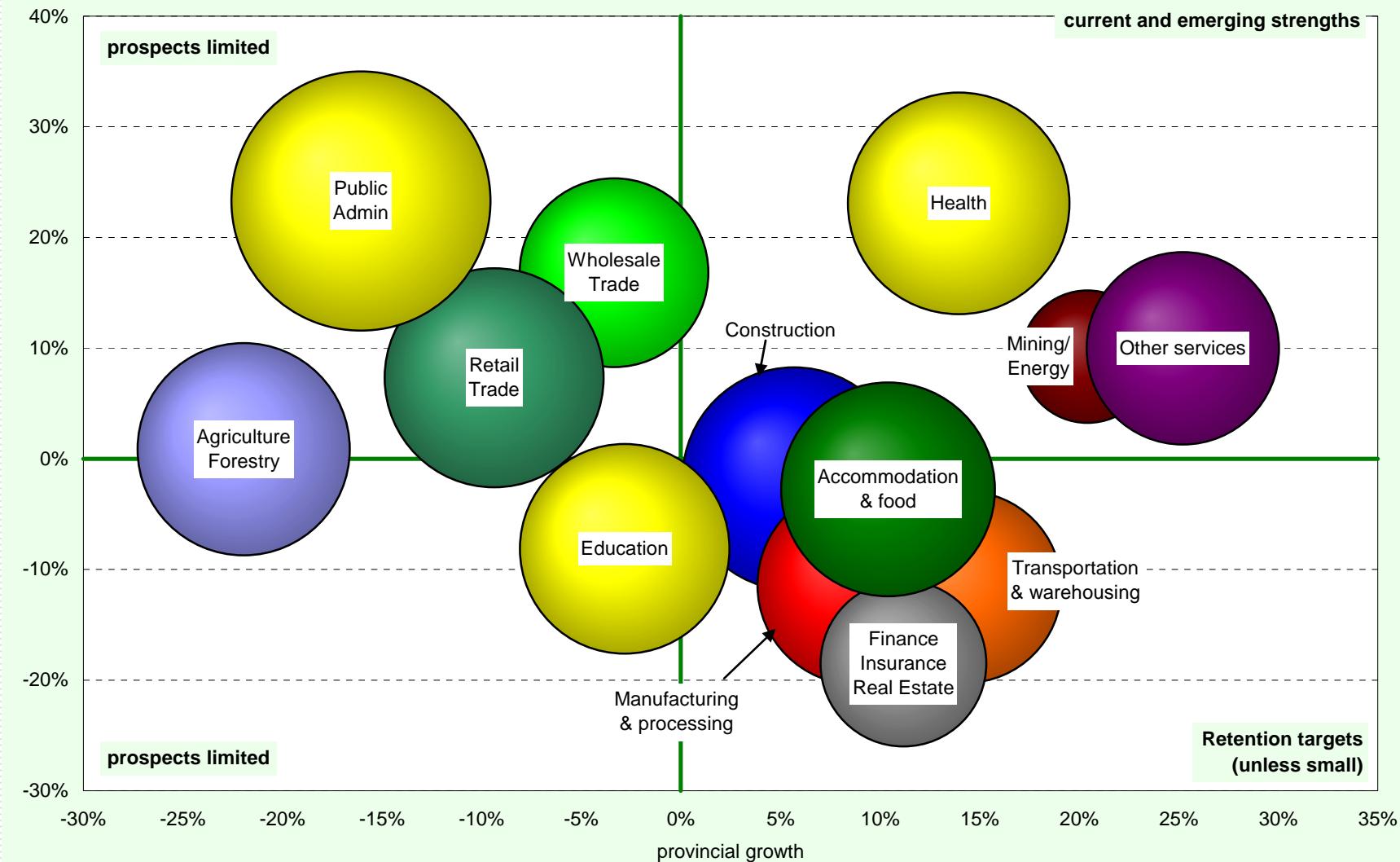
# Industry Classification Scheme

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- Industry classification in the Competitive Advantage Analysis is future oriented in the sense that it classifies the industries in the region into categories using forward-looking terminology. Some terms used, for example, are:
  - Emerging strength
  - High priority retention target
  - Prospects limited by external trends
- Besides the data quality issues and the fact that we are using relatively old employment data as a measure of economic success, there are some problems with the classification scheme.
  - The methodology implicitly assumes that employment growth at the provincial level is a measure of success. If the industry group is growing provincially and not doing so in the region, for example, then it is assumed that the sector has limited prospects or is a retention target.
  - There is a bias toward large sectors; relatively small industry groups can be classified as an emerging strength but most are dismissed as having a "weak base". The concept of a "niche market" doesn't enter into the equations.
- In spite of the limitations, the classification does seem to generate the needed debate about which sectors have limited prospects and which do not. The analysis, to be useful, has to be tempered with a realistic assessment by the region's economic players.
- The graph on the following page shows the classifications for the North Central Region.

# Industry Classification for the North Central Region

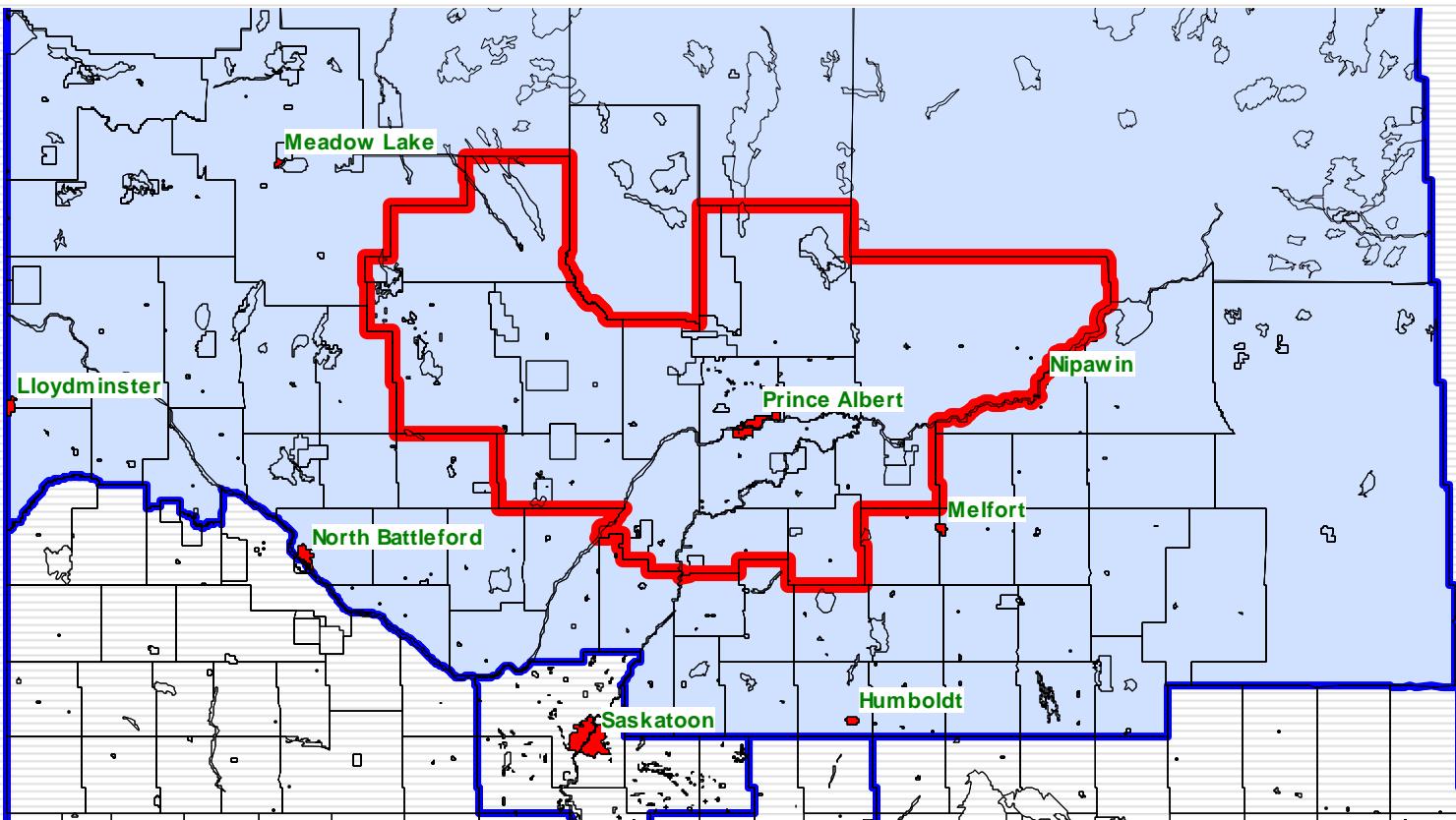
regional growth relative to the average



## **Post 2001 Labour Market Information**

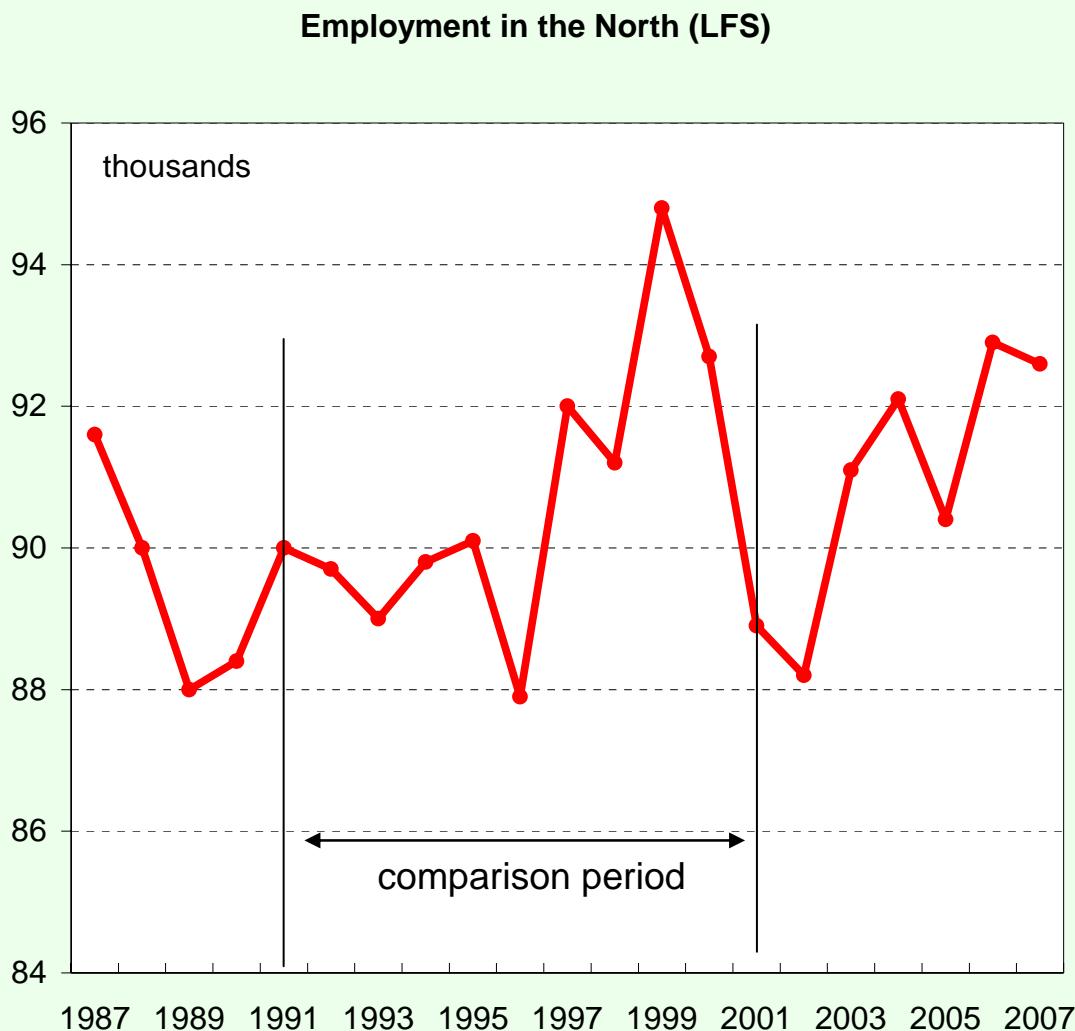
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## LFS Economic Region and North Central Region



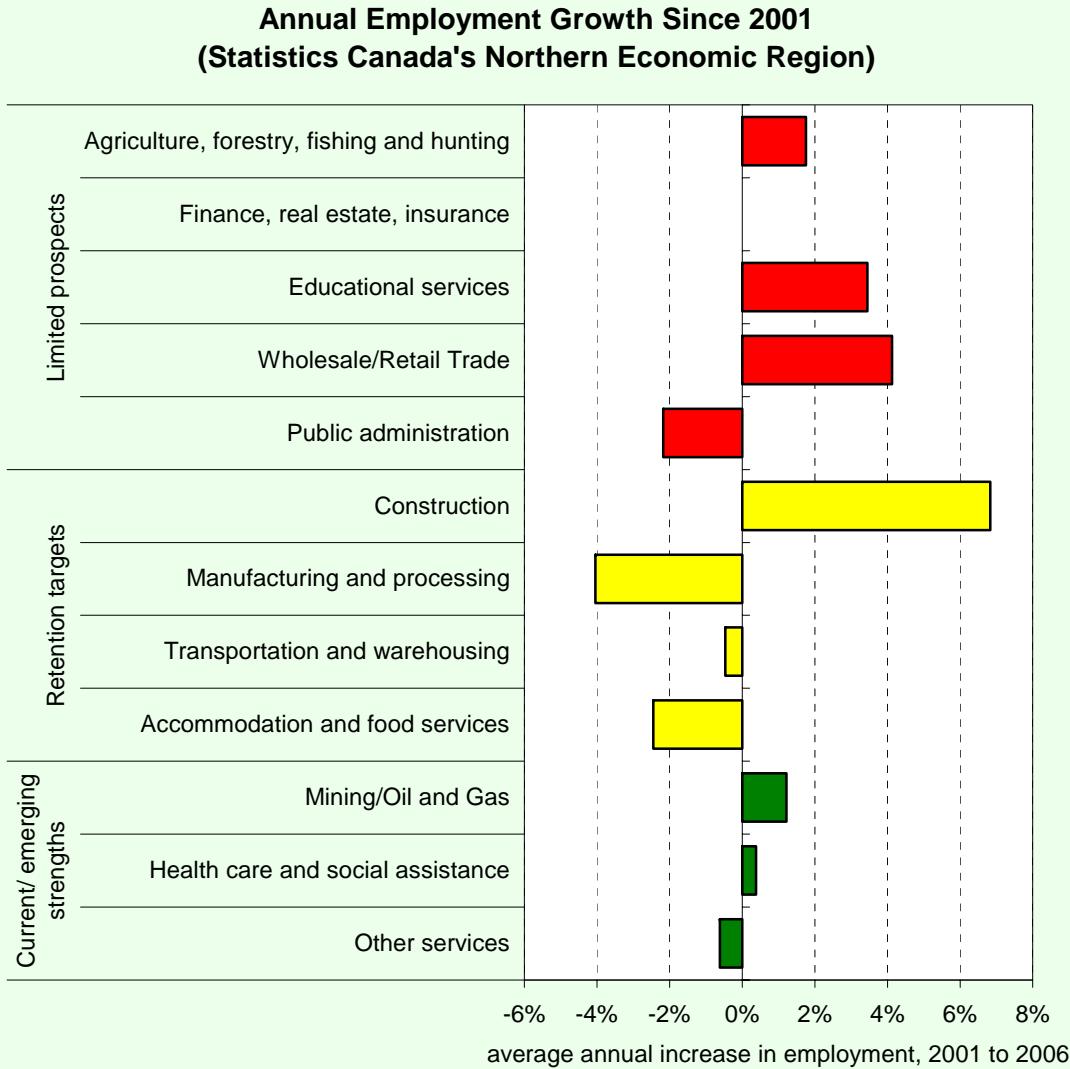
- The region used by the Labour Force Survey, the only source of employment information after 2001 is larger than the one we picked for the competitive advantage analysis. It includes employment throughout the north including Lloydminster, North Battleford, and as far south as Humboldt.

# Employment in the LFS Northern Economic Region



- According to the LFS (which excludes the population living on Reserve), employment in the North has fluctuated near 90,000 persons over the last 20 years.
- The growth from 1996 to 1999 was reversed during the subsequent three years. Since then employment has been on an upward trend.
- Employment among Prince Albert residents, which accounts for about a fifth of employment in the region, grew in 2006 in spite of the Weyerhaeuser shutdown.

# Employment Subsequent to 2001: Northern Economic Region



- From 2001 to 2006, three of five industry groups with "limited prospects" have had increasing employment.
- Two of the three that were classified as current or emerging strengths have grown – the mining/energy sector and health care.
- Employment has grown in only one of the industry groups classified as retention targets, namely construction.

## **Questions?**

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**The full report and the regional profile are available electronically on the Ministry of Enterprise and Innovation:**

**[www.ei.gov.sk.ca/Regional-Economies](http://www.ei.gov.sk.ca/Regional-Economies)**