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# Demographic Trends in Alberta, Canada, and the United States: What are the Implications for Agriculture?

A Presentation to

***Ag Choices 2007 Conference***

Alberta Agriculture, Food & Rural Development

By

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Red Deer, Alberta  
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# Demographic Analysis

## Overview

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- Study of human populations
- Key factors of analysis:
  - » Sex
  - » Ethnicity/race
  - » Marital status and family structure
  - » Births and deaths
  - » Migration
  - » **AGE**

# Demographic Analysis

## Overview

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To become an amateur demographer  
you must understand:

- Two assumptions
- Template of “cohorts”

# Demographic Analysis

## Assumptions

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### ***Assumption #1***

***Every year you get a year older***

# Demographic Analysis

## Assumptions

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### ***Assumption #2***

***You tend to act your age***

# Demographic Analysis

## Assumptions

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- *Acting your age:*

- » “Two-thirds of everything” (David K. Foot, *Boom, Bust & Echo 2000*)
- » Life cycle analysis of **economic behaviour**: how you spend your time and money
- » **Strategic and long-term** (10-20 years)
- » **Baseline analysis** (don't forget the survey research, economic forecasting, policy analysis, etc.)

# Demographic Analysis

## *Cohorts*

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- **Boom:** 1947-1966
  - » 41-60 in 2007
  - » 29.6 percent of Alberta's population (Canada, 30.4%)
- **Bust:** 1967-1979
  - » 28-40 in 2007
  - » 19.4 percent of Alberta's population (Canada, 18.1%)
- **Echo:** 1980-1995
  - » 12-27 in 2007
  - » 23.3 percent of Alberta's population (Canada, 21.5%)

# Demographic Analysis

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- Today's presentation:
  - » Major demographic trends in Alberta, Canada, United States, and selected countries:
    - Historical
    - Projected
  - » What the trends mean for the agri-food industry:
    - Potential product demand
    - Labour force
    - Marketing

# Demographic Trends - Alberta

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***1990-2005***

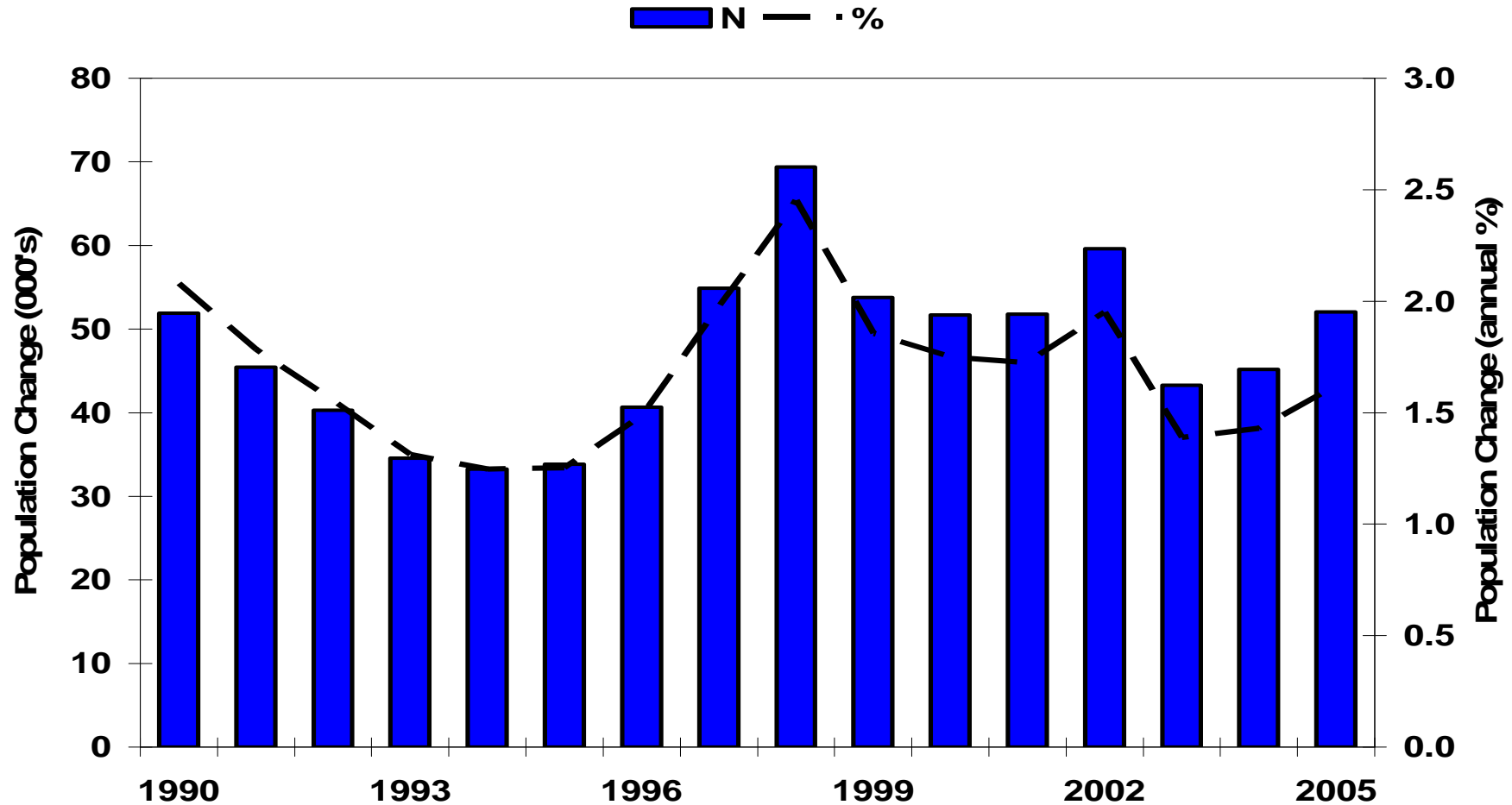
# Demographic Trends - Alberta

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**Between 1990 and 2005, Alberta's population increased by 28 percent. On average, Alberta added over 44,000 persons each year (a growth rate of 1.68 percent).**

# Alberta

## Population Change, 1990-2005



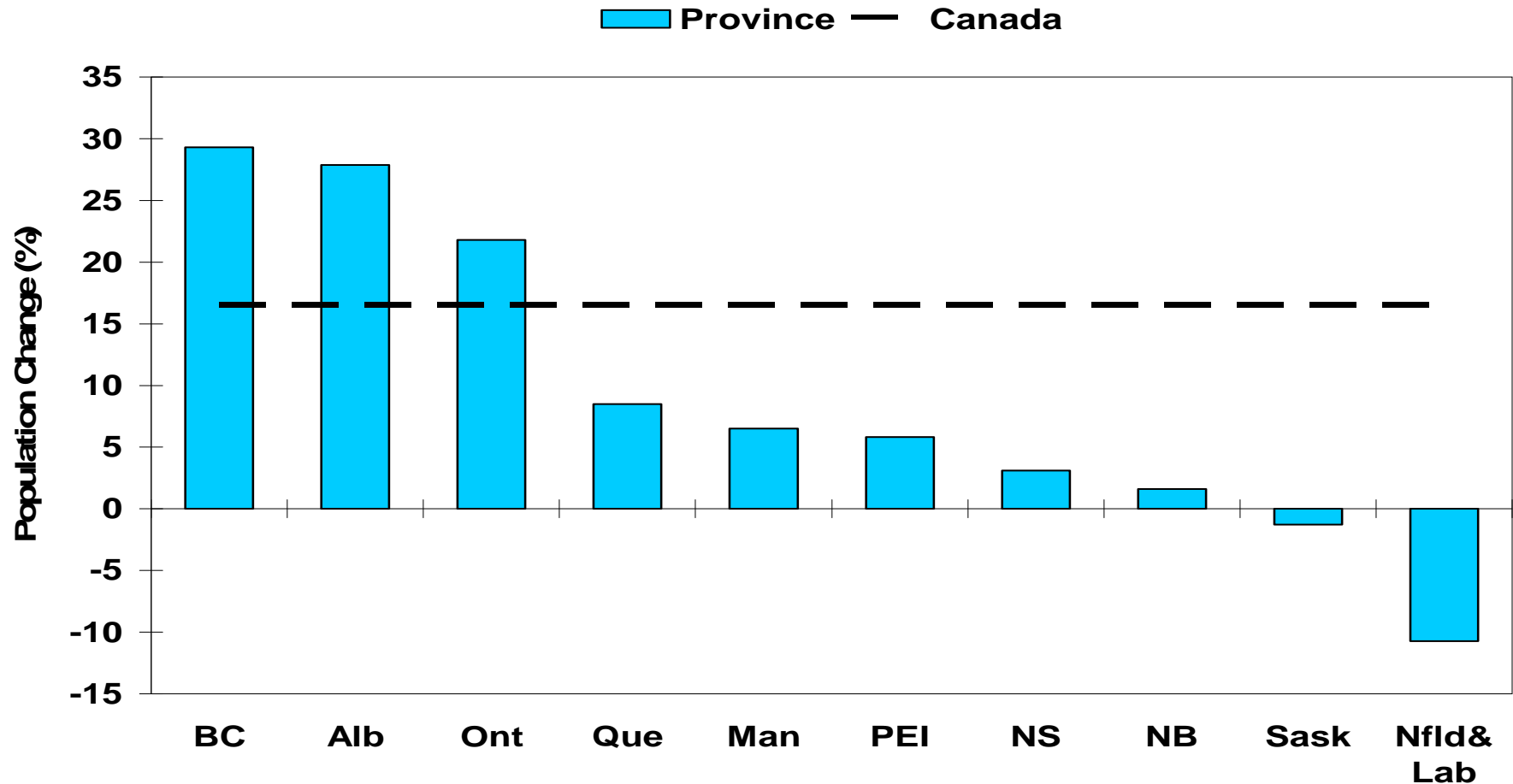
# Demographic Trends - Alberta

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**Between 1990 and 2005, Alberta's population growth was second only to that of British Columbia and well above the national average.**

# Canada's Provinces

## Population Change, 1990-2005 (percent)



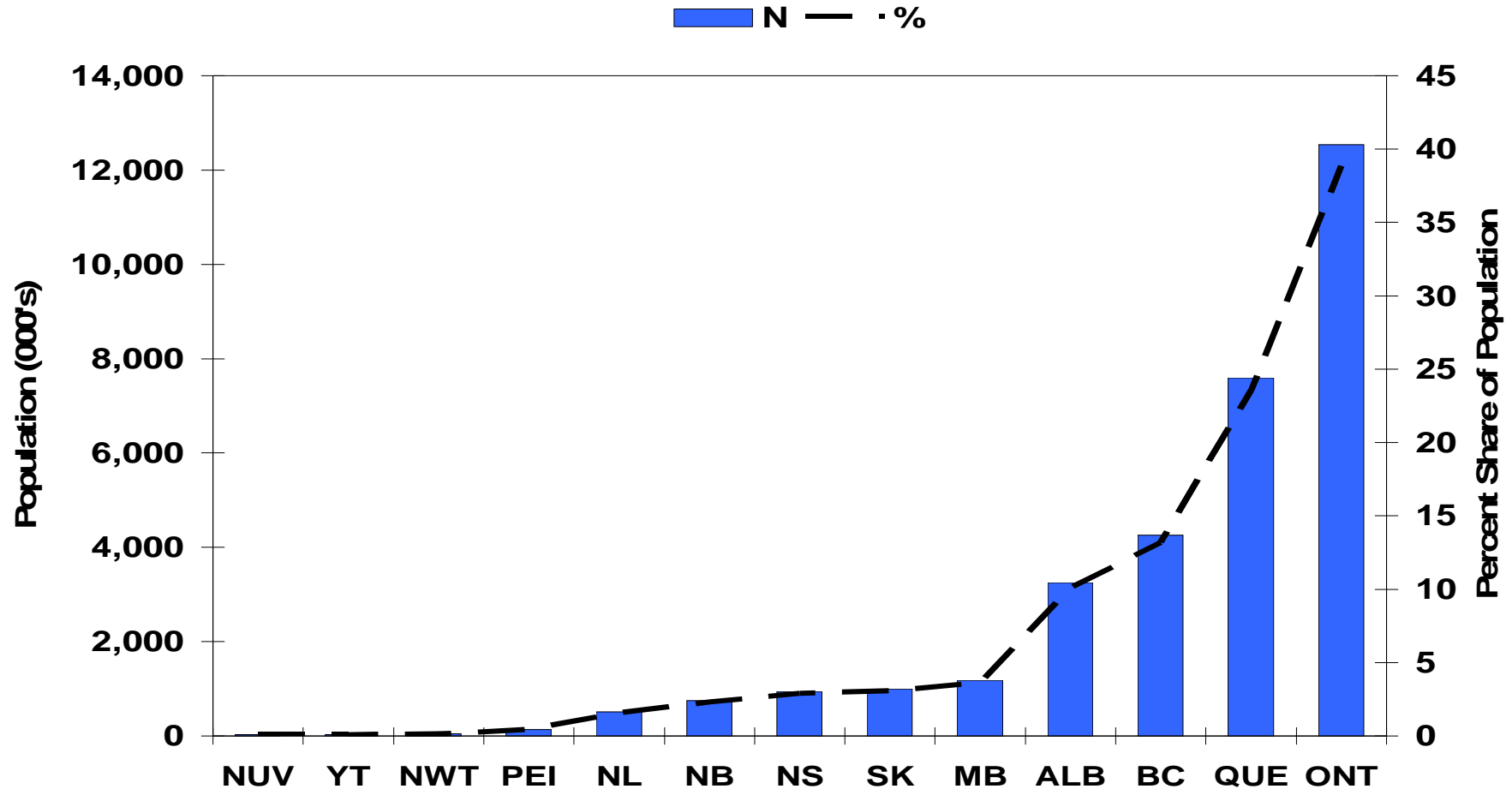
# Demographic Trends - Alberta

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**In 2005, 85 percent of Canada's population lived in four provinces: Ontario, Québec, British Columbia, and Alberta. Alberta's share was 10 percent.**

# Canada

## Population Distribution by Province, 2005



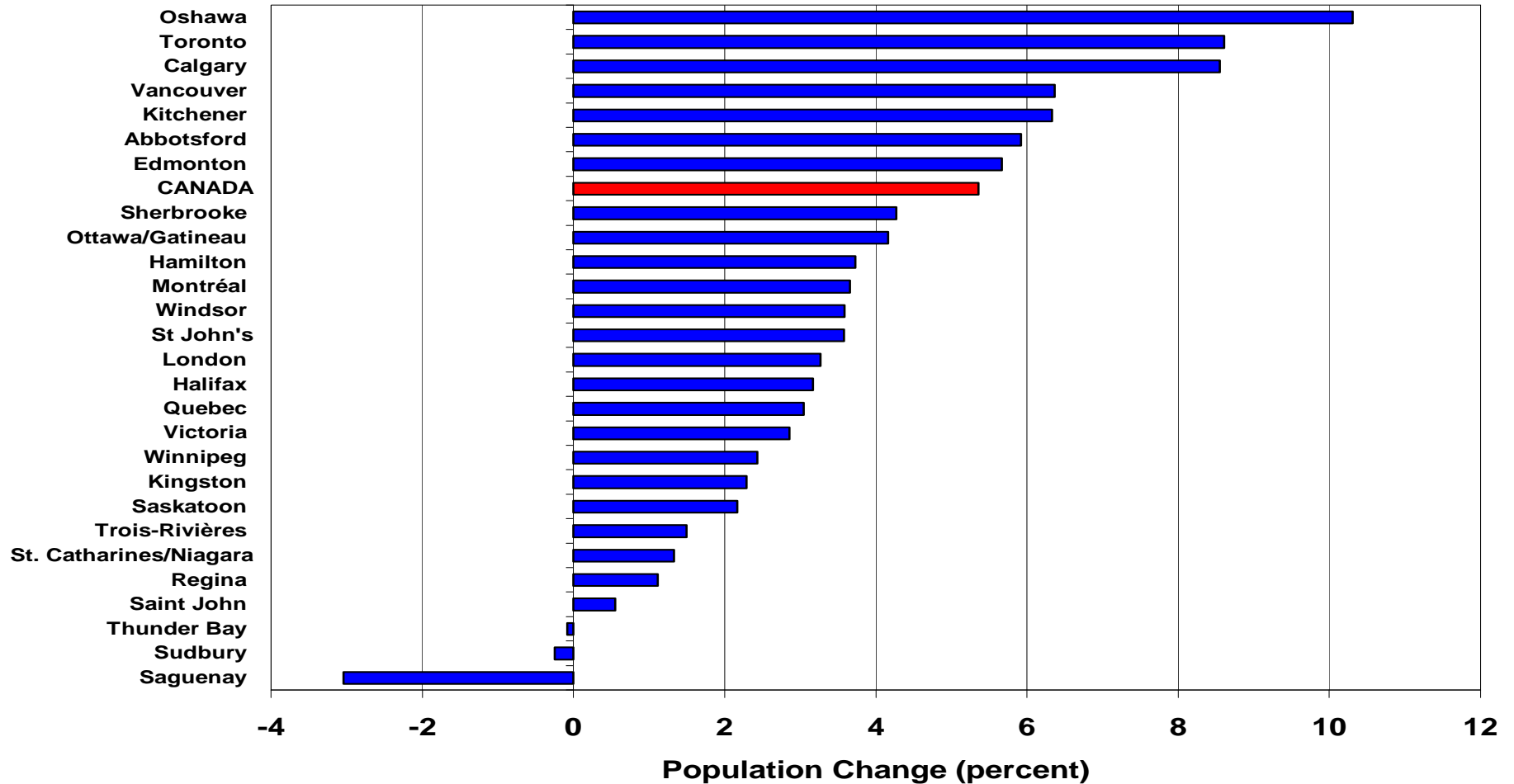
# Demographic Trends - Alberta

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**Alberta's population is skewed regionally. Almost two-thirds (64 percent) live in either the Calgary or Edmonton census metropolitan areas (CMA).**

# Canada

## Population Change by CMA, 2001-2005 (percent)



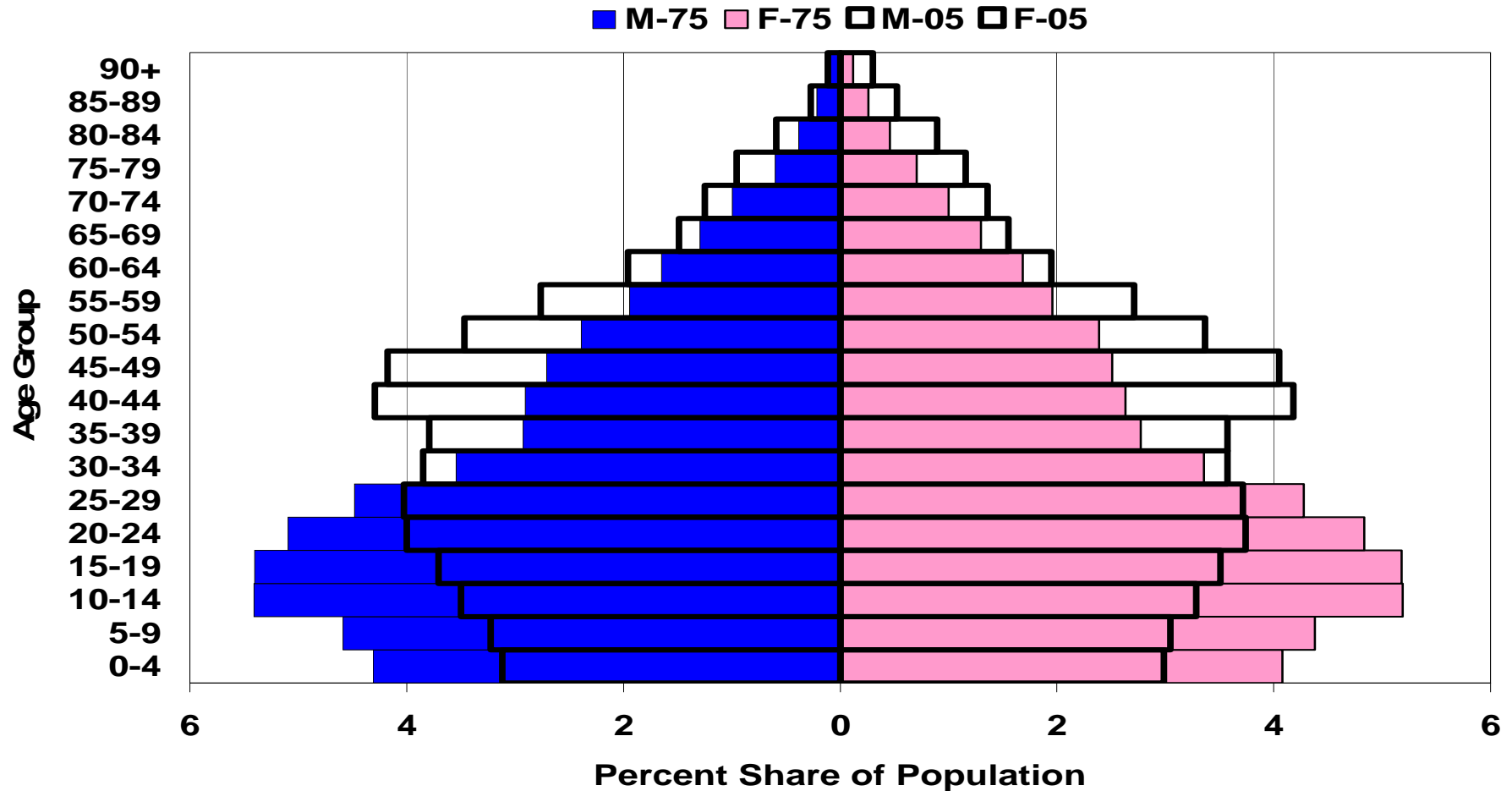
# Demographic Trends - Alberta

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**Alberta's population has not only been increasing but it has also been aging. In 1975, 25 percent of Albertans were 45-plus; by 2005, 35 percent.**

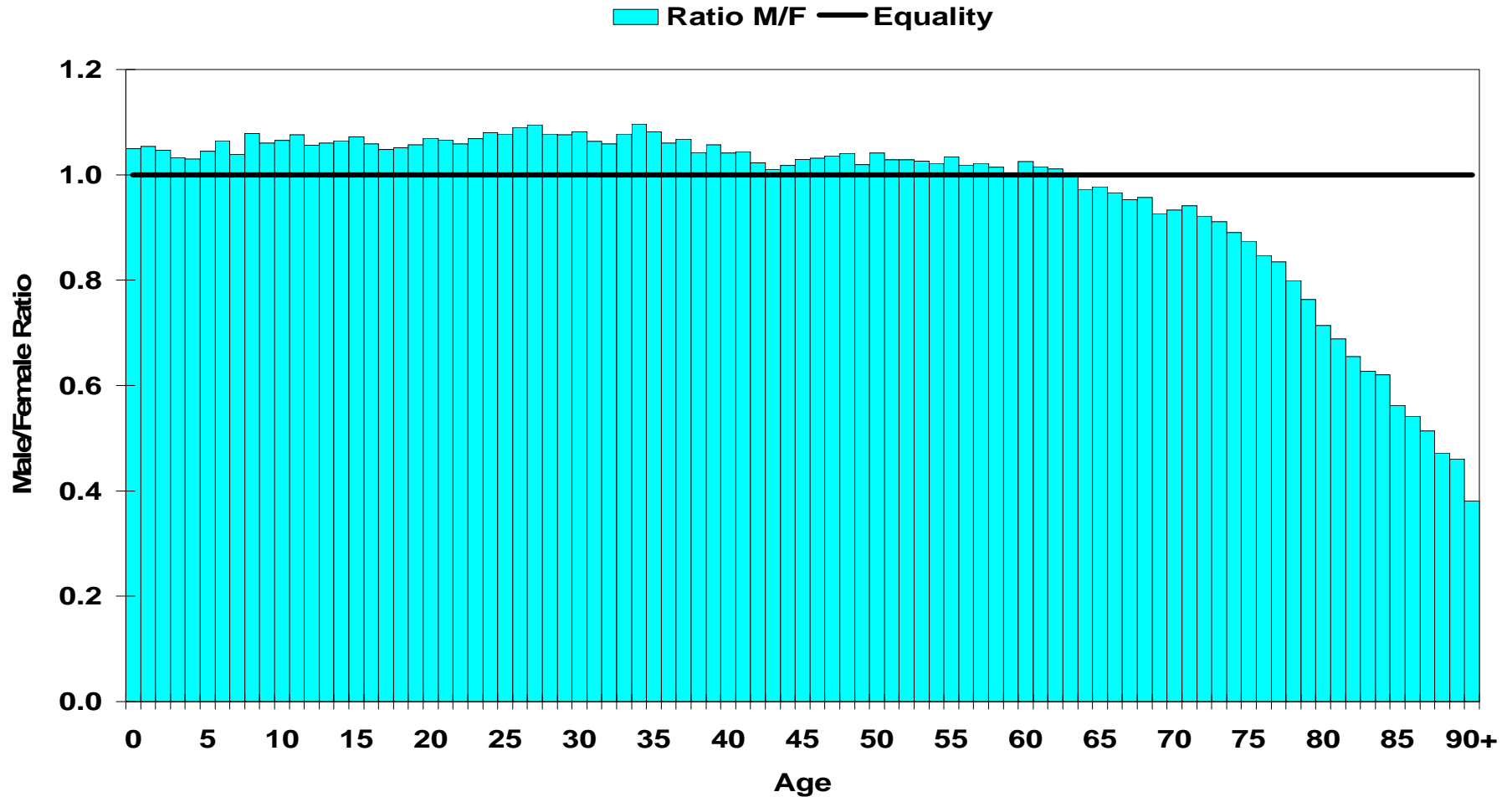
# Alberta

## Population Pyramid, 1975 (colour) versus 2005 (outline)



# Alberta

## Male/Female Ratio by Age, 2005



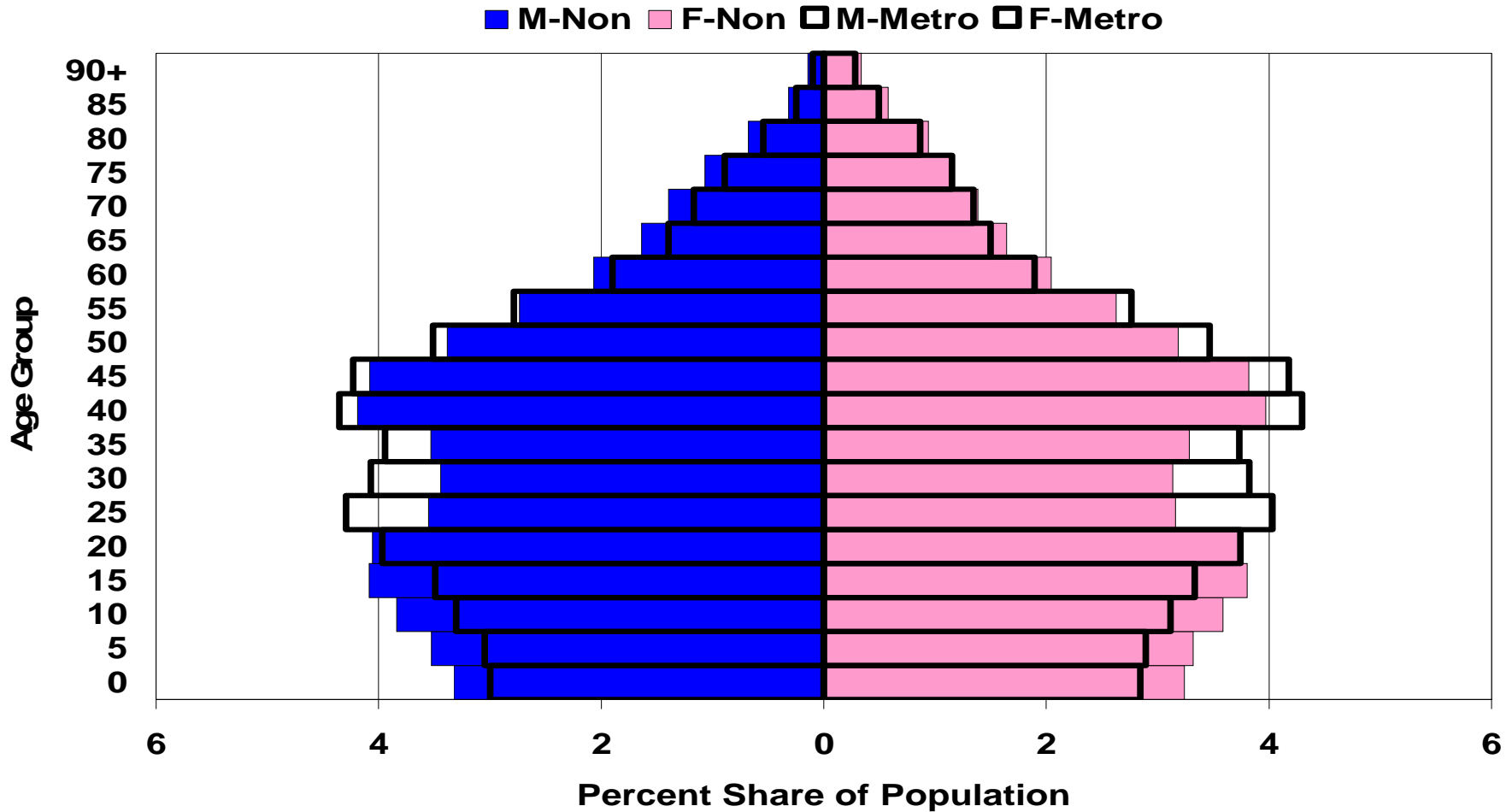
# Demographic Trends - Alberta

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**The aging trend in Alberta is more pronounced in the non-metropolitan areas.**

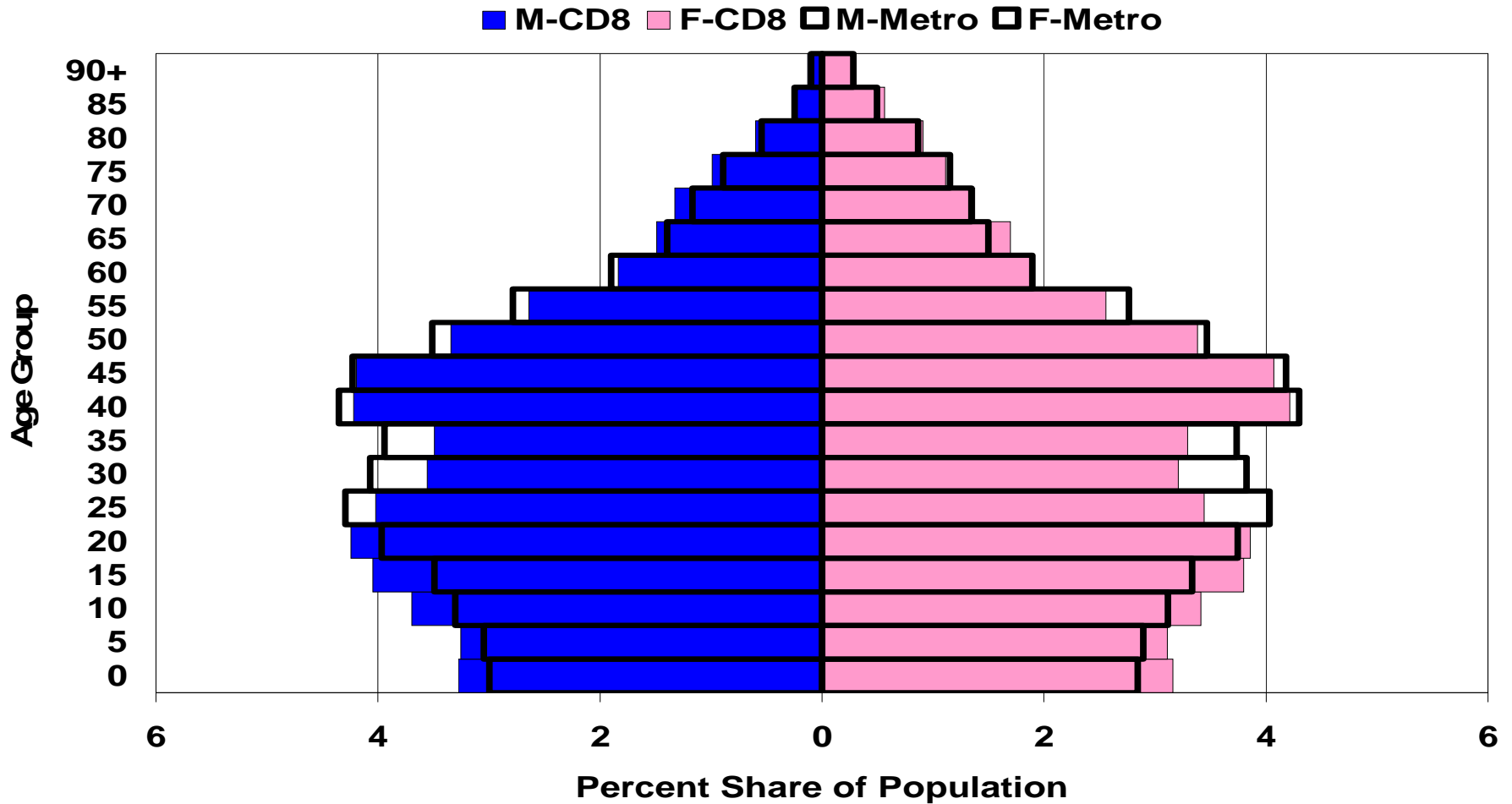
# Alberta

## Population Pyramid, Non-CMA (colour) versus CMA (outline)



# Alberta

## Population Pyramid, CD 8 (colour) versus CMA (outline)



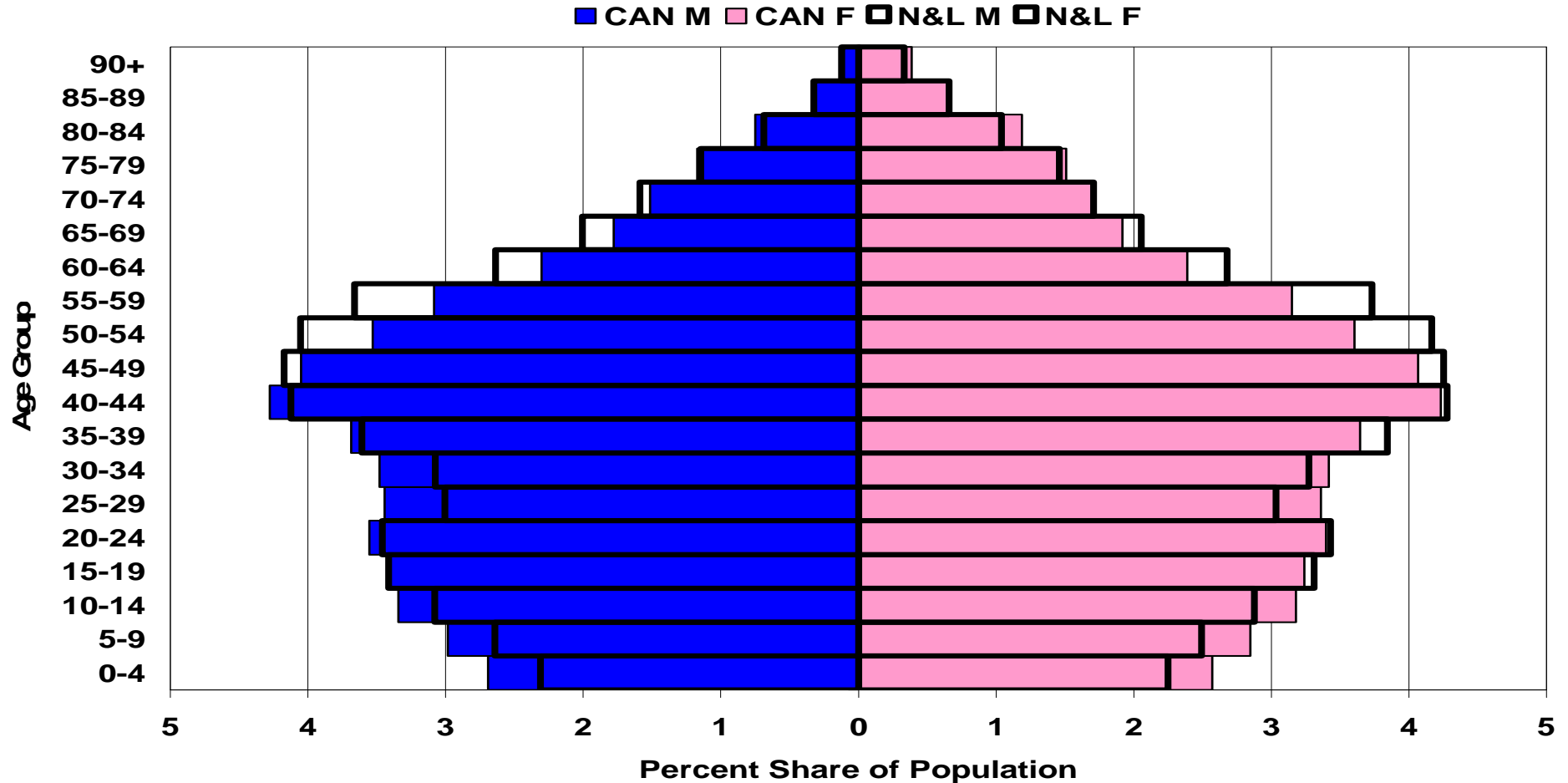
# Demographic Trends - Canada

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**However, Alberta looks young compared to the rest of the provinces.**

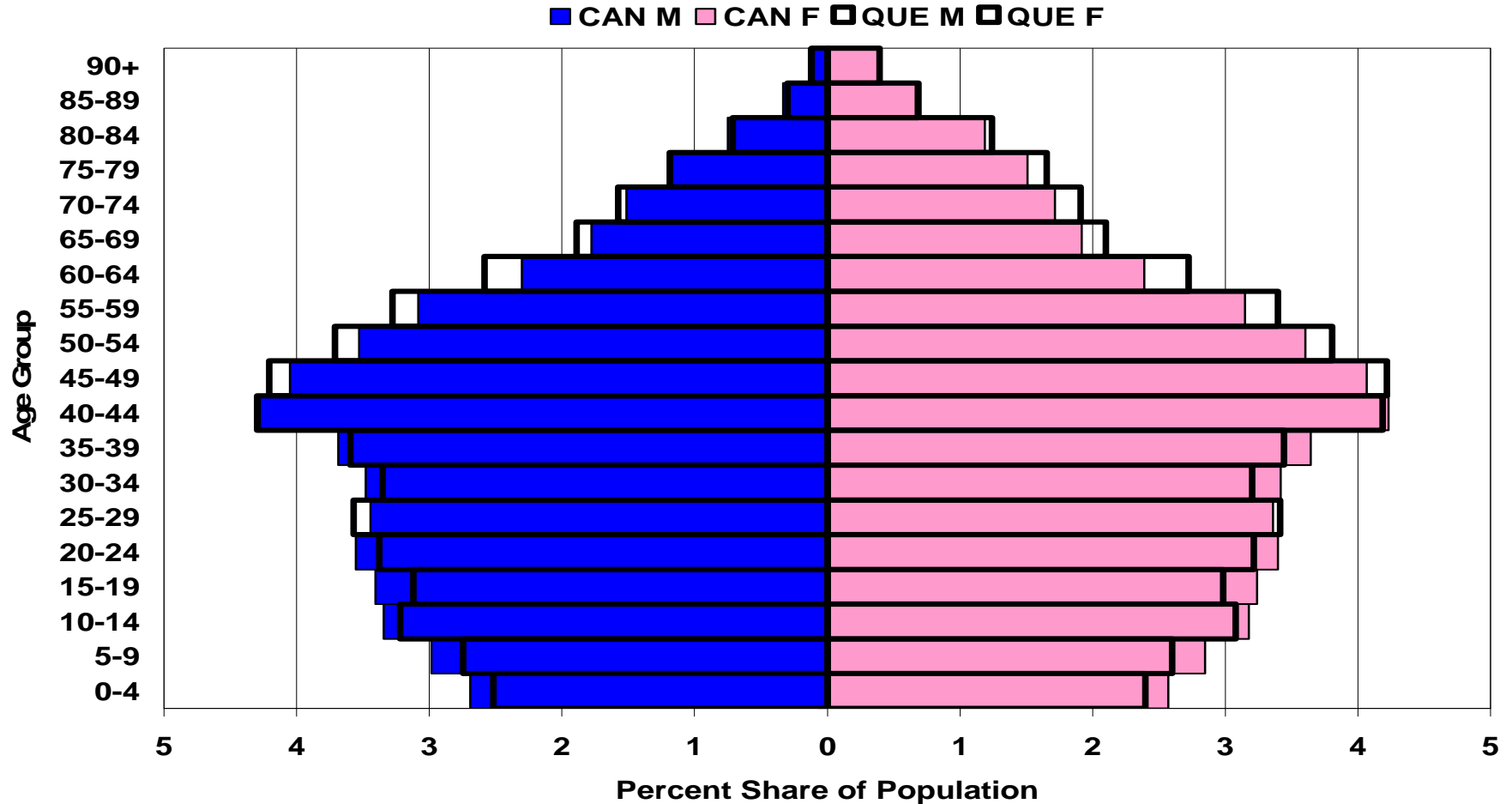
# Population Pyramid

Newfoundland & Labrador (outline) versus Canada (colour), 2005 (percent)



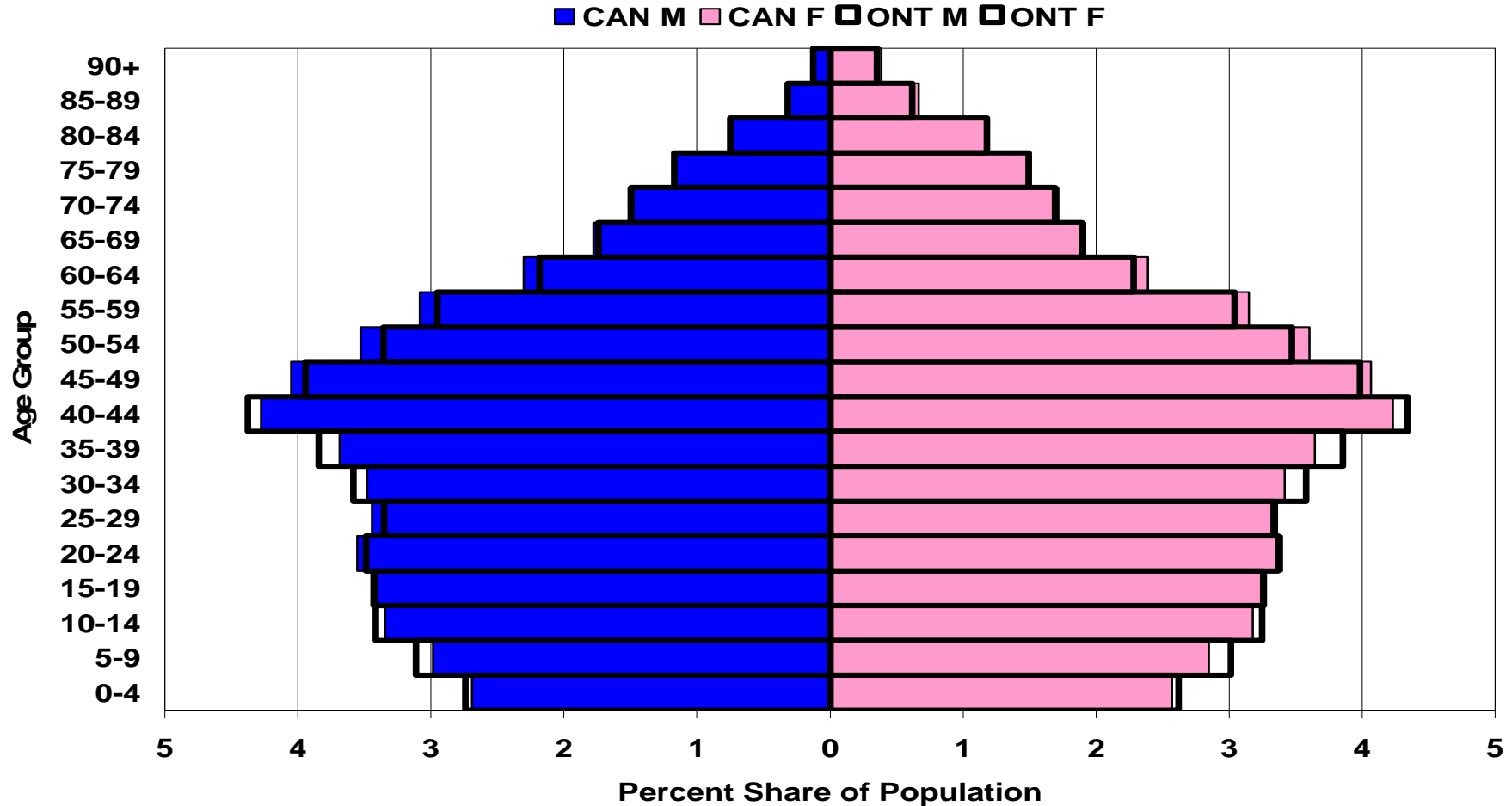
# Population Pyramid

Québec (outline) versus Canada (colour), 2005 (percent)



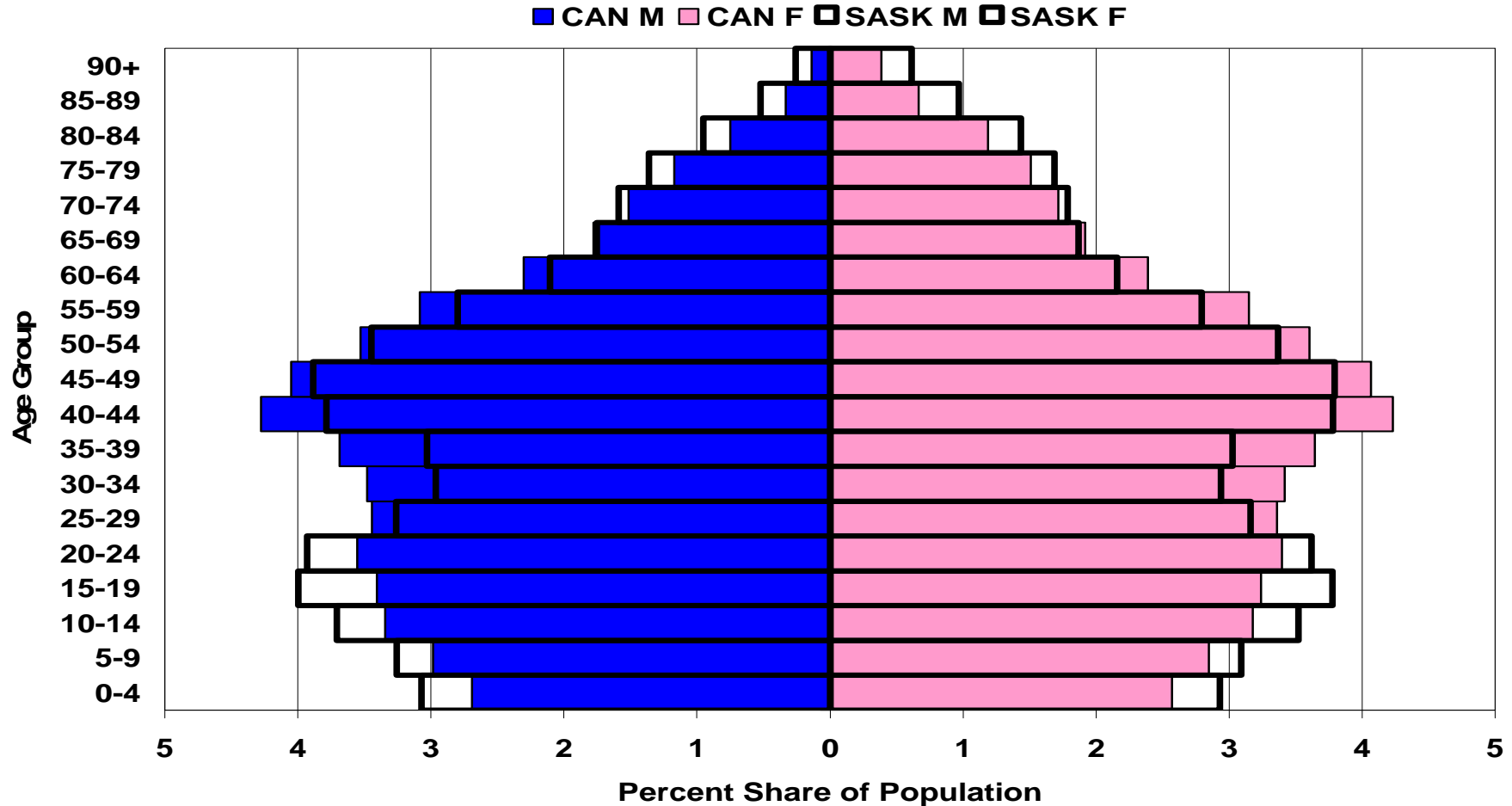
# Population Pyramid

Ontario (outline) versus Canada (colour), 2005 (percent)



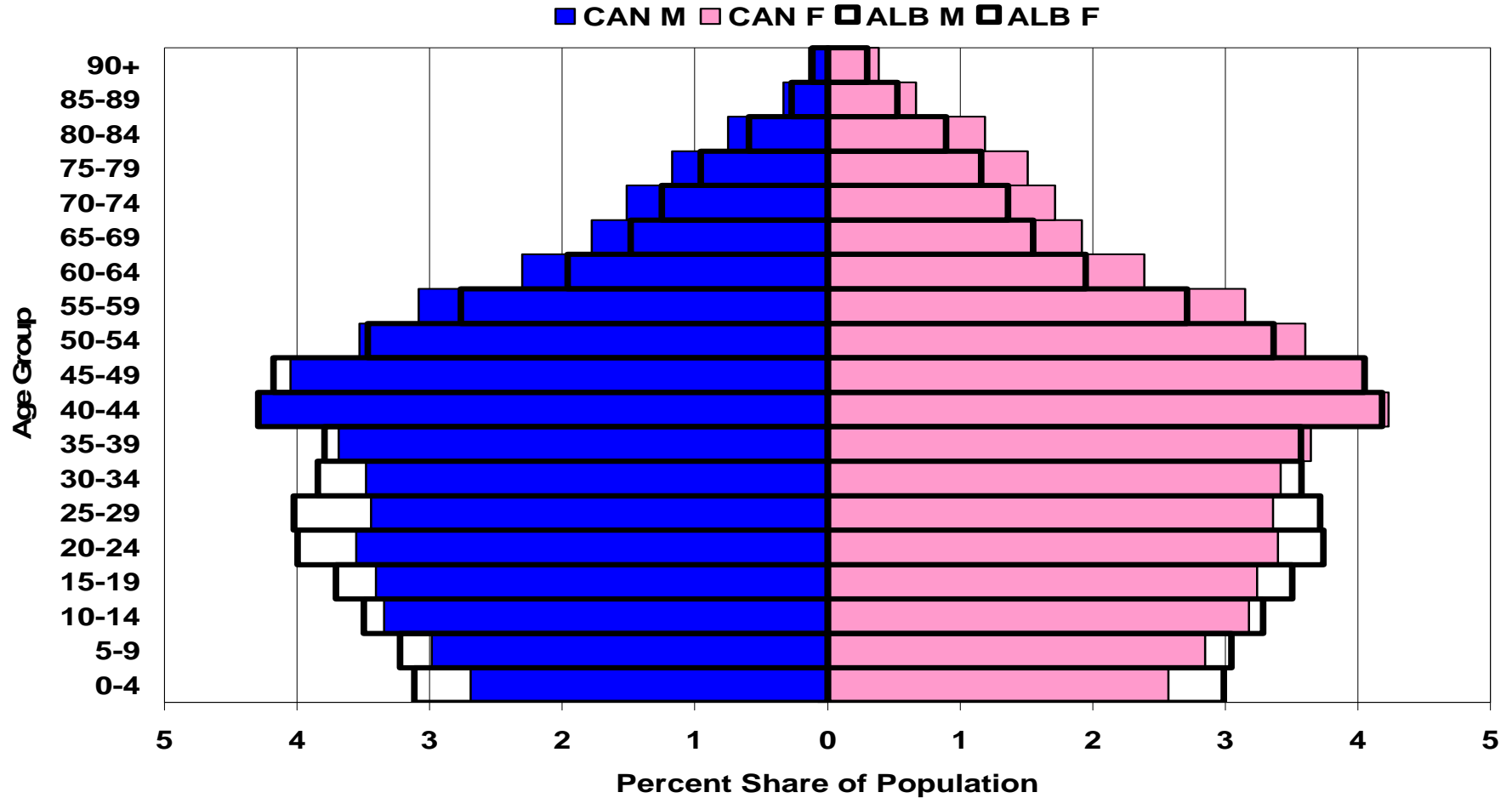
# Population Pyramid

Saskatchewan (outline) versus Canada (colour), 2005 (percent)



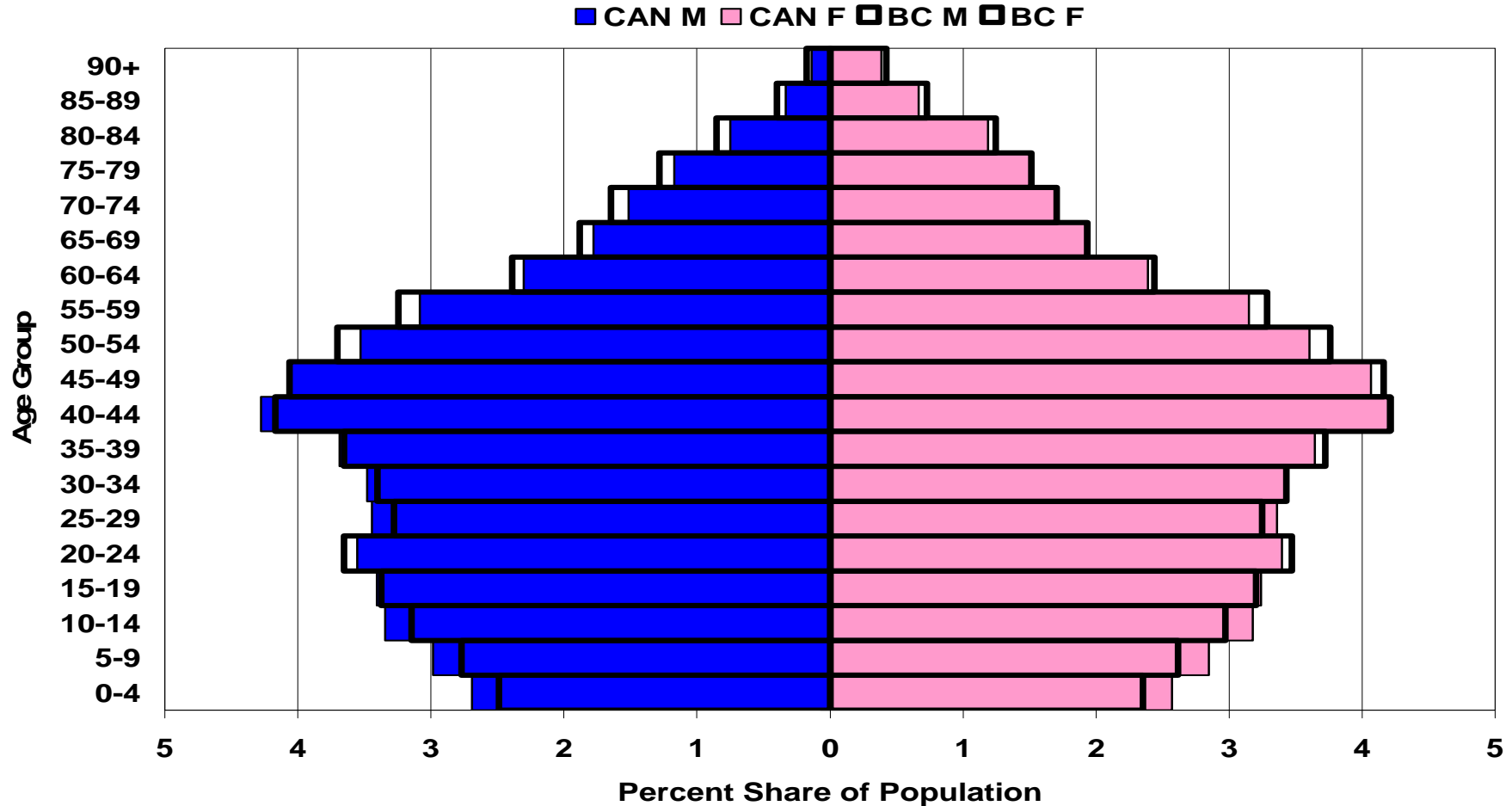
# Population Pyramid

Alberta (outline) versus Canada (colour), 2005 (percent)



# Population Pyramid

British Columbia (outline) versus Canada (colour), 2005 (percent)



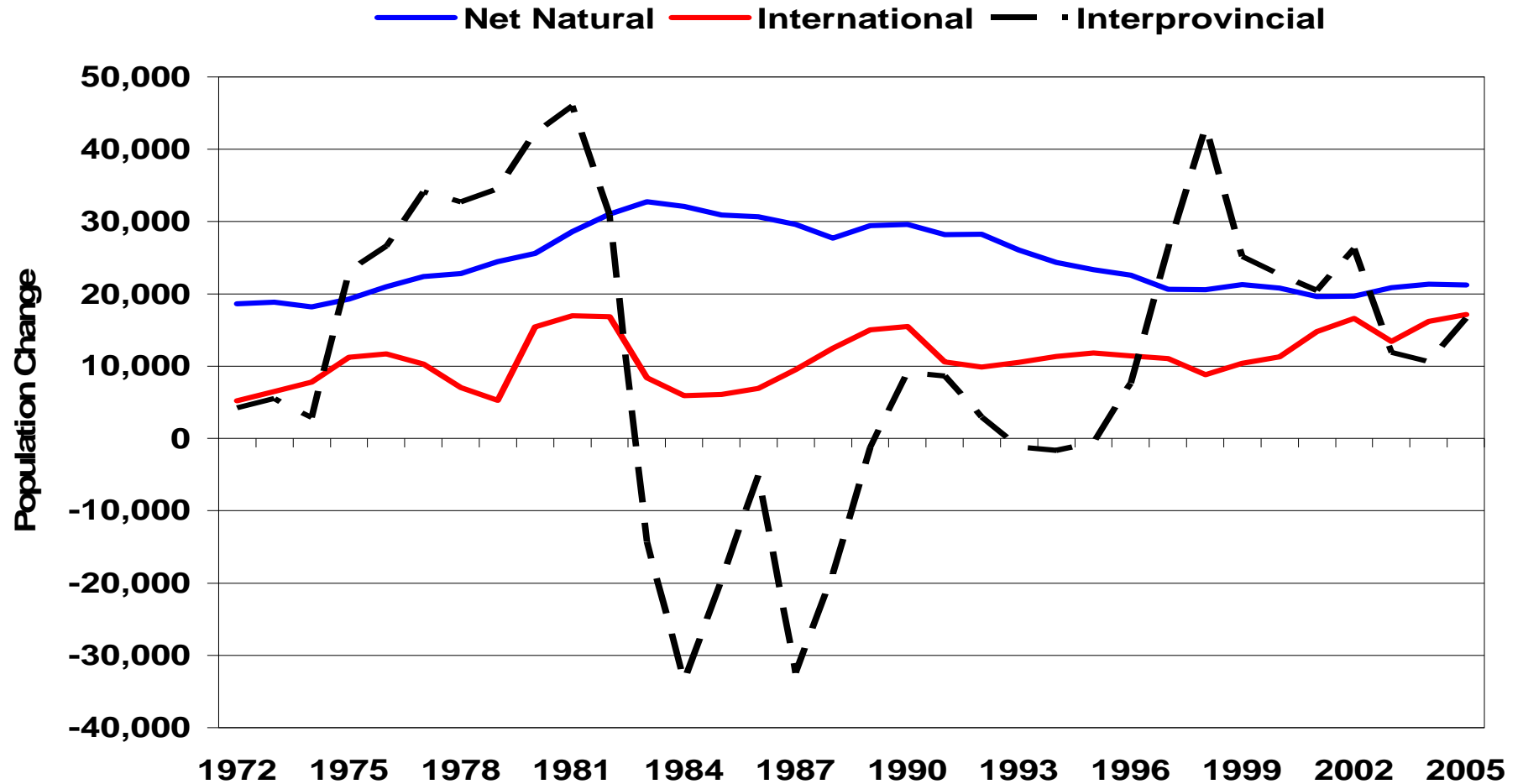
# Demographic Trends - Alberta

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**On average between 1990 and 2005, population growth through migration exceeded growth through net natural increase.**

# Alberta

## Population Change by Source, 1972-2005



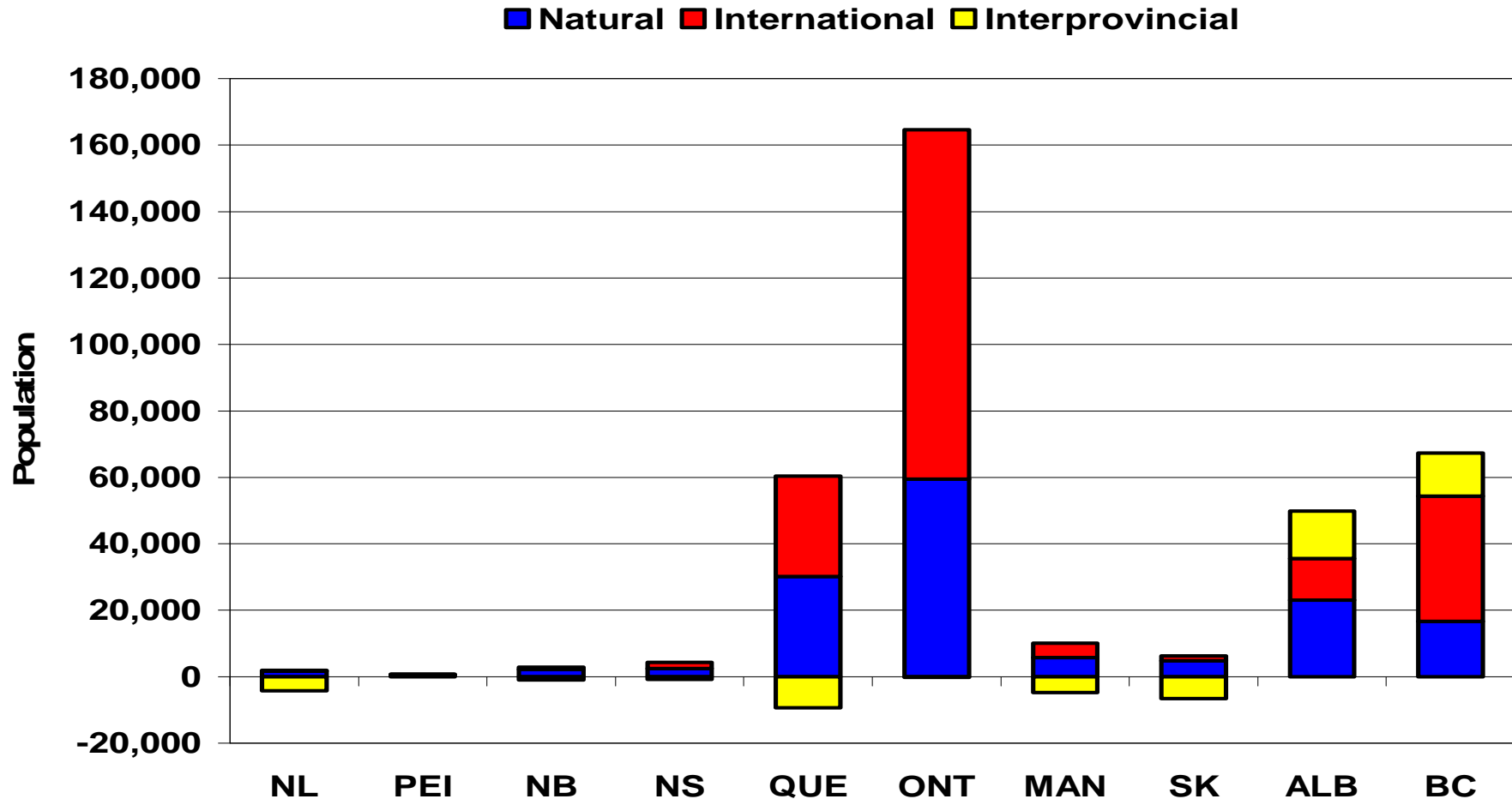
# Demographic Trends - Alberta

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**And where are Alberta's migrants coming from?**

# Canada's Provinces

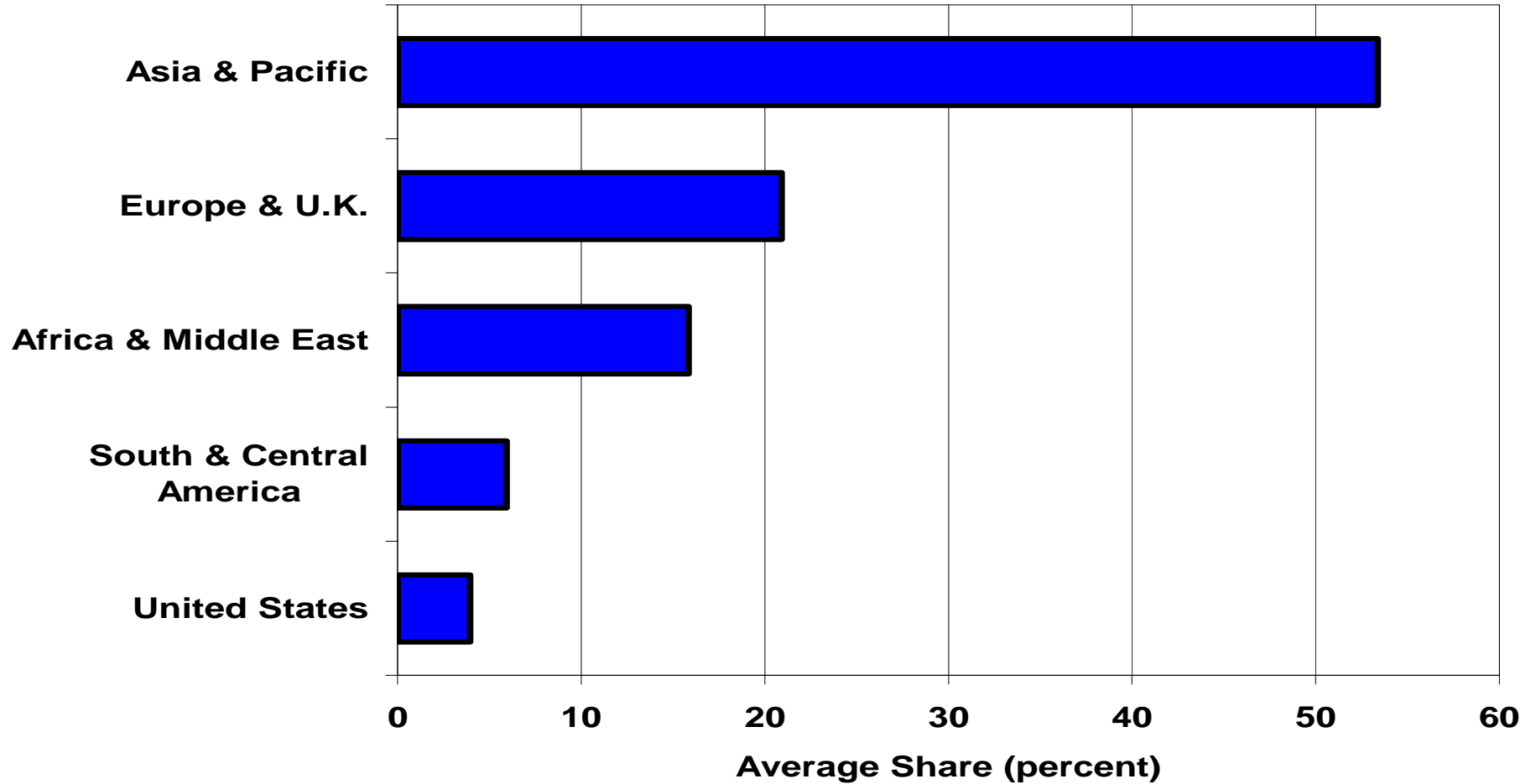
## Population Change by Source, 1990-2005 (annual average)





# Alberta

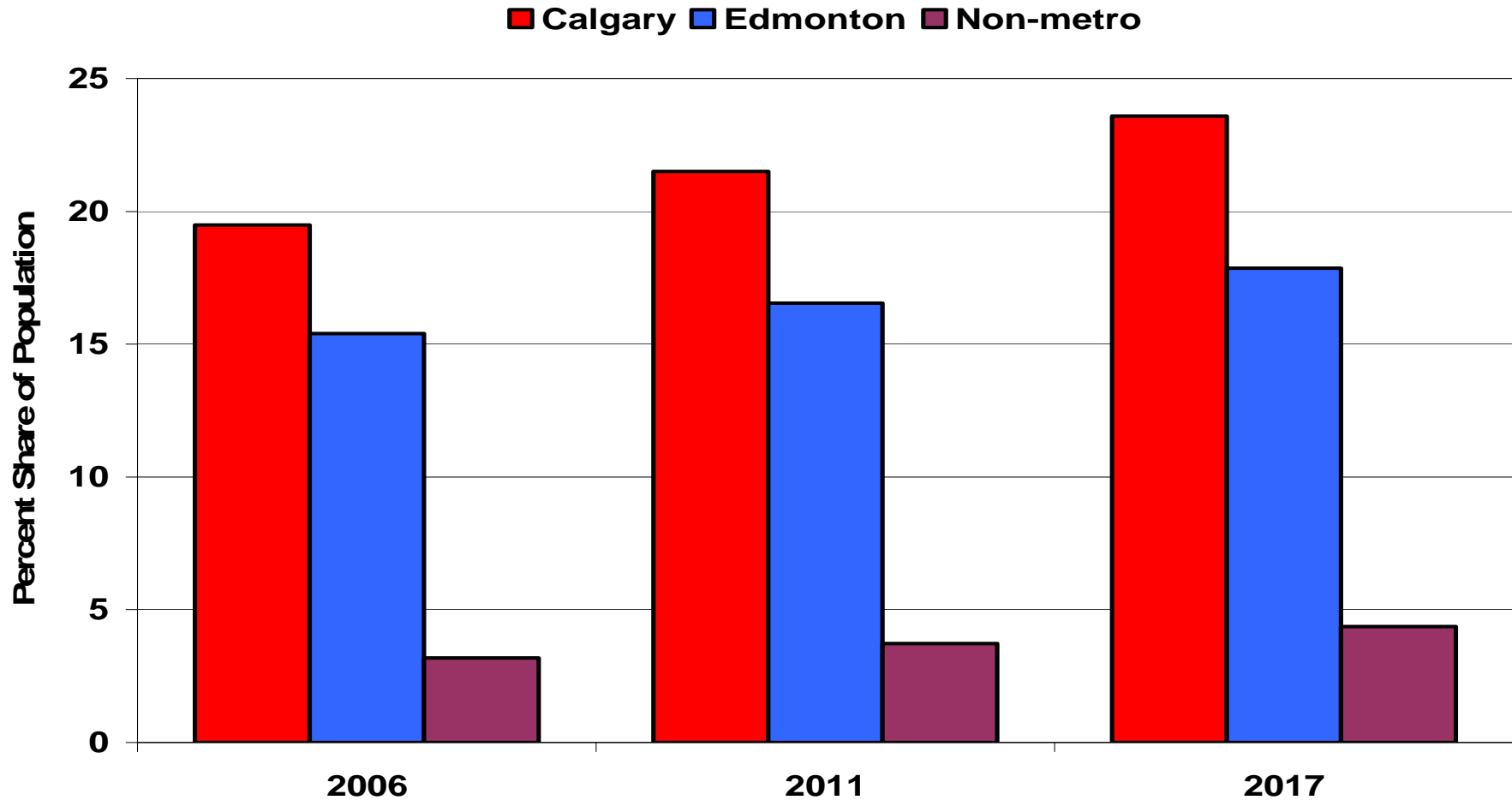
## Average Share of Immigrants by Source Region, 1996-2005





# Alberta

## Visible Minority Population Share by Area, 2006-2017 (projected)



# Demographic Trends - Alberta

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***2006-2016***

# Demographic Trends - Alberta

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## ***Statistics Canada's projections for Alberta's population in 2016:***

- » **Low = 3.60 million**
- » **Reference = 3.67 million**
- » **High = 3.74 million**
- » **The reference projection envisions a 11.3 percent increase in Alberta's population over the next ten years.**

# Demographic Trends - Alberta

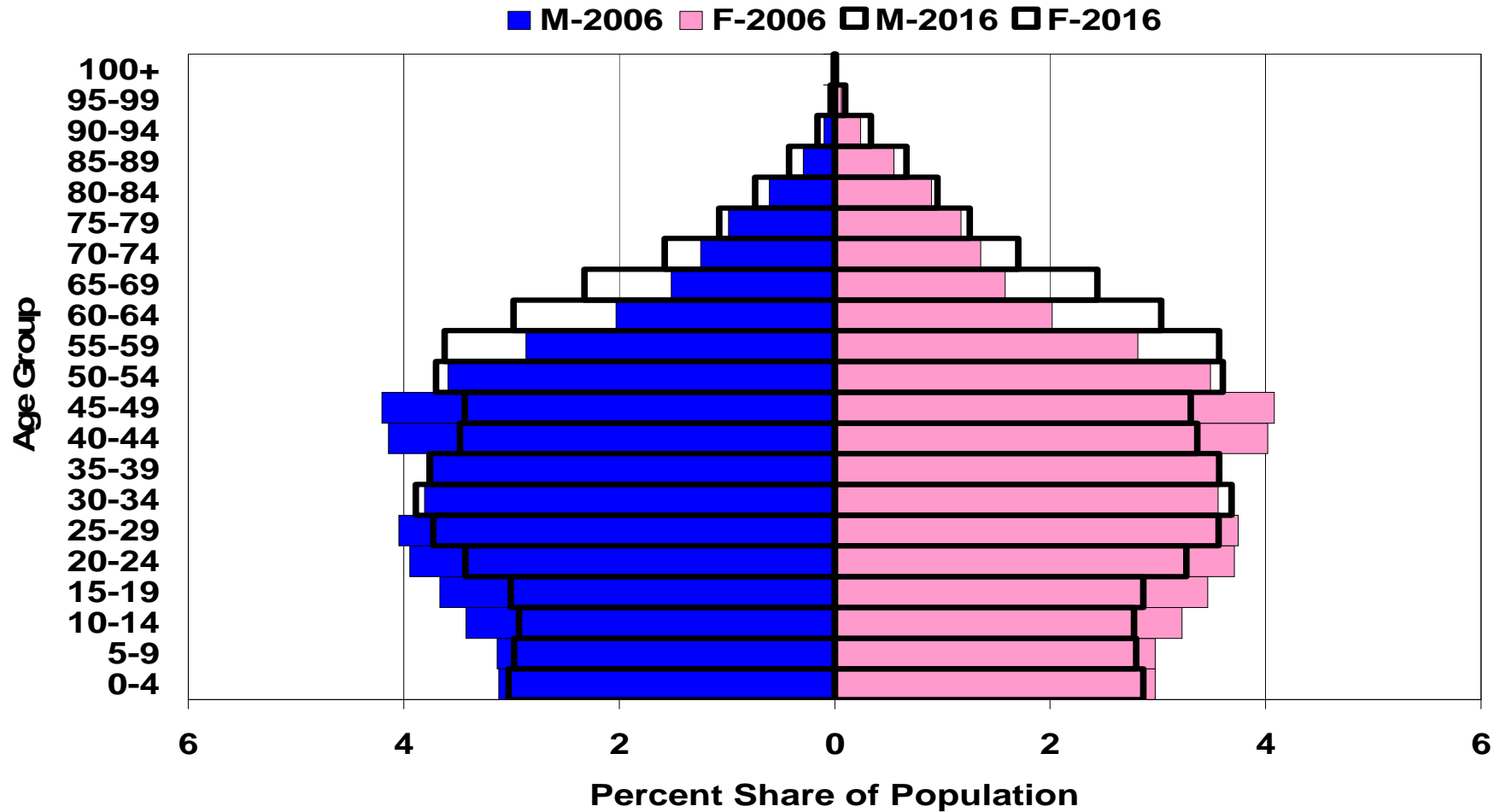
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***Over the next 10 years, Alberta's population will continue to age:***

- » The youth share (<25 years) will decrease 0.9 percent;***
- » The core labour force share (25-54) will increase 4.2 percent; and***
- » The "retiree" share (55+) will increase 47.5 percent.***

# Alberta

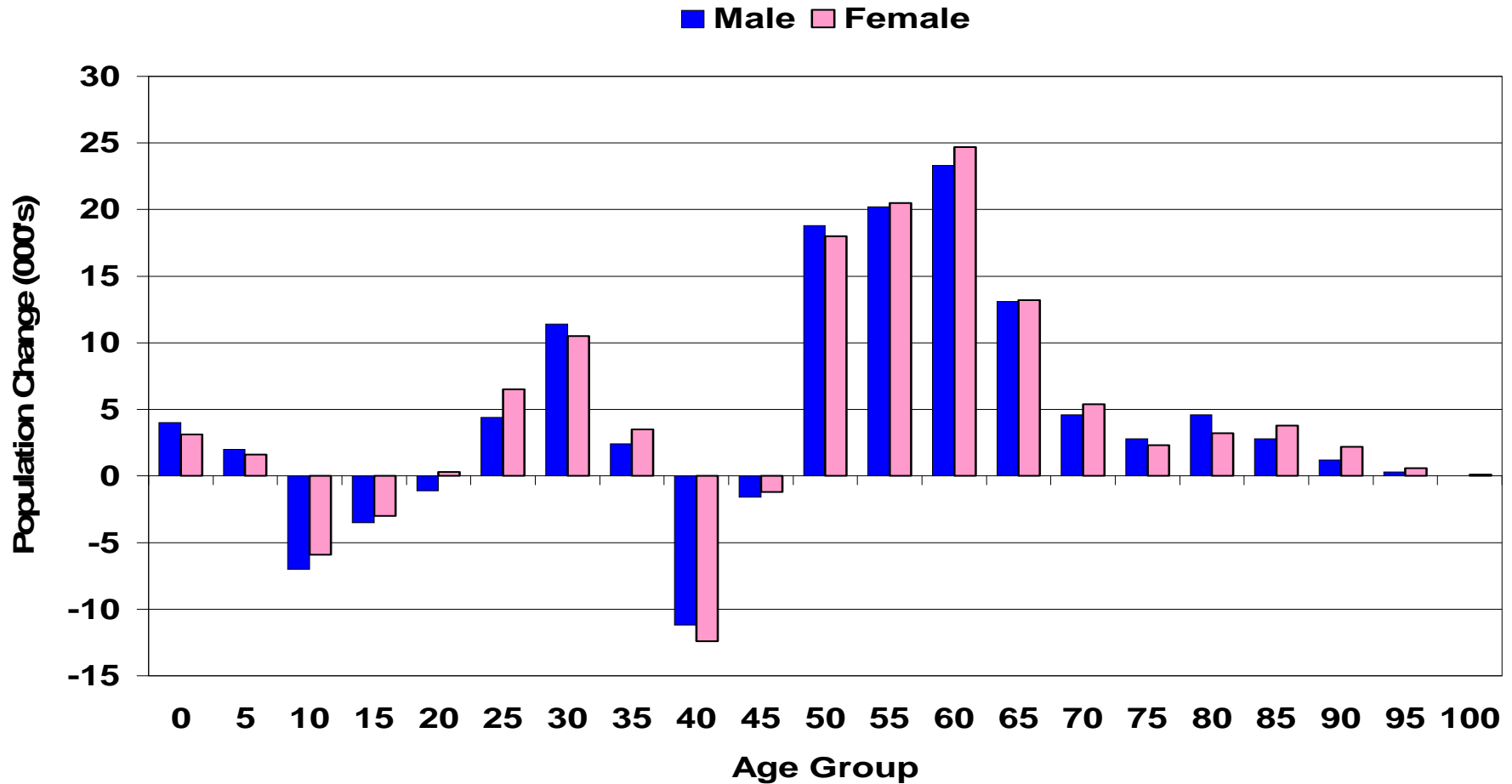
## Population Pyramid, 2006 (colour) versus 2016 (outline)





# Alberta

## Population Change by Age Group and Sex, 2006-16



# Demographic Trends - Alberta

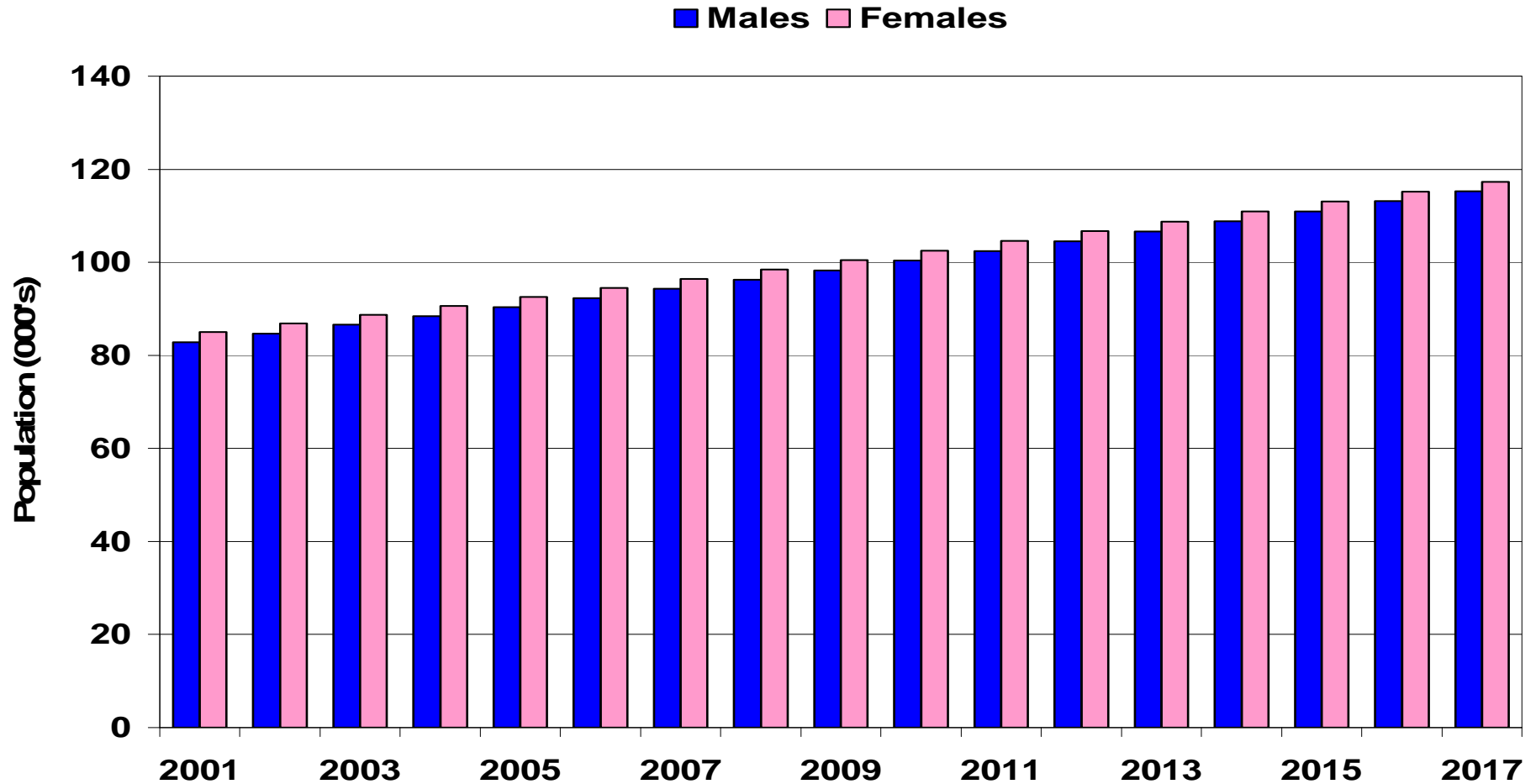
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## ***Alberta's Aboriginal Identity Population: An Island of Youth in an Aging Population***



# Alberta - Aboriginal Identity

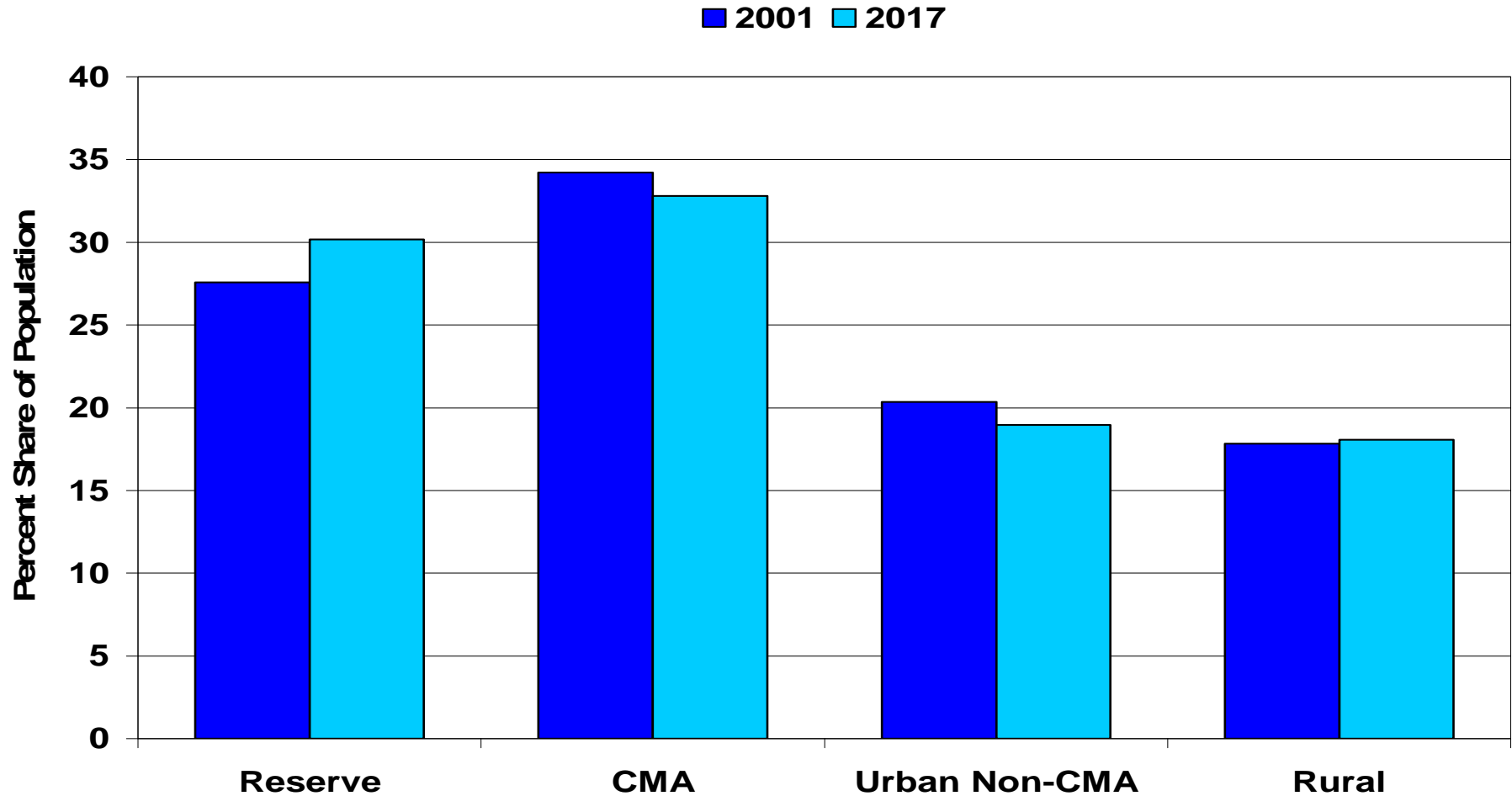
## Projected Population by Sex, 2001-2017 (000's)





# Alberta - Aboriginal Identity

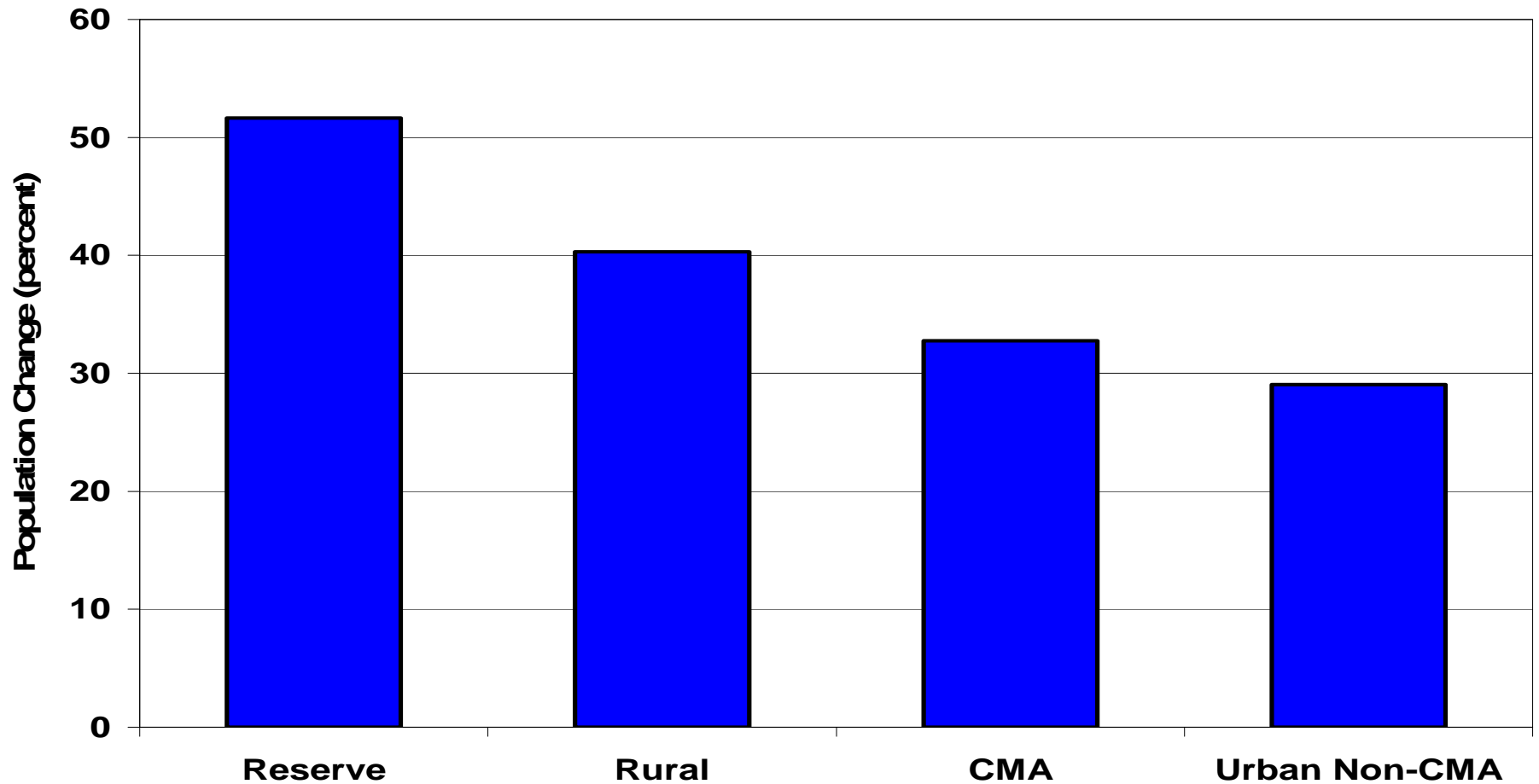
## Distribution by Residence, 2001 versus 2017 (percent)





# Alberta - Aboriginal Identity

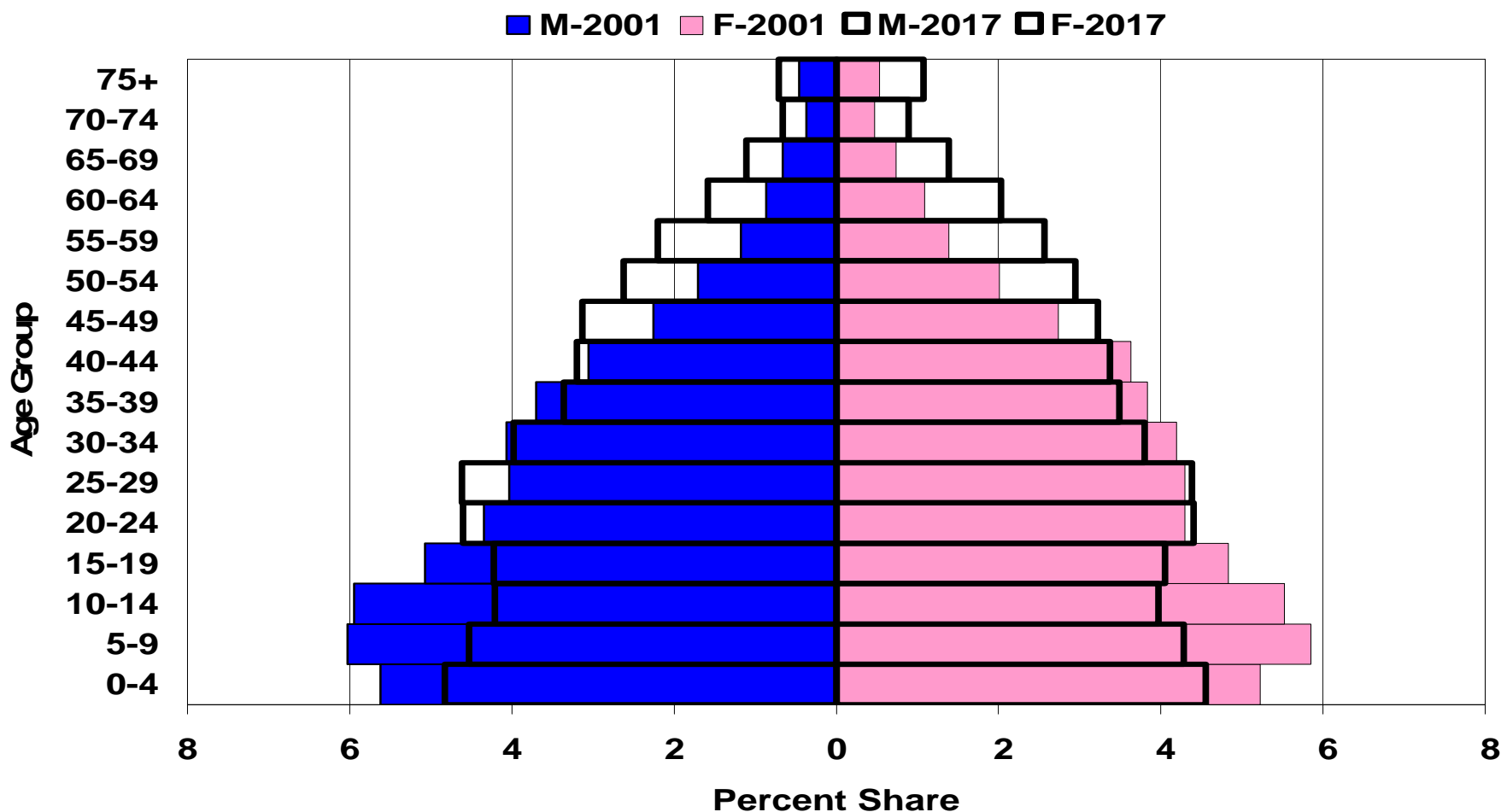
## Population Change by Residence, 2001 versus 2017 (percent)





# Alberta - Aboriginal Identity

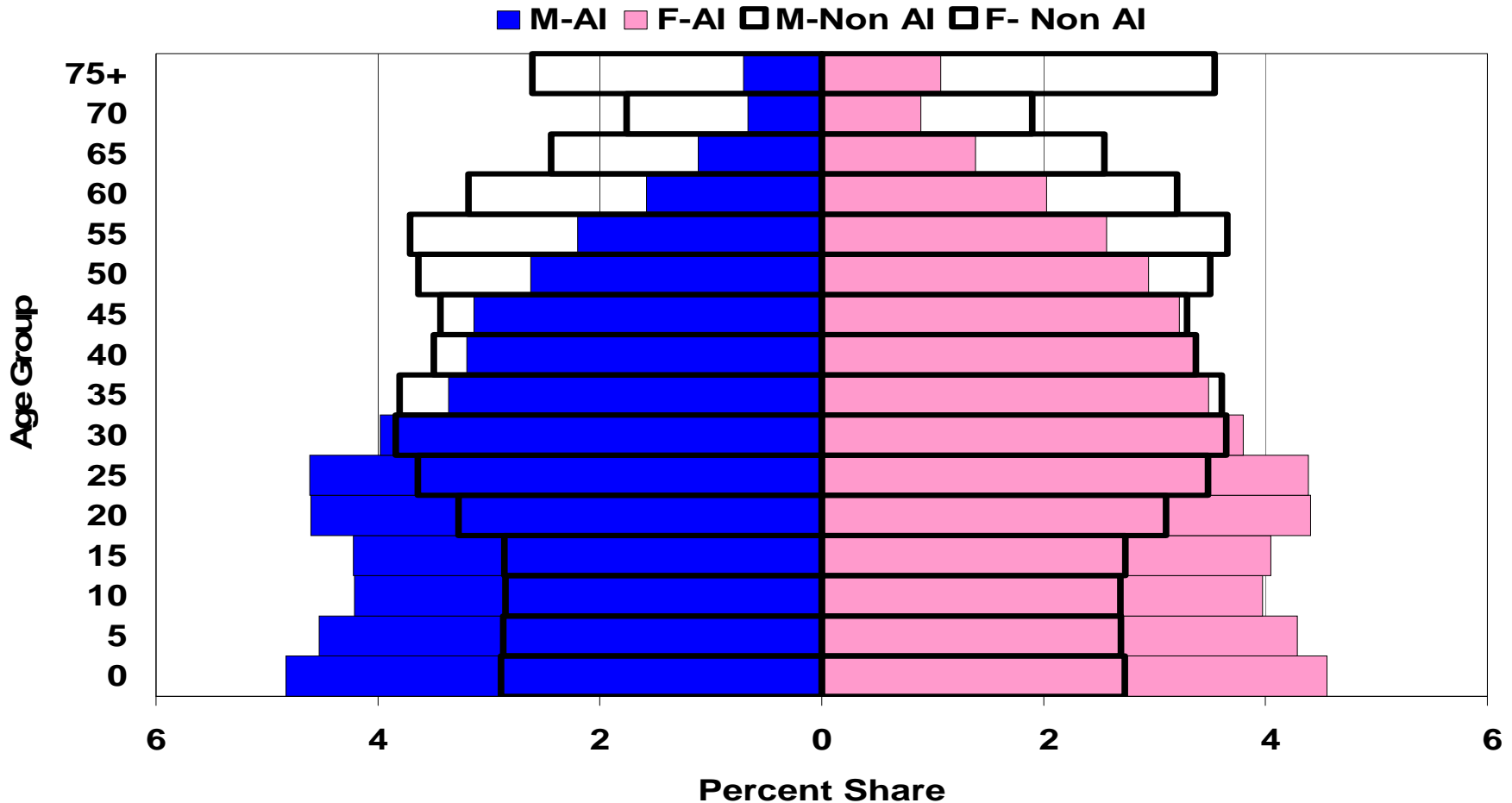
## Population Pyramid, 2001 (colour) versus 2017 (outline)





# Alberta Population Projection

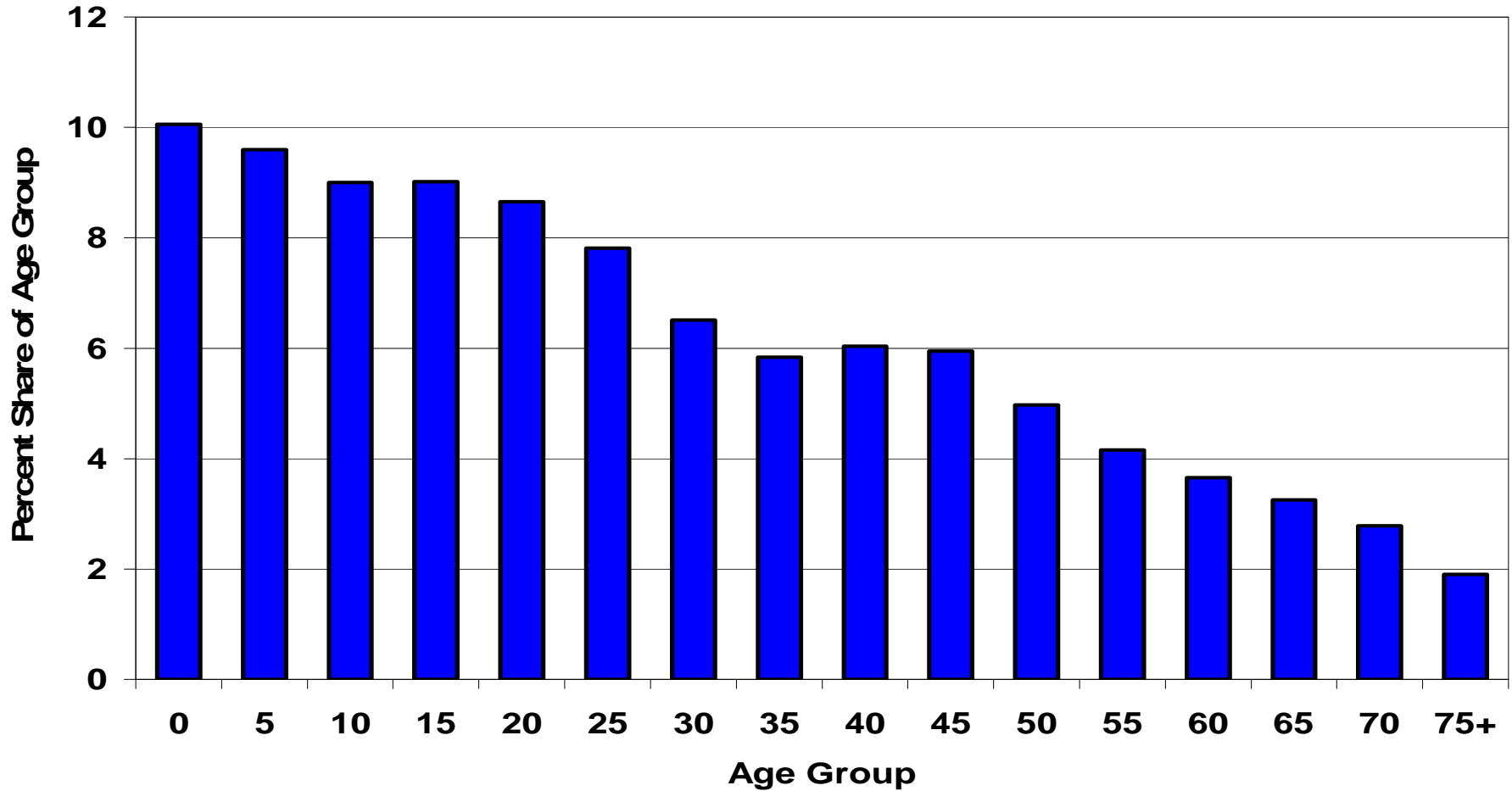
## Aboriginal Identity (colour) vs. Non-Aboriginal, 2017





# Alberta - Aboriginal Identity

## Share of Age Group, 2017 (percent)



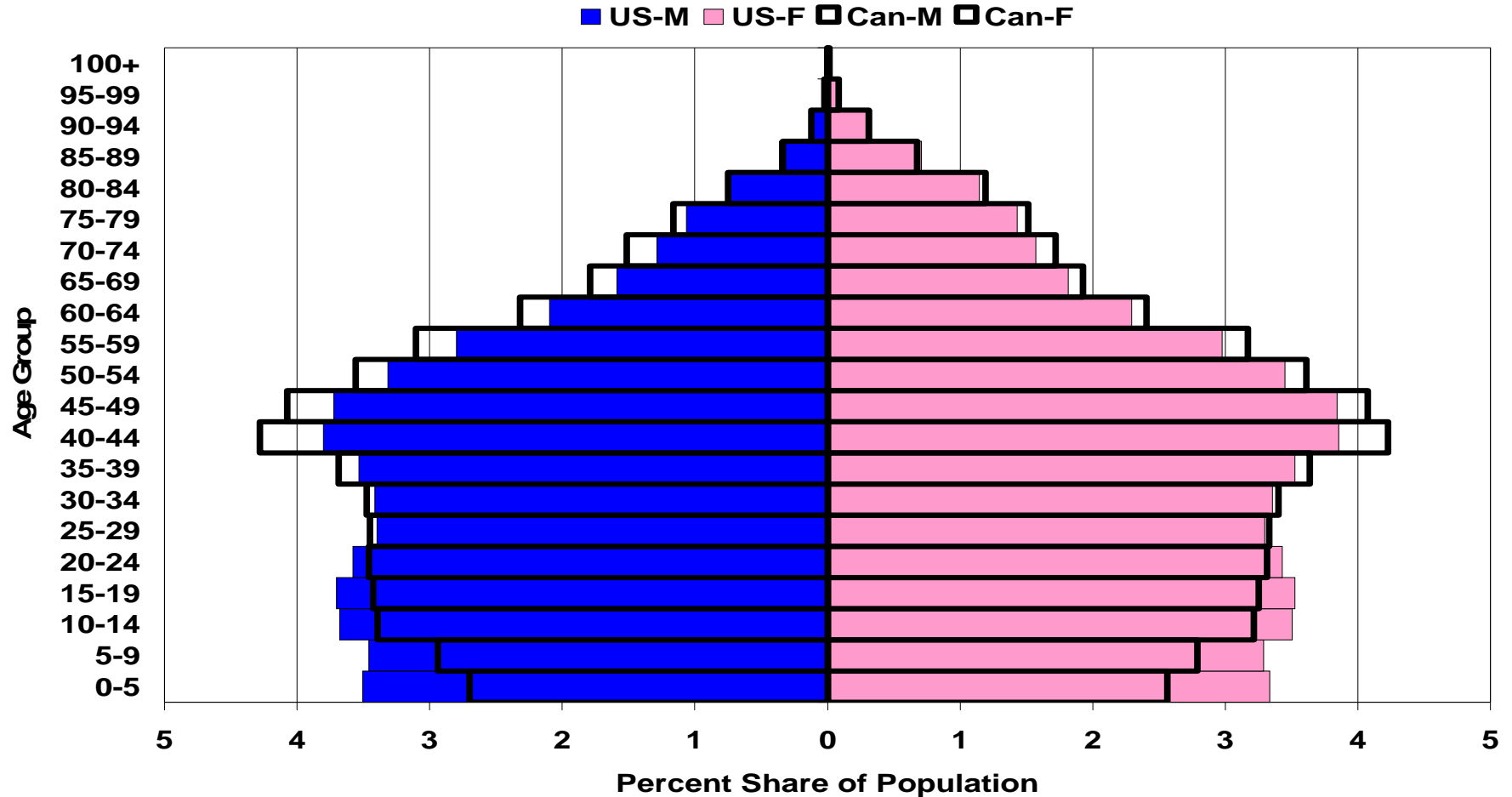
# Demographic Trends - United States

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***The U.S. is somewhat younger than Canada but its age structure varies significantly by ethnic/racial group and region.***

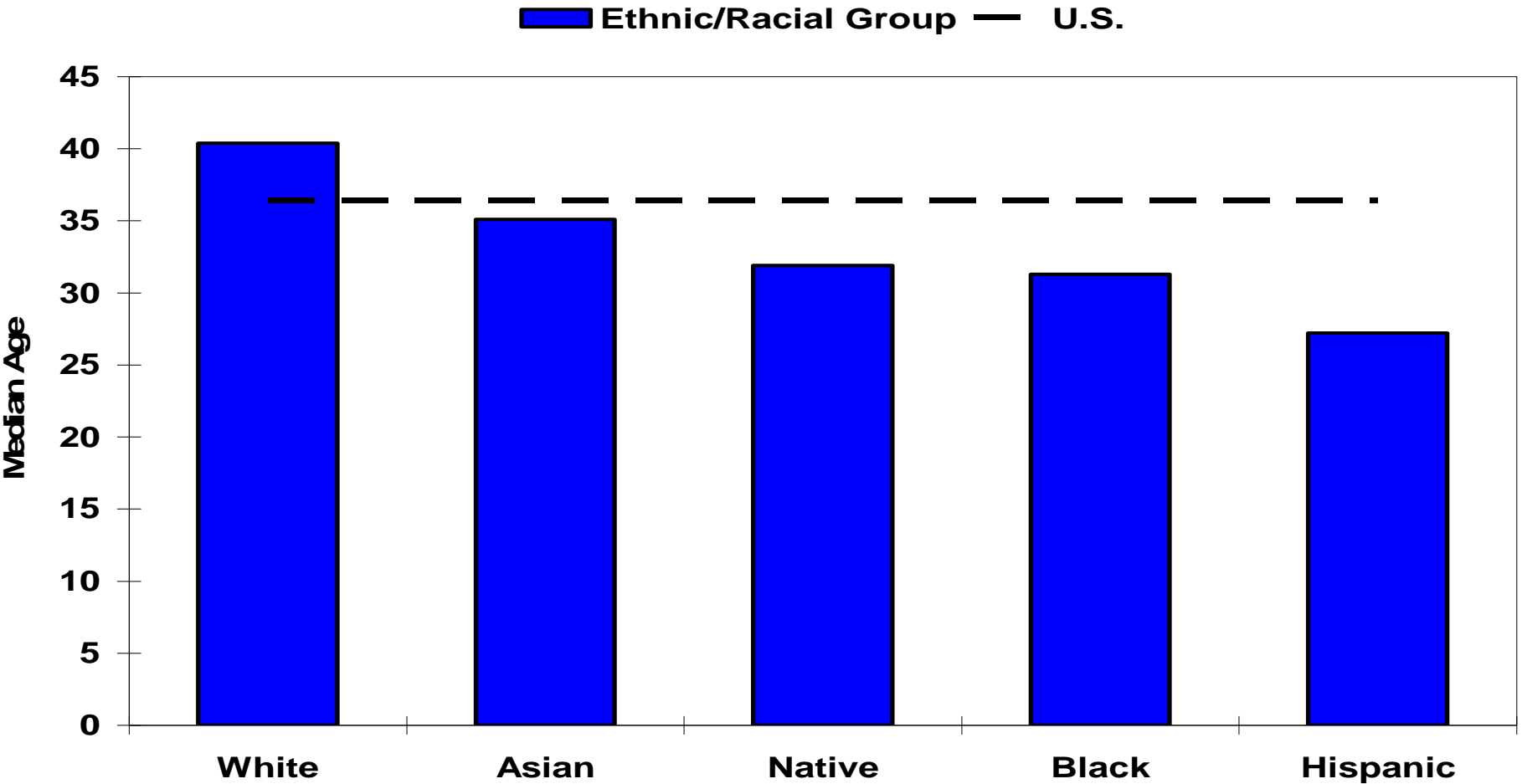
# Population Pyramid

Canada (outline) versus U.S. (colour), 2005 (percent)



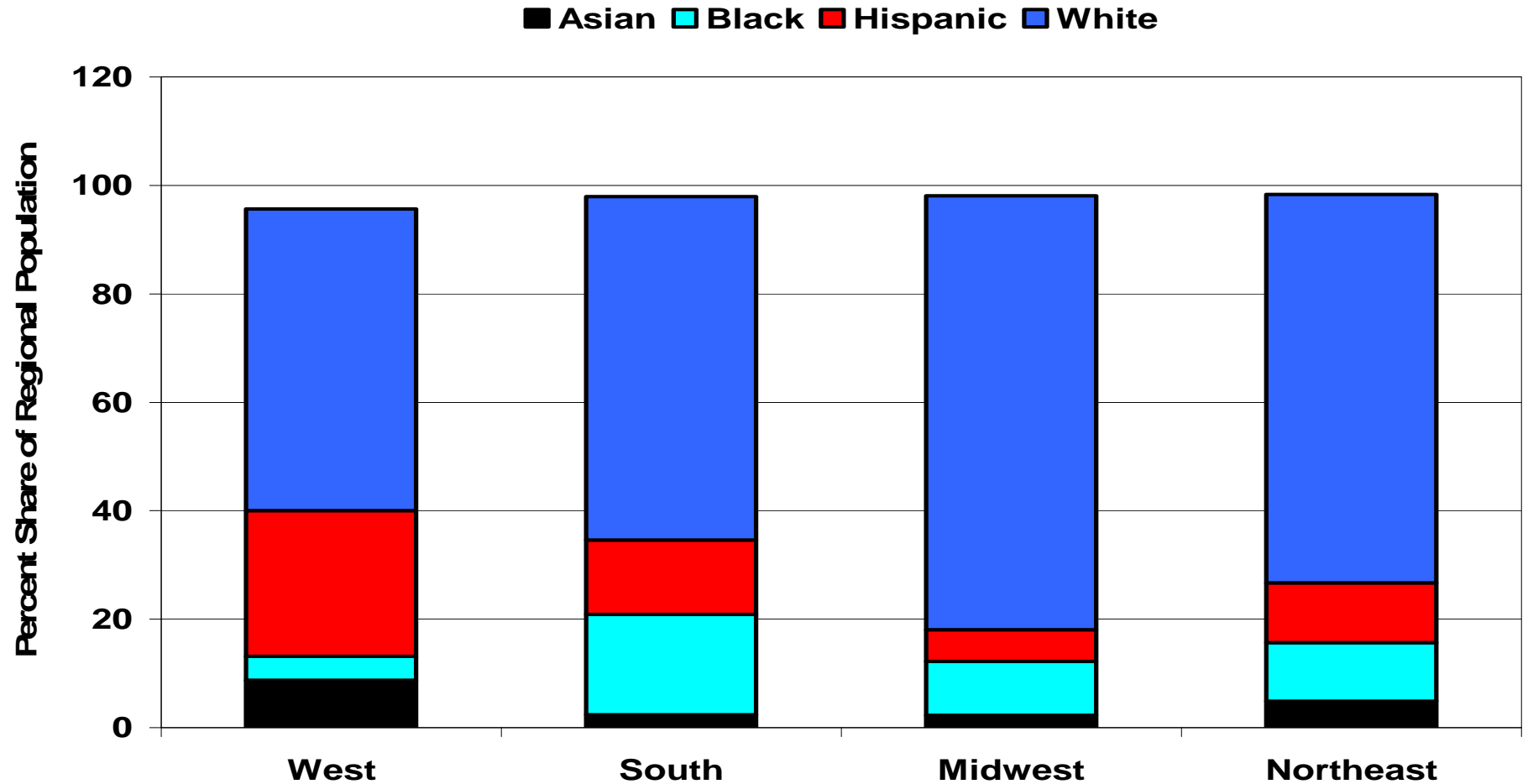
# U.S. Ethnic and Racial Groups

## Median Age, 2005



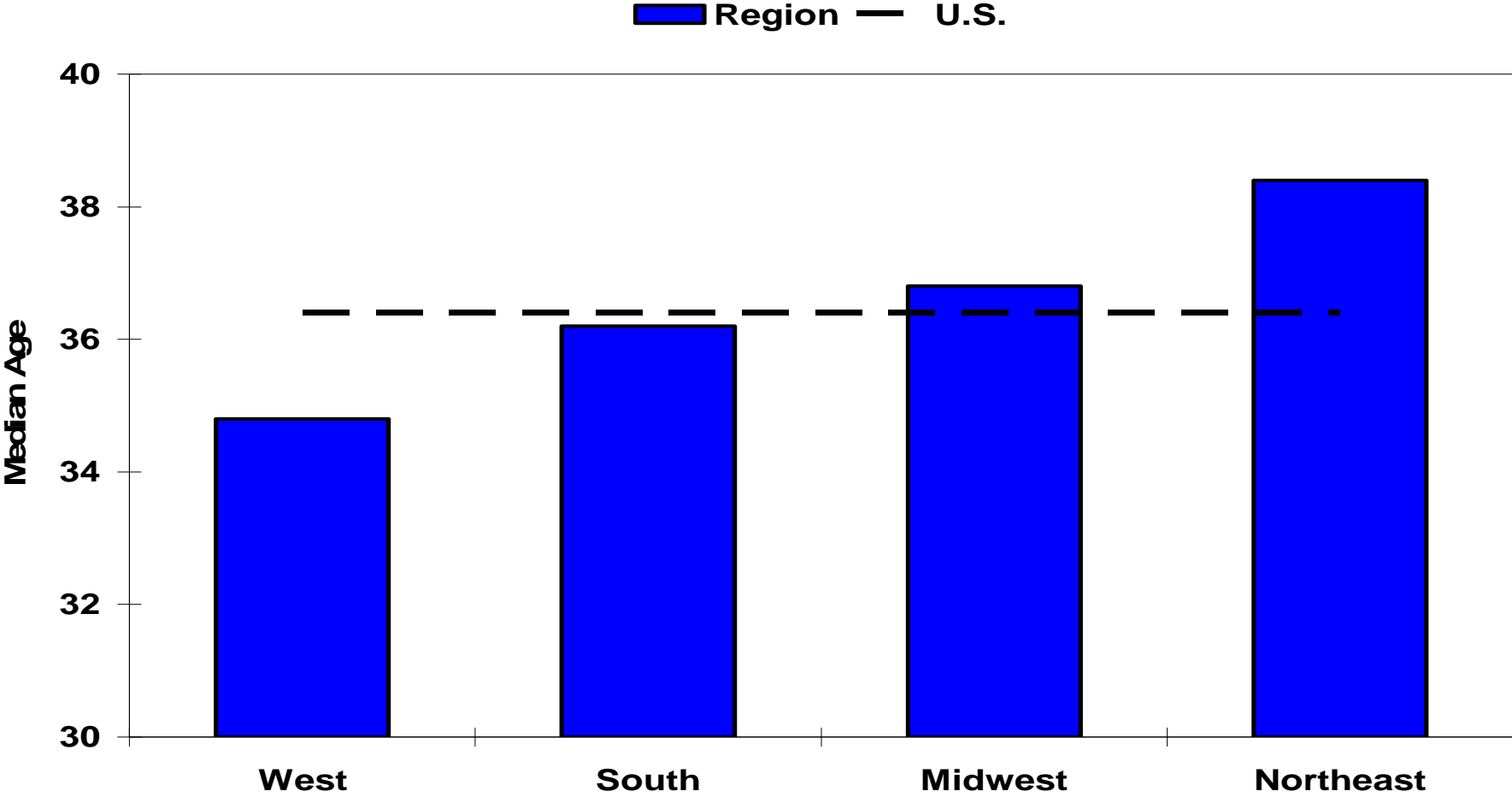
# U.S. Regions

Ethnic and Racial Groups, 2005 (percent share of population)



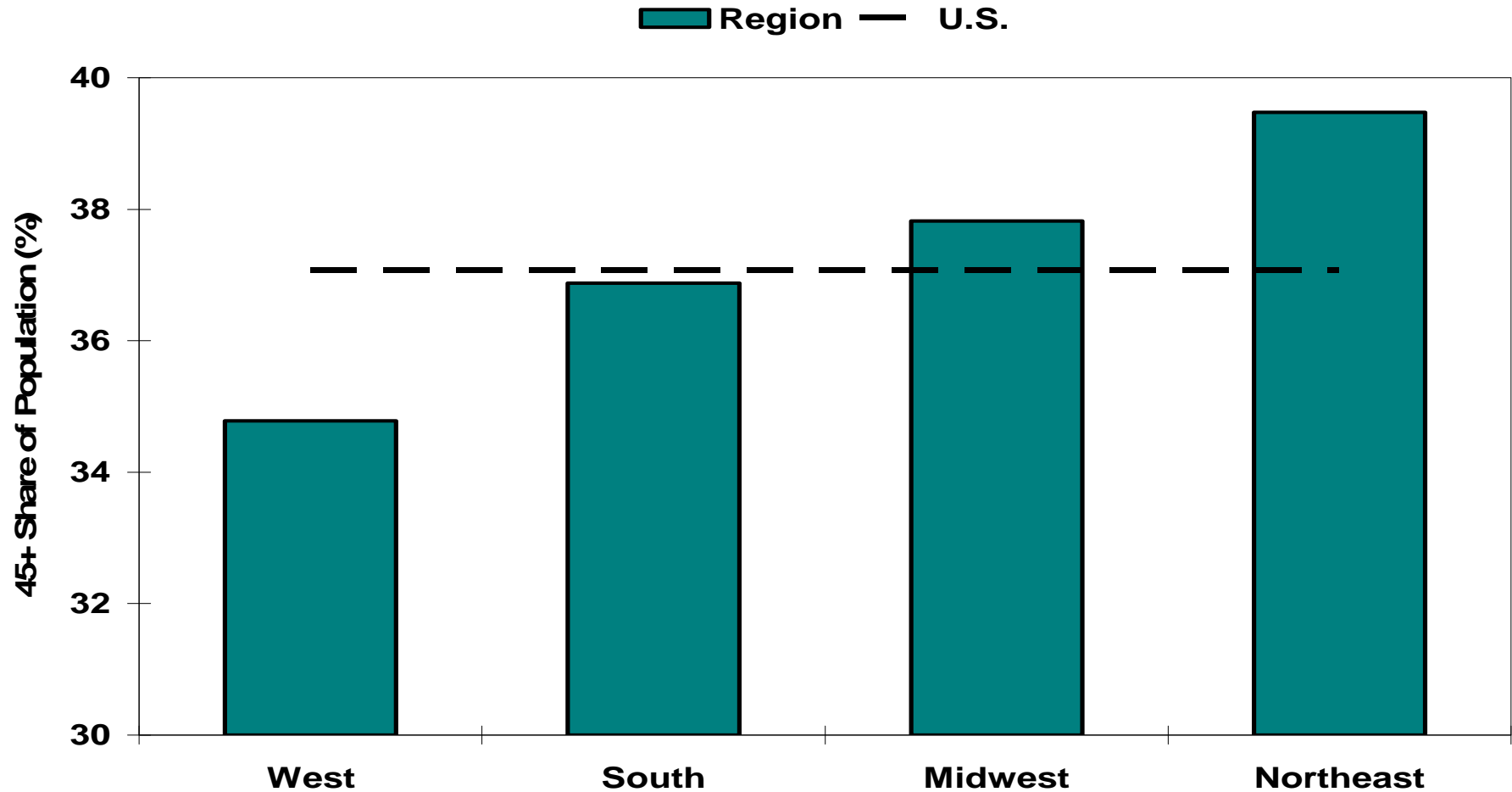
# U.S. Regions

Median Age, 2005



# U.S. Regions

## 45-plus Share of Population, 2005 (percent)



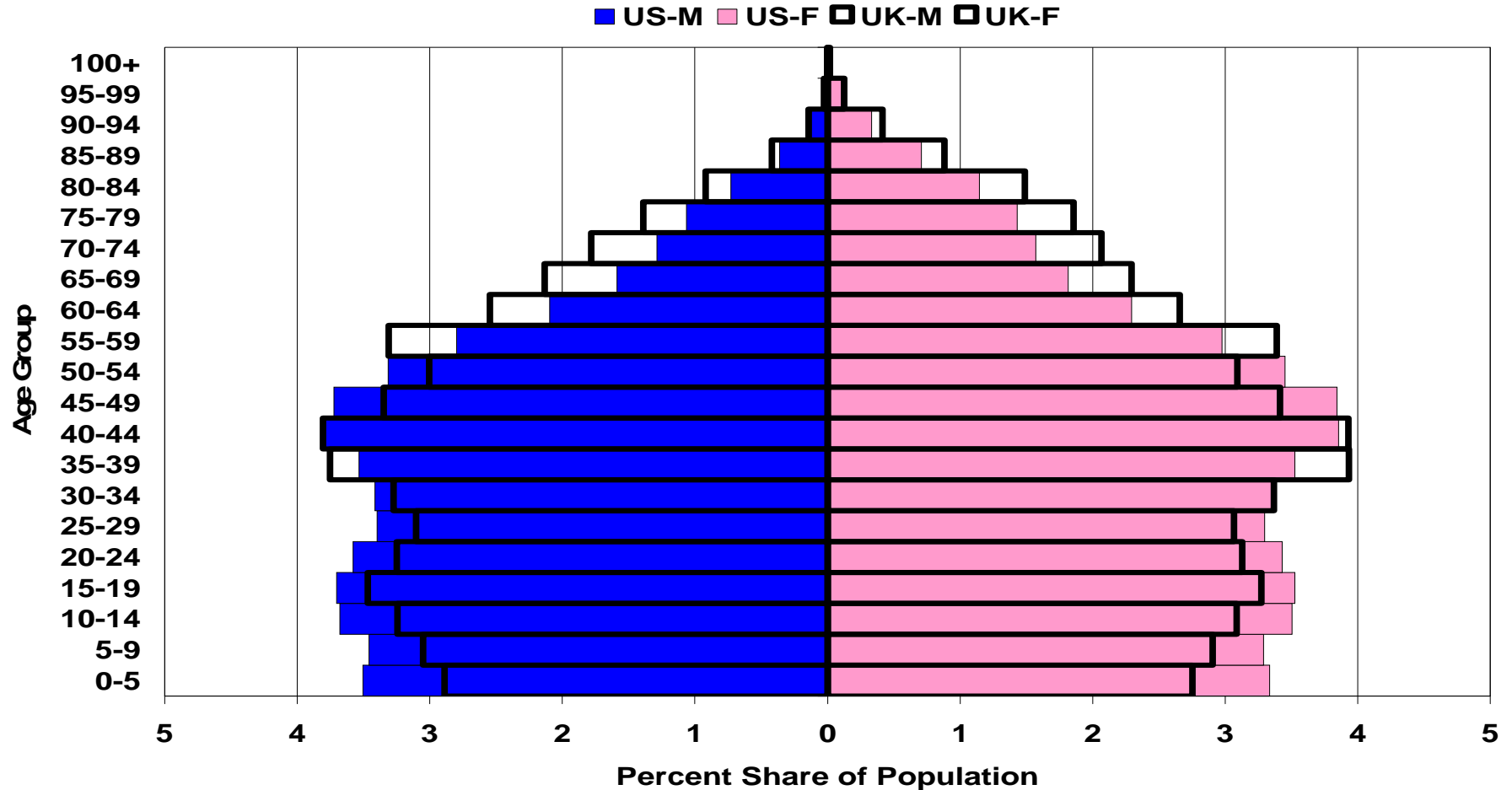
# Demographic Trends - Global

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**Alberta's markets in the *developed world* are aging at a faster rate than Canada and the U.S.**

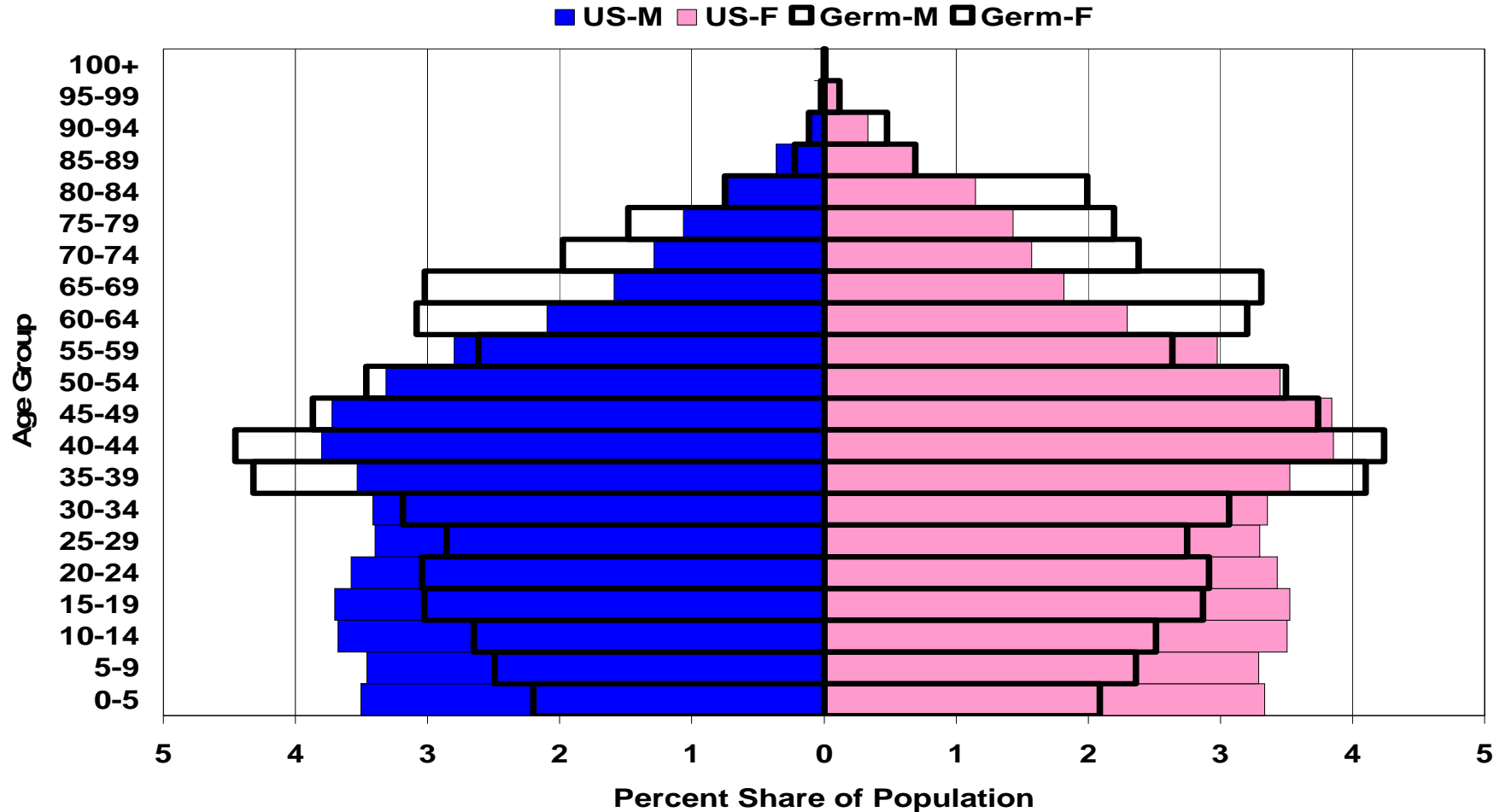
# Population Pyramid

U.K. (outline) versus U.S. (colour), 2005 (percent)



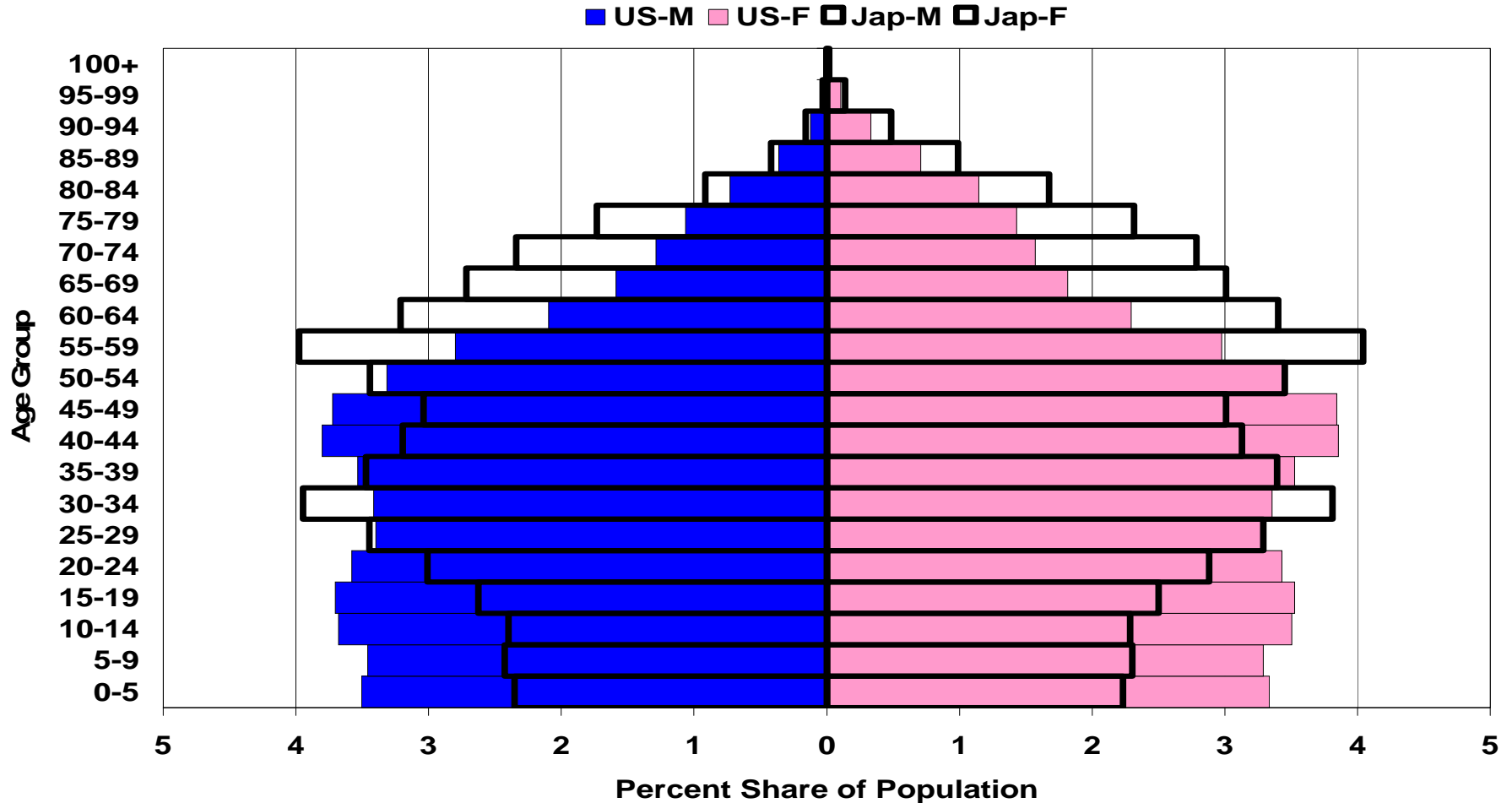
# Population Pyramid

Germany (outline) versus U.S. (colour), 2005 (percent)



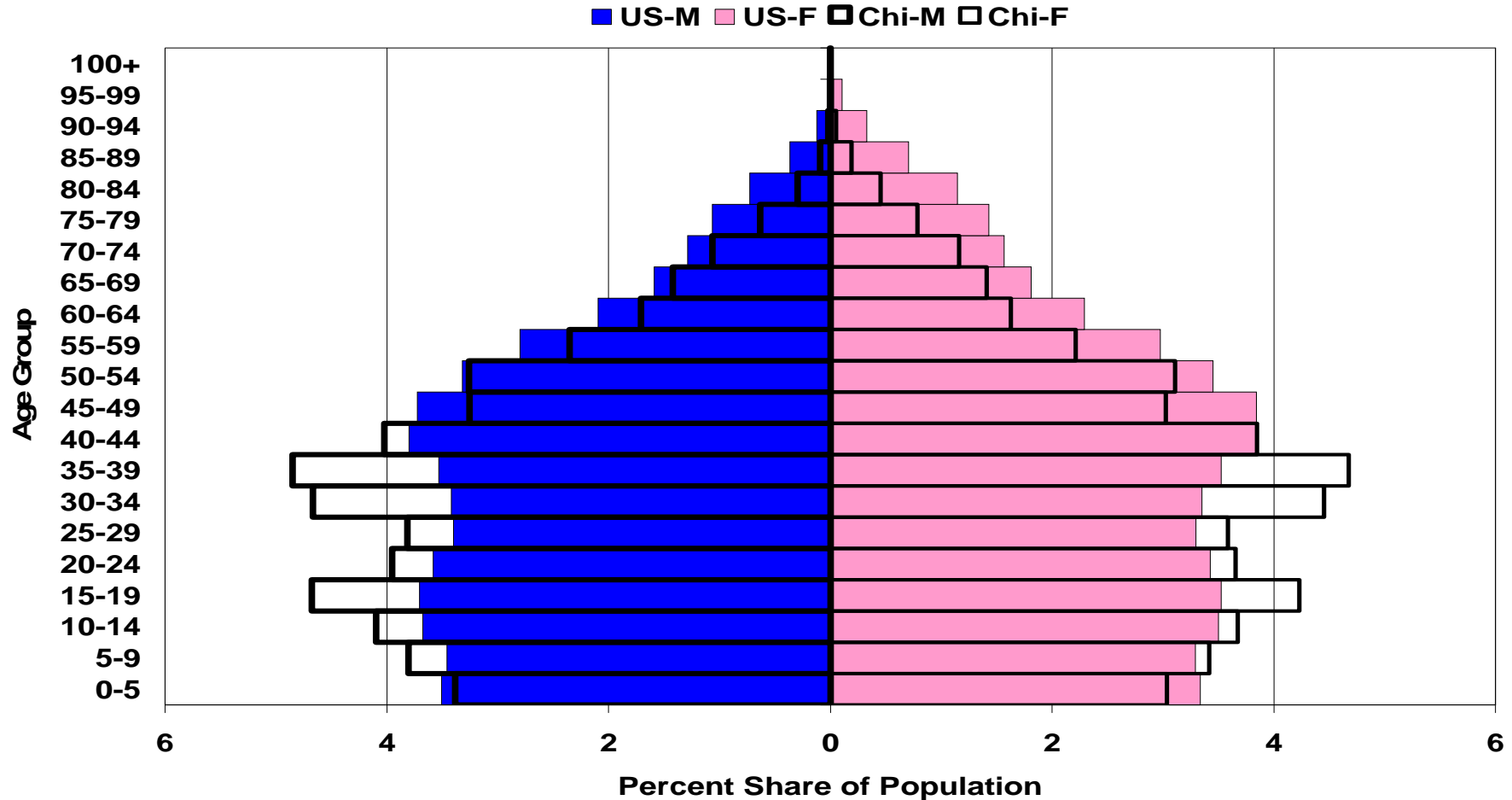
# Population Pyramid

Japan (outline) versus U.S. (colour), 2005 (percent)



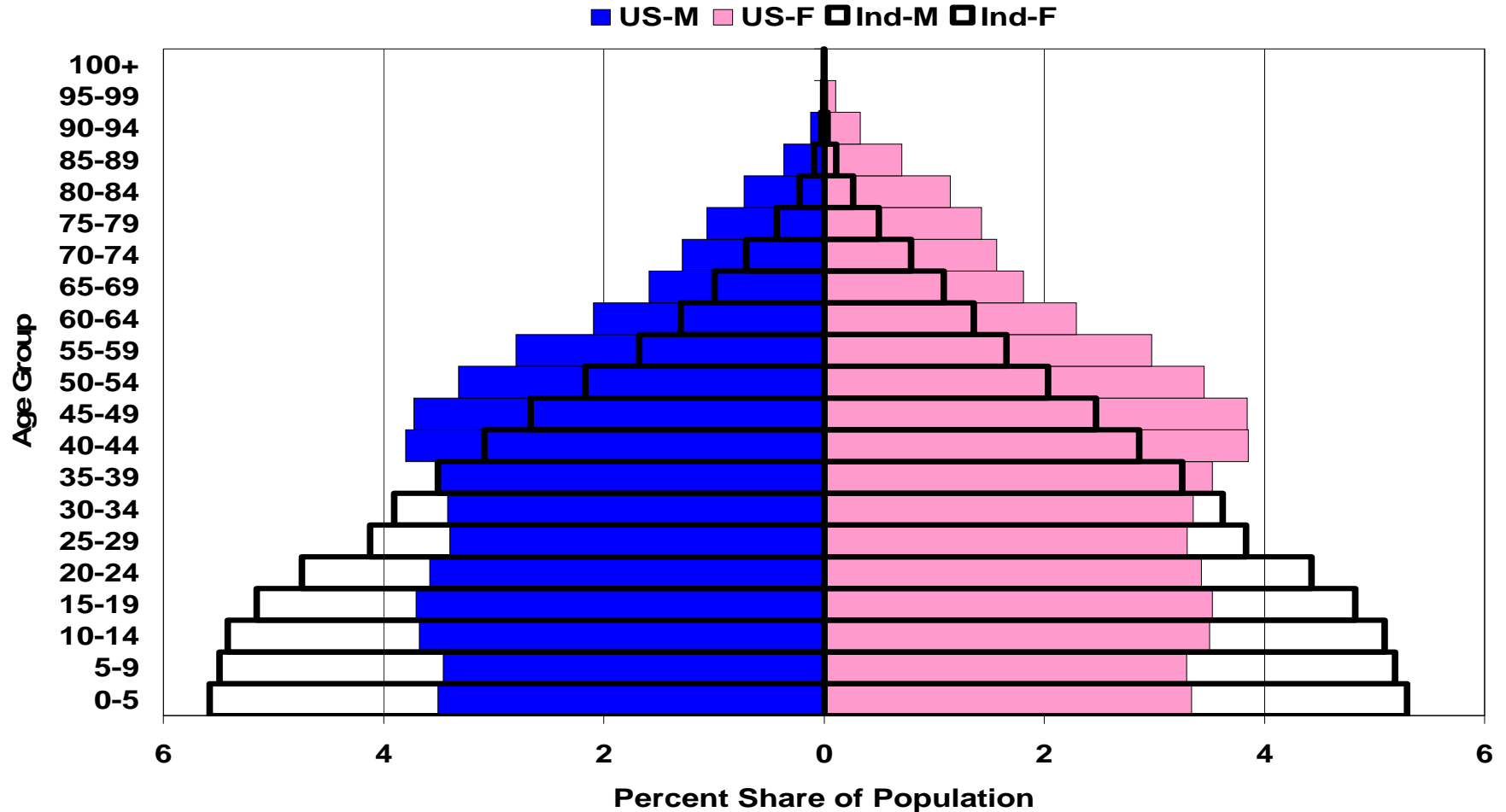
# Population Pyramid

China (outline) versus U.S. (colour), 2005 (percent)



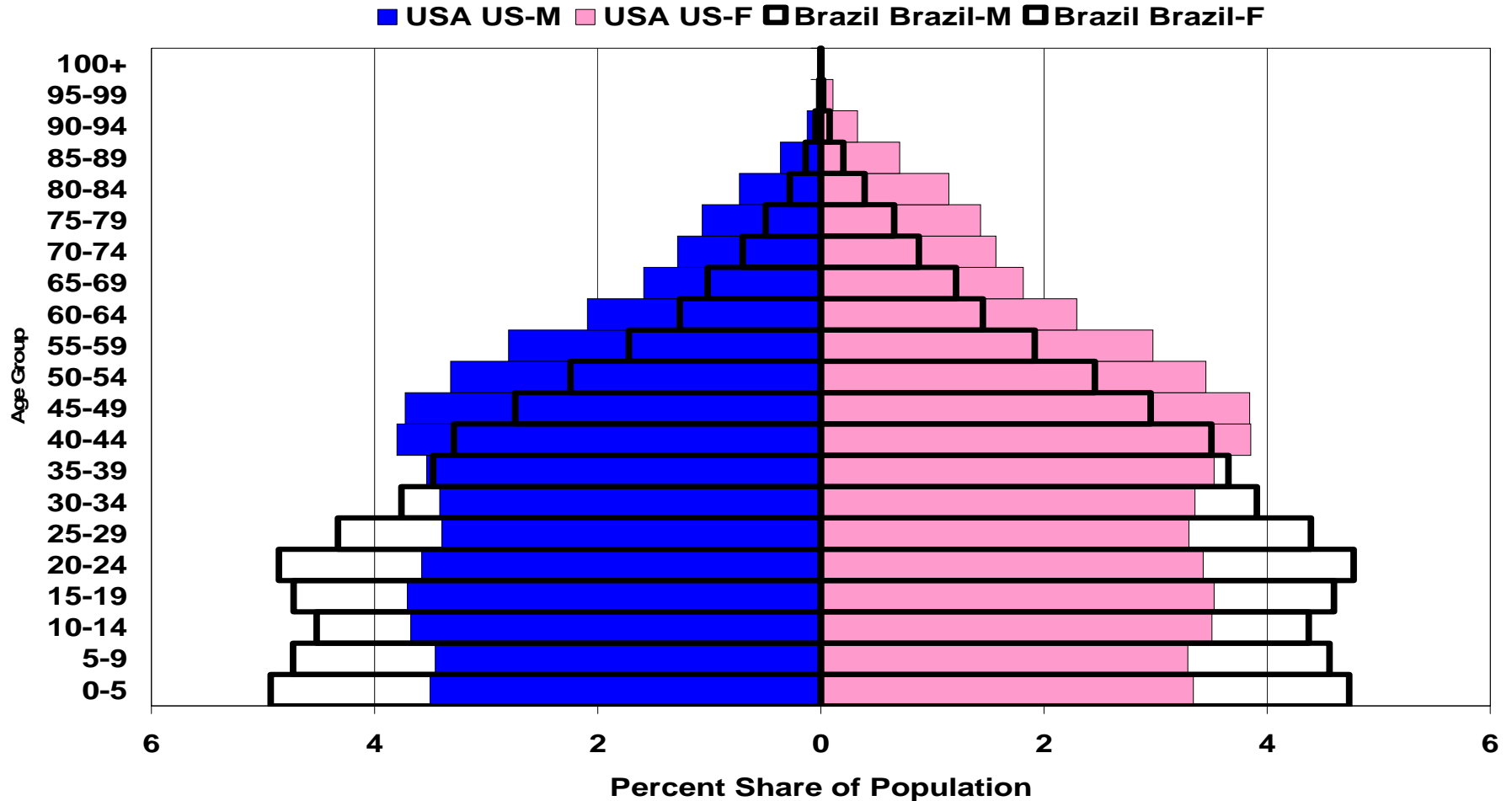
# Population Pyramid

India (outline) versus U.S. (colour), 2005 (percent)



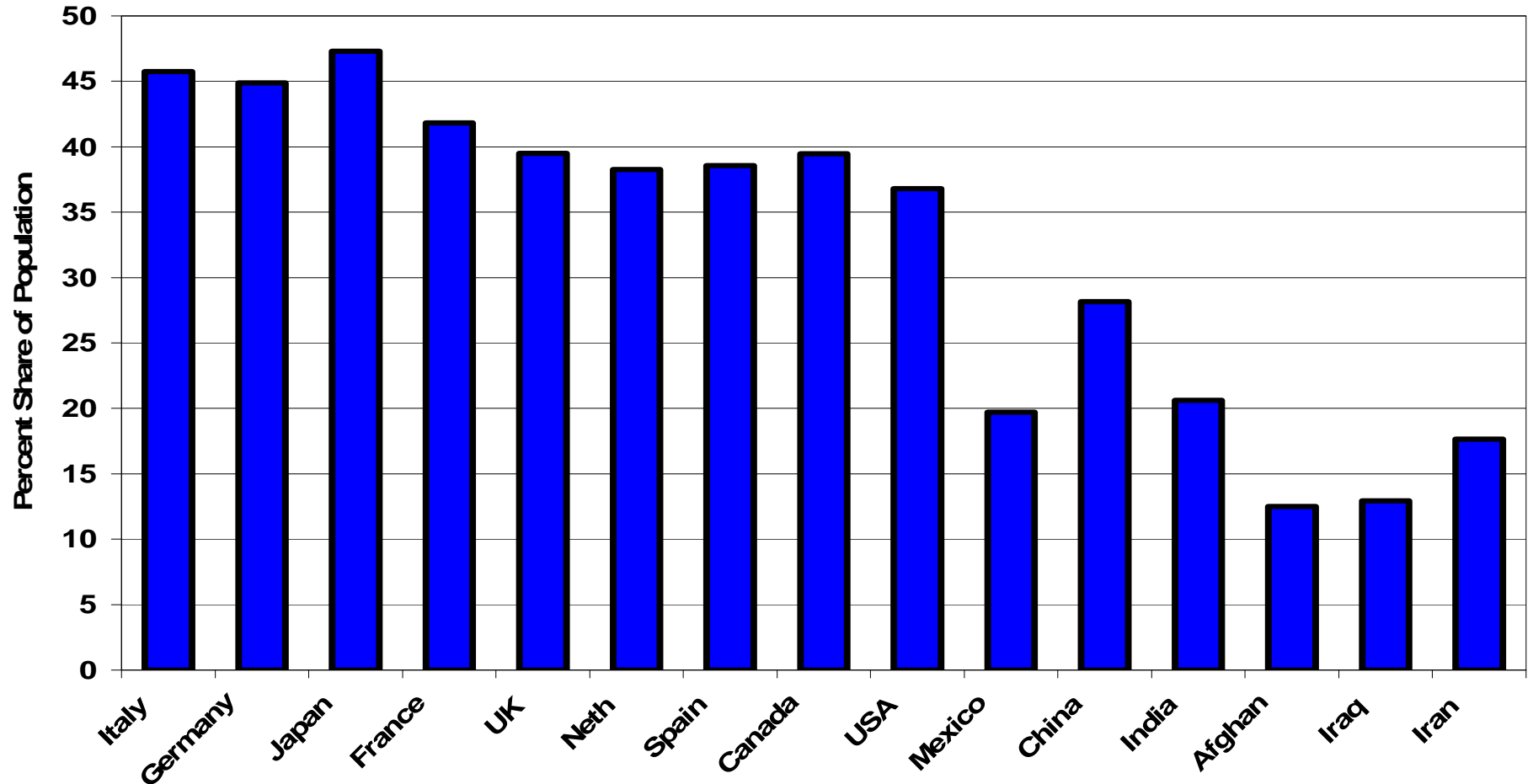
# Population Pyramid

Brazil (outline) versus U.S. (colour), 2005 (percent)



# 45-plus Population

Selected Countries, 2005 (percent share of total)



# Demographic Trends - Key Points

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- **Alberta's population is:**
  - Growing relatively faster than the rest of Canada
  - Highly dependent on migration, especially inter-provincial, for growth
  - Increasing skewed towards Calgary and Edmonton
  - Aging (but less so than other provinces)
  - Diversifying in ethnic/racial terms (particularly in Calgary and Edmonton)
- **Alberta's *Aboriginal Identity* population is:**
  - Growing at a faster rate than the rest of the province
  - Aging at a slower rate than the rest of the province
  - Growing faster on reserves and in rural areas (majority still reside in urban areas, particularly CMA's)

# Demographic Trends - Key Points

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- **The U.S., Alberta's main export market, has a population that is:**
  - **Younger than Canada's**
  - **Increasingly diverse in ethnic/racial terms**
  - **Exhibits different regional demographic profiles**
- **Populations of the developed nations are aging at a more rapid rate than either Canada or the U.S.**

# Demographic Forecasting

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***To construct a demographic forecast, you need to know the size of your market, both in total and by strategic age groups.***

# Demographic Trends - Canada

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***Between 2006 and 2011, 1.36 million people will be added to the population of Canada, an increase of 4.2 percent.***

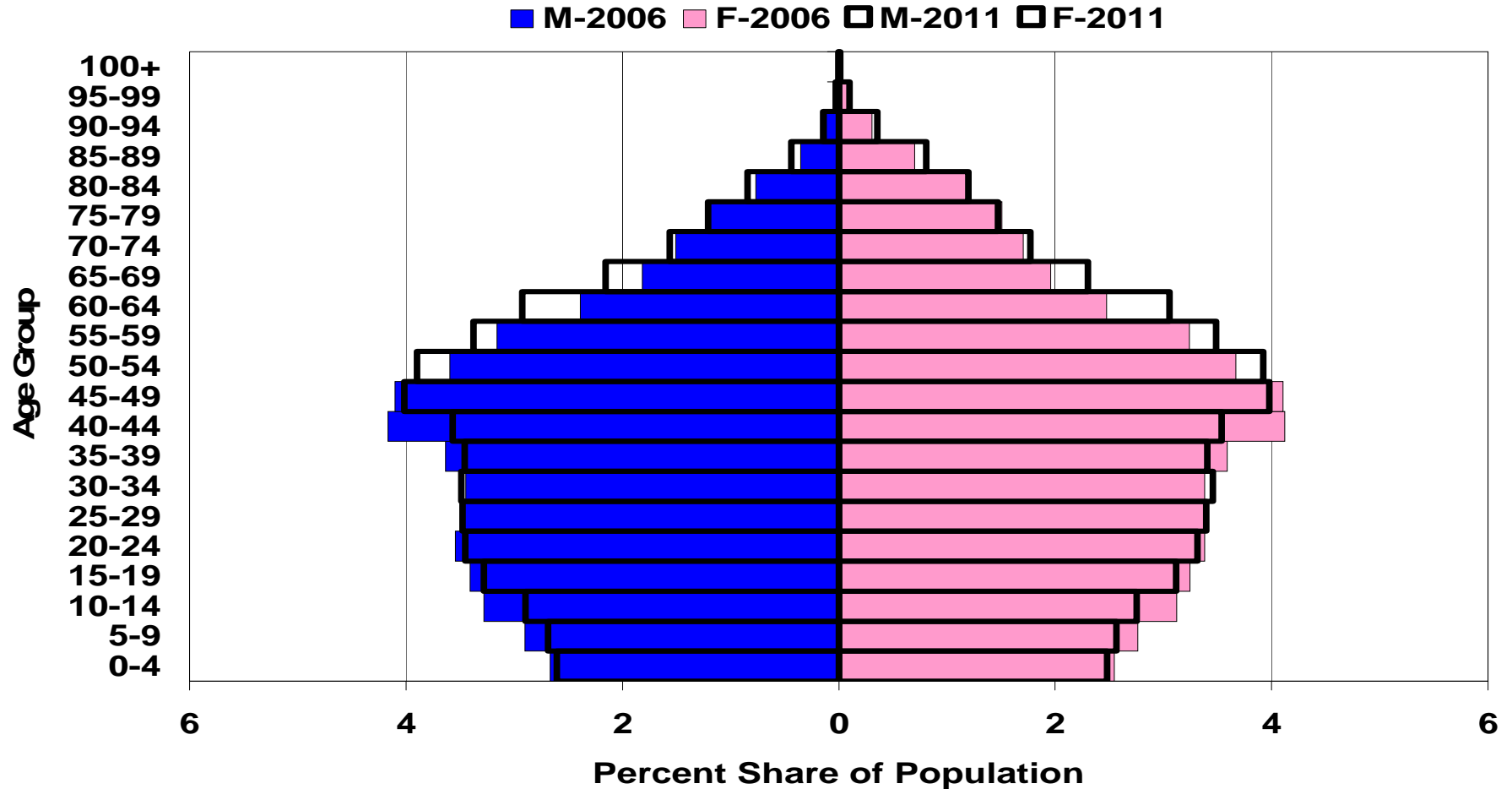
# Demographic Trends - Canada

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***Between 2006 and 2011, about 1.59 million people 45 and older will be added to Canada's population. The under 45 age group will decrease by 232,000. Boomers will account for two-thirds of the 45-plus population in 2011.***

# Canada

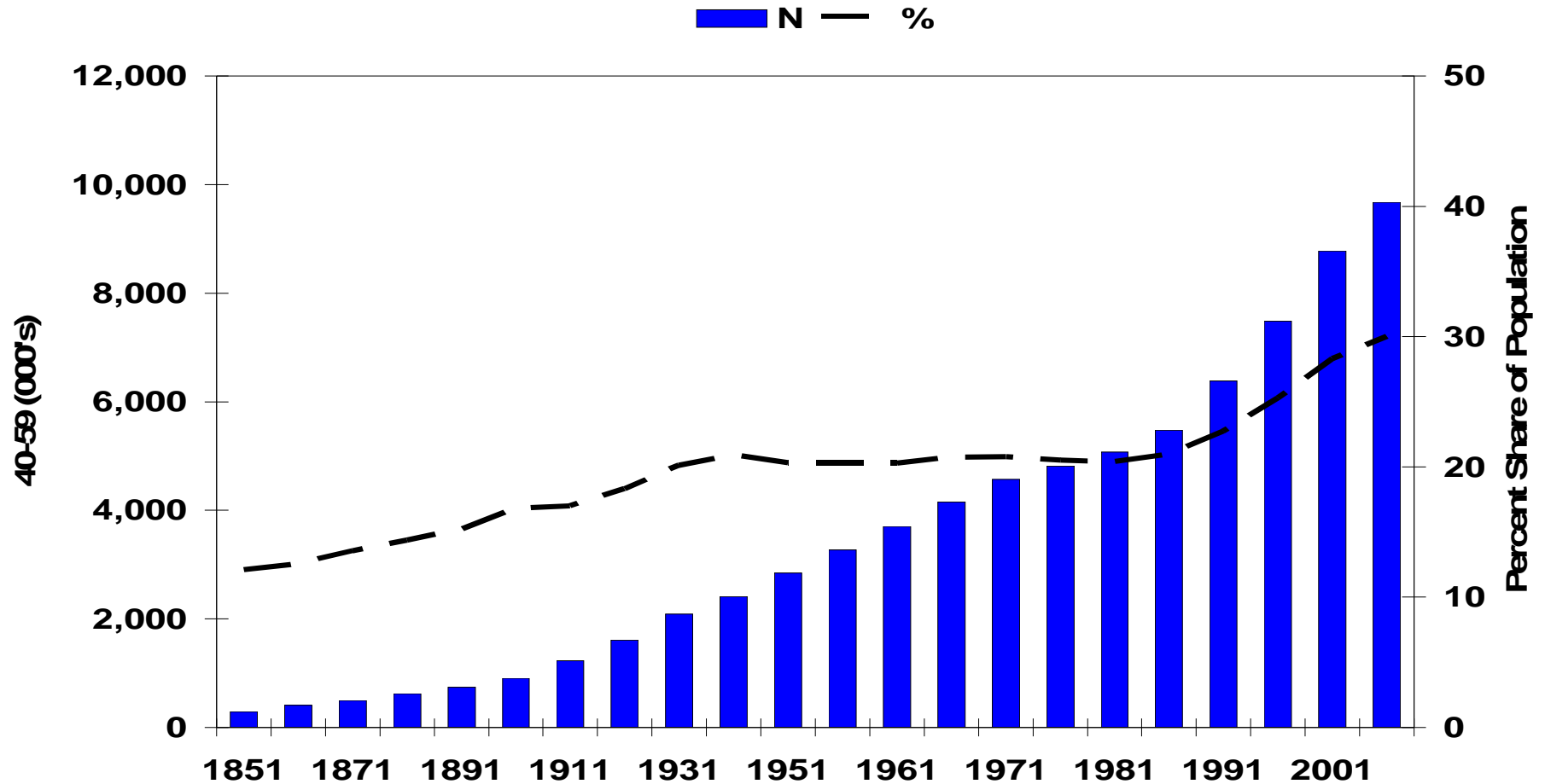
## Population Pyramid, 2006 (colour) versus 2011 (outline)





# Canada

40-59 Age Group, # (left scale) and % Share (right scale), 1851-2005



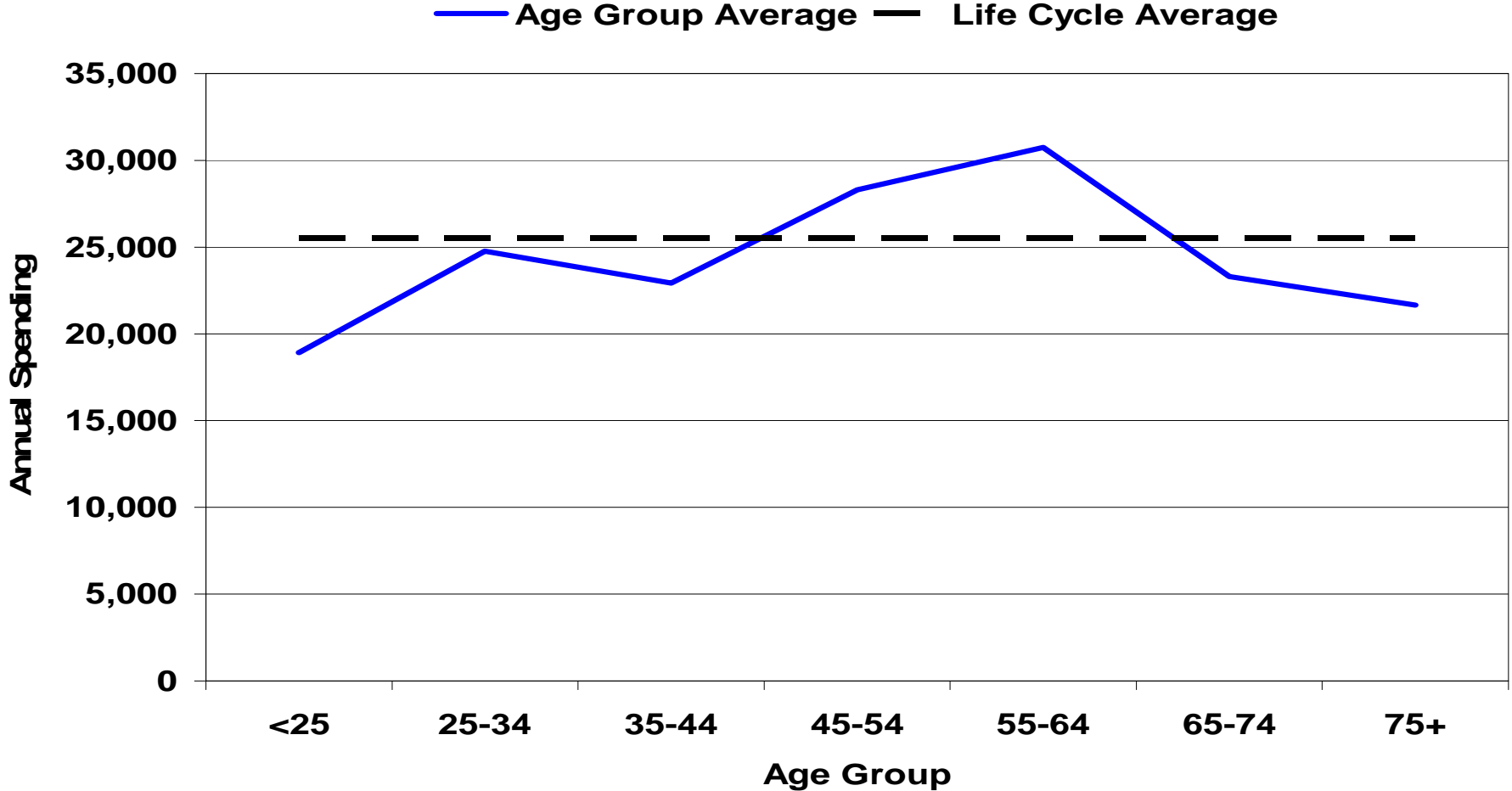
# Demographic Forecasting

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***To construct a demographic forecast, you also need to know how consumers spend their money (or time) differently over the life cycle. Let's take a look at products that are important to Alberta agriculture.***

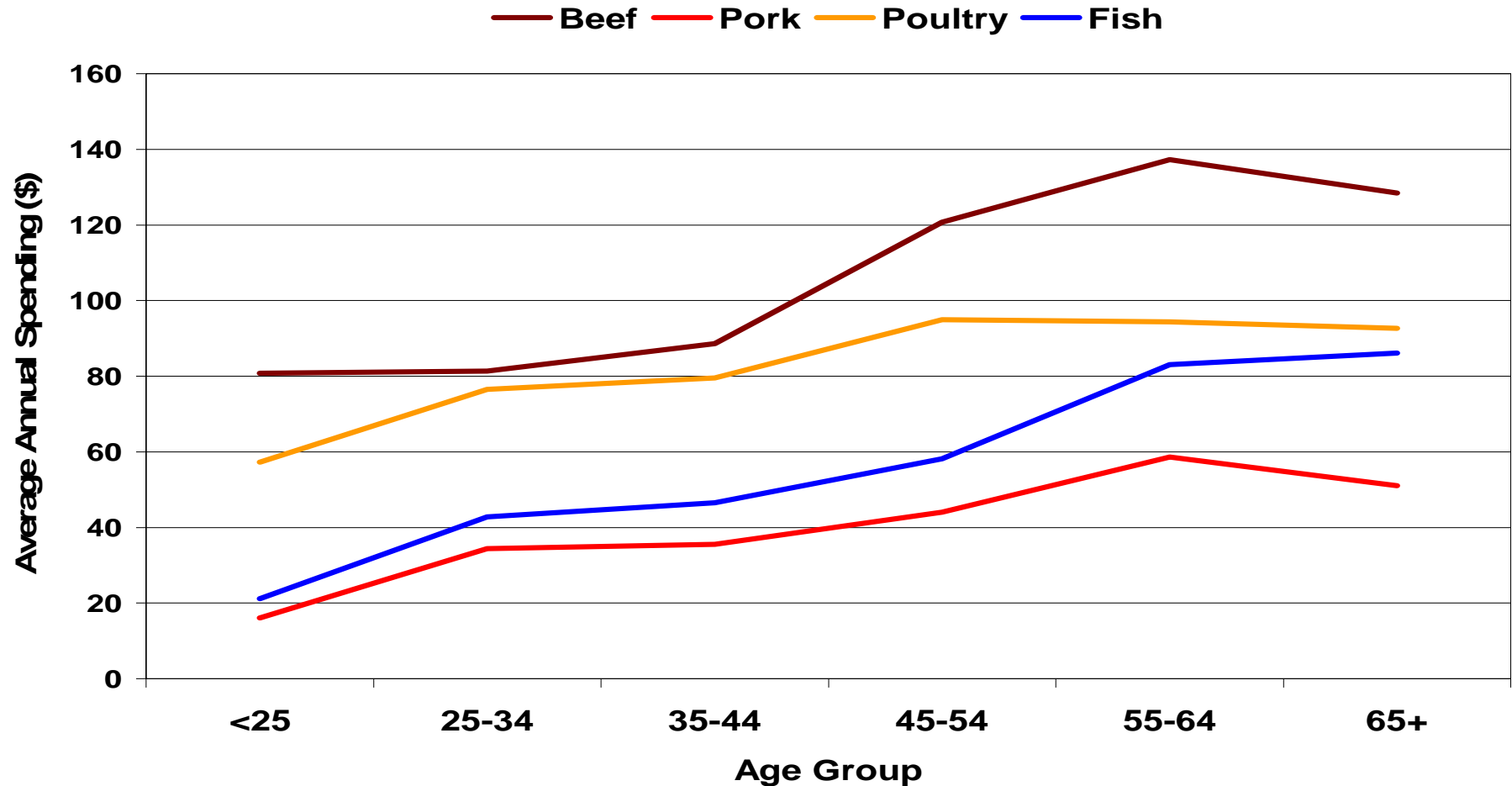
# Household Income Before Tax

Canada, 2004 (per person)



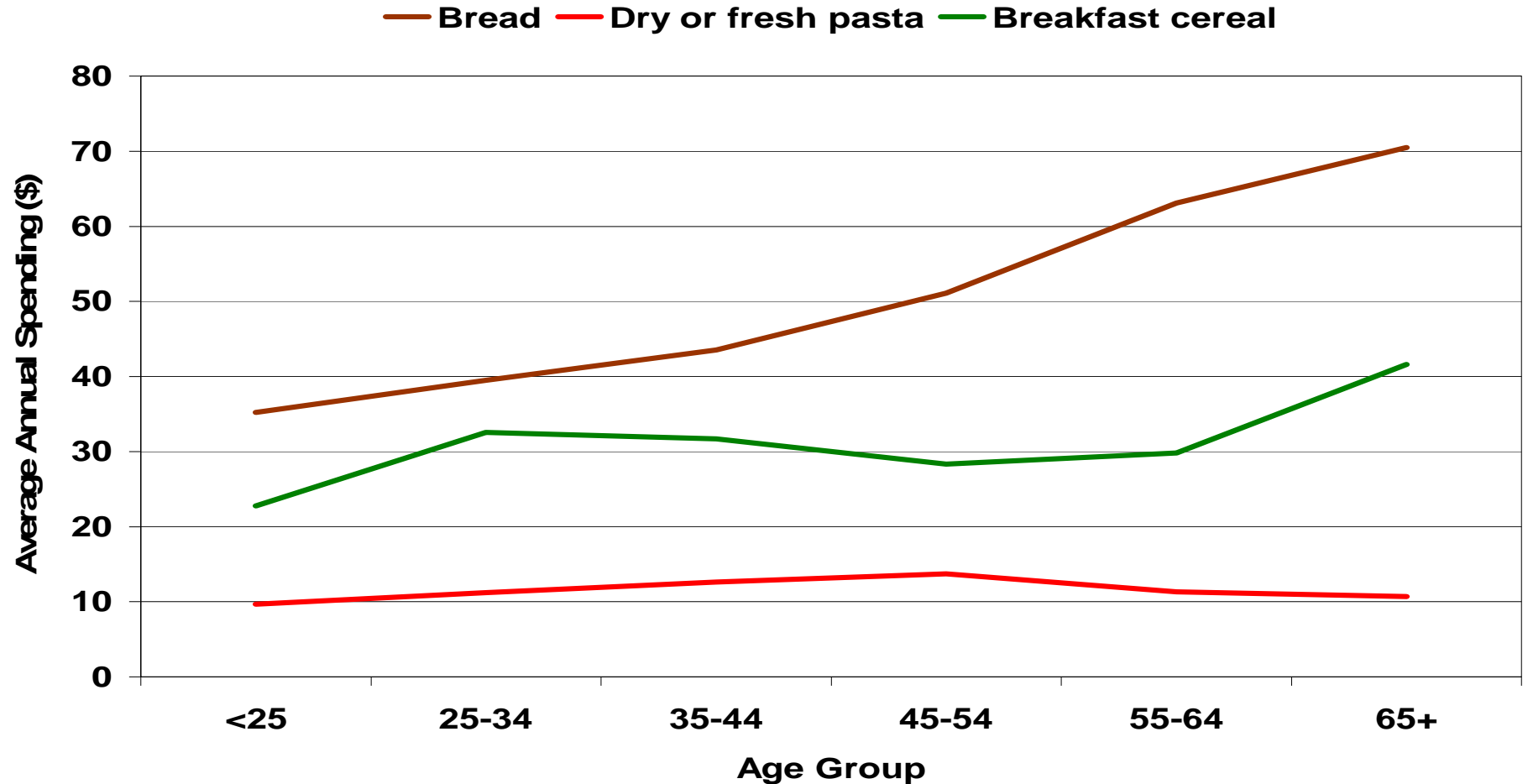
# Household Food Spending

Meat, Canada, 2001 (\$ per person)



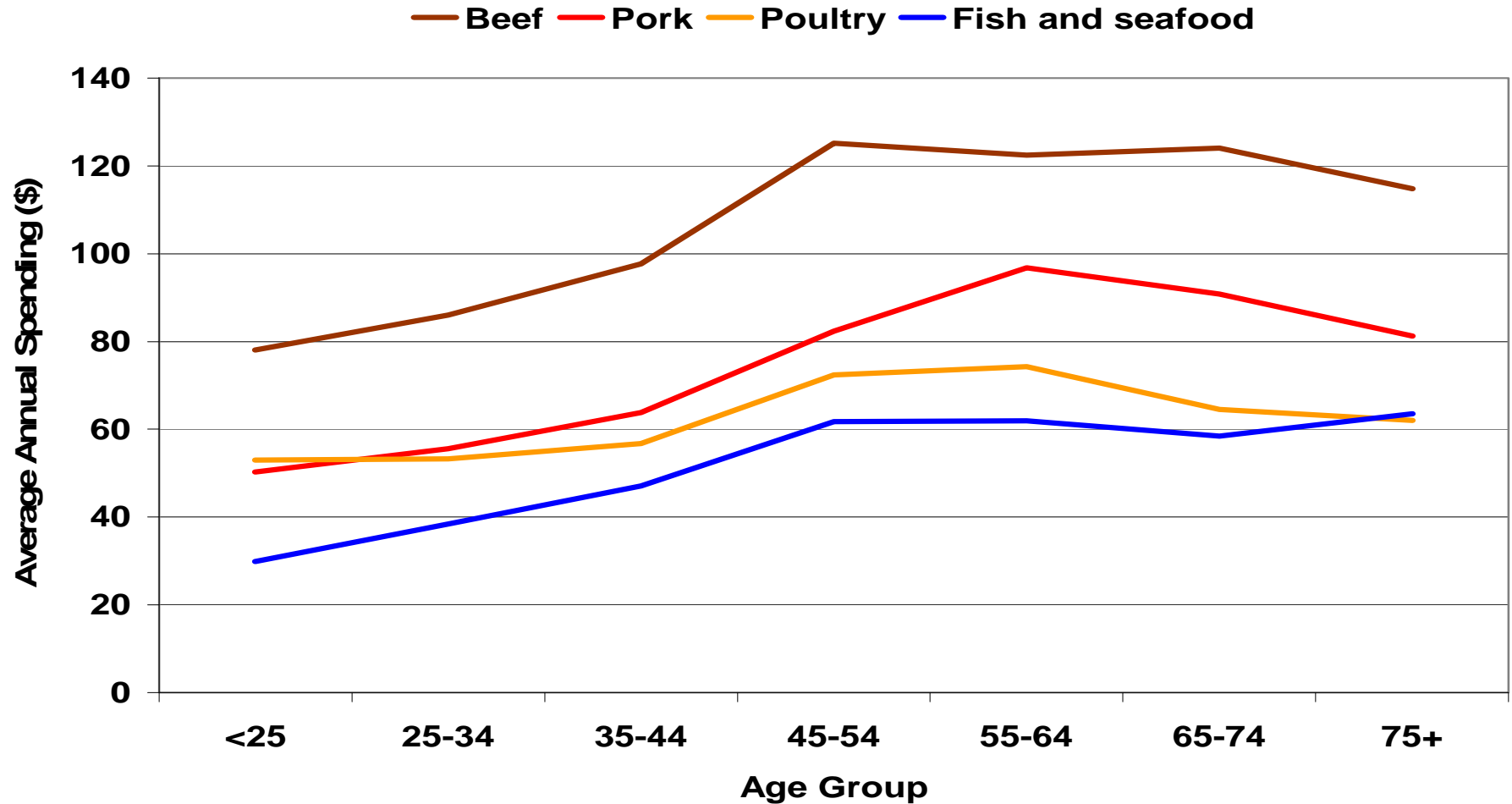
# Household Food Spending

## Grain Products, Canada, 2001 (\$ per person)



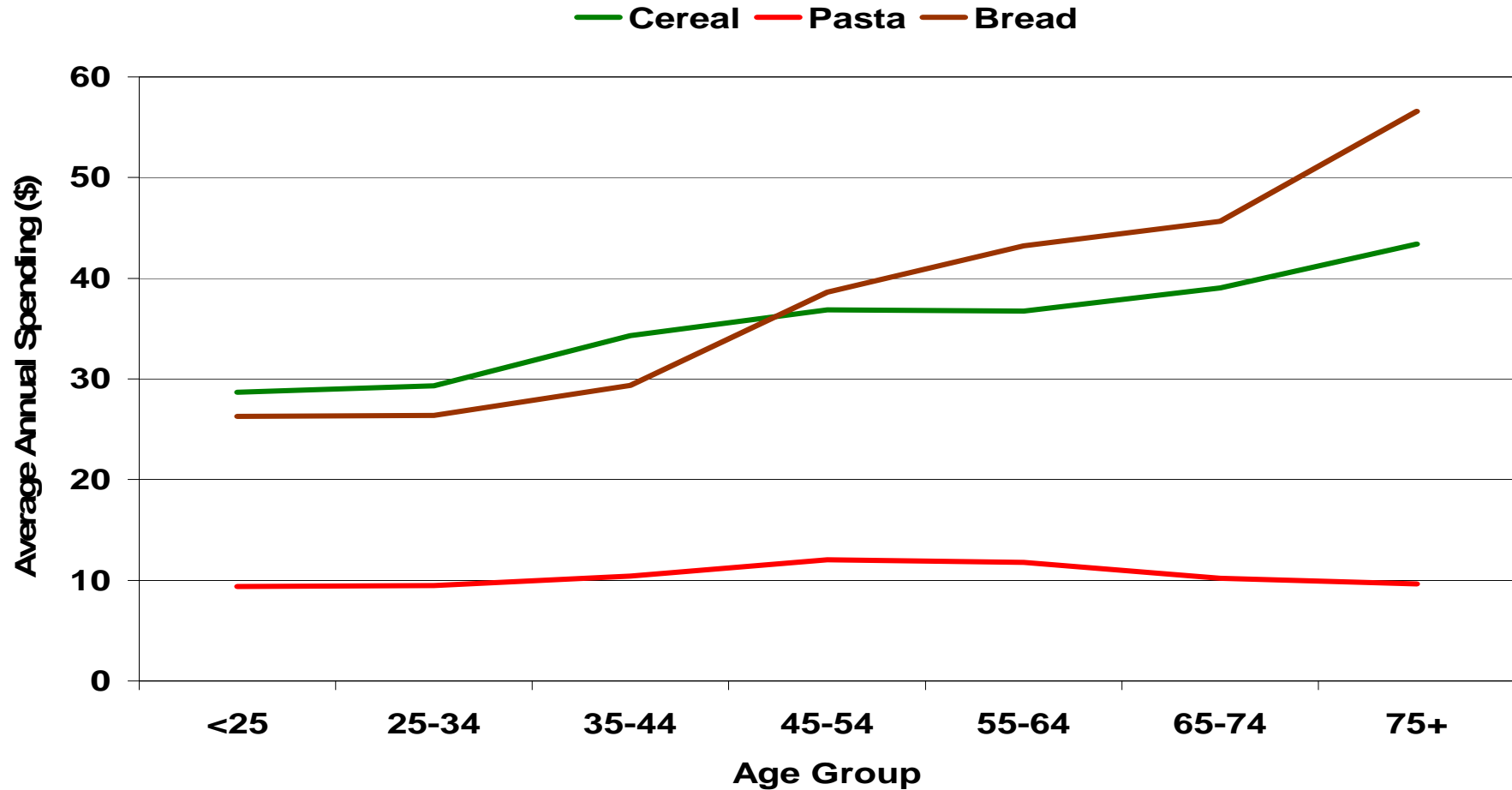
# Household Food Spending

Meat, United States, 2004 (U.S. \$ per person)



# Household Food Spending

Grain Products, United States, 2004 (U.S. \$ per person)



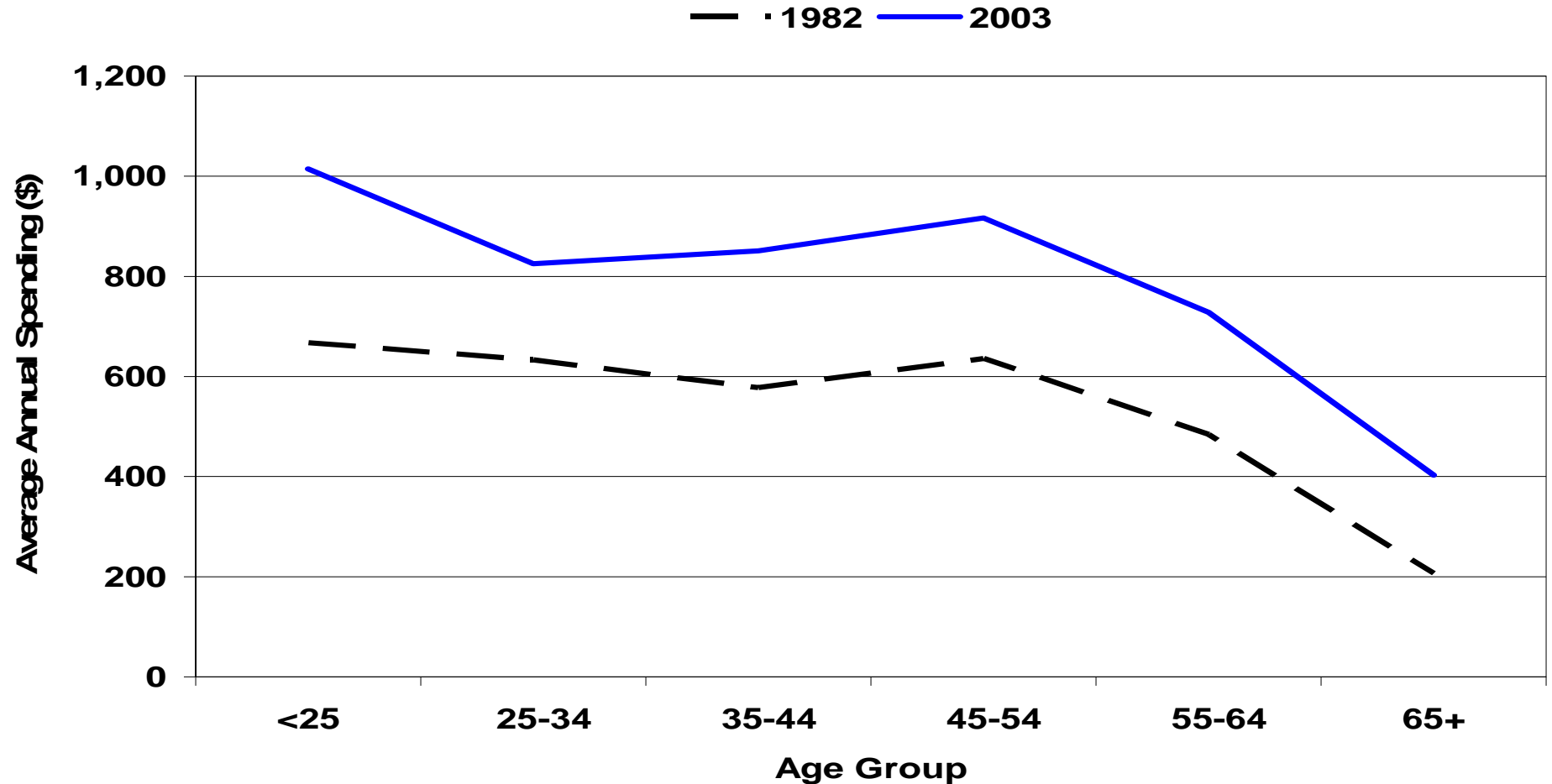
# Demographic Forecasting

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***Finally, a demographic forecast assumes that life cycle spending patterns are fairly durable.***

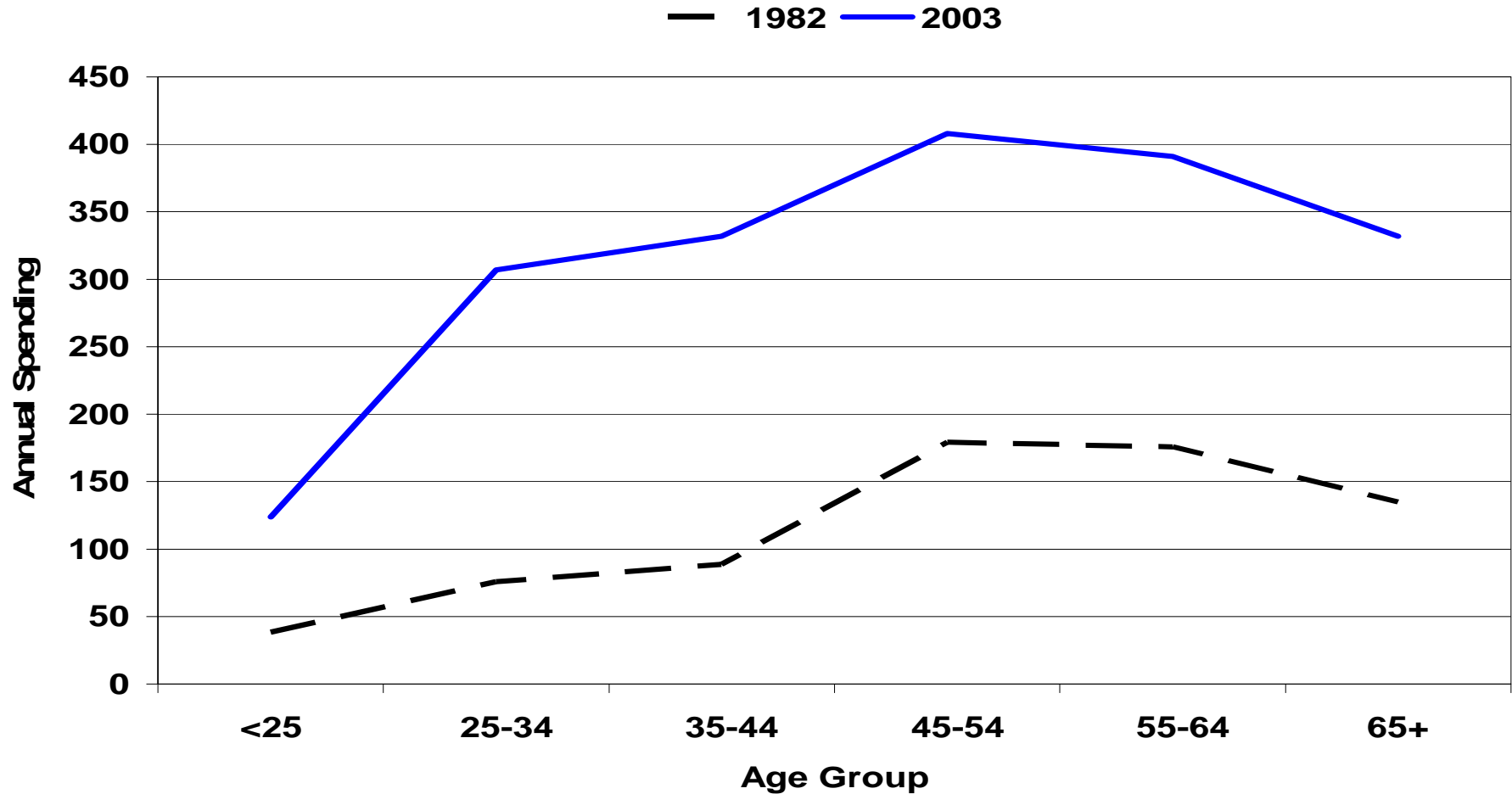
# Alcoholic Beverages

Canada, 1982 versus 2003 (per household)



# Consumer Spending

Package Travel Tours, Canada, 1982 versus 2003 (per household)



# Spending Growth

Canada, 2001-11 (Total Food Spending=100)

	Relative Growth Index	45+ Share (%)
Coffee	125	64.6
Fish & marine products	123	61.8
Pork	117	58.5
Fresh fruit	112	56.7
Fresh vegetables	111	56.2
Beef	110	55.5
Fresh or frozen poultry	98	51.8
Carbonated beverages	92	47.3
Breakfast cereal	90	48.3
Pre-cooked frozen food preparations	85	45.1
Potato chips and snacks	73	41.2
<b>Total Food Spending</b>	<b>100</b>	<b>50.9</b>

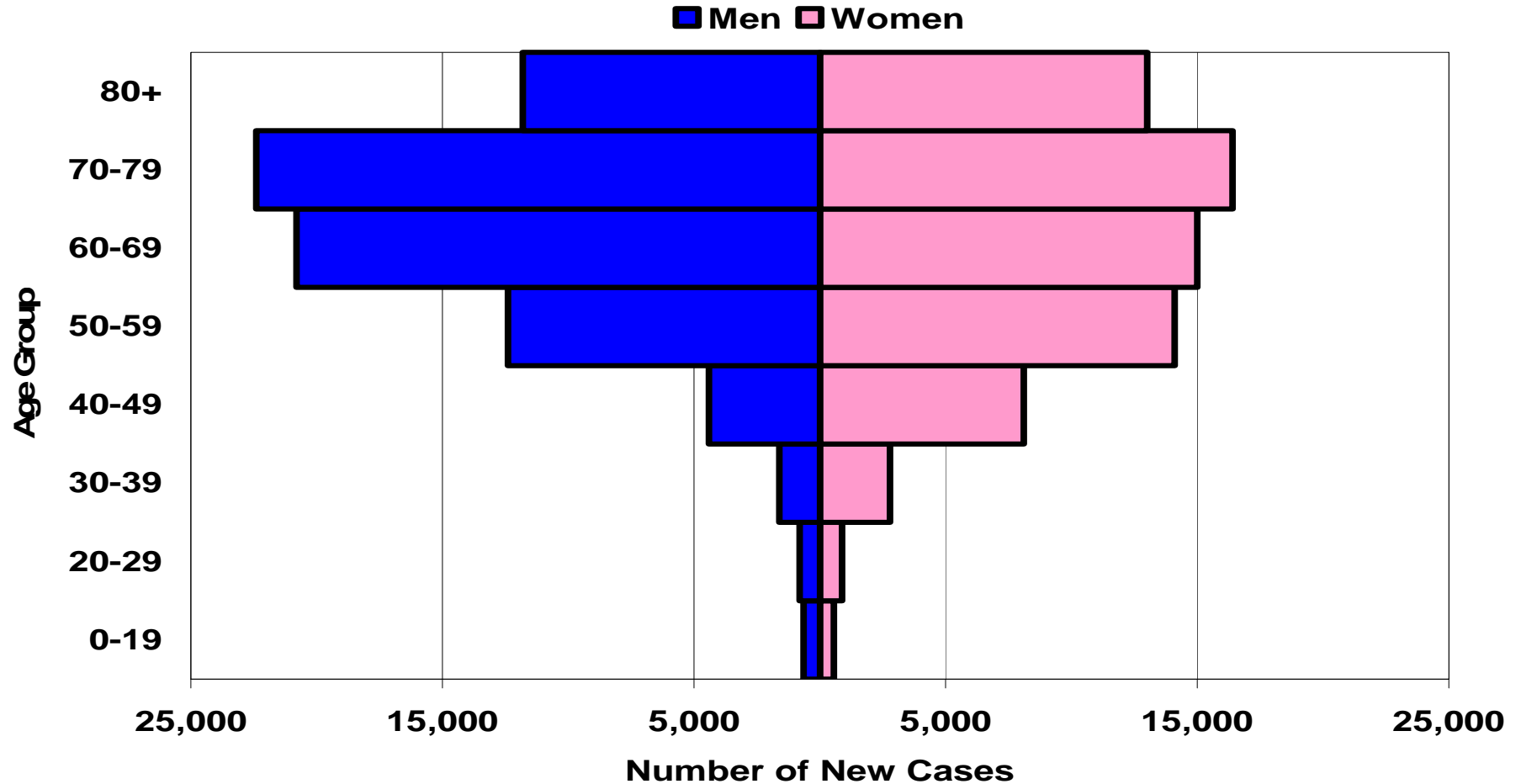
# Demographic Trends - Canada

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***A concern with the link between food and health underlies the results of our demographic forecast.***

# Canada

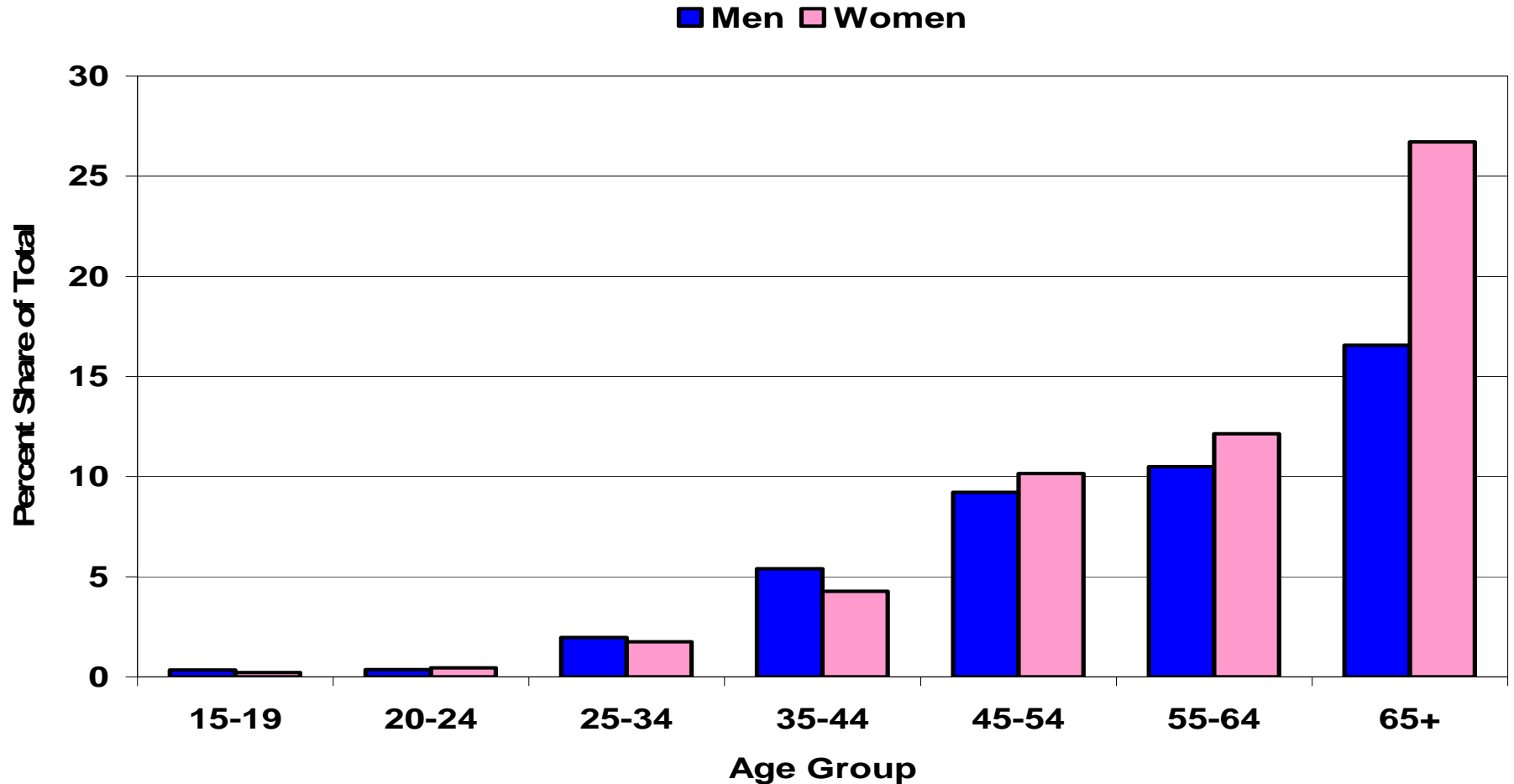
## New Cancer Cases, 2004





# Canada

## High Blood Pressure, 2000-2001 (percent share of total)



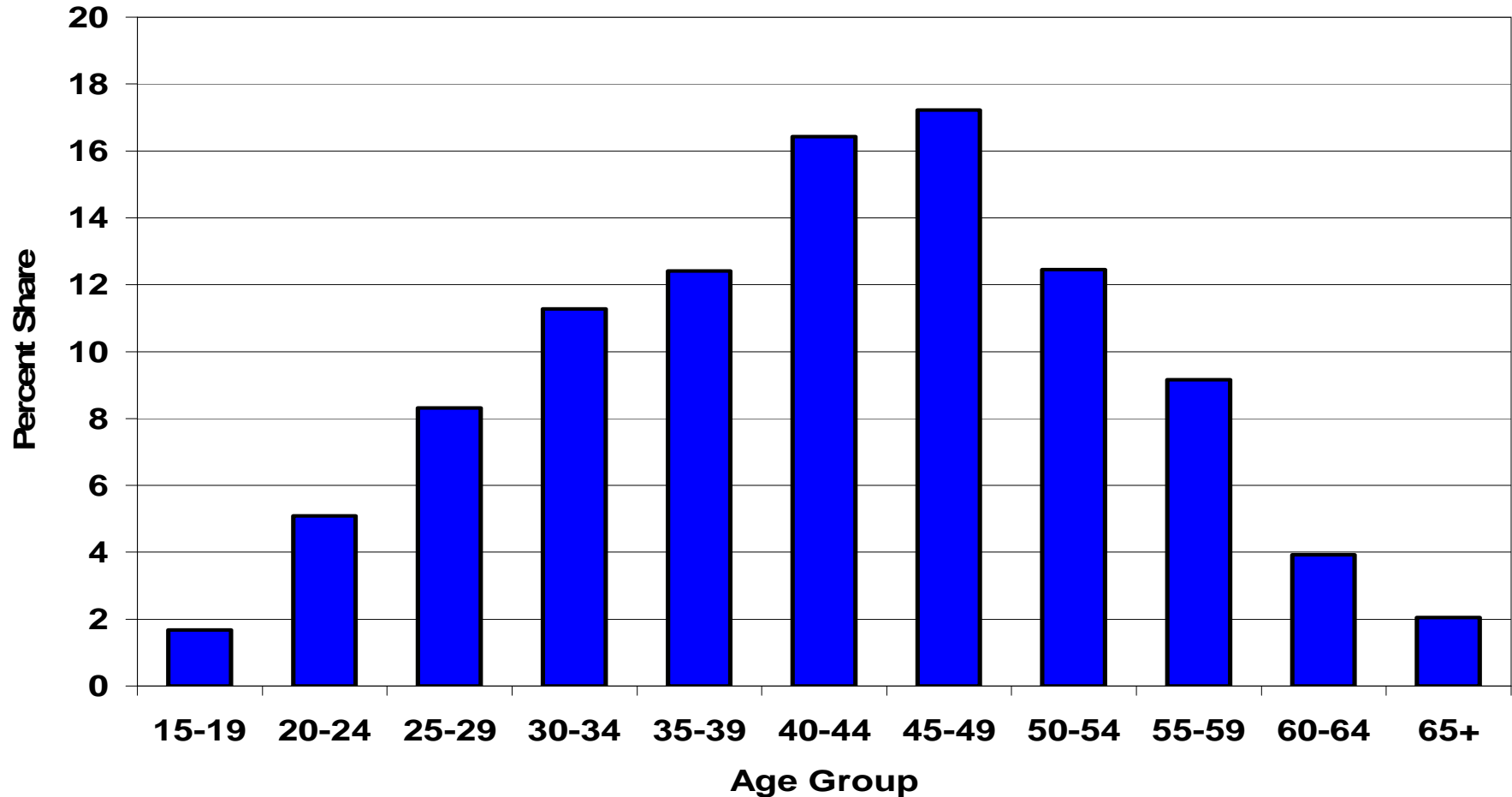
# Demographics and the Labour Market

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***The agriculture sector has been challenged by the issue of an aging work force for the last 30 years. The issue is now affecting other industries in Alberta.***

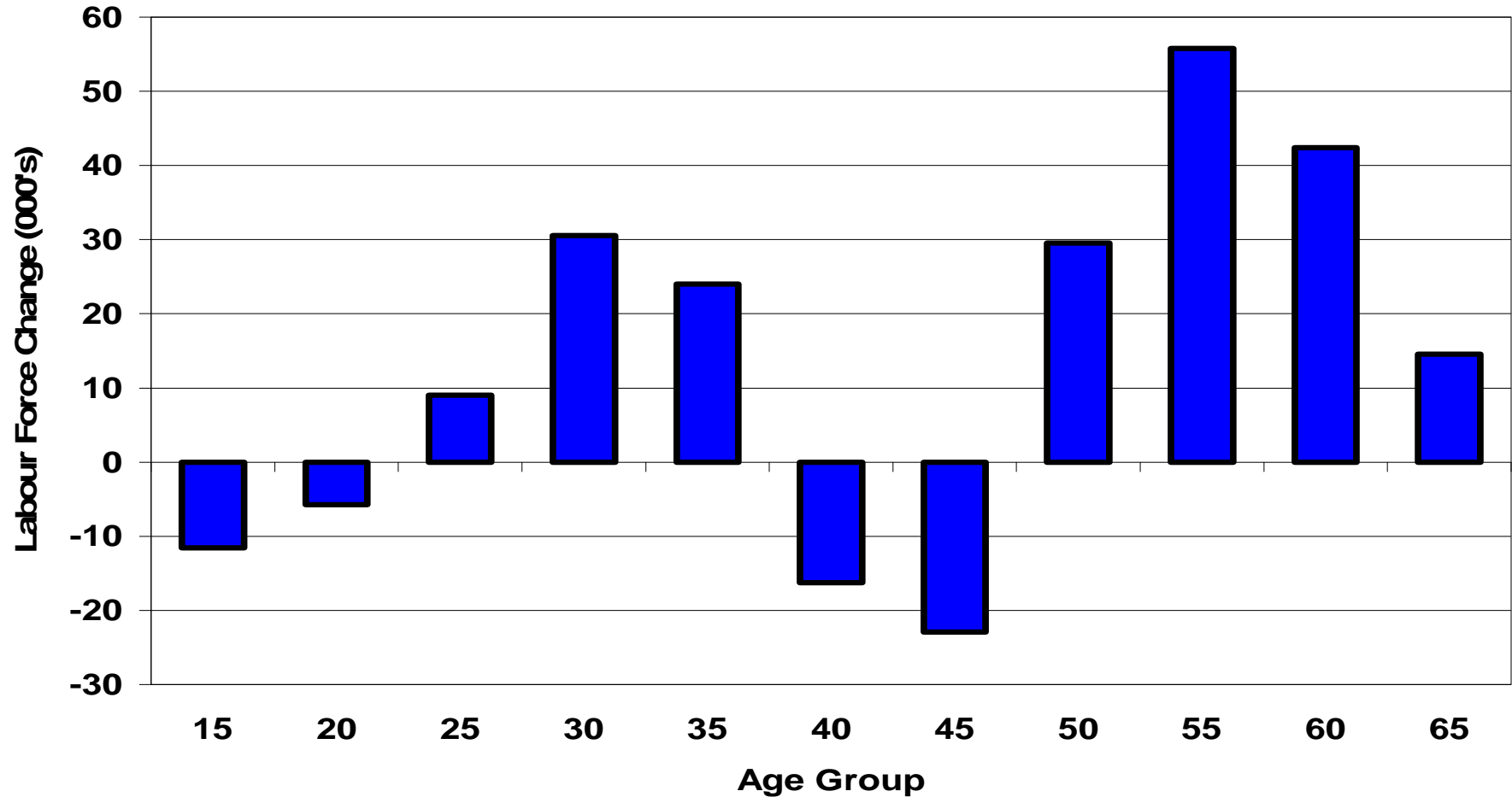
# Alberta

## Labour Force Change, 1976-2005 (percent share)



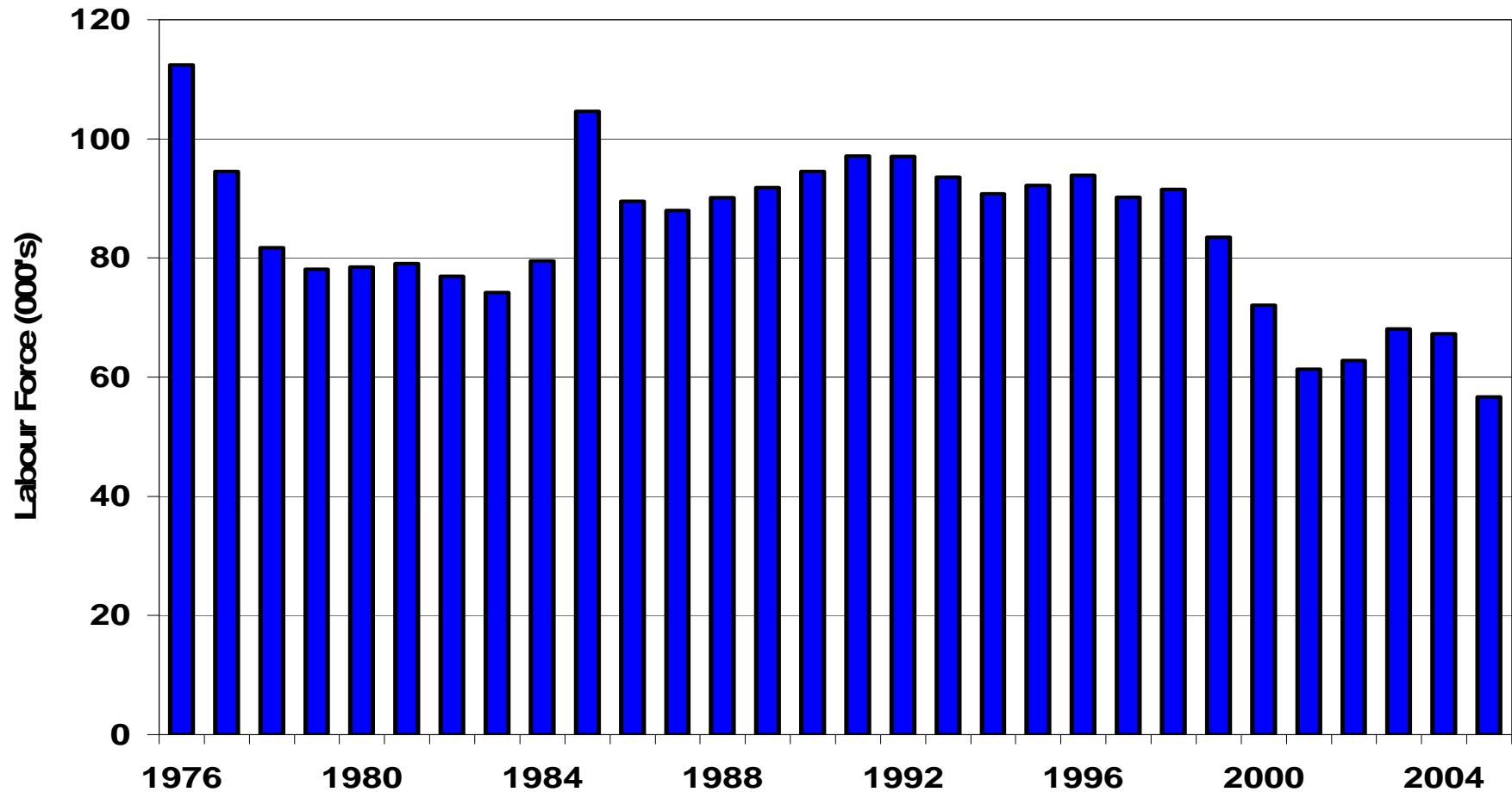
# Alberta

## Labour Force Change, 2006-2016 (000's)



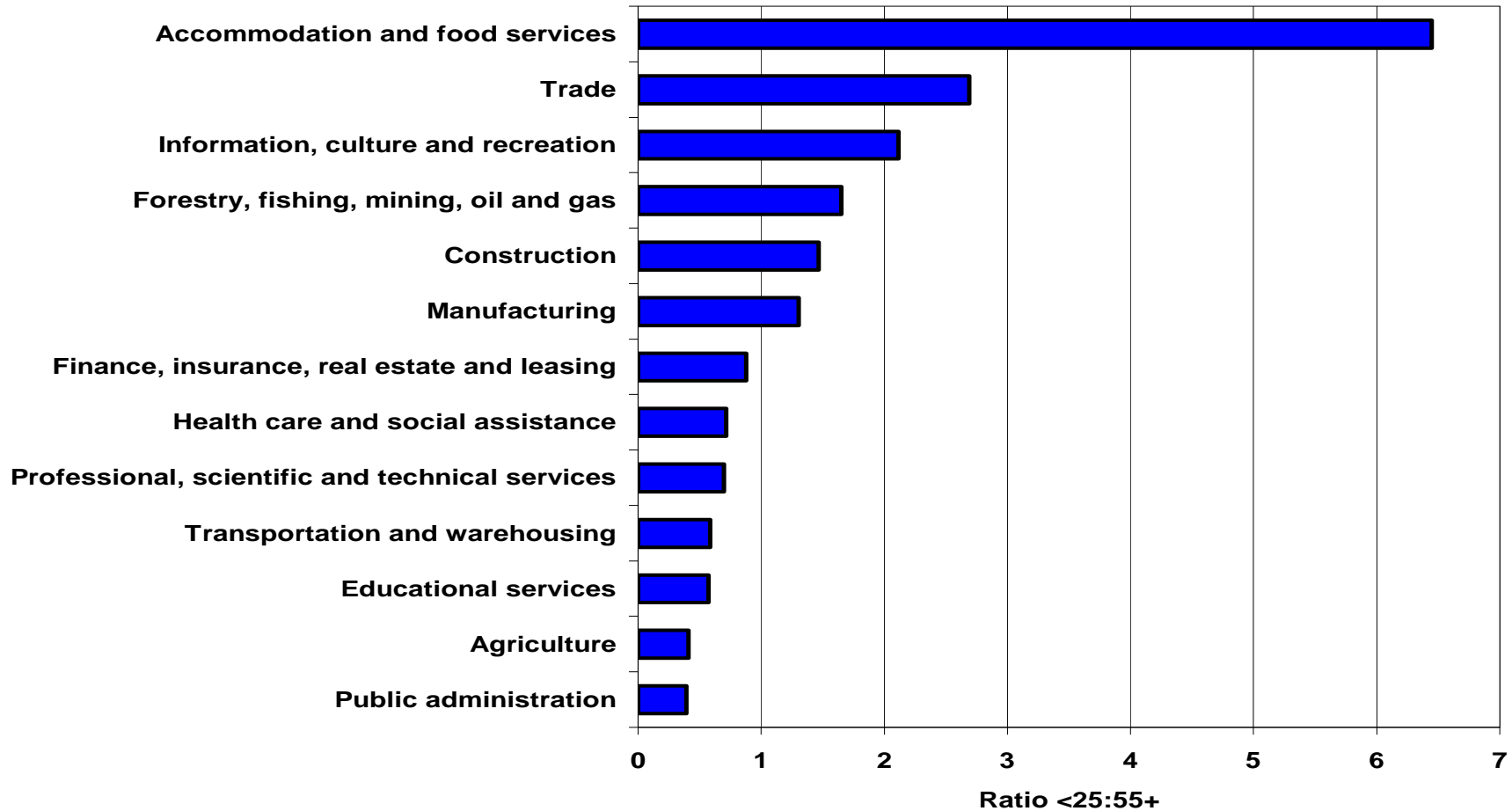
# Alberta

## Labour Force, Agriculture, 1976-2005 (000's)



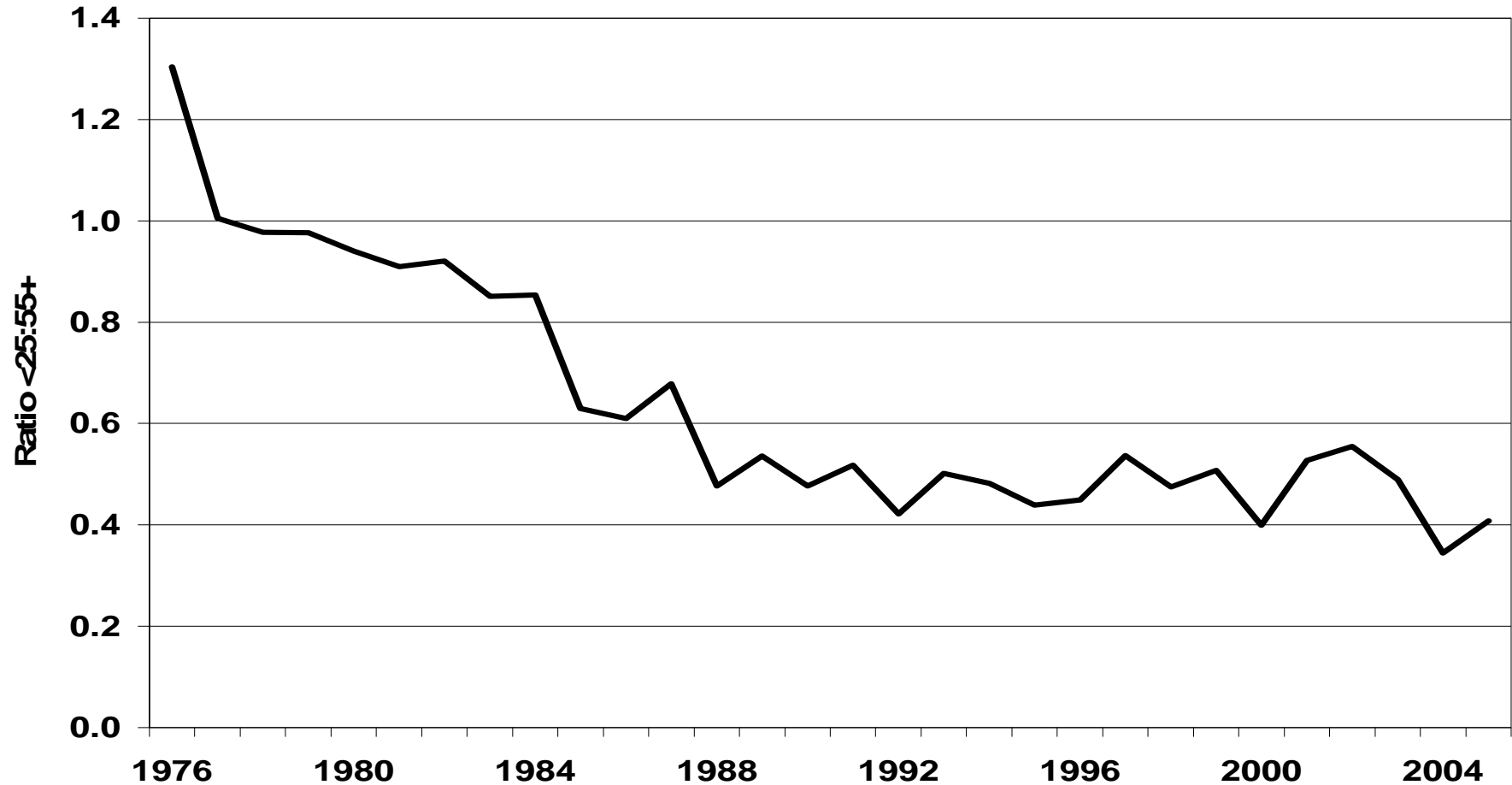
# Alberta

## Entry/Exit Ratio (<25:55+) by Industry, 2005



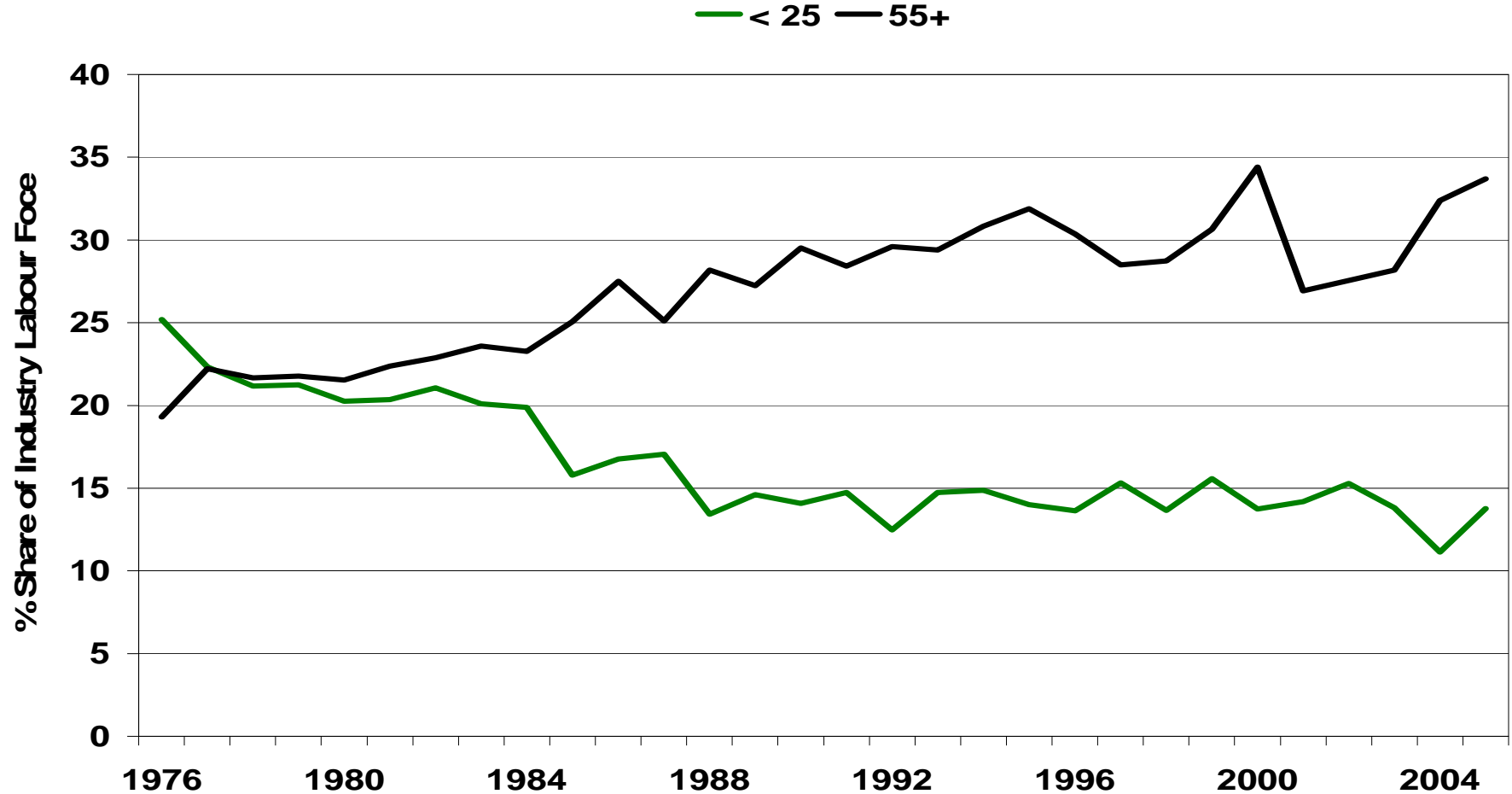
# Alberta

## Entry/Exit Ratio (<25:55+), Agriculture, 1976-2005



# Alberta

## Entry/Exit Shares (<25:55+), Agriculture, 1976-2005 (percent)



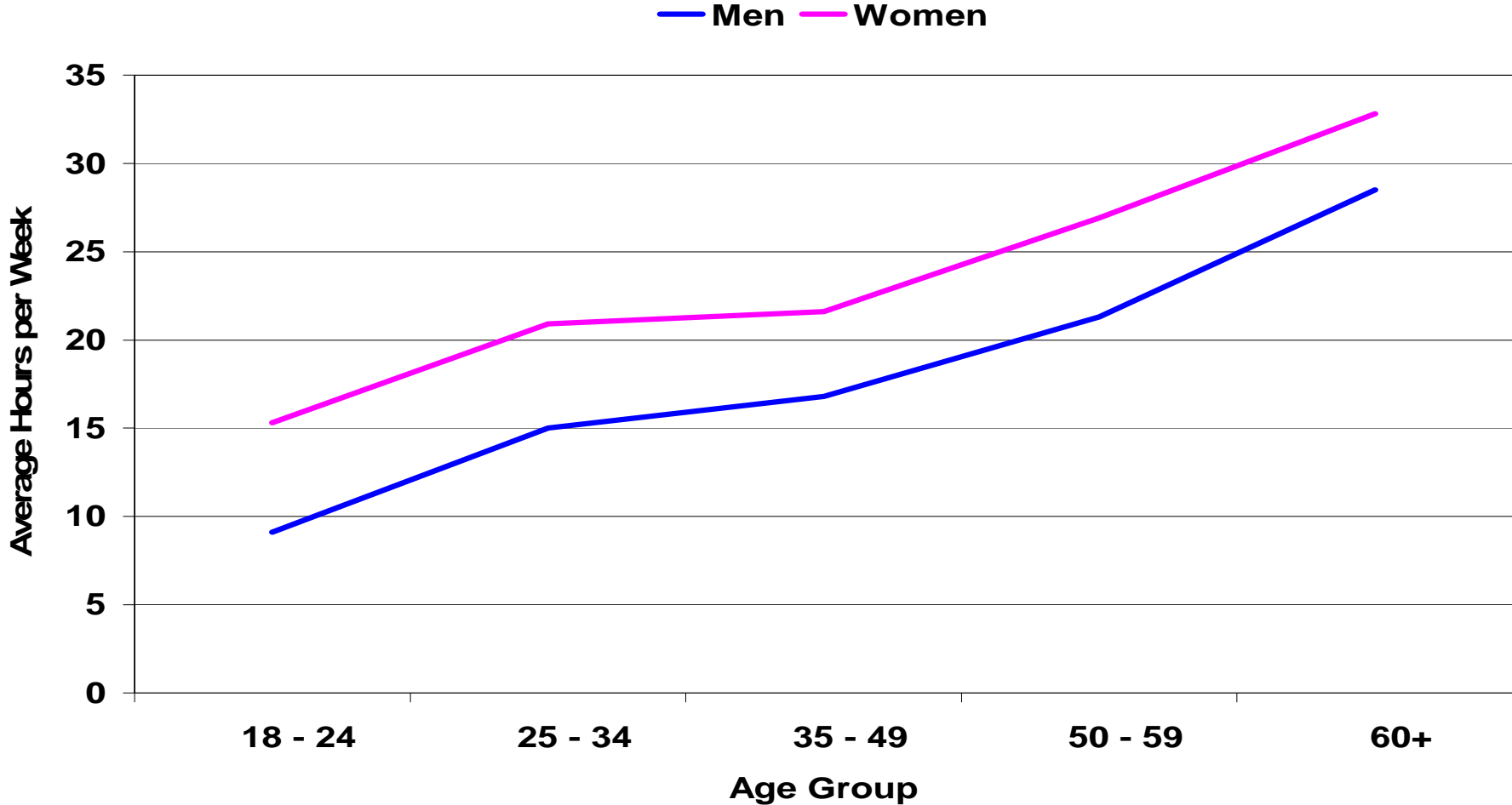
# Demographics and Marketing

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***“Everybody is not on the Net”. In 2005, 68 percent of 18-plus Canadians used the Internet from any location. Only 3.4 percent of Internet users purchased food, condiments, or beverages. Traditional marketing tools remain effective options for reaching the 45-plus consumer. The Internet works well with younger (under 45) consumers and a niche market of wealthy, university educated, 45-plus consumers.***

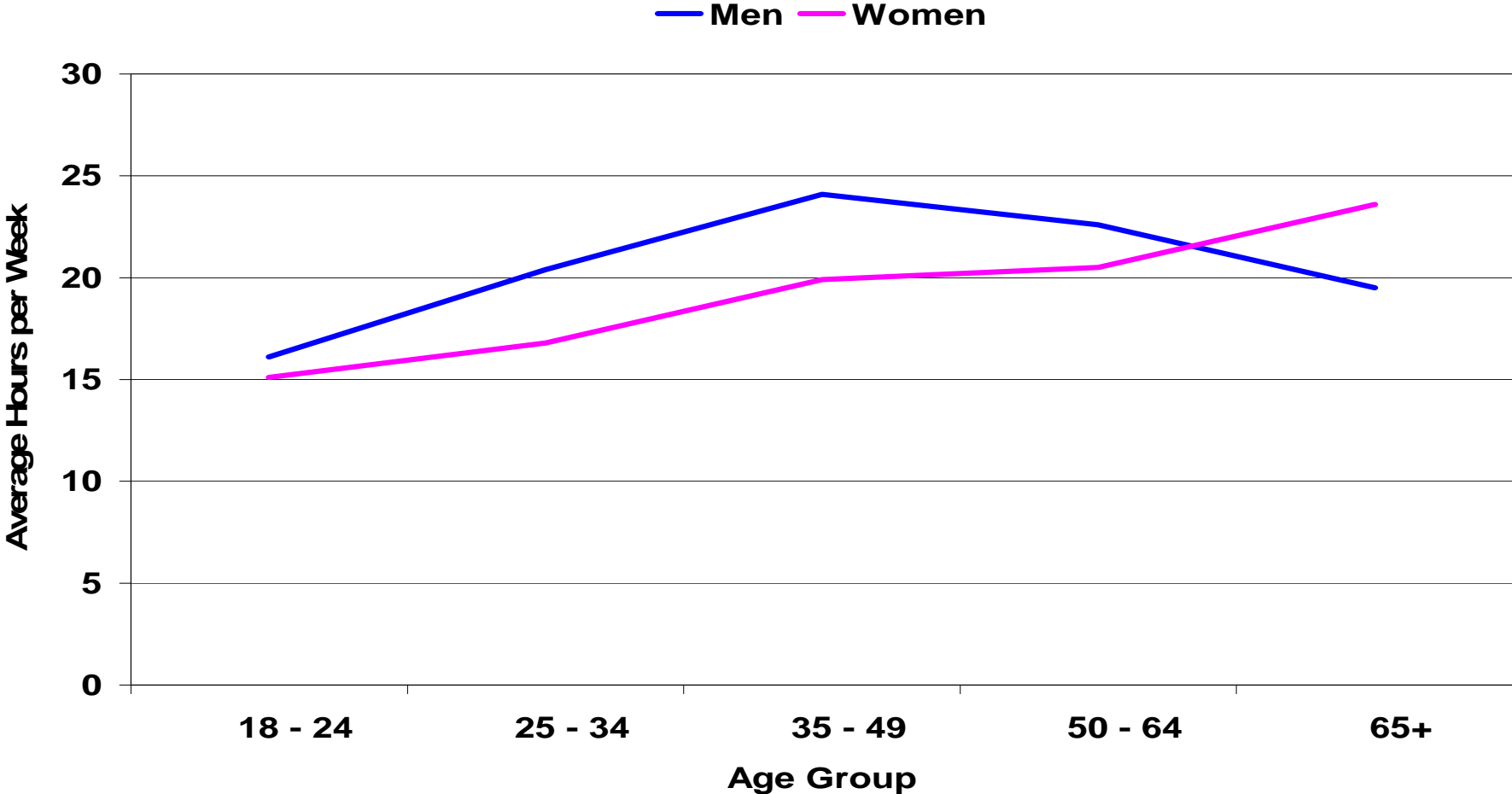
# Television Viewing

Alberta, 2004 (hours per week)



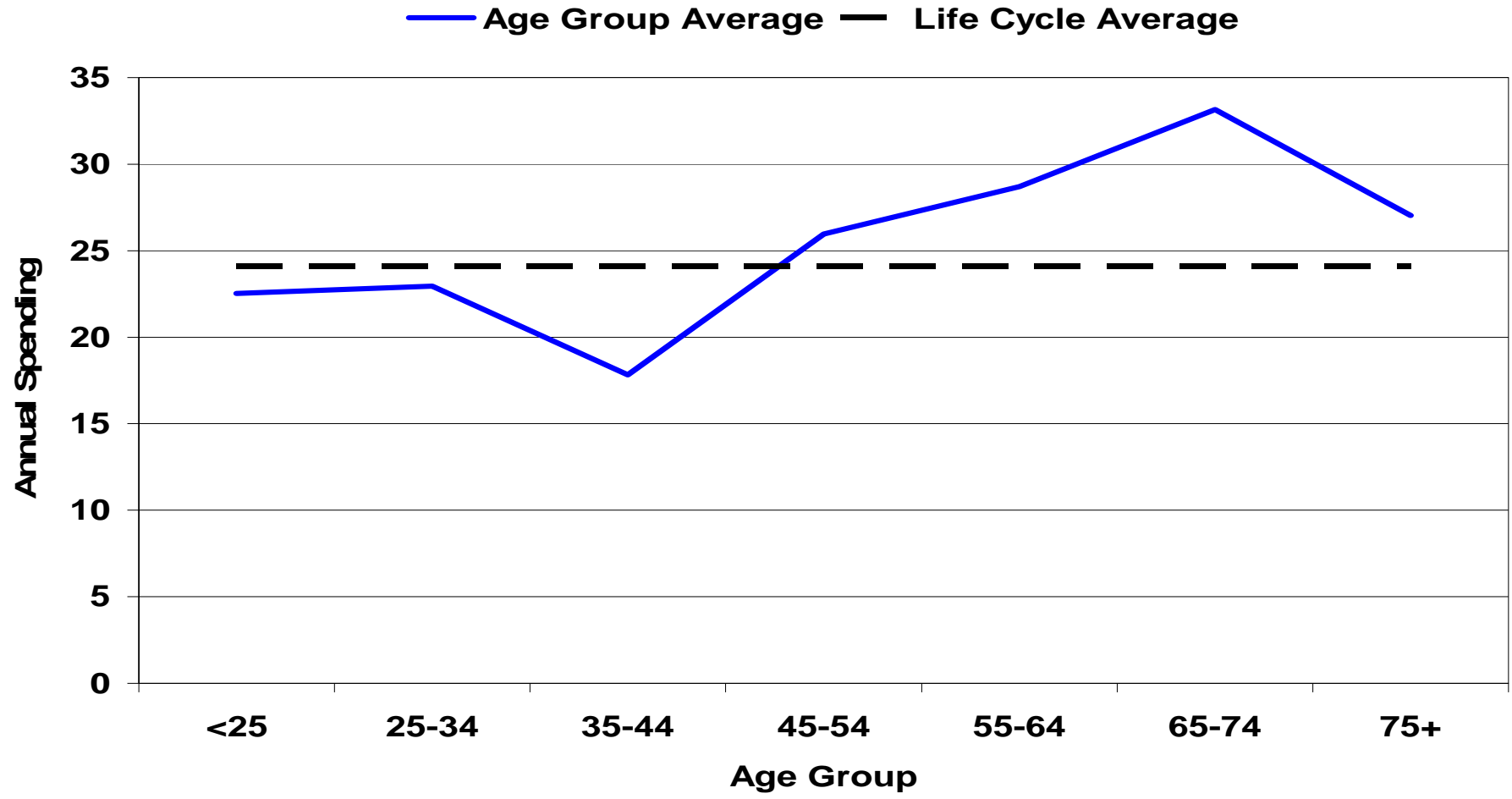
# Radio Listening

Alberta, 2005 (hours per week)



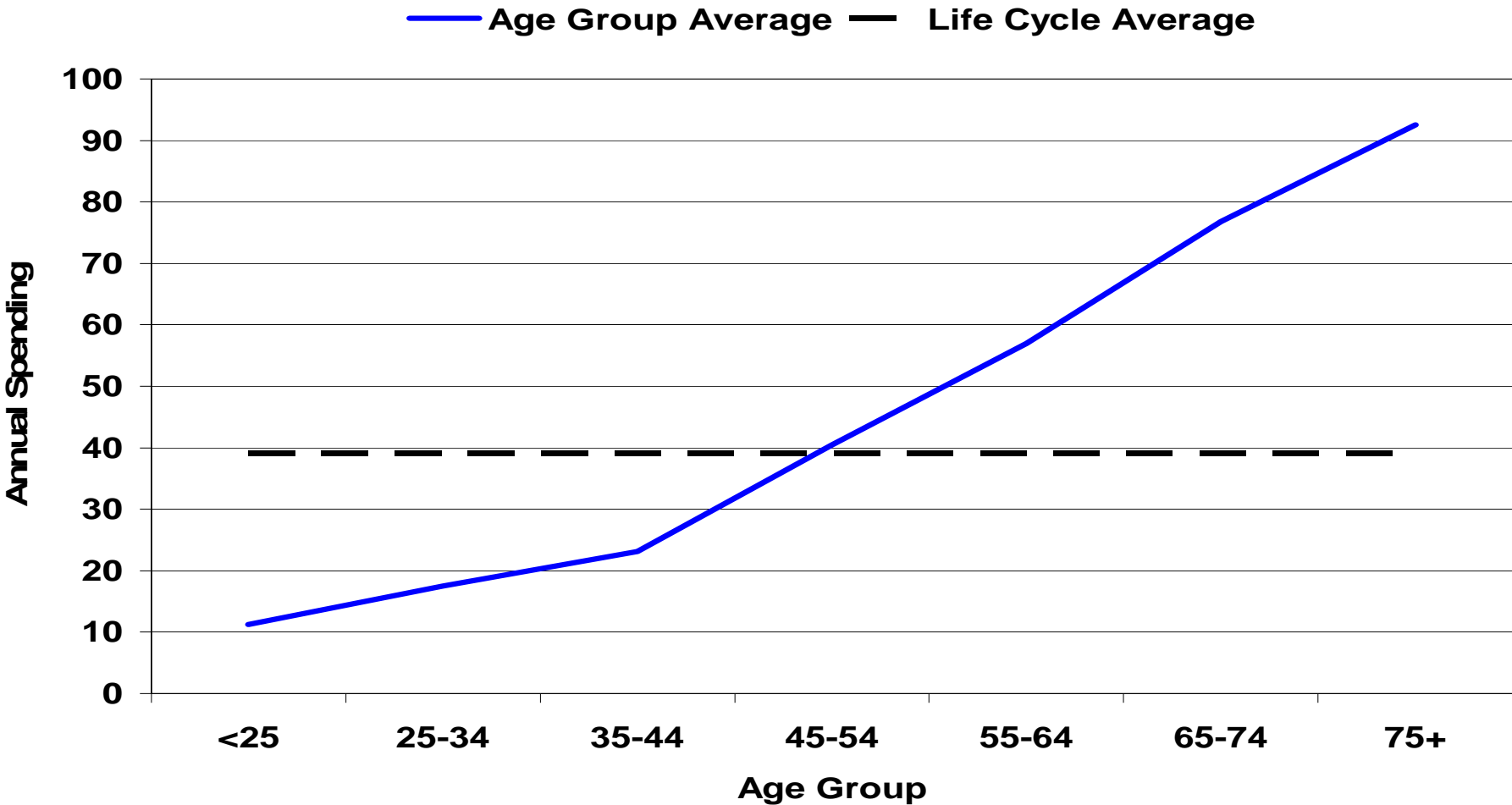
# Consumer Spending

## Magazines, Canada, 2004 (per person)



# Consumer Spending

Newspapers, Canada, 2004 (per person)



# Canada

## Home Internet Users by Activity, 2005 (percent)

	<b>18+ Canadians</b>
E-mail	55.6
General browsing (surfing)	51.2
Obtaining weather reports or road conditions	40.5
Travel information or making travel arrangements	38.5
Viewing the news or sports	37.6
Searching for medical or health related information	35.3
Electronic banking	35.2
Paying bills	33.5
Searching for information on Canadian municipal, provincial or federal government	31.7
Education, training or school work	26.1
Researching community events	25.8
Playing games	23.5
Participating in chat groups or using a messenger	23.1
Obtaining or saving music	22.3
Obtaining or saving software	19.4
Researching investments	16.0
Listening to the radio over the Internet	15.9
Communicating with Canadian municipal, provincial or federal government	13.8
Other Internet activity	6.7
Downloading or watching television	5.2
Downloading or watching a movie	5.0

# Canada

## Home Internet Users, Characteristics, 2005 (percent)

### **Household type**

Single family households with unmarried children under age 18	74.1
Single family households without unmarried children under age 18	56.9
One-person households	38.2
Multi-family households	67.5

### **Sex**

Males	61.5
Females	60.3

### **Age**

18 to 34 years	77.3
35 to 54 years	68.3
55 to 64 years	49.3
65 years and over	22.5

### **Level of education**

Less than high school	26.5
High school or college	63.9
University degree	83.4

### **Personal income quartile**

Lowest quartile	52.3
Second quartile	50.2
Third quartile	63.4
Highest quartile	77.7

# Applying Demographics to Business Strategy

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## *What should you remember about this presentation?*

1. Demographics as the foundation of strategy:
  - Life cycle analysis - “Acting your age”
  - Durability of consumer behaviour by age
2. Methodology:
  - In-depth comparative and historical analysis
  - Segmentation by age, ethnicity, and geography
3. Be challenged not intimidated by the implications of demographic trends:
  - Magnitude and direction of demographic pressure
  - Creativity

# Applying Demographics to Business Strategy

*What should you remember about this presentation?*

3. Increasing importance of the 45-plus consumer:
  - Favoured products
  - Quality and service (discretionary income)
  - Health concerns
4. Shifting global demographics
5. Labour market opportunities and challenges:
  - Immigration
  - Aboriginal population
  - Technology
6. Marketing:
  - Multi-media, targeted approach

# Disclaimer

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