



# Greater Edmonton

## Economic Overview 2008

November 2007



EDMONTON. POWERHOUSE redefined.

# EDMONTON'S ECONOMY



## Edmonton (CMA):

**Edmonton is naturally situated as the International gateway to Alberta's Oil & Gas regions.**

**Phenomenal growth in the Athabasca Oil Sands (Fort McMurray area) has impacted all sectors of the economy.**

**As the largest metropolitan area in Northern Alberta, Edmonton naturally services all of the smaller regional centers.**

Fort McMurray Pop. – 65,000

Grande Prairie Pop. – 71,868

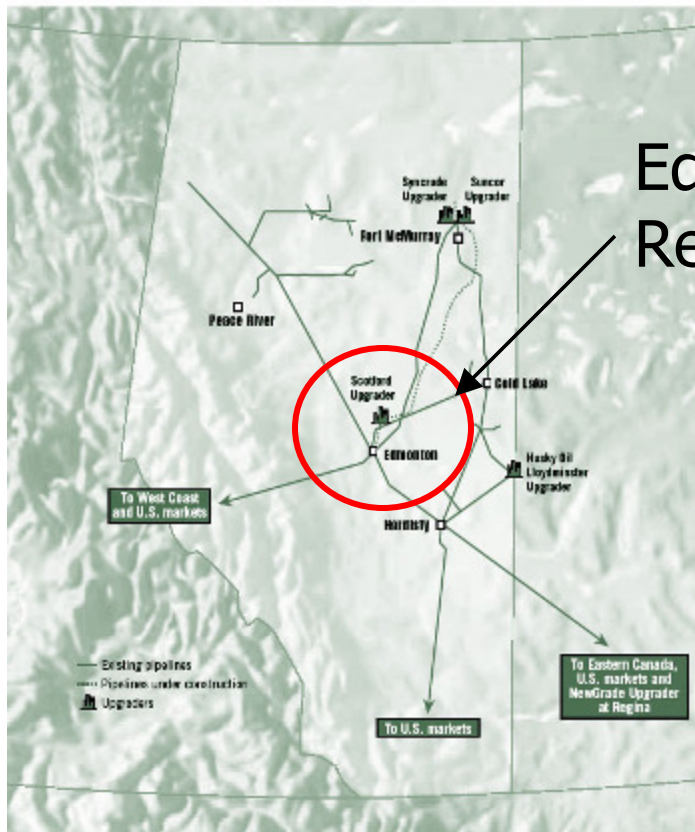
Red Deer Pop. – 82,772

Lloydminster Pop. – 27,023

# EDMONTON – AN OIL HUB

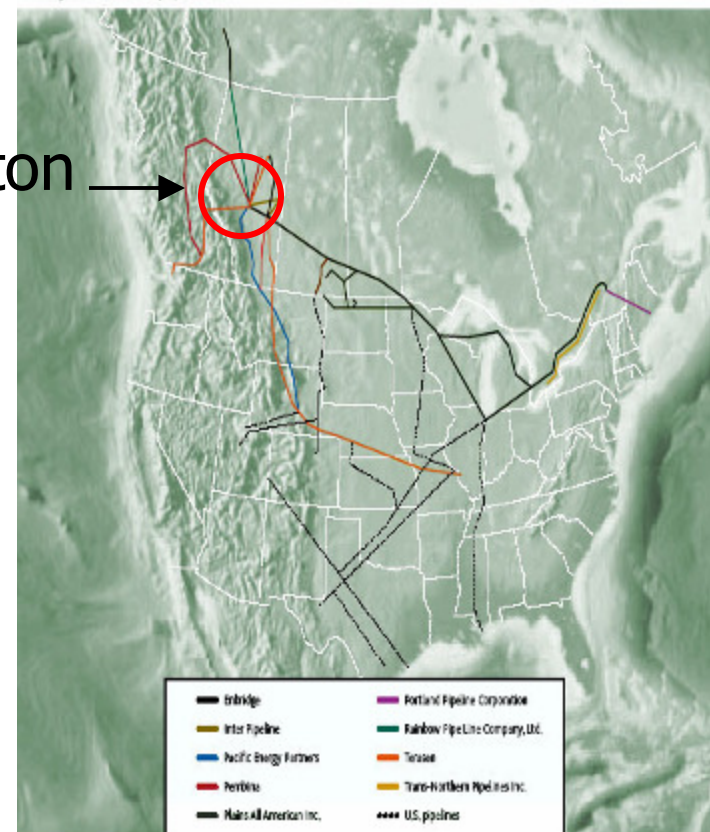


Pipelines carrying bitumen, heavy oil and upgraded crude oil



Source of image: ©Petroleum Communication Foundation/  
Canadian Centre for Energy Information 2000

Major crude oil pipelines



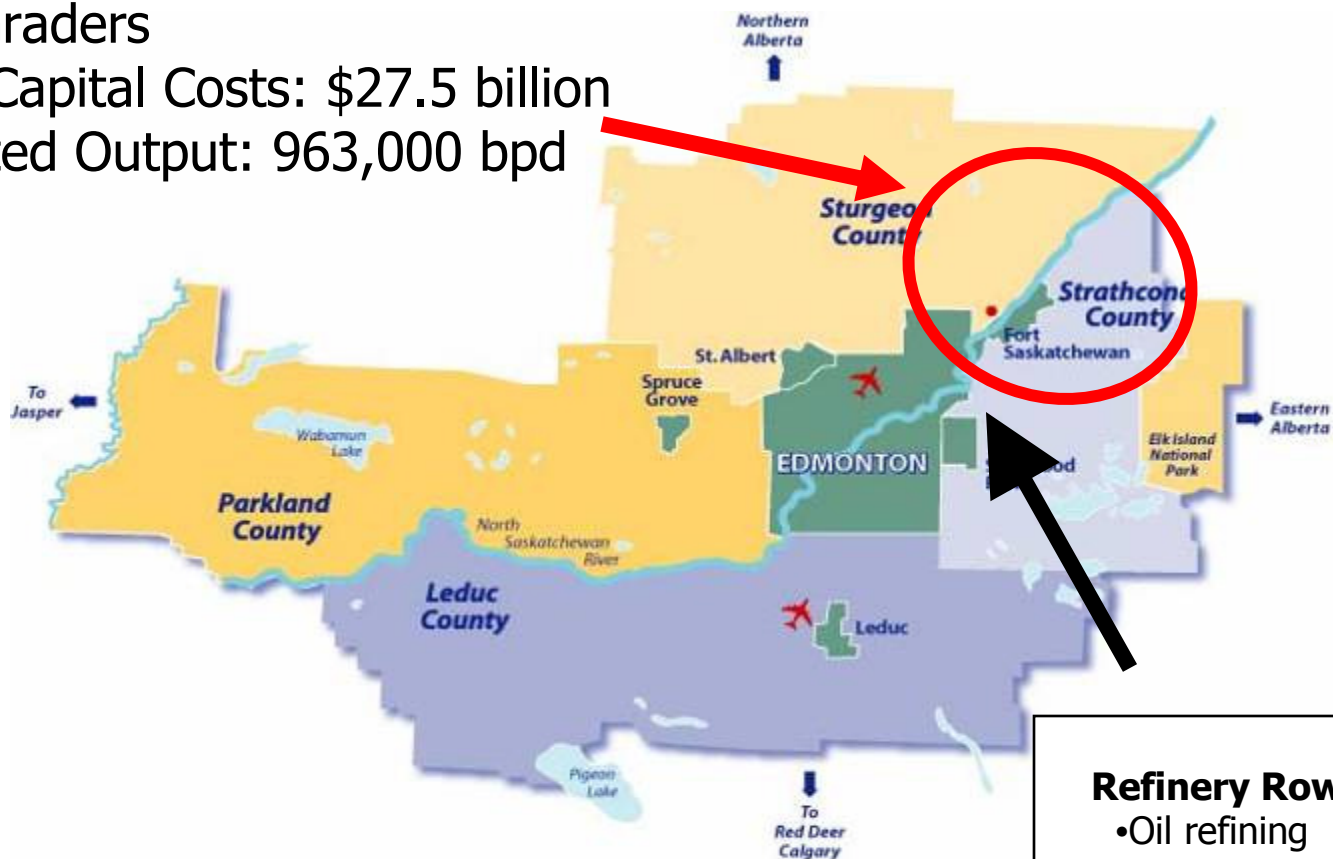
Source of image: ©Petroleum Communication Foundation/  
Canadian Centre for Energy Information 2004

# EDMONTON – FUTURE DEVELOPMENT

8 Up-Graders

Initial Capital Costs: \$27.5 billion

Projected Output: 963,000 bpd



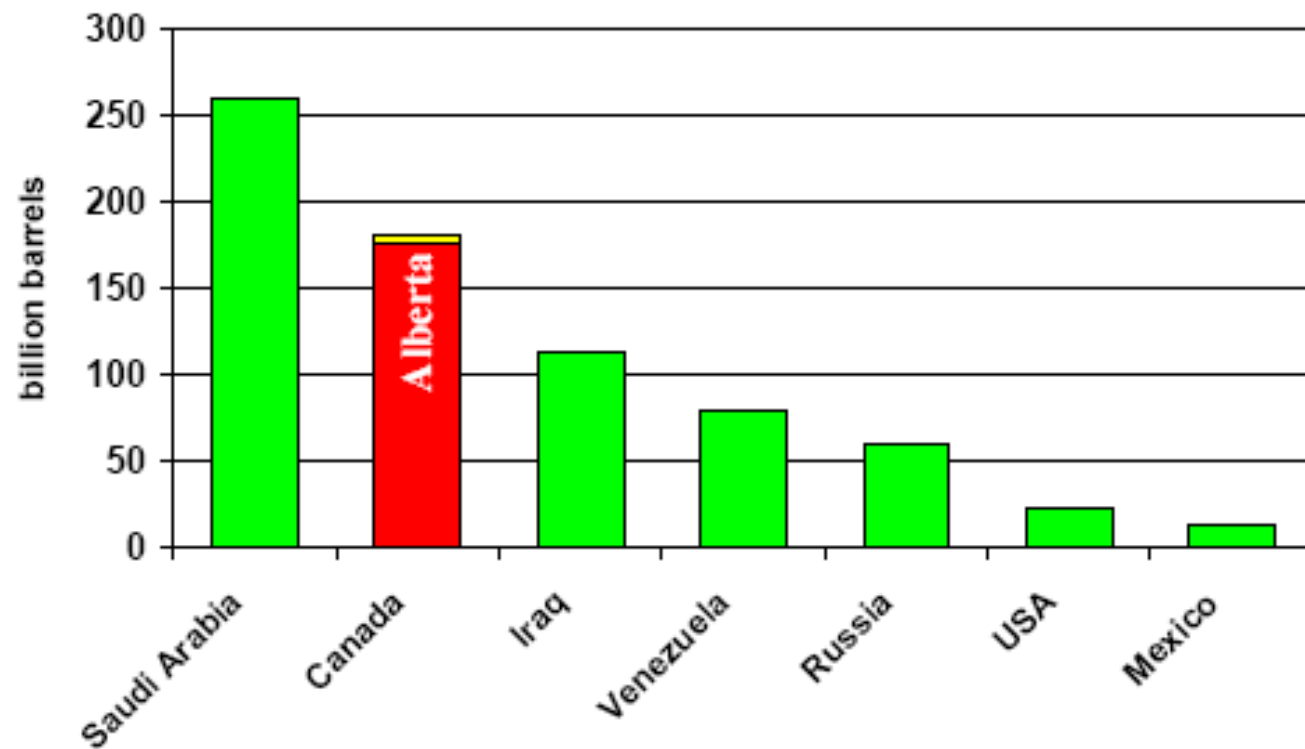
## Refinery Row

- Oil refining
- Approx. 1 million b/d
- Chemical production

# ALBERTA OIL RESERVES



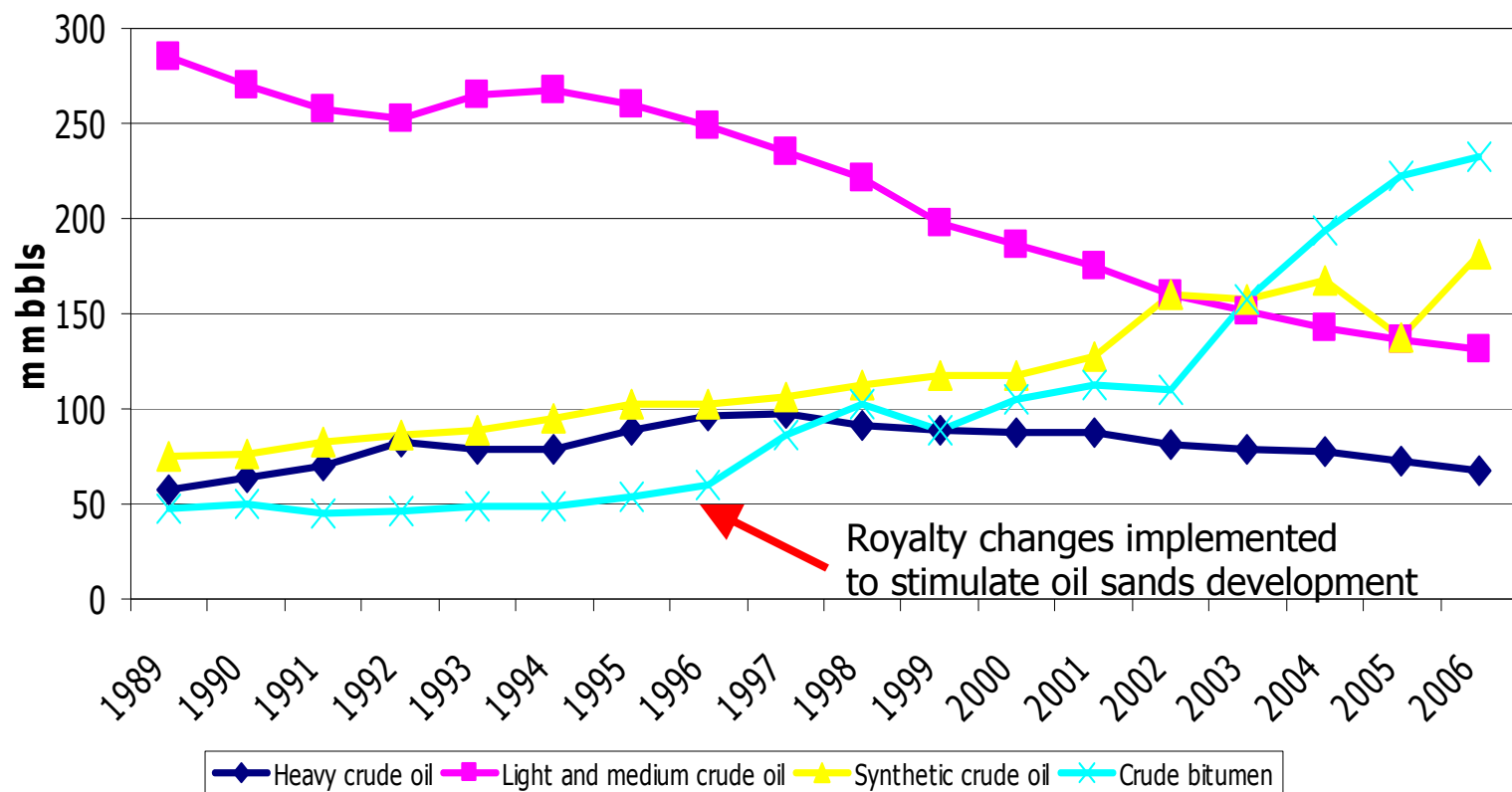
**Proven World Reserves**





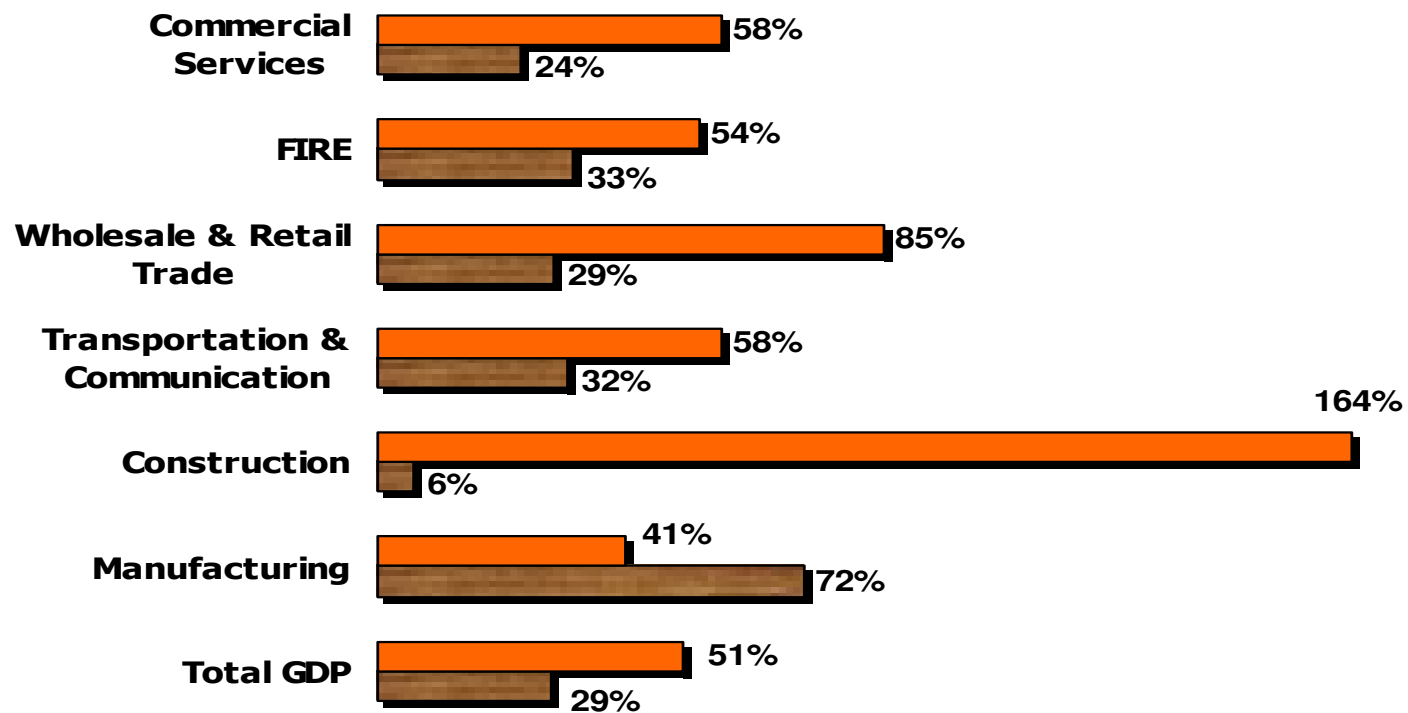
# OIL SANDS PRODUCTION INCREASING

## Alberta Crude Oil & Equivalent - Production by Type



# ECONOMIC GROWTH COMPARISON

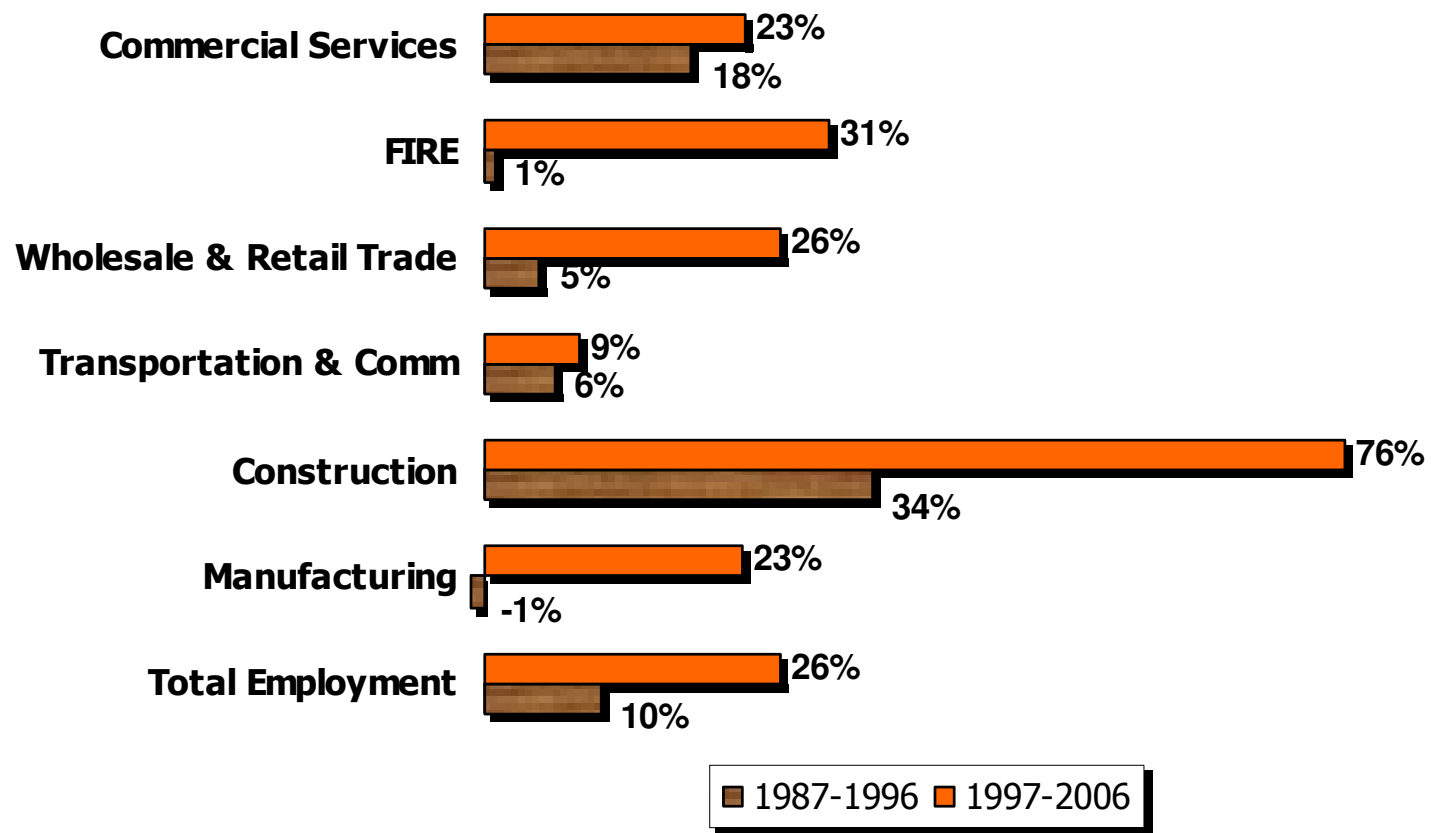
## GDP Growth by Industry (Edmonton)



■ 1987-1996 ■ 1997-2006

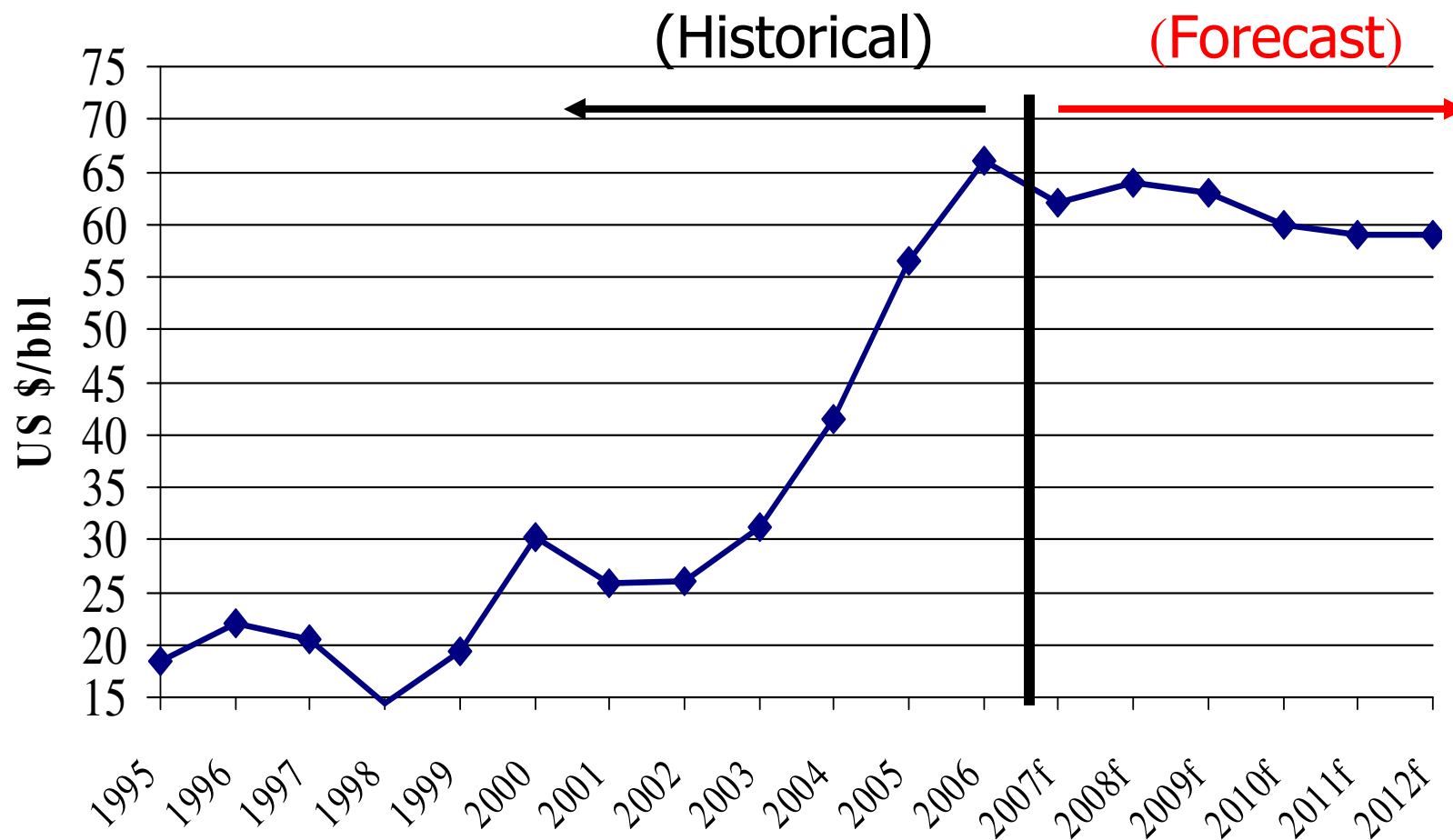
# ECONOMIC GROWTH COMPARISON

Employment Growth by Industry (Edmonton)



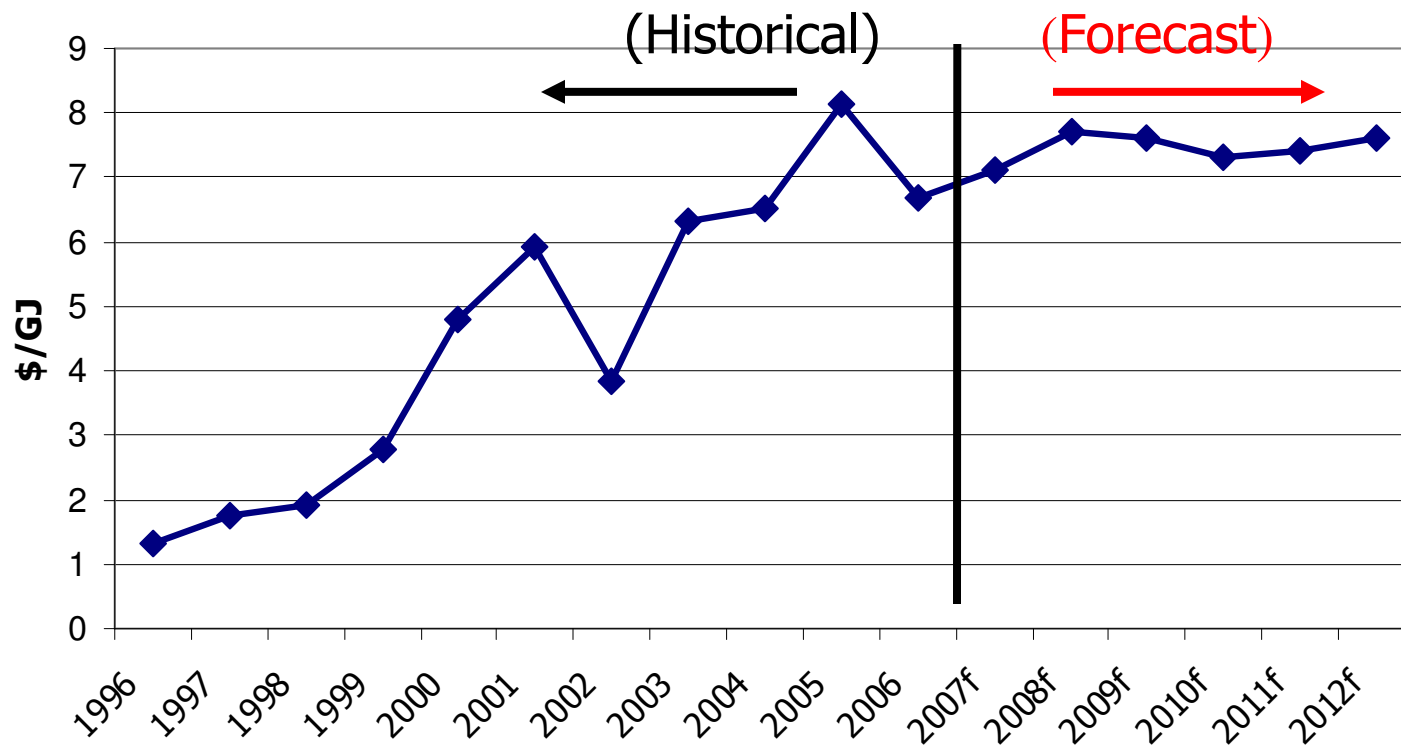


## OIL FORECAST (AVERAGE ANNUAL PRICE)



# NATURAL GAS FORECAST

## Natural Gas Price Forecast (Average Annual)

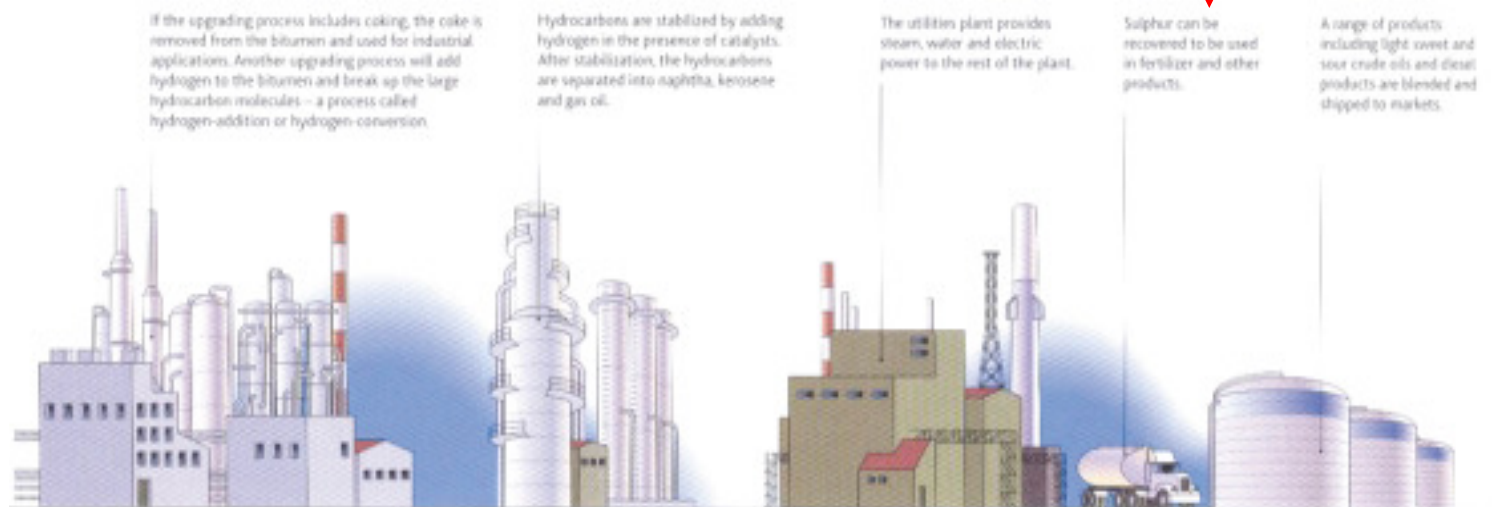


# CAPTURING THE VALUE CHAIN

•Two tonnes of oil sands need to be produced to create 1 barrel of synthetic oil

•The 8 bitumen upgraders are estimated to require direct expenditures exceeding \$100 billion (CapEx, supplies, services) over the plants' life (30-50yrs). The total spin-off effects into Edmonton's economy will be much larger.

•The Edmonton area upgraders can potentially create other value added byproducts from the process

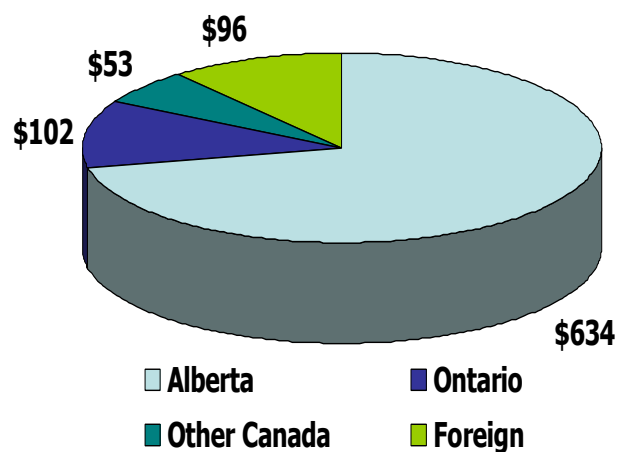


©Petroleum Communication Foundation/Canadian Centre for Energy Information 2004

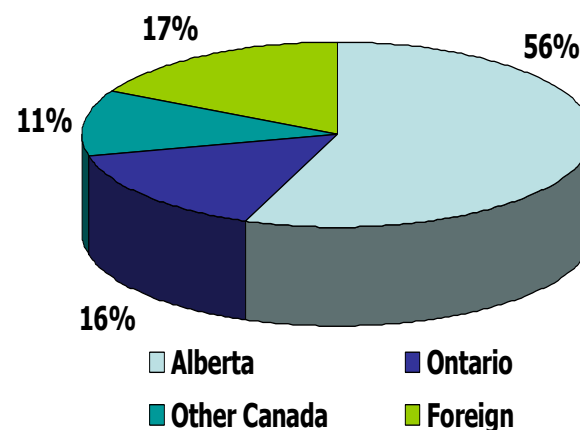
# ECONOMIC BENEFITS FROM OIL SANDS

## 2000 – 2020 STUDY PERIOD

### GDP Activity Distribution (\$885 Billion)



### Employment Impact Distribution (6.6 Million person-years)



# OIL PRICE HISTORY



Year	Event	Money of the Day	Inflation adjusted (\$2006)
1864	Pennsylvania oil boom	\$8.06	\$104.35
1876	Russian oil exports start	\$2.56	\$48.64
1948	Rebuilding post WWII	\$1.99	\$16.74
1974	Arab oil embargo	\$11.58	\$47.54
1979	Iranian revolution	\$31.61	\$88.13
1980	Iran-Iraq war begins	\$36.83	\$90.46
1990	Iraq's invasion of Kuwait	\$23.73	\$36.76
1998	Asian economic crisis	\$12.72	\$6.22
2003	China 2 <sup>nd</sup> biggest oil consumer	\$38.27	\$40.83
2007	Year-to-date average	\$66.96	\$66.96

Source: Edmonton Journal (\$US)

# MAJOR PROJECTS BY REGION



Industry	<b>Alberta</b>		<b>Northern Alberta</b>		<b>Edmonton</b>	
	# of Projects	Cost (000,000)	# of Projects	Cost (000,000)	# of Projects	Cost (000,000)
Chemicals & Petrochemicals	8	1,176	5	995	2	165
Commercial/Retail & Residential	245	16,977	92	3,676	45	2,892
Infrastructure	306	16,697	121	5,363	57	2,965
Institutional	181	10,816.0	84	3,973	32	2,691
Oil, Gas, & Oil Sands	64	152,743	55	97,578	12	29,124
Pipelines	35	8,696	22	3,897	6	2,097
Other Industrial	11	149	11	293	5	144
Tourism/Recreational	111	7,560	45	2,783	22	733
Other	85	13,020	16	1,263	6	313
Total	1,046	\$227,834	451	\$119,821	187	\$41,123

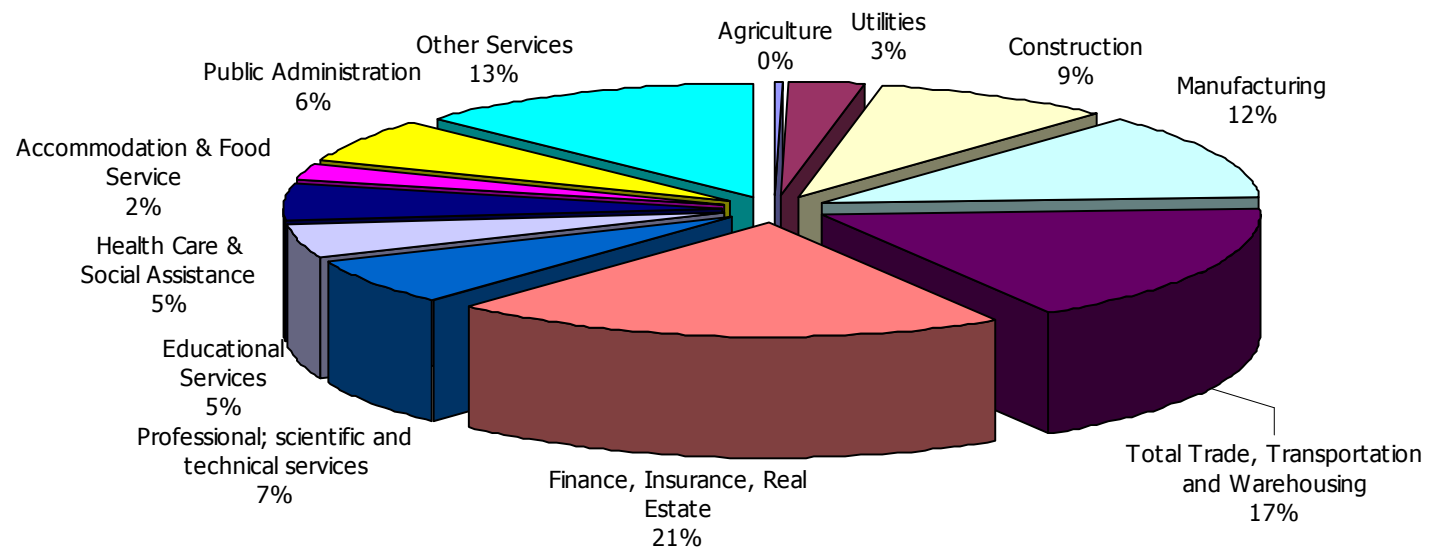


## GROWTH IN ALL INDUSTRIES

- Although the oil & gas industry remains the driving force behind Edmonton's economy, almost all industries benefit from the economic growth.

# EDMONTON'S DIVERSE ECONOMY

## Edmonton GDP by Industry



## CURRENT INITIATIVES FOR DIVERSIFICATION

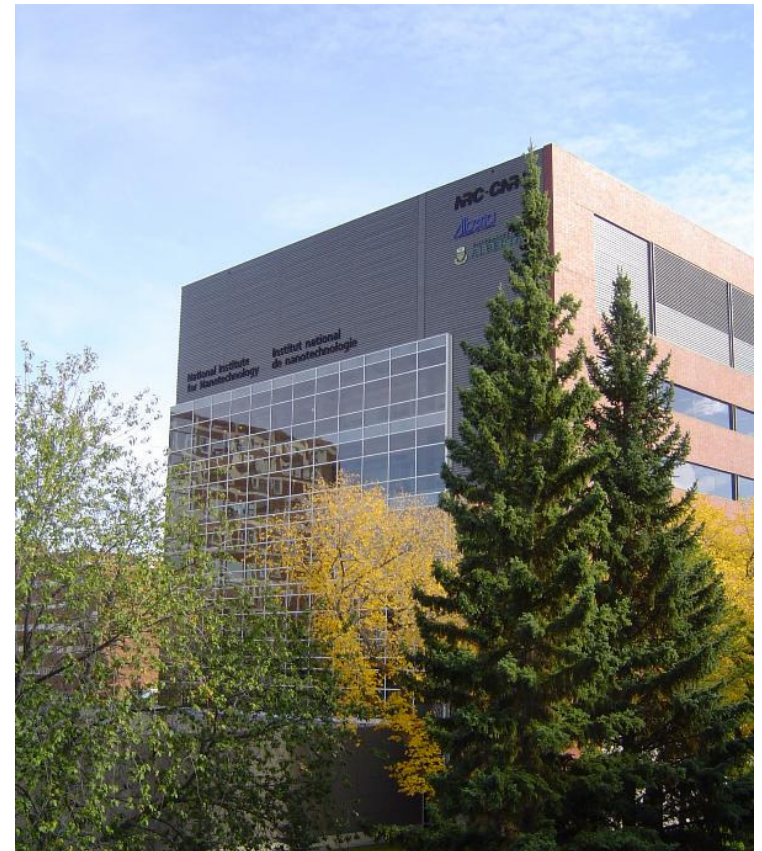
Edmonton is home to many diverse opportunities for economic diversification.

- Current sector initiatives can be found in:
  - Nano/Bio/ICT
  - Health
  - Asia Pacific Corridor

# NATIONAL INSTITUTE OF NANOTECHNOLOGY



- The National Institute for Nanotechnology (NINT) is an integrated, multi-disciplinary institution involving researchers in physics, chemistry, engineering, biology, informatics, pharmacy and medicine.
- The realization of NINT's goals, will lead to important new applications and commercial opportunities, and will establish Edmonton as an internationally-recognized centre of nanotechnology research and industrial activity.
- Creating a solid reputation will attract young scientists and graduate students of high calibre to continually increase the capabilities of the institute.

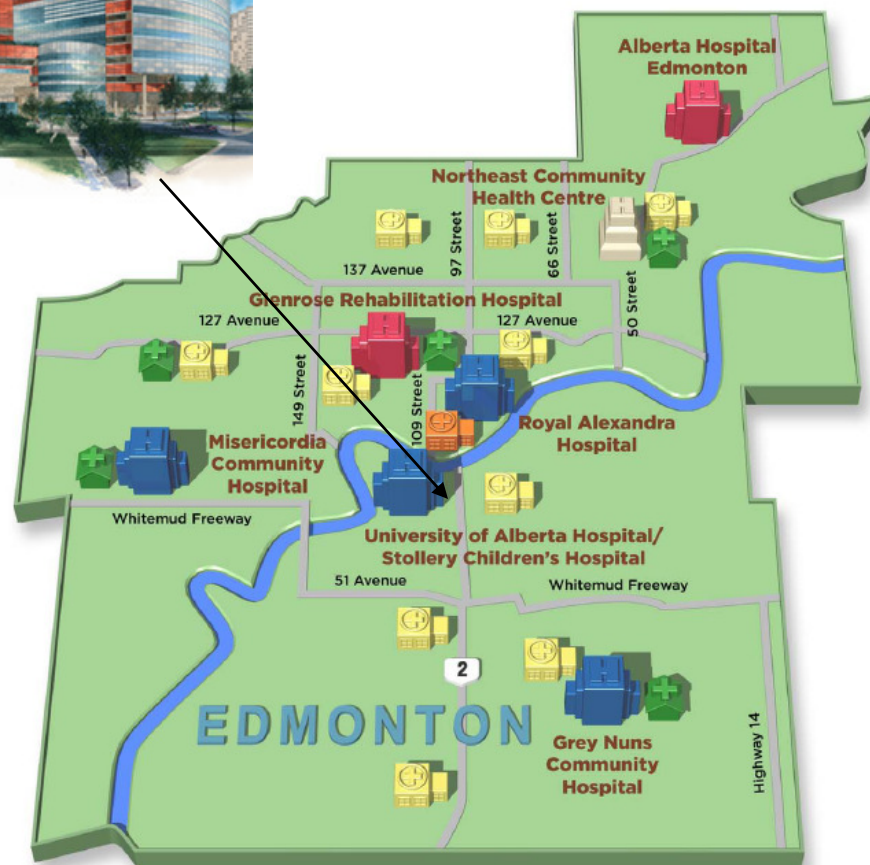


# MAZANKOWSKI ALBERTA HEART INSTITUTE

The Mazankowski Alberta Heart Institute represents a \$196 million investment to the health and wellbeing of Edmonton residents and a substantial commitment to the emerging life sciences sector.

The state of the art medical facility has attracted numerous prominent doctors to Edmonton.

The institute promises to become a world leader in heart-related research with upto \$100 million being spent annually by 2012.





# ASIA-PACIFIC GATEWAY & CORRIDOR



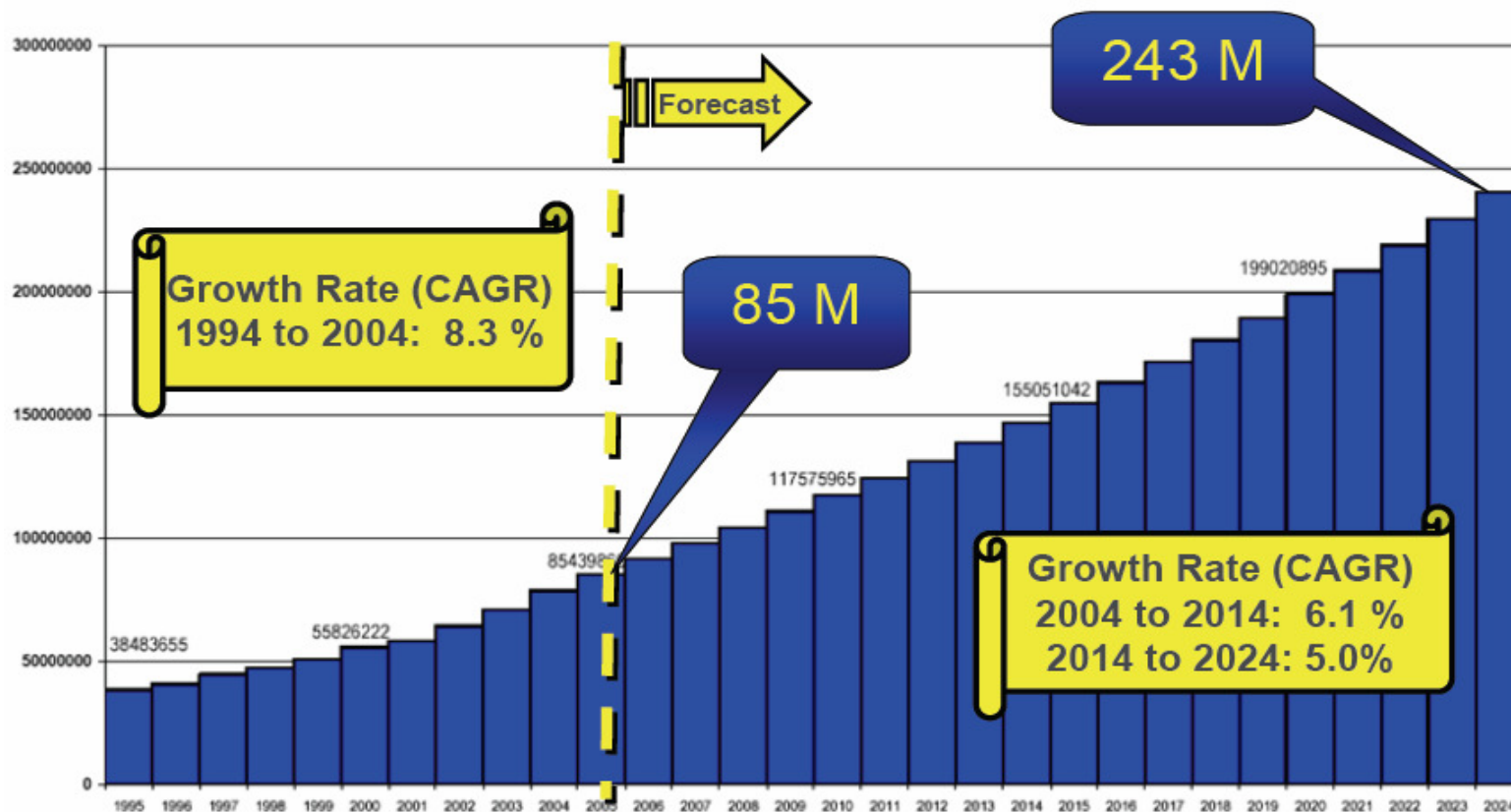
- The Asia-Pacific Gateway and Corridor is a system of transportation infrastructure, including British Columbia Lower Mainland and Prince Rupert ports, road and rail connections that reach across Western Canada and into the economic heartlands of North America, as well as major airports and boarder crossings.
- As the first major urban centre on the CN line from Port of Prince Rupert, Edmonton is on track to benefit as a transportation hub for goods coming in from Asia.
  - The container terminal will also open up opportunities to export commodities (grain, forest products, plastics, etc) from Western Canada through backhaul in containers to Prince Rupert.





# RAIL SHIPPING FORECAST

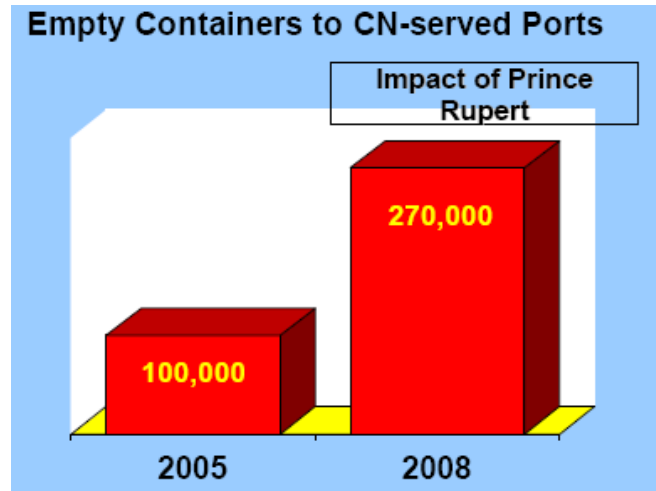
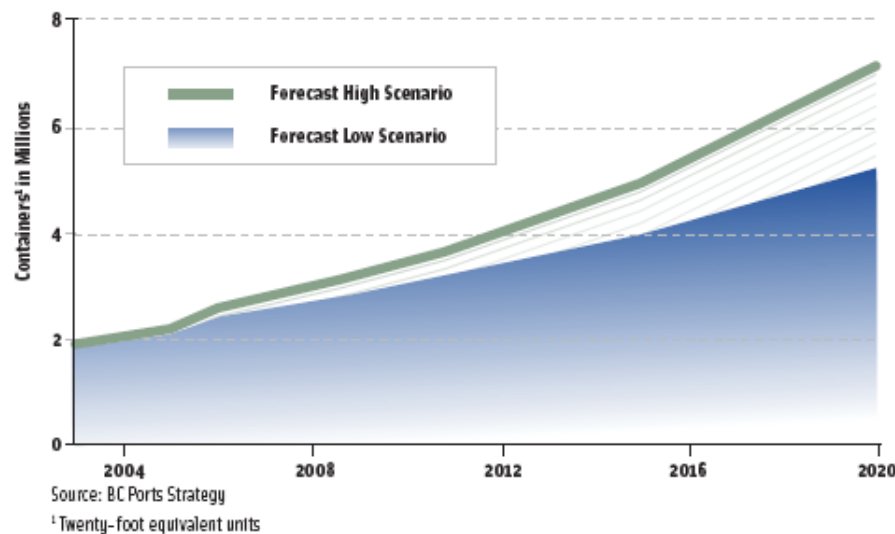
## World Container Forecast



Source: Global Insight

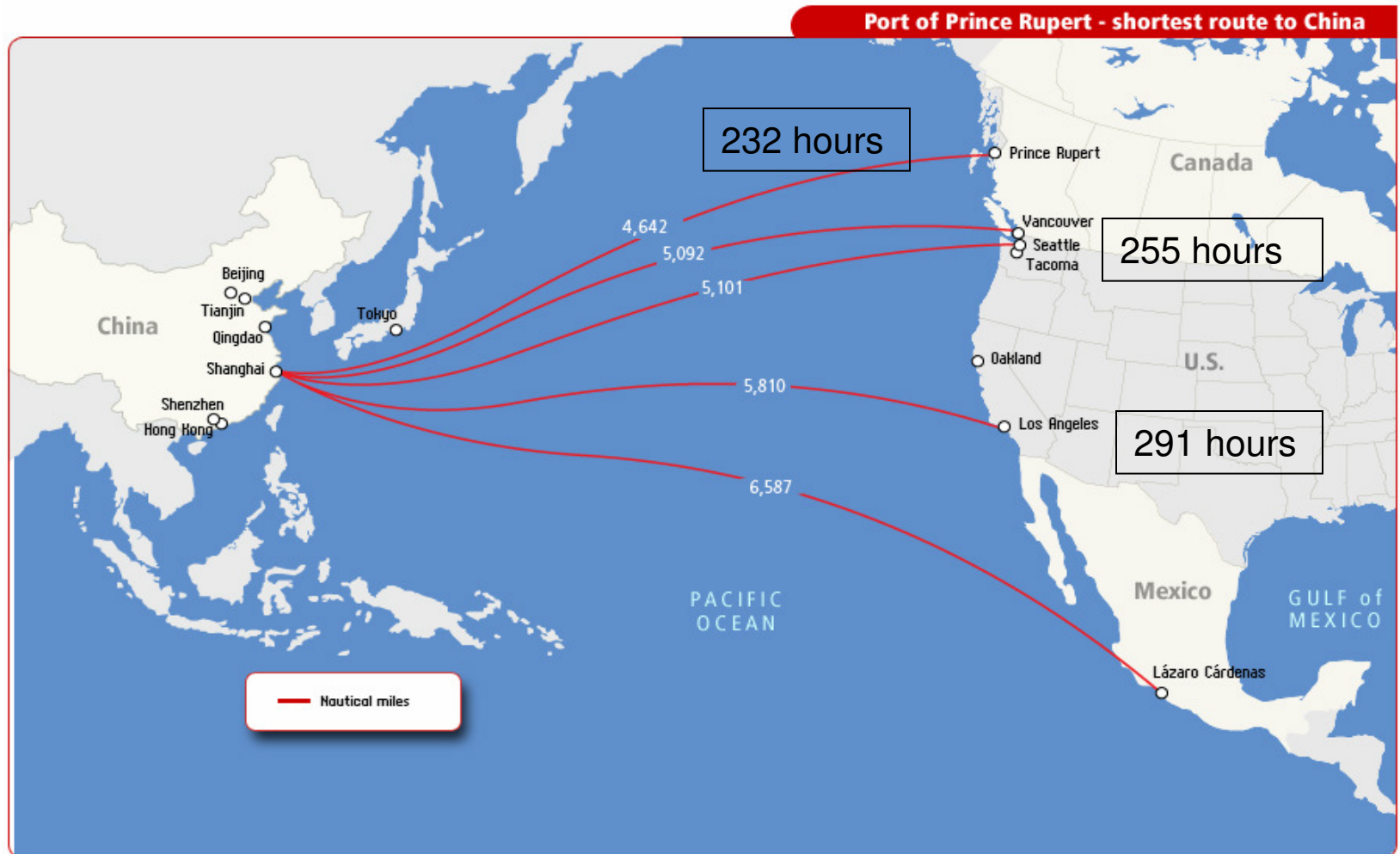
# ASIA PACIFIC SHIPPING CORRIDOR

Figure 5 - Forecast of Canada's West Coast Total Container Traffic

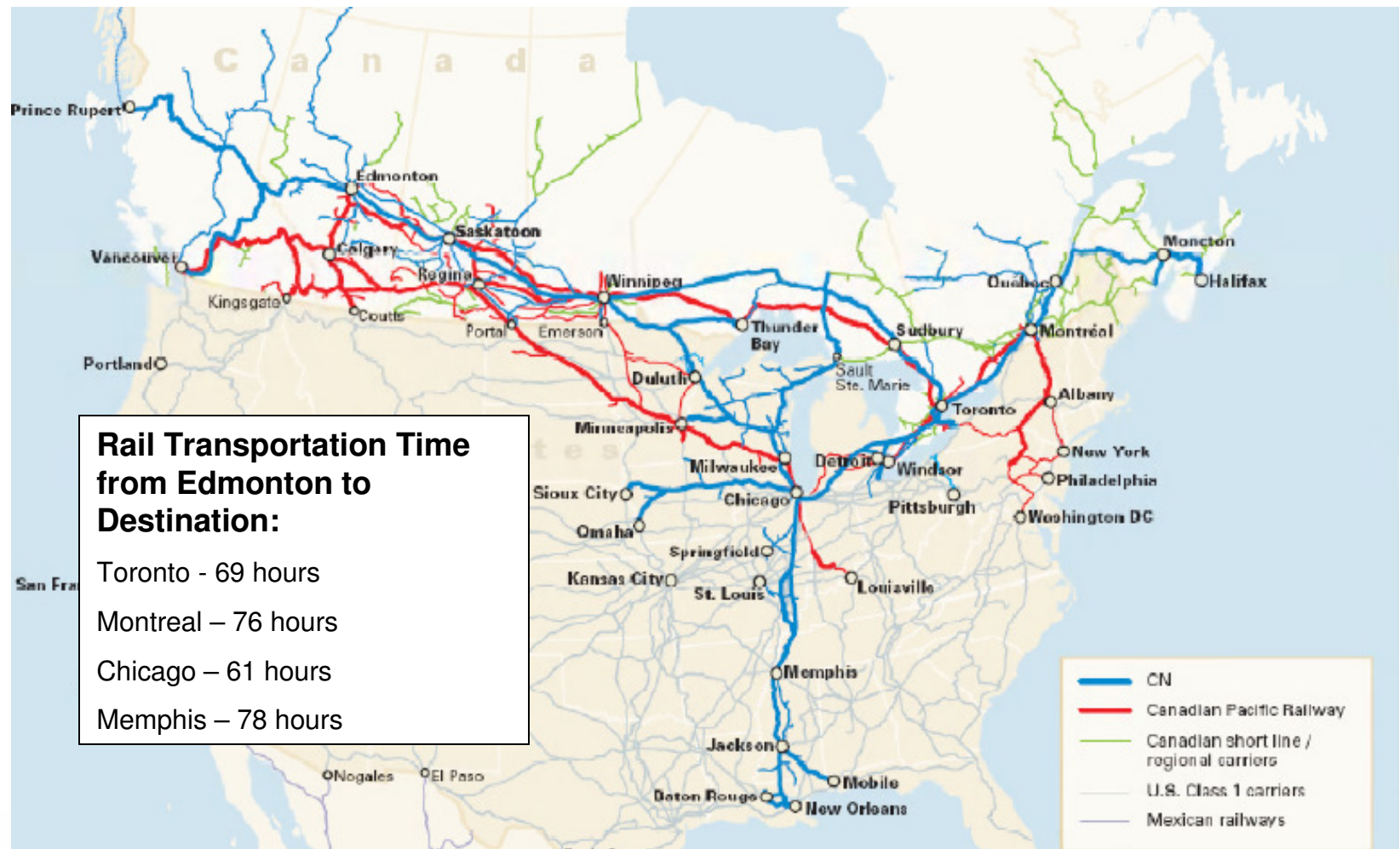


- By 2020 container traffic in the West is expected to increase up to 3.5 times the 2004 levels.
- A surplus of empty containers are predicted to move through Edmonton to Prince Rupert. Edmonton is geographically positioned to take advantage of the 'backhaul' opportunities.

## ASIA PACIFIC SHIPPING CORRIDOR – PORT OF PRINCE RUPERT



# EDMONTON – TRANSPORTATION HUB



## CHANGING DEMOGRAPHICS

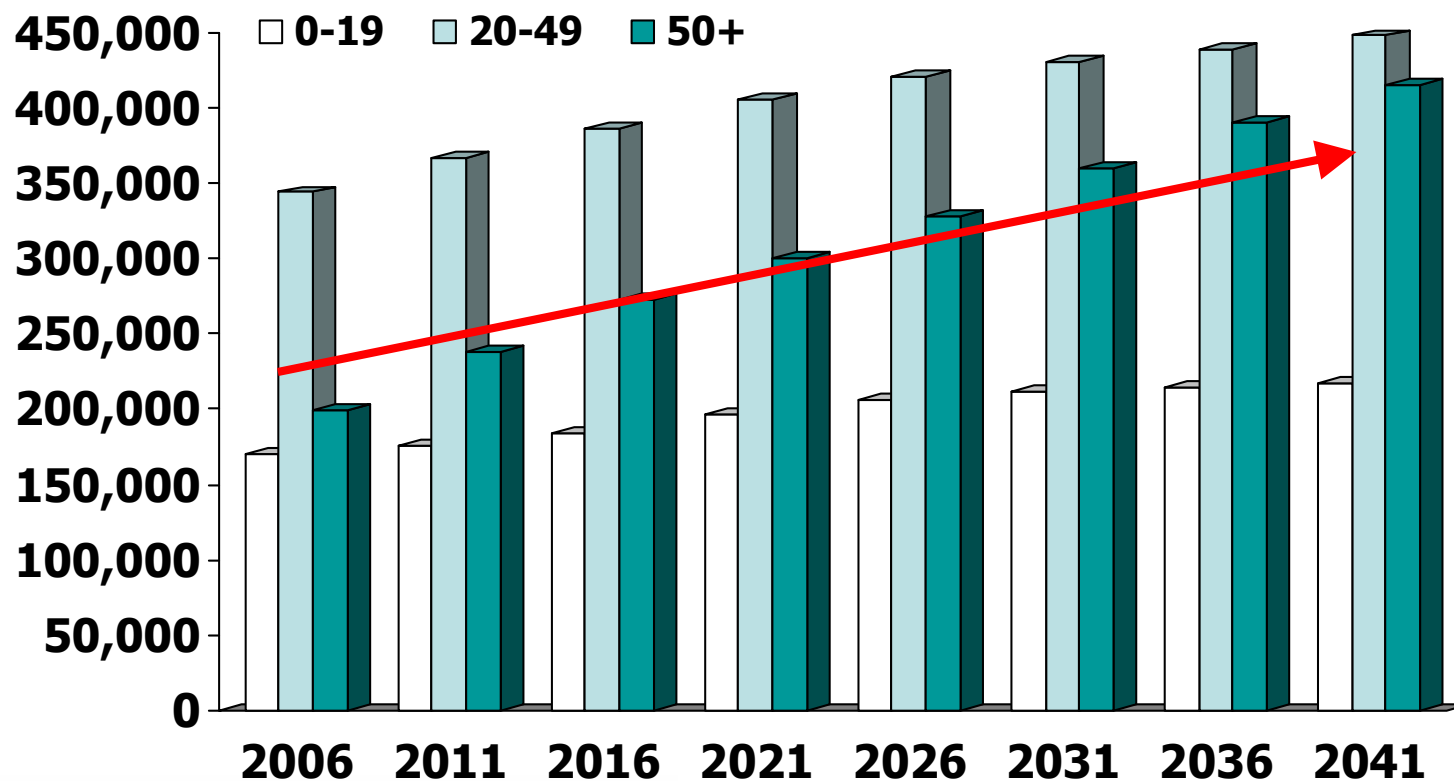
- The slowing of the Canadian birth rate combined with the aging of the “baby boomers” means that there will not be enough workers in future years.
- This will have an impact on our ability to achieve our economic potential in future years.
- We are shifting from an economy based on “job creation” to one of “doing more with less labor”.
- All sectors will be impacted as labor shortages are likely to intensify.
- Unemployment rate has hit 30-yr lows in 6 provinces



# EDMONTON'S DEMOGRAPHIC TRENDS



By 2041, the population 50+ will double and represent 40% of the total population





# ENVIRONMENTAL SCAN

## Key Environmental Issues

## Implication

- **Strong Economic Growth forecast for the next decade.**

Edmonton must make the most of this current economic boom – infrastructure and diversification.

- **Costs are rising.**

The Alberta Advantage has been eroded as input costs rise, and other provinces cut tax rates. The rapid escalation of costs may slow project investment.

- **Space shortages are appearing.**

Housing, Industrial land, Downtown real estate are all in short supply. Rents are not high enough to warrant new construction at current costs.

- **General Labour shortages constraining growth.**

High churn affects productivity, disparity between industries which can pay high wages (oil, construction), need to attract people.


- **Changing demographics.**

Fundamental changes in North America as baby boomers age – requires more focus on efficiency, productivity and innovation

- **Diversification challenges.**

Cost escalation and high focus on resource industries makes it difficult to attract and grow knowledge/technology based industries.

## RISKS TO ECONOMIC GROWTH



Edmonton's economy is currently operating at full capacity. Significant issues that could drastically impact economic growth are:

1. Price of Oil & Gas
2. Inflation
3. Migration
4. Environmental Legislation – Domestic & International

# CHALLENGES & OPPORTUNITIES

## Challenges

**Continued Labor Shortage**

**Shifting Demographics**

**Rampant Growth**

**Cost Competitiveness Eroding**

**Diversification of Economy**

## Opportunities

**Firms that embrace efficiency, productivity and innovation will thrive.**

**Firms that embrace the problem and create long-term solutions today, will create a competitive advantage for themselves.**

**Rampant growth leads to ideas. The upgraders being developed is a prime example – how can we capture more value from their development? E.g. Spin-off byproducts/industries created from the process.**

**Add value, automate, lean manufacturing**

**Continue creating knowledge based industries**

# SOURCES ON INFORMATION

The information in the 2008 Edmonton Overview has been compiled from the following sources:

- **Alberta Energy**
- **Alberta Finance**
- **Statistics Canada**
- **Petroleum Communication Foundation/Canadian Centre for Energy**
- **Conference Board of Canada**
- **Edmonton Forecasting Committee**
- **CERI**
- **Alberta Employment Industry & Immigration**
- **Canadian Petroleum Association**
- **Epcor**
- **CAPP**
- **City of Edmonton Planning & Development Department**
- **Canadian Mortgage and Housing Corporation (CMHC)**
- **CB Richard Ellis**
- **Canadian Association of Energy Information**

Note: A significant amount of the information in the Edmonton Overview has been compiled from external sources. While reasonable effort has been made to ensure the accuracy of the information, EEDC can not be held liable for inaccurate or outdated information.

## CONTACT US

### 2008 Economic Overview

A PDF version of the Overview can be downloaded from  
[www.edmonton.com/statistics](http://www.edmonton.com/statistics)

A PowerPoint version is available by email request at  
[info@edmonton.com](mailto:info@edmonton.com)