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Current Demographic Analysis


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# Report on the Demographic Situation in Canada 1993 

## Current Demographic Analysis

Jean Dumas<br>Demography Division

Published by authority of the Minister responsible for Statistics Canada

- Minister of Industry, Science and Technology, 1994

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March 1994
Price: Canada: $\$ 26.00$ annually
United States: US\$31.00 annually
Other Countries: US $\$ 36.00$ annually
Catalogue No. 91-209E
ISSN 0715-9293
Ottawa
The text was originally written in French
Version française de cette publication disponible sur demande ( $n^{\circ}$ 91-209F au catalogue)

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## Supplementary

The reader should be reminded that the publication of successive versions of the Report on the Demographic Situation in Canada does not render previous versions obsolete. Rather, since a different substantive focus is taken with each issue, the volumes actually complement each other. Furthermore, certain of the basic demographic topics are covered in serial format, making the volumes a valuable source of time series data on the Canadian demographic scene.

## Preface

In 1993, Statistics Canada began producing new population estimates which take into account categories of individuals formerly omitted from demographic accounts (non-permanent residents and persons not enumerated in the Census). The result is more accurate population data, including related demographic rates and indices. Part I of this report, which chronicles Canada's most recent demographic developments, takes into account these improvements.

With the heightened interest in Mexico arising from the North American Free Trade Agreement, Part II of the report is particularly timely. It presents a description of the Mexican population, with a view to situating it within the North American context and facilitating a better understanding of its evolution, its current conditions and its prospects for the future.

Ivan P. Fellegi<br>Chief Statistician of Canada

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The author is grateful to Réjean Lachapelle, Director of the Demolinguistic Division at Statistics Canada, for his comments. He wishes to thank the Demography Division members who helped in searching and verifying the data.

Sincere thanks are also due to all those involved in preparation of the manuscript: Alain Bélanger, Eda Reganaz, Carol D'Aoust, Hugues Basque, Danielle St-Germain, as well as the production team, in particular Suzanne Beauchamp, who was in charge of composition. The translation is from Dreidre A. Mark.

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## Table of Contents

Page
Highlights ..... 1
PART I
Demographic Accounts ..... 7
New Components ..... 7
Overall Impression ..... 9
The Provinces ..... 14
Canada in the World ..... 15
Canada and the Principal Industrialized Countries ..... 15
Autonomy of Population Estimates ..... 21
Background ..... 21
Improvement ..... 23
More Progress to Come ..... 26
Marriage and Divorce ..... 28
1991 Nuptiality Table ..... 30
Divorce ..... 37
Births and Fertility ..... 38
Births ..... 38
Fertility ..... 38
Birth Under Control ..... 39
Abortion ..... 39
Mortality ..... 42
1990 Life Table ..... 42
Major Causes of Death ..... 44
The Impact of AIDS ..... 44
How Does Canada Rank for Major Causes of Death? ..... 44

## TABLE OF CONTENTS - Continued

Page
International Migration ..... 46
Where Do They Come From ..... 50
Where Are They Going? ..... 53
Investors ..... 55
Refugees ..... 57
Some International Comparisons ..... 59
Immigrants and Language ..... 61
Interprovincial Migration ..... 61
Migration Trends in Census Metropolitan Areas in Canada ..... 66
Eastern Canada ..... 68
Western Canada ..... 69
Another Approach ..... 69
Major Trends ..... 70
Relations Between Census Metropolitan Areas and Non- Metropolitan Areas ..... 71
Census Metropolitan Areas and International Migration ..... 73
Conclusion ..... 74
Labour Force ..... 75
Males ..... 76
Participation Rates ..... 76
Part-time Work ..... 76
Full-time Work and Unemployment ..... 78
Females ..... 81
Participation Rates ..... 81
Part-time Work ..... 83
Unemployment ..... 83
Overview ..... 83
Conclusion ..... 84
Box Table
Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1985-1991 ..... 10

## TABLE OF CONTENTS - Continued

Page
Table
1A. Statement of Population Change, Canada, 1972-1993 ..... 8
1B. Main Rates of the Demographic Accounts, Canada, 1972-1993 ..... 9
2. Countries with a Larger Population than Canada, 1950, 1984 and 1991 ..... 16
3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992 ..... 17
4. Canadian Population by Cohort, Census Data Adjusted for Undercoverage ..... 24
5. Total Fertility Rates, Canada, (Excluding Newfoundland), 1971-1991 ..... 25
6. Cumulative Fertility by Cohort, Using Former and New Population Estimates ..... 27
7. Variations in the Sex Ratio for Some Cohorts According to the Adjusted and Non-Adjusted Net Undercoverage of the Census ..... 27
8. Marriages, First Marriages, Remarriages, Canada, 1967-1991 ..... 29
9. Total First-Marriage Rate, Canada, Provinces and Territories, 1987 to 1991 ..... 32
10A. Male First-Marriage Table, Canada, 1990-1991 ..... 33
10B. Female First-Marriage Table, Canada, 1990-1991 ..... 34
11. Number of Singles at Age 50 from the First-Marriage Table, Canada, 1976-1991 ..... 35
12. Singles at Age 50 Mean and Median Ages at First-Marriage, According to the First-Marriage Table of 1991, Canada and Provinces ..... 35
13. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother, Quebec and the Rest of Canada, 1981-1991 ..... 40
14. Gain in Life Expectancy by Decade, Canada, 1921-1991 ..... 42
15. Cause-Specific Mortality Rate by Diseases of the Circulatory System and by Tumors, by Sex, Canada, 1969-1991 ..... 43
16. Mortality Rate Due to Traffic Accidents by Age Group and Sex, Canada, 1971, 1982-1991 ..... 45

## TABLE OF CONTENTS - Continued

Page
Table
17. Deaths Due to Human Immunodeficiency Virus by Broad Age Groups and Sex, Canada, 1987-1991 ..... 46
18. Standardized Mortality Rates Resulting from Cancer, by Sex, per 100,000 People (Period 1980-1984) ..... 47
19. Standardized Rates of Mortality from Cardiovascular Diseases, by Sex, per 100,000 People (1980-1984 Period) ..... 48
20. Immigrants to Canada by Category, 1981-1992 ..... 50
21. Immigrants Born in Communist Countries ..... 51
22. Countries from which more than 4,000 Immigrants were Admitted in Canada During the Last Four Years. ..... 52
23. Percentage Distribution of Admitted Immigrants by Intended Province of Destination, Canada, 1956-1992 ..... 54
24. International Immigrants to the Province of Ontario by Place of Birth, 1992 ..... 55
25. Immigrants in the Investor Category, Canada, 1986-1992 ..... 55
26. Investments of Investing Immigrants, Canada, 1989-1992 ..... 56
27. Distribution of Investing Immigrants by City of Destination, Canada, 1992 ..... 56
28. Distribution of Investing Immigrants by Country of Origin, Canada, 1992 ..... 57
29. Number of Refugee Demands in Canada, Individuals Accepted or Refused as Landed Immigrants and Withdrawn Requests ..... 58
30. Inflows of Foreign Population into OECD Countries, 1980-1990 ..... 60
31. Net Migration for Provinces and Territories, 1970-1992 ..... 63
32. Annual Number of Interprovincial Migrants from Revenue Canada Tax Files and Family Allowance Files, January to December 1991 ..... 64
33. Annual Number of Interprovincial Migrants from Family Allowances Files, January to December 1992 ..... 65
34. Growth Components of Census Metropolitan Areas, 1986-1991 ..... 67

## TABLE OF CONTENTS - Continued

Page
Table
35. Percentage Distribution of In- and Out-Migrants According to Some Geographical Characteristics by Census Metropolitan Areas, 1986-1991 ..... 68
36. Net Migration Between Census Metropolitan Areas, Canada, 1986-1991 ..... 70
37. Gains, Losses and Net Migration of the 25 Census Metropolitan Areas in their Exchanges Between Themselves and With Non-Metropolitan Areas ..... 72
38. Proportion of In-Migrants Coming From Census Agglomerations of the Province Among All In-Migrants Coming from Census Agglomerations, 1991 ..... 72
39. Population Aged Five Years and Over, Living Outside Canada Five Years Ago and Received as Immigrants Between 1986 and 1991, by Census Metropolitan Areas ..... 73
40. Net Migration by Census Metropolitan Areas, 1986-1991 ..... 74
41. Age-Specific Participation Rates for Certain Male Cohorts, Canada ..... 77
42. Age of Certain Male Cohort Members During the Recessions of 1983 and 1991 and Corresponding Unemployment Rates ..... 79
Appendix
A1. Demographic Accounts of the Provinces and Territories, by Provinces, 1972-1993 ..... 86
A2. Nuptiality ..... 98
A3. Age-Specific First Marriage Rates for Male Cohorts, 1943-1974, and Female Cohorts, 1943-1976, Canada ..... 99
A4. Fertility ..... 101
A5. Mortality ..... 103
A6. Estimated Life Expectancy at Different Ages, Canada, 1990 and 1991 ..... 104
A7. Immigrant Population in Canada by Country of Birth, 1980-1992 ..... 105
A8. Canadian Population as of January 1st, 1991 and 1992, by Age and Sex ..... 106

## TABLE OF CONTENTS - Continued

Page
Figure

1. Population of the 1967-1971 Birth Cohorts at Successive Censuses Adjusted or Non Adjusted for Net Undercoverage, Canada ..... 22
2A. Age-specific First Marriage Rates for Recent Cohorts, Males, Canada ..... 30
2B. Age-specific First Marriage Rates for Recent Cohorts, Females, Canada ..... 31
2. First Marriage Probabilities, Canada (without Quebec) and Quebec, 1991 ..... 36
3. Proportion Remaining Single and Mean Age at First Marriage, by Province, 1991 ..... 37
4. Distribution of the Birth Index by Day of the Week, Canada, 1977-1990 ..... 39
5. Number of Immigrants and Immigration Rates, Canada, 1944-1992 ..... 49
6. Immigrant Distribution by Class and Category, 1992 ..... 51
7. Canadian Population and Interprovincial Migration, 1950 to 1992 ..... 62
8. Participation Rates for Males, According to the Average Cohorts, Canada, 1975-1992 ..... 76
9. Part Time Employment Rates for Males, According to the Average Cohorts, Canada, 1975-1992 ..... 77
10. Full Time Employment Rates for Males, According to the Average Cohorts, Canada, 1975-1992 ..... 78
11. Unemployment Rates for Males, According to the Average Cohorts, Canada, 1975-1992 ..... 79
12. Participation Rates for Females, According to the Average Cohorts, Canada, 1975-1992 ..... 80
13. Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992 ..... 81
14. Full Time Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992 ..... 82
15. Part Time Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992 ..... 82
16. Unemployment Rates for Females, According to the Average Cohorts, Canada, 1975-1992 ..... 84

## TABLE OF CONTENTS - Continued

Page
PART II
Presentation ..... 111
Introduction ..... 111
Geographical organization of the population ..... 115
Mexican Sources of Demographic Data ..... 115
Introduction ..... 115
Censuses ..... 116
Vital statistics ..... 119
Under-registration ..... 120
Late registration ..... 120
Demographic surveys ..... 122
Demographic Growth ..... 124
Population policies ..... 129
Birth Rate and Fertility ..... 131
Fertility ..... 131
1977 to 1982 ..... 135
1983 to 1988 ..... 136
The limits of contraception ..... 136
The current situation ..... 139
Consequences of decreased growth ..... 144
Conclusion ..... 146
Mortality ..... 147
Trends in mortality ..... 147
Infant mortality ..... 151
Child mortality ..... 151
Comparison of mortality in Canada and Mexico ..... 154
Level of mortality in Mexico ..... 156
Cause-specific mortality ..... 156
Marriage in Mexico ..... 156
Women and marriage ..... 157
Men and marriage ..... 157
Marriage tables ..... 163
Common-law marriages ..... 163
Marriage breakdown ..... 164

## TABLE OF CONTENTS - Continued

Page
Migrants at the Northern Border ..... 166
Mexicans in the United States ..... 168
Recent trends ..... 169
Current situation ..... 170
Results of analysis by Garcia y Griego ..... 171
Labour force ..... 172
What does the future hold? ..... 173
Remittances ..... 174
Internal Migration ..... 176
Present-day migration ..... 176
Urban population, rural population ..... 180
Population and Workforce ..... 184
Male labour force ..... 185
Female labour force ..... 186
Indigenous Populations ..... 188
Geography of indigenous languages ..... 191
In conclusion ..... 193
Conclusion ..... 194
Bibliography ..... 213
Table
1A. Main Characteristics of Mexican Censuses, 1895 to 1990 ..... 117
1B. Main Characteristics of Canadian Censuses, 1851 to 1991 ..... 118
2. Registered Live Births by Age at Registration, Mexico, 1986-1989 ..... 122
3. Live Births by Year of Birth and Registration Year, Mexico, 1985-1989 ..... 123
4. Population from Different Scenarios for Mexico, Canada and the United States according to Simple Calculations Using Mean Annual Growth Rates, 1990, 2000, 2010, 2020, 2030 ..... 128
5. Estimated Birth Rates from Calculations by Some Authors or Organisms, Mexico, 1895-1990 ..... 132

## TABLE OF CONTENTS - Continued

Page
Table
6. Selection of Fertility Rate Estimates for Mexico, by Age, According to Different Authors, Different Methods, Different Sources and for Different Years ..... 133
7. Total Fertility Rates for Mexico According to Different Sources and Different Methods of Calculations, 1962-1981 ..... 134
8. Percentage Reduction in Fertility Rates by Age, for Two Recent Periods and Distribution of Sterilized Women in 1984, Mexico ..... 137
9. Variations in the Annual Growth Rate of the Mexican Population According to Three Hypotheses of the National Population Council, 1970-2000 ..... 143
10. Gross Reproduction Rate and Projected Population According to Three Hypothetical Annual Population Growth Rates, Mexico ..... 143
11. Life Expectancy at Birth Evaluated by Different Authors and from Different Sources, Mexico, 1930-1990 ..... 148
12. Gain in Life Expectancy at Birth by Decade and Gains in Life Expectancy due to Progress Against Infant and Juvenile Mortality, Mexico, 1930 to 1989 ..... 150
13. Probabilities of Dying for Juveniles (Aged 1-4), Mexico and Canada, 1930-1990 ..... 153
14. Life Expectancy at Birth at Different Dates According to Two Different Sources, Mexico ..... 154
15. Distribution of the Mexican and Canadian Population by Age Group and Marital Status ..... 158
16. Population Distribution by Marital Status and Five-year Age Groups, Mexico, 1960-1990 ..... 160
17. Cumulated Proportion of Mexican Females Married Before Age $x$, for Different Cohorts ..... 162
18. Age at First Union by Type of Union (Females Aged 35 to 49), Mexico ..... 164
19. Females for Whom the First Union was Dissolved, by Cause of Rupture and Cohort, Mexico ..... 165
20. Females for Whom the First Union was Dissolved Before the Age of 25 by Causes of Rupture and Cohort, Mexico ..... 165

## TABLE OF CONTENTS - Continued

Page
Table
21. Number of Mexican Immigrants to the United States by Decade, 1901 to 1990 ..... 169
22. Projection of Mexico's Population and Migration to and From the United States ..... 171
23. Projection of Mexico's Labor Force and Mexican-born Work Force in the United States ..... 173
24. Total Remittances from the United States to Mexico by Sending Mechanism (Intermediate Estimates), 1990 ..... 175
25. Net Migration Flows by Mexican States, 1985-1990 (Population Aged 5 and Over at the end of the period) ..... 178
26. Population Distribution by Size of Agglomeration, Mexico, 1960-1990 ..... 181
27. Changes in Urban and Non-urban Population, Mexico, 1960-1990 ..... 182
28. Percentage of Rural Population (Living in Agglomerations Smaller than 2,500 inhabitants), by Region, Mexico, 1990 ..... 182
29. Urban Population by Size of City, Percentage of the Urban Population and Growth, Mexico, 1960-1990 ..... 183
30. Main Characteristics of the Active Population of Mexico, 1970-1990 ..... 187
31. Main Native Languages Spoken in Mexico, 1990 (more than 200,000 people) ..... 189
32. Population Aged 5 and Over, Speaking a Native Language by Type of Language and Knowing of an Official Language, Canada, 1990 ..... 189
33. Percentage of Population Speaking a Native Language and Percentage of the Native Population Who Do Not Speak Spanish, Population Aged 5 and Over, Selected Mexican States, 1990 ..... 190
34. Distribution of Population Speaking a Native Language by Age Group, Mexico, 1990 ..... 191
35. Changes in Total Population and in Population Speaking a Native Language Between 1980 and 1990, a Cohort Perspective ..... 192
36. Distribution by State of Municipalities Where at Least $40 \%$ of the Population Speaks a Native Language, Mexico ..... 193

## TABLE OF CONTENTS - Continued

Page
Appendix
A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 ..... 198
A2. Birth and Mortality Rates, Canada and Mexico, 1886-2024 ..... 202
A3. Age Dependency Ratio for Canada, the United States and Mexico, 1931 to 2030 ..... 203
A4. Infant Mortality Rates (Observed and Estimated), Mexico, 1930-1990 ..... 204
A5a. Nuptiality Tables for Single, Males, 1970, 1980, 1990 ..... 205
A5b. Nuptiality Tables for Single, Females, 1970, 1980, 1990 ..... 206
A6. Mexican Population in 1990 by State, by Place of Birth and Place of Residence 5 Years Earlier ..... 207
A7. Labour Force by Region and Sex, Mexico, 1970 and 1990 ..... 208
A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 ..... 209
Figure

1. Distribution of the Canadian (1991) and Mexican (1990) Populations by Region ..... 112
2. Map of Mexican Regions ..... 113
3. Distribution of Registered Births by Cohort and Age at Registration in 1971, 1972, 1973 and 1974 ..... 121
4. Population of Mexico, Canada and the United States, 1891 to 2030 ..... 125
5. Birth and Death Rates, Mexico and Canada, 1895-2025 ..... 127
6A. Age Pyramids of the Canadian Population and the Mexican Population at Different Census ..... 140
6B. Age Pyramids of the Canadian Population for the Year 2001 and the Mexican Population for the Year 2000 ..... 142
6. Dependency Ratio for Canada, the United States and Mexico, 1931 to 2030 ..... 145
7. Life Expectancy at Birth by Sex, Canada and Mexico, 1921 to 1991 ..... 149

## TABLE OF CONTENTS - Concluded

Page
Figure
9. Probability of Dying Before Age One, Canada and Mexico, 1921-1990 ..... 152
10. Age-specific Probability of Dying, Mexico 1985-90 and Canada 1950-52 ..... 155
11. Percentages of the Mexican Population by State, According to the State of Birth and the State of Residence in 1985 ..... 177
12. Participation Rate by Age Group and Sex, Mexico, 1970 and 1990 and Canada, 1971 and 1991 ..... 186
Box Table
Key Dates Marking Mexico's Recent History and Demographic Development ..... 114
The Mexico City Metropolitan Area (ZMCM) ..... 179

## Highlights

## PART I

- The Canadian population as of January 1, 1993, is estimated at $28,593,400$, an increase of 321,000 people ( $1.13 \%$ ) over the last year.
- Saskatchewan's population continued to decline in 1993, while that of British Columbia increased by $2.4 \%$, double the national growth rate of $1.1 \%$.
- From 1990 to 1991 , the total number of marriages was down $8 \%$ and $4.5 \%$ from 1991 to 1992, a drop never before equalled in Canada. All provinces showed a decrease in the total marriage rate and, with very few exceptions, rates were down for all ages, indicating an overall downward trend compounded perhaps by the effects of the recession.
- There were 3,005 fewer births in Canada in 1991 than the previous year. This decrease, the first since 1987, was felt in all provinces except Ontario and British Columbia. In these two provinces, there was a slight upswing, due more to an increase in the number of women of child-bearing age than to the actual fertility of these women.
- The total fertility rate was again up slightly in Quebec, at 1.65 children per woman, and down slightly in the rest of Canada at 1.71. The rate for 1992 remains unchanged.
- First-marriage tables for 1991 indicate that of 100,000 people never married at age $15,23,000$ males and 28,000 females would be still unmarried at age 50 . The corresponding figures in 1976 were 7,000 and 8,000 .
- The 1980s formed the first decade during which gains in life expectancy for men were higher than those for women. Even though the gap between the sexes decreased by one year over the decade, Canadian women were still ahead with a life expectancy of 80.7 years compared to 74.2 for men. Canada ranks eighth in the world for male life expectancy and fifth for that of women.
- Canada accepted 252,842 immigrants in 1992. In terms of country of birth Hong Kong was in first place with 27,873 immigrants, followed by China with 22,131 . As usual, Ontario was the destination of close to $55 \%$ of all immigrants. With the diversification of countries of origin, the proportion of immigrants who speak neither of Canada's official language is on the rise, and in recent years has been close to half of the total, compared to $33 \%$ in 1978.
- In 1991, Alberta and particularly British Columbia again recorded positive internal migration balances. With the exception of Nova Scotia, which had a slight gain, all other provinces had negative balances, with that of Saskatchewan being particularly significant at $-9,926$. Losses for Quebec, which had been down in recent years, increased in $1991(-11,690)$.
- While migration between metropolitan area was large from 1986 to 1991, the effect of such movements was relatively small with net gains occuring only in cities west of Quebec.
- The most recent birth cohorts to arrive on the job market suffered most from the economic recessions of the early 1980s and 1990s. Looking at the historical record, those born after 1956 have experienced high unemployment rates through their entire work life.


## PART II

- Mexico is a country with a population of 84 million (about three times that of Canada). It is made up of 32 states, of which 25 have a population of over a million; however, half the population is concentrated in only seven states.
- Mexico has not yet completed its demographic transition and can thus expect to experience relatively strong population growth in the future. The average annual rate of increase in the 1980s was $2.5 \%$, notwithstanding continued emigration to the United States.
- Since the turn of the century, the crude birth rate in Mexico remained between 40 and 45 per 1,000 , with only slight fluctuations, until the mid-1970s. A firm downward trend began in 1975. The total fertility rate dropped from 6.0 children per woman in 1975 to 4.4 in 1981 and 3.8 in 1986.
- The decline in fertility in Mexico was accelerated by strong incentives in favour of contraception. The proportion of married Mexican women of child-bearing age using some contraceptive method rose from $30 \%$ in 1976 to $53 \%$ in 1987.
- Between 1930 and 1990 , male life expectancy in Mexico increased by 31.4 years, and female life expectancy by 36.1 years, a record of swiftness for a population of that size. These gains have meant that mortality in Mexico in 1990 is similar to that experienced in Canada in 1950.
- Mexicans appear to marry earlier than Canadians. For example, in the 25-29 age group, only $21 \%$ of Mexican women had never married, while the figure for Canadian women in the same age group was $30 \%$. Similarly, $29 \%$ of Mexican males aged 25 to 29 had never married, compared to $46 \%$ of Canadian men.
- Between the 1980 and 1990 U.S. censuses, the number of Mexican immigrants rose from 2.2 million to 4.4 million, an increase of $102.2 \%$ in 10 years.
- Mexicans start working younger, with 12 being the minimum age of the working population. In the 1990 census, $11.1 \%$ of boys 12 to 14 years of age were in the labour force. People stay in the labour force longer, as well; the participation rate for those 65 and over was $45.9 \%$, compared to $10.2 \%$ in Canada.
- Between 1960 and 1990, the proportion of Mexicans living in cities of over 100,000 rose from $18.7 \%$ to $44.4 \%$. Mexico City alone had approximately $18 \%$ of the total Mexican population, and four cities accounted for $44 \%$ of the total urban population.
- Mexican populations "speaking an indigenous language" are mainly located in the southern and central parts of the country. The 1990 census estimated at over 6 million the number of people who speak an indigenous language, or $7.9 \%$ of the Mexican population. The proportion of the Canadian population able to speak an aboriginal language was $0.4 \%$.

Part I

## DEMOGRAPHIC ACCOUNTS ${ }^{1}$

The population of Canada on January 1,1993 was estimated at $28,593,400$, an increase of 321,200 over last year, for a growth rate of $1.13 \%$. This rate, which is lower than that of last year, has been declining since 1988 (1:59\%) (tables 1 A and 1 B ), and is now slightly under the average for the last 21 years ( $1.21 \%$ ).

## New Components

The total increment of 321,200 people is much less than in 1989, which marked a peak $(429,900)$ despite slightly higher natural increase and much higher net international migration. This situation, which at first glance appears absurd, is due to the balance between the inflow and outflow of temporary immigrants, which is now included in the accounting, as are returning Canadians, i.e. Canadians who had left the country and have once again taken up permanent residence here (see chapter on recalculated estimates).

In actual fact, introducing non-residents does make demographic accounting somewhat more difficult to understand, but it does make it more accurate, insofar as the goal of these accounts is to show the number of people living in the country on a given date and the phenomena responsible for their presence there.

Natural increment is an increase in the number of actual persons, while in the accounts, at no time do immigrants correspond to the number of people physically entering the country during the year, since these are people who are granted landed-immigrant status, some of whom had already been in the country since the previous year or even before. The number of incoming non-residents is an estimate of actual persons, based on the number of temporary residence permits issued, but exiting non-residents are not all people leaving the country, since part of the total is made up of people who have been granted immigrant status and thus have only been moved from the non-resident to the immigrant column.

The result of these actual and statistical comings and goings is that the flow increment is equal to the sum of international net migration (obtained by taking the difference between landed immigrants and the estimated number of actual emigrants) the balance of non-residents and returning Canadians.

For example, in 1990, the estimated increase in the number of people in Canada due to migratory flows was 214,200(international immigrants) - 11,000 (balance of non-permanent residents) $+19,400$ (returning Canadians) $-39,600$ (international emigrants) $=183,000$, representing $\mathbf{4 8 \%}$ of the total increase for the year (Table 1A).

[^0]Table 1A. Statement of Population Change, Canada, 1972-1993 (figures in thousands), New Estimates


[^1]Table 1B. Main Rates of the Demographic Accounts, Canada, 1972-1993 (per thousands)

| Year | Population <br> as of <br> January I | Total <br> Growth <br> Rate | Birth <br> Rate | Mortality <br> Rate | Natural <br> Increase <br> Rate | International <br> Migration <br> Rate $^{1}$ | Growth <br> Rate by <br> Flow |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1972 | $22,157.8$ | 11.52 | 15.58 | 7.29 | 8.30 | 2.64 | 3.22 |
| 1973 | $22,414.5$ | 13.46 | 15.22 | 7.27 | 7.95 | 4.68 | 5.51 |
| 1974 | $22,718.2$ | 14.26 | 15.11 | 7.29 | 7.82 | 6.14 | 6.44 |
| 1975 | $23,044.4$ | 14.07 | 15.48 | 7.20 | 8.28 | 5.05 | 5.80 |
| 1976 | $23,371.0$ | 12.32 | 15.31 | 7.10 | 8.21 | 3.61 | 4.11 |
| 1977 | $23,660.7$ | 10.97 | 15.22 | 7.04 | 8.18 | 2.25 | 2.79 |
| 1978 | $23,921.8$ | 9.33 | 14.91 | 7.00 | 7.91 | 0.95 | 1.42 |
| 1979 | $24,146.1$ | 11.37 | 15.08 | 6.93 | 8.15 | 2.36 | 3.22 |
| 1980 | $24,422.1$ | 13.10 | 15.08 | 6.98 | 8.10 | 3.98 | 5.00 |
| 1981 | $24,744.2$ | 12.75 | 14.91 | 6.87 | 8.05 | 3.15 | 4.71 |
| 1982 | $25,061.8$ | 10.66 | 14.81 | 6.92 | 7.89 | 2.45 | 2.77 |
| 1983 | $25,330.3$ | 9.60 | 14.68 | 6.86 | 7.83 | 1.20 | 1.78 |
| 1984 | $25,574.7$ | 9.48 | 14.67 | 6.84 | 7.83 | 1.28 | 1.65 |
| 1985 | $25,818.3$ | 9.49 | 14.48 | 6.99 | 7.49 | 1.16 | 2.00 |
| 1986 | $26,064.5$ | 11.34 | 14.23 | 7.03 | 7.20 | 1.91 | 4.14 |
| 1987 | $26,361.7$ | 13.04 | 13.93 | 6.97 | 6.96 | 4.06 | 6.08 |
| 1988 | $26,707.8$ | 15.93 | 14.00 | 7.06 | 6.94 | 4.58 | 8.99 |
| 1989 | $27,136.7$ | 15.72 | 14.36 | 6.98 | 7.37 | 5.53 | 8.34 |
| 1990 | $27,566.6$ | 13.87 | 14.61 | 6.92 | 7.69 | 6.29 | 6.18 |
| 1991 | $27,951.6$ | 11.40 | 14.32 | 6.96 | 7.36 | 6.48 | 4.04 |
| 1992 (PR) | $28,272.2$ | 11.30 | 14.22 | 7.00 | 7.22 | 7.04 | 4.082 |
| 1993 (PR) | $28,593.4$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |

${ }^{1}$ Based on Employment and Immigration Canada data and estimates based on Family Allowance and Income Tax files.
${ }_{3}^{2}$ Returning Canadians for 1991 are only available from January to May and data are not available for 1992.
${ }^{3}$ Takes into account Non-permanent Residents, Returning Canadians and residual.
(PR): Revised postcensal data, based in 1991, as of October 13, 1993.
Note: All other data are based on final intercensal estimates. Births and deaths were extracted from Vital Statistics publications. Calculations based on unrounded data.
Source: Statistics Canada, Demography Division.

## Overall Impression

It would appear that the estimate of entries by flow seems overly high, since natural increase is basically unquestionable and the sum of entries by flow and natural increase yields a residual surplus to balance out total increase.

Due no doubt to the economic situation, there were apparently more nonpermanent residents leaving than arriving, particularly in 1991 and 1992. Moreover, the significant inflows of 1988 and 1989 were due to a large surplus of non-permanent residents, which in turn was caused by a large number of refugees whose applications were pending and who thus had obtained temporary residence permits. Phenomena like these went unnoticed in the old accounts since non-permanent residents were not taken into account.

Summary Table. Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1985-1991

|  | Year | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Birth Rate (per 1,000) | 1985 | 14.6 | 15.7 | 14.0 | 13.9 | 12.9 | 14.2 |
|  | 1986 | 14.0 | 15.0 | 13.9 | 13.5 | 12.6 | 14.1 |
|  | 1987 | 13.5 | 15.2 | 13.5 | 13.1 | 12.3 | 13.9 |
|  | 1988 | 13.0 | 15.2 | 13.5 | 13.1 | 12.6 | 14.0 |
|  | 1989 | 13.4 | 14.8 | 13.8 | 13.1 | 13.3 | 14.3 |
|  | 1990 | 13.1 | 15.4 | 14.1 | 13.2 | 14.0 | 14.6 |
|  |  |  |  | 13.1 | 12.7 | 13.7 |  |
| Mortality Rate (per 1,000) | 1985 | 6.1 | 8.7 | 8.2 | 7.2 | 6.8 | 7.2 |
|  | 1986 | 6.1 | 8.7 | 8.1 | 7.5 | 7.0 | 7.2 |
|  | 1987 | 6.3 | 8.6 | 7.9 | 7.4 | 7.0 | 7.0 |
|  | 1988 | 6.2 | 8.6 | 8.2 | 7.4 | 7.0 | 7.2 |
|  | 1989. | 6.4 | 8.3 | 8.3 | 7.4 | 7.0 | 7.0 |
|  | 1990 | 6.7 | 8.7 | 8.1 | 7.3 | 6.9 | 6.8 |
|  | 1991 | 6.5 | 9.1 | 7.9 | 7.3 | 6.9 | 7.0 |
| Total Fertility Rate number of children per woman aged 15-49) | 1985 | ... | 1.86 | 1.60 | 1.57 | 1.40 | 1.60 |
|  | 1986 | $\ldots$ | 1.78 | 1.58 | 1.53 | 1.37 | 1.60 |
|  | 1987 | 1.53 | 1.82 | 1.55 | 1.51 | 1.37 | 1.58 |
|  | 1988 | 1.47 | 1.85 | 1.57 | 1.53 | 1.43 | 1.59 |
|  | 1989 | 1.53 | 1.83 | 1.62 | 1.55 | 1.53 | 1.63 |
|  | 1990 | 1.52 | 1.93 | 1.68 | 1.58 | 1.64 | 1.67 |
|  | 1991 | 1.44 | 1.85 | 1.58 | 1.54 | 1.65 | 1.66 |
| Total First Marriage <br> Rate (per 1,000 ) 1,2 <br> (Males aged 17-49, <br> Females aged 15-49) | 1985 M | 555 | 723 | 651 | 659 | 488 | 695 |
|  |  | 532 | 731 | 662 | 669 | 515 | 708 |
|  | 1986 M | 615 | 740 | 630 | 638 | 462 | -681 |
|  | F | 600 | 765 | 650 | 653 | 460 | 698 |
|  | 1987 M | 623 | 691 | 651 | 632 | 449 | 688 |
|  | F | 596 | 701 | 672 | 646 | 457 | 718 |
|  | 1988 M | 657 | 741 | 671 | 687 | 460 | 705 |
|  | F | 634 | 747 | 710 | 711 | 488 | 761 |
|  | 1989 M | 689 | 795 | 674 | 678 | 461 | 727 |
|  | F | 678 | 796 | 707 | 705 | 479 | 770 |
|  | 1990 M |  | 755 | 626 | 651 | 438 | 725 |
|  | F | 664 | 753 | 662 | 682 | 481 | 769 |
|  | 1991 M | 609 | 690 | 578 | 593 | 400 | 666 |
|  | F | 606 | 699 | 611 | 620 | 443 | 705 |
| Rate of Natural Increase (per 1,000) | 1985 | 8.5 | 7.0 | 5.8 | 6.7 | 6.1 | 7.0 |
|  | 1986 | 8.0 | 6.3 | 5.7 | 6.0 | 5.6 | 7.0 |
|  | 1987 | : 7.3 | - 6.5 | 5.6 | 5.7 | 5.3 | 6.9 |
|  | 1988 | 6.8 | 6.7 | 5.3 | 5.7 | 5.7 | 6.8 |
|  | 1989 | 7.1 | 6.5 | 5.5 | 5.7 | 6.3 | 7.3 |
|  | 1990 | 6.4 | 6.7 | 6.0 | 5.9 | 7.1 | 78 |
|  | 1991 (PR) | 5.9 | 5.3 | 5.2 | 5.4 | 6.8 | 7.5 |
|  | 1992 (PR) | 6.2 | 5.1 | 4.9 | 5.3 | 6.6 |  |
| Total Growth Rate (per 1,000 ) | 1985 | -3.6 | - 6.9 | 5.4 | 2.8 | 6.0 | 14.2 |
|  | 1986 | -2.9 | - 1.2 | 4.9 | 1.8 | 8.9 | 18.4 |
|  | 1987 | -2.1 | 5.8 | 3.5 | +4.2 | 8.7 | 21.3 |
|  | 1988 | - 1.6 | $\begin{array}{r}6.8 \\ \hline \quad 26\end{array}$ | 6.4 | + 5.5 | 11.2 | 23.8 |
|  | 1989 |  |  | 7.2 | 6.6 | 10.5 9.9 | $21.6$ |
|  | 1990 | 2.4 | $\bigcirc 1.4$ | 5.9 | 8.0 | 9.9 | 16.0 |
|  | 1991 (PR) | 1.7 | -8.3 | 5.1 | 2.3 | 9.6 | 13.0 |
|  | 1992 (PR) | -0.2 | $+\quad 92$ | 1.9 | 1.6 |  | 12.9 |

See notes at the end of this table.

Summary Table. Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1985-1991 - Continued

|  | Year | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon | Northwest Territories | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Birth Rate (per 1,000) | 1985 | 15.8 | 17.7 | 18.2 | 14.4 | 18.8 | 26.1 | 14.5 |
|  | 1986 | 15.5 | 17.0 | 17.9 | 13.9 | 19.5 | 27.2 | 14.2 |
|  | 1987 | 15.4 | 16.4 | 17.2 | 13.6 | 18.4 | 27.4 | 13.9 |
|  | 1988 | 15.4 | 16.2 | 17.1 | 13.7 | 19.4 | 27.6 | 14.0 |
|  | 1989 | 15.7 | 16.3 | 17.3 | 13.6 | 17.5 | 25.7 | 14.3 |
|  | 1990 | 15.7 | 15.9 | 16.8 | 13.8 | 19.8 | 26.7 | 14.6 |
|  | 1991 | 15.5 | 15.2 | 16.4 | 13.5 | 19.5 | 26.7 | 14.3 |
| Mortality Rate (per 1,000 ) | 1985 | 8.1 | 7.8 | 5.5 | 7.1 | 5.0 | 3.9 | 7.0 |
|  | 1986 | 8.1 | 7.8 | 5.6 | 7.0 | 4.6 | 4.2 | 7.0 |
|  | 1987 | 7.9 | 7.5 | 5.4 | 7.1 | 4.2 | 3.5 | 7.0 |
|  | 1988 | 8.2 | 7.9 | 5.6 | 7.2 | 5.1 | 3.9 | 7.1 |
|  | 1989 | 8.0 | 7.7 | 5.5 | 7.2 | 3.5 | 4.3 | 7.0 |
|  | 1990 | 8.0 | 8.0 | 5.5 | 7.1 | 4.1 | 3.8 | 6.9 |
|  | 1991 | 8.0 | 8.0 | 5.6 | 7.1 | 3.9 | 3.9 | 7.0 |
| Total Fertility Rate (number of children per woman aged 15-49) | 1985 | 1.85 | 2.08 | 1.86 | 1.65 | 1.83 | 2.66 | 1.61 |
|  | 1986 | 1.83 | 2.02 | 1.85 | 1.61 | 1.92 | 2.81 | 1.59 |
|  | 1987 | 1.83 | 1.98 | 1.82 | 1.60 | 1.88 | 2.82 | 1.58 |
|  | 1988 | 1.85 | 1.99 | 1.84 | 1.64 | 1.98 | 2.90 | 1.60 |
|  | 1989 | 1.92 | 2.05 | 1.90 | 1.65 | 1.85 | 2.70 | 1.66 |
|  | 1990 | 1.95 | 2.07 | 1.88 | 1.68 | 2.15 | 2.79 | 1.71 |
|  |  |  | 2.02 | 1.89 | 1.67 | 2.14 | 2.86 | 1.70 |
| Total First Marriage Rate (per 1,000 ) ${ }^{1.2}$ (Males aged 17-49, Females aged 15-49) | 1985 M | 690 | 634 | 605 | 638 | 588 | 348 | 615 |
|  | F | 701 | 659 | 656 | 665 | 588 | 395 | 638 |
|  | 1986 M | 662 | 621 | 604 | 636 | 525 | 385 | 608 |
|  |  | 687 | 654 | 643 | 670 | 604 | 424 | 620 |
|  | 1987 M | 659 | 624 | 603 | 662 | 493 | 343 | 606 |
|  | F | 686 | 657 | $\checkmark 640$ | 692 | 513 | 377 | 629 |
|  | 1988 M | 655 | 632 | -641 | 705 | 574 | 349 | 627 |
|  | F | 700 | 677 | 696 | 756 712 | 696 | \% 343 | 657 |
|  | 1989 M | 657 | 653 | 673 | 712 | 535 | - 349 | 642 |
|  | F | 697 | 695 | - 702 | 748 | 599 | 361 | 675 |
|  | 1990 M | 664 | 633 | 669 | $\begin{array}{r}701 \\ \hline 745\end{array}$ | 547 | 363 | 631 |
|  | F | 706 | 673 | 710 | 745 | 629 | 372 | 674 |
|  | $1991 \mathrm{M}$ | $613$ | 626 | 628 | 658 | 517 | 343 | 584 |
|  | F | 656 | 652 | 666 | 699 | 544 | 353 | 623 |
| Rate of Natural Increase (per 1,000) | 1985 | 7.7 | 9.9 | 12.7 | 7.3 | 13.9 | 22.3 | 7.5 |
|  | 1986 | 7.4 | 9.2 | 12.4 | 6.9 | 14.8 | 23.0 | 7.2 |
|  | 1987 | 7.5 | 8.9 | 11.8 | 6.5 | 14.3 | 23.9 | 7.0 |
|  | 1988 | 7.2 | 8.4 | 11.4 | 6.5 | 14.5 | 23.7 | 6.9 |
|  | 1989 | 7.7 | 8.6 | 11.8 | 6.5 | 14.0 | 21.4 | 7.4 |
|  | 1990 | 7.7 | 8.0 | 11.3 | 6.7 | 15.7 | 22.9 | 7.7 |
|  | $1991 \text { (PR) }$ | 7.5 | 7.2 | 10.9 | 6.4 | 15.7 | 22.9 | 7.4 |
|  | 1992 (PR) | 7.4 | 7.1 | 10.7 | 6.1 | 14.9 | 21.4 | 7.2 |
| Total Growth Rate (per 1,000) |  | 8.7 | 6.4 |  |  | 9.7 | 19.5 |  |
|  | 1986 | 6.4 | 2.7 | 6.0 | 11.2 | 31.3 | -1.8 | 11.3 |
|  | 1987 | 4.8 | -0.4 | 4.6 | 18.8 | 28.1 | 11.5 | 13.0 |
|  | 1988 | 1.7 | -7.9 | 14.3 | 23.6 | 36.0 | 19.6 | 15.9 |
|  | 1989 | 1.3 | -10.4 | 17.9 | 27.4 | 23.6 | 23.4 | 15.7 |
|  | 1990 | 3.2 | -8.3 | 20.3 | 26.6 | 22.9 | 31.8 | 13.9 |
|  | 1991 (PR) | 1.8 | $-3.0$ | 14.0 | 21.3 | 36.9 | 26.8 | 11.4 |
|  | 1992 (PR) | 2.1 | -1.0 | 11.3 | 23.6 | 55.3 | 10.6 | 11.3 |

See notes at the end of this table.

## Summary Table. Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1985-1991 - Continued

|  | Year | Newfoundland | Prince Edward lsland | Nova Scotia | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Population Aged $65+$ | 1985 | 8.5 | 12.5 | 11.5 | 10.7 | 9.5 | +10.5 |
| as a Percentage of | 1986 | 8.7 | 12.6 | 11.8 | 11.0 | 9.8 | 10.7 |
| the Total Population | 1987 | 9.0 | 12.7 | 12.0 | 11.2 | 10.0 | 10.9 |
| on July 1 | 1988 | 9.1 | 12.8 | 12.1 | 11.5 | 10.3 | 11.0 |
|  | 1989 | 9.3 | 12.9 | 12.2 | 11.6 | 10.5 | 11.1 |
|  | 1990 | 9.4 | 13.0 | 12.3 | 11.8 | 10.8 | 11.3 |
|  | 1991 (PR) | 9.6 | 13.1 | 12.4 | 11.9 | 11.0 | 11.5 |
|  | 1992 (PR) | 9.7 | 13.2 | 12.6 | 12.1 | 11.2 | 11.7 |
| Total Age | 1985 | 69.4 | 69.2 | 61.5 | 63.0 | 52.2 | 55.0 |
| Dependency Ratio | 1986 | 67.9 | 68.4 | 60.9 | 62.2 | 52.0 | - 54.9 |
| (in \%) ${ }^{3}$ | 1987 | 66.3 | 68.0 | 60.7 | 62.0 | 52.0 | 54.9 |
|  | 1988 | 64.7 | 67.6 | 60.3 | 61.4 | 52.1 | 54.9 |
|  | 1989 | 62.9 | 67.4 | 59.6 | 60.7 | 52.2 | 54.6 |
|  | 1990 | 61.2 | 67.3 | 59.2 | 60.1 | 52.7 | 54.9 |
|  | 1991 (PR) | 59.6 | 67.1 | 58.9 | 59.6 | 53.4 | 55.5 |
|  | 1992 (PR) | 58.4 | 67.0 | 58.8 | 59.1 | 53.9 | 56.1 |
|  | 1981 M | 72.0 | 72.8 | 71.0 | 71.1 | 71.1 | 72.3 |
| Birth (in years) ${ }^{2}$ | $F$ | 78.7 | 80.5 | 78.4 | 79.2 | 78.7 | 79.0 |
|  | 1988 M | 73.1 | 73.1 | 72.5 | 73.0 | 72.3 | 73.7 |
|  | F | 79.3 | 80.9 | 79.6 | 80.2 | 79.8 | 80.0 |
|  | 1989 M | 73.1 | 72.9 | 72.8 | 73.3 | 72.7 | 74.1 |
|  | F | 79.2 | 80.8 | 79.7 | 80.4 | 80.2 | 80.3 |
|  | 1990 M | 73.3 | 72.6 | 73.2 | 73.7 | 72.9 | 74.3 |
|  | F | 79.4 | 80.8 | 80.0 | 80.5 | 80.5 | 80.4 |
|  | $1991 \mathrm{M}(\mathrm{P})$ | 73.5 | +72.5 | 73.6 | 74.0 | 73.2 | 74.6 |
|  | F (P) | 79.6 | 80.6 | 80.4 | 80.8 | 80.7 | 80.6 |
| Infant Mortality Rate | 1985 | 10.8 | 4.0 | 7.9 | 9.6 | 7.3 | 7.3 |
| (per 1,000) | 1986 | 10.8 8.0 | 6.7 | 8.4 | 8.3 | 7.1 | 7.2 |
|  | 1987 - | -7.6 | $\bigcirc 6.6$ | 7.4 | 7.0 | 7.1 | 6.6 |
|  | 1988 | 9.3 | + 7.1 | 6.5 | -7.2 | 6.5 | 6.6 |
| $\cdots$ | 1989 | 8.2 | -6.2 | 5.8 | -71 | 6.8 | 6.8 |
|  | $1990$ | 9.2 | 6.0 | 6.3 | 7.2 | 6.2 | 6:3 |
|  | 1991 : | - 78 | 6.9 | 5.7 | -6.1 | 5.9 | 6.3 |
| Rate of Pregnancies | 1985 |  | 0.4 | 8.0 | 18 | 9.8 | $12.0$ |
| Terminated | 1986 | $\because 2.5$ | 2. 0.4 | 7.9 | $\begin{array}{r}2.0 \\ \hline 20\end{array}$ | 9.6 | $11.6$ |
| (per 1,000 women | 1987 | $\begin{array}{r}1 \\ \hline 3.3\end{array}$ | 11.2 | 7.8 | $\cdots \quad 2.0$ | 10.1 | 11.8 |
| aged $15-44)^{4}$ |  | $3.3$ | -2.3 | 8.0 | 27 | 11.0 | $120$ |
|  | 1989 | + 3.2 | $\bigcirc 0.3$ | 93 | 2.8 | 11.2 | -12.7 |
|  | 1990 | 3.6 5 | 1.7 | 8.9 | 3.0 | 13.8 | -15.9 |
| W ${ }^{\circ}+\mathrm{C}^{\circ} \mathrm{C}$ | 1991 , | 5.7 | 0.8 | 10.6 | + 3.3 | 13.7 | 16.4. |

See notes at the end of this table.

## Summary Table. Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1985-1991 - Concluded

|  | Year | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon | Northwest Territories | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Population Aged $65+$ as a Percentage of the Total Population on July 1 | 1985 | 12.2 | 12.4 | 7.8 | 11.5 | 3.6 | 2.8 | 10.2 |
|  | 1986 | 12.4 | 12.6 | 7.9 | 11.9 | 3.7 | 3.0 | 10.5 |
|  | 1987 | 12.6 | 12.8 | 8.3 | 12.2 | 3.8 | 2.9 | 10.7 |
|  | 1988 | 12.8 | 13.0 | 8.5 | 12.4 | 3.7 | 3.0 | 10.9 |
|  | 1989 | 13.0 | 13.4 | 8.6 | 12.5 | 3.8 | 2.8 | 11.0 |
|  | 1990 | 13.1 | 13.7 | 8.8 | 12.6 | 3.8 | 2.7 | 11.2 |
|  | 1991 (PR) | 13.3 | 14.0 | 8.9 | 12.6 | 3.9 | 2.7 | 11.4 |
|  | 1992 (PR) | 13.4 | 14.2 | 9.1 | 12.8 | 3.9 | 2.7 | 11.6 |
| Total Age Dependency Ratio (in \%) ${ }^{3}$ | 1985 | 64.0 | 70.3 | 55.9 | 56.9 | 50.5 | 68.9 | 56.3 |
|  | 1986 | 63.8 | 70.5 | 56.0 | 57.2 | 50.0 | 68.4 | 56.1 |
|  | 1987 | 64.1 | 70.8 | 56.6 | 57.5 | 49.5 | 67.7 | 56.2 |
|  | 1988 | 64.3 | 71.1 | 56.8 | 57.4 | 48.1 | 67.1 | 56.2 |
|  | 1989 | 64.6 | 71.8 | 56.9 | 57.4 | 47.9 | 66.4 | 56.0 |
|  | 1990 | 65.0 | 72.9 | 57.3 | 57.5 | 47.9 | 65.9 | 56.3 |
|  | 1991 (PR) | 65.3 | 73.5 | 57.7 | 57.6 | 47.6 | 66.7 | 56.7 |
|  | 1992 (PR) | 65.7 | 74.0 | 58.2 | 57.8 | 47.8 | 67.4 | 57.1 |
| Life Expectancy at Birth (in years) ${ }^{2}$ | 1981 M | 72.2 | 72.4 | 72.0 | 72.6 | $\cdots$ | $\ldots$ | 71.9 |
|  | F | 78.8 | 79.6 | 79.1 | 79.6 | ... | $\ldots$ | 79.0 |
|  | 1988 M | 73.4 | 74.2 | 73.9 | 74.0 | $\cdots$ | $\cdots$ | 73.3 |
|  | F | 80.2 | 81.0 | 80.3 | 80.5 | $\cdots$ | - ... | 80.0 |
|  | 1989 M | 73.7 | 74.4 | 74.2 | 74.4 | $\cdots$ | ... | 73.7 |
|  | F | 80.4 | 81.2 | 80.7 | 80.7 | $\cdots$ | ... | 80.4 |
|  | 1990 M | 74.2 | 74.7 | 74.5 | 74.6 | $\cdots$ | $\ldots$ | 73.9 |
|  | F | 80.5 | 81.2 | 80.9 | 80.9 | ... | ... | 80.5 |
|  |  | 74.4 | 74.9 | 74.7 | 74.9 | ... | ... | 74.2 |
|  | F (P) | 80.6 | 81.3 | 81.1 | 81.2 | ... | $\ldots$ | 80.7 |
| Infant Mortality Rate (per 1,000 ) | 1985 | 9.9 | 11.0 | 8.0 | 8.1 | 10.8 | 16.7 | 7.9 |
|  | 1986 | 9.2 | 9.0 | 9.0 | 8.5 | 24.8 | 18.6 | 7.9 |
|  | 1987 | 8.4 | 9.1 | 7.5 | 8.6 | 10.5 | 12.5 | 7.3 |
|  | 1988 | 7.8 | 8.4 | 8.3 | 8.4 | 5.8 | 10.3 | 7.2 |
|  | 1989 | 6.6 | 8.0 | 7.5 | 8.2 | 4.2 | 16.2 | 7.1 |
|  | 1990 | 8.0 | 7.6 | 8.0 | 7.5 | 7.2 | 12.0 | 6.8 |
|  | 1991 | 6.5 | 8.2 | 6.7 | 6.5 | 10.6 | 11.6 | 6.4 |
| Rate of Pregnancies <br> Terminated <br> (per 1,000 women aged 15-44) ${ }^{4}$ | 1985 | 9.1 | 5.1 | 10.7 | 15.7 | 14.2 | 18.2 | 10.7 |
|  | 1986 | 10.1 | 4.5 | 10.1 | 15.7 | 17.6 | 17.6 | 10.5 |
|  | 1987 | 10.3 | 5.3 | 8.9 | 15.6 | 20.1 | 17.5 | 10.6 |
|  | 1988 | 11.0 | 5.6 | 10.2 | 14.8 | 16.0 | 19.5 | 11.0 |
|  | 1989 | 10.8 | 5.9 | 10.5 | 14.6 | 18.3 | 17.8 | 11.4 |
|  | 1990 | 14.0 | 6.0 | 10.4 | 16.2 | 18.7 | 22.1 | 13.6 |
|  | 1991 | 13.7 | 5.9 | 10.7 | 16.2 | 18.7 | 21.3 | 13.9 |

${ }_{2}^{1}$ The rates are calculated using the average estimations of the population as of January 1, for successive years.
${ }^{2}$ Calculated with former estimates.
${ }^{3}$ Ratio between population aged $0-17,65+$ and 18-64.
4 From 1985 to 1989, for all provinces except Quebec, the rates only cover therapeutic abortions in canadian hospitals. For 1990 and 1991, the rates include abortions made in hospitals and clinics. From 1985 to 1991, the rates for Quebec are calculated with all known abortions (Régie de l'assurance maladie du Québec).
(P) Preliminary.
(PR) Revised postcensal data, based on 1991 Census, October 13, 1993.
Note: For the years 1981-1987, see the 1988 Report.

Overall, the basic indicators tend to paint a relatively stationary picture of the country over the past two decades. In the case of the death rate, the stability observed in place of the normally anticipated increase is a sign of progress in the fight against death, since the population has aged considerably since 1972. Also noteworthy was the reduction in the emigration rate, particularly in recent years when immigration was on the rise. Weakening of the volume and rate of emigration coupled with an increase in immigration is indicative of a particularly difficult change in the world economic and political situation and in the origin of immigrants, a large proportion of whom are now refugees who are little inclined to return to their country or go elsewhere.

## The Provinces (Appendix Tables A1)

This $1.13 \%$ national increase was far from uniform across the country. The hardest-hit province was Saskatchewan, which has been losing population since 1987. The new estimates nevertheless still rank it as a "millionaire", a category it would have reached in 1984 and not 1985 as previously calculated, and not dropped out of, even though the former estimates indicated that it lost this title in 1990. The negative growth was due to interprovincial migration. Natural increase and net international migration were positive, but are eclipsed by the deficit in interprovincial migration and, to a certain extent, by that of nonpermanent residents.

In terms of volume, Ontario gained the most (136, 700 people), or $43 \%$ of total national growth. In second place was British Columbia with a quarter of the country's growth ( 81,500 people), followed by Quebec and Alberta ( $20 \%$ and $9 \%$ )). In terms of rates, however, British Columbia ranked first with $2.36 \%$, while Ontario lagged far behind with only $1.29 \%$. Quebec's growth rate was only $0.9 \%$ and that of Alberta $1.13 \%$. The other provinces had only minimal growth. Natural increase was on the decline nationally given the fact that the drop in fertility is increasingly paired with an aging of the female population of child-bearing age. Provinces that have chronic negative migratory balances, however, show the effects on total growth to a greater extent. This was the case with the Atlantic Provinces where growth was practically negligible. In the last 20 -year, the rate of natural increase dropped by half in New Brunswick, $40 \%$ in Nova Scotia and Prince Edward Island and $65 \%$ in Newfoundland. In Quebec and Alberta, the rate remained stable, fell by only $10 \%$ in Ontario, $14 \%$ in British Columbia, $19 \%$ in Manitoba and $17 \%$ in Saskatchewan.

This series of phenomena contributes to a concentration of the Canadian population in a few fairly limited areas, particularly southern Quebec and Ontario and southern British Columbia - while in most of Canada the population remains sparse.

## CANADA IN THE WORLD

Canada ranked 29th in the world in terms of population in 1950, slipping to 31st place in 1984. In 1991, it was in 33rd place. The two countries current ranking above it are the Ukraine and Tanzania.

The dismantling of the U.S.S.R. that began in 1984 has brought several minor changes in this list. The sum of the former components would still place the group in 3rd place, with 291,245 million; however this rank is currently held by the United States since the two principal components of the U.S.S.R. (Russia and the Ukraine) are in 6th and 23rd place respectively.

Certain countries, however, experienced such growth that they out-stripped others that, only 10 years ago, placed ahead of them. Among these are Ethiopia, which rose from 26th to 22nd, Turkey, which went from 19th to 15 th and the Philippines (from 17th to 14th). Others consequently, like Canada, lost ground: among these were Italy, which fell from 14th to 17 th place, France from 16th to 18 th, the United Kingdom from 15th to 16th, the Republic of Korea from 22nd to 24th, Spain from 23rd to 26th and Poland from 25th to 27th.

One remarkable phenomenon was the slowdown in annual rate of increase for the majority of the 33 countries in Table 2, which are nevertheless drawn from highly differing categories of development.

## CANADA AND THE PRINCIPAL INDUSTRIALIZED COUNTRIES

During 1992, the population of Canada grew over three times more rapidly than that of the E.E.S. (European Economic Space) ( 11.3 per 1,000 compared to 3.6 per 1,000). The rate of natural increase in the European Community (E.C.) was 1.5 per 1,000, while that of Canada was 7.2 per 1,000. Growth due to migration was 2.1 per 1,000 in Europe and 4.1 per 1,000 in Canada.

An examination of Table 3 may raise some confusion. For many countries, including Canada, the total increase does not correspond, as might be expected, to the sum of natural increase and net migration. This is because in many cases net migration is determined solely by the difference between the number of international immigrants and emigrants, while other entries and errors are not taken into consideration.

Based on data supplied by the countries involved, there were no significant changes in the demographic behaviour of any of the industrialized countries.

On the basis of the total fertility rate, the trend in fertility is still minimally down in Europe. For most countries, the rate is stationary, but the Mediterranean peninsulas are still going through a period of major liberalization in laws
Table 2. Countries with a Larger Population than Canada, 1950, 1984 and 1991

| 1950 |  |  | 1984 |  |  |  | 1991 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | Population (in thousands) | Rank | Country | Population (in thousands) | Rank | Average Anmual Increase Rate 1974-1984 (per 1,000 ) | Country | Population (in thousands) | Rank | Average Anmual Increase Rate 1980-1991 (per 1,000) |
| World | 2,504,000 | ... | World | 4,763,000 | ... |  | World | 5,292,000 | ... |  |
| China | 463,500 | 1 | China | 1,051,550 | 1 | 24.6 | China | 1,155,790 ${ }^{2}$ | 1 | 13.0 |
| India | 358,000 | 2 | India | 746,740 | 2 | 24.5 | India | 849,638 ${ }^{1}$ | 2 | 22.7 |
| U.S.S.R. | 193,000 | 3 | U.S.S.R. | 275,000 | 3 | 8.7 | United States | 252,688 | 3 | 9.5 |
| United States | 151,689 | 4 | United States | 236,680 | 4 | 11.1 | Indonesia | 187,769 ${ }^{2}$ | 4 | 20.0 |
| Japan | 82,900 | 5 | Indonesia | 159,900 | 5 | 22.8 | Brazil | 153,322 ${ }^{\text {l }}$ | 5 | 21.5 |
| Pakistan | 75,040 | 6 | Brazil | 132,580 | 6 | 24.3 | Russia | 149,000 ${ }^{1}$ | 6 |  |
| Indonesia | 73,500 | 7 | Japan | 120,020 | 7 | 9.1 | Japan | 123,921 ${ }^{1}$ | 7 | 5.4 |
| Brazil | 52,124 | 8 | Bangladesh | 96,730 | 8 | 25.8 | Bangladesh | 118,745 ${ }^{2}$ | 8 | 26.9 |
| United Kingdom | 50,616 | 9 | Pakistan | 93,290 | 9 | 31.8 | Pakistan | 115,524 | 9 | 31.5 |
| West Germany | 47,607 | 10 | Nigeria | 92,040 | 10 | 41.5 | Nigeria | 112,163 ${ }^{2}$ | 10 | 30.5 |
| Italy | 46,272 | 11 | Mexico | 76,790 | 11 | 28.3 | Mexico | $87,836{ }^{1}$ | 11 | 21.7 |
| France | 41,934 | 12 | West Germany | 61,180 | 12 | -1.4 | Germany ${ }^{5}$ | $80,334^{1}$ | 12 | 3.7 |
| Rep. of Korea | 29,500 | 13 | Vietnam | 58,300 | 13 | - | Vietnam | 68,183 ${ }^{2}$ | 13 | 21.9 |
| Spair | 28,287 | 14 | Italy | 56,980 | 14 | 2.9 | Philippines | $62,868{ }^{1}$ | 14 | 24.6 |
| Mexico | 25,368 | 15 | United Kingdom | 56,490 | 15 | 0.9 | Turkey | 60,777 | 15 | 28.9 |
| Vietnam | 25,000 | 16 | France. | 54,940 | 16 | 4.5 | United Kingdom | 57,3672 | 16 | 2.3 |
| Poland | 24,977 | 17 | Philippines | 53,350 | 17 | 25.5 | Italy | 57,052 ${ }^{2}$ | 17 | -0.0 |
| Nigeria | 24,000 | 18 | Thailand | 50,400 | 18 | 20.8 | France | 57,0491 | 18 | 5.5 |
| Turkey | 20,935 | 19 | Turkey | 48,260 | 19 | 23.5 | Thailand | 56,923 ${ }^{1}$ | 19 | 18.6 |
| Egypt | 20,439 | 20 | Egypt | 45,660 | 20 | 22.9 | Iran | 55,762 ${ }^{1}$ | 20 | 34.6 |
| Philippines | 19,557 | 21 | Iran | 43,410 | 21 | 30.5 | Egypt | 54,6091 | 21 | 23.5 |
| Iran | 18,772 | 22 | Rep. of Korea | 40,580 | 22 | 19.5 | Ethiopia | 53,3831 | 22 | 50.5 |
| Burma | 18,489 | 23 | Spain | 38,720 | 23 | 9.5 | Ukraine | 52,000 ${ }^{1}$ | 23 |  |
| Thailand | 18,313 | 24 | Burma | 37,610 | 24 | 21.8 | Rep. of Korea | 43,268 ${ }^{1}$ | 24 | 11.6 |
| Argentina | 17,196 | 25 | Poland | 36,910 | 25 | 9.2 | Myanmar ${ }^{4}$ | 42,561 ${ }^{2}$ | 25 | 21.6 |
| Yugoslavia | 16,250 | 26 | Ethiopia | 35,420 | 26 | 26.6 | Spain | 39,025 | 26 | 3.8 |
| Romania | 16,094 | 27 | Zaire | 32,080 | 27 | 28.5 | Poland | 38,244 | 27 | 6.6 |
| Ethiopia | 15,000 | 28 | South Africa | 31,590 | 28 | 24.0 | Zaire | 36,672 ${ }^{1}$ | 28 | 30.4 |
| Canada | 13,845 | 29 | Argentina | 30,100 | 29 | 18.5 | South Africa |  | 29 | 21.3 |
|  |  |  | Colombia | 28,220 | 30 | 16.5 | Colombia | 33,613 ${ }^{2}$ | 30 | 19.8 |
|  |  |  | Canada | 25,150 | 31 | 11.3 | Argentina | 32,713 ${ }^{1}$ | 31 | 13.5 |
|  |  |  |  |  |  |  | Canada | 26,992 ${ }^{\text {I }}$ | 33 | 10.6 |

${ }_{4}^{1}$ Preliminary. ${ }^{2}$ Estimates established by the Population Division of the United Nations. ${ }^{\mathbf{3}}$ On ApriI 26, 1964, Tanganyika and Zanzibar merged to form the United Republic of Tanzania. ${ }^{4}$ Formerly Burma. ${ }^{5}$ The average annual increase rate of 1980-1991 includes only West Germany. Source: Demographic Yearbooks, United Nations.
Table 3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992

| Country | Population as of January 1, 1992 | Population as of January 1, 1993 | Births |  | Deaths |  | Natural Increase |  | Net Migration |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1991 | 1992 | 1991 | 1992 | 1991 | 1992 | $1991{ }^{1}$ | 1992 |
|  | (in thousands) |  |  |  |  |  |  |  |  |  |
| Belgium | 10,022.0 | 10,068.3 | 126.1 | 125.1 | 105.2 | 105.7 | 20.9 | 19.4 | $14.1^{\text {a }}$ | 25.4 |
| Denmark | 5,162.1 | 5,180.6 | 64.5 | 67.8 | 59.5 | 60.8 | 5.0 | 7.0 | 10.9 | 11.5 |
| Germany | 80,170.0 | 80,614.1 | 828.3 | 805.8 | 900.8 | 881.2 | -72.5 | - 75.5 | 490.0 | 345.0 |
| Greece | 10,250.0 | 10,320.0 | 100.0 | 104.0 | 93.5 | 98.0 | 6.5 | 6.0 | 43.5 | 35.0 |
| Spain | 39,055.9 | 39,114.2 | 386.5 | 381.3 | 338.2 | 341.1 | 48.3 | 40.2 | $13.8{ }^{\text {a }}$ | 18.1 |
| France | 57,206.2 | 57,526.6 | 758.4 | 742.8 | 526.0 | 523.0 | 232.4 | 219.8 | 80.0 | 90.0 |
| Ireland | 3,532.0 | 3,556.5a | 52.7 | 51.6 | 31.5 | 30.8 | 21.2 | 20.8 | $-8.0^{9}$ | -6.0 |
| Italy | 57,788.2 | 56,932.75 | 558.8 | 561.3 | 546.9 | 547.1 | 11.9 | 14.2 | 34.9 | 89.2 |
| Liuxembourg | 389.8 | 395.2 | 5.0 | 5.1 | 3.7 | 4.0 | 1.3 | 1.1 | 4.2 | 4.3 |
| Netherlands | 15,128.6 | 15,238.96 | 198.6 | 196.7 | 129.9 | 129.9 | 68.7 | 66.8 | 62.8 | 57.9 |
| Portugal | 9,845.6 | 9,850.3 | 116.4 | 115.0 | 104.4 | 101.2 | 12.0 | 13.9 | -25.0 | -10.0 |
| United Kingdom | 57,642.0 ${ }^{\text {a }}$ | 57,959.0 | 792.5 | 781.0 | 643.1 | 634.2 | 149.4 | 146.8 | $6.8{ }^{\text {a }}$ | 59.0 |
| EEC Members ${ }^{\text {a }}$ | 346,192.4 | 346,756.4 | 3,987.8 | 3,937.5 | 3,482.7 | 3,457.0 | 505.1 | 480.5 | 728.0 | 719.3 |
| Austria ${ }^{9}$ | 7,860.8 | 7,909.6 | 94.6 | 95.3 | 83.4 | 83.2 | 11.2 | 12.1 | 58.7 | 36.6 |
| Finland ${ }^{9}$ | 5,029.3 | 5,055.0 | 65.7 | 66.7 | 49.1 | 49.5 | 16.6 | 17.2 | 13.8 | 8.8 |
| Iseland ${ }^{9}$ | 259.7 | 262.4 | 4.5 | 4.6 | 1.8 | 1.8 | 2.7 | 2.8 | 1.0 | -0.3 |
| Norway ${ }^{9}$ | 4,273.6 | 4,299.2 | 60.8 | 60.1 | 44.9 | 44.4 | 15.9 | 15.7 | 8.0 | 10.0 |
| Sweden ${ }^{9}$ | 8,644.1 | 8,692.0 | 123.6 | 122.7 | 95.0 | 94.7 | 28.6 | 28.0 | 25.0 | 19.6 |
| Switzerland ${ }^{12}$ | 6,831.9 | 6,908.0 | 85.7 | 86.9 | 62.5 | 62.3 | 23.2 | 24.6 | 56.9 | $-24.6{ }^{11}$ |
| Leichtenstein ${ }^{9}$ | 29.4 | 29.9 | 0.4 | $0.4{ }^{1}$ | 0.2 | $0.2{ }^{1}$ | 0.2 | $0.2^{1}$ | 0.0 | 0.41 |
| EFTA ${ }^{\text {a }} 9$ | 32,928.8 | 33,156.1 | 435.3 | 436.7 | 336.9 | 336.1 | 98.4 | 100.6 | 163.5 | 75.4 |
| EEA ${ }^{\text {a }}$ | 379,121.2 | 379,912.5 | 4,423.1 | 4,374.2 ${ }^{\text {² }}$ | 3,819.6 | 3,793.1 | 603.5 | 581.1 | 891.5 | 794.7 |
| Canada | 28,272.2 | 28,593.4 | 402.5 | 404.3 | 195.6 | 199.0 | 206.9 | 205.3 | 182.3 | 200.2 |
| United States | 253,668.0 | 256,899.0 | 4,111.0 | 4,084.0 | 2,165.0 | 2,177.0 | 1,946.0 | 1,907.0 | 857.0 | $990.0^{10}$ |
| Mexico | 87,241.4 | , | 2,461.8 | 2,646.0 | 481.5 | 411.1 | 1,980.3 | 2,234.9 | -143.6 | 9 |
| North America | 369,181.6 | 285,492.4 | 6,975.3 | 7,134.3 | 2,842.1 | 2,787.1 | 4,133.2 | 4,347.2 | $\cdots$ | $\cdots$ |
|  |  |  | 256.8 | 264.2 | 118.9 | 123.7 | 137.9 | 140.5 | 81.7 | 44.5 |
| New-Zeland | 3,449.6 | 3,485.4 | 60.2 | 59.3 | 26.5 | 27.2 | 33.7 | 32.0 | 4.3 | 3.8 |
| Japan | 124,000.0 | 124,400.0 | 1,223.2 | 1,209.0 | 829.5 | 855.4 | 393.7 | 353.5 | $257.7^{7}$ | 225.98 |

Table 3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992 - Continued

| Country | Total Growth Rate (per 1,000 ) |  | Infant Mortality Rate (per 1,000 live births) |  | $\begin{gathered} \text { Life Expectancy } 5 \\ 1991 \end{gathered}$ |  | $\begin{gathered} \text { Life Expectancy }{ }^{2} \\ 1992 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1991 | 1992 | 1991 | 1992 | Males | Females | Males | Females |
| Belgium | 3.5 | 4.6 | 8.4 | 8.2 | 72.74, a | 79.44,a | 72.81, ${ }^{\text {a }}$ | $79.51, \mathrm{a}$ |
| Denmark | 3.1 | 3.6 | $7.3^{4}$ | 7.31 | 72.0 ${ }^{4, \mathrm{a}}$ | 77.74 ,a | 72.51,a | $78.0^{1, a}$ |
| Germany | 5.2 | 3.3 | $7.2^{\text {a }}$ | 6.91 |  | $\cdots$ | 72.1 ${ }^{1, \mathrm{a}}$ | 78.7 ${ }^{1, \mathrm{a}}$ |
| Greece | 4.9 | 4.0 | 10.0 | 8.2 | $73.6{ }^{4}$ | $78.6{ }^{4}$ | $74.6{ }^{1, \mathrm{a}}$ | $79.8{ }^{1, a}$ |
| Spain | 1.6 | 1.5 | 7.8 | 7.9 | 73.44,a | $80.1{ }^{\text {4,a }}$ | 73.31,a | $80.3^{1, a}$ |
| France | 5.5 | 5.4 | 7.4 | 7.3 | 73.0 | 81.1 | 73.1 | 81.3 |
| Ireland | 3.7 | 4.2 | 8.2 | 6.6 | 71.94 4a | 77.44, ${ }^{\text {a }}$ | 71.0 | 76.7 |
| Italy | 0.8 | 1.8 | 8.3 | 8.3 | $73.2{ }^{4, \mathrm{a}}$ | 79.74, ${ }^{\text {a }}$ | 74.0 ${ }^{\text {3,a }}$ | $80.4{ }^{3, \mathrm{a}}$ |
| Luxembourg | 14.0 | 13.8 | 9.2 | 8.5 | 72.34,a | $78.5{ }^{4, \mathrm{a}}$ | $72.0{ }^{1, \mathrm{a}}$ | $79.1{ }^{1, \mathrm{a}}$ |
| Netherlands | 8.7 | 8.2 | 6.5 | 6.3 | 73.7 | 79.8 |  | 80.3 |
| Portugal | $-1.3$ | 0.4 | 10.8 | 9.3 | $70.24,{ }^{4}$ 72.9 | $77.34, \mathrm{a}$ $78.54, \mathrm{a}$ | 69.8 $73.2^{1, a}$ a | $77.31, \mathrm{a}$ $78.61, a$ |
| United Kingdom | $2.7{ }^{\text {a }}$ | 3.6 | 7.3 | 7.0 | 72.94, ${ }^{\text {a }}$ | 78.54, ${ }^{\text {a }}$ | $73.2^{1, \mathrm{a}}$ | 78.6 ${ }^{1, \mathrm{a}}$ |
| EEC Members ${ }^{\text {a }}$ | 3.6 | 3.5 | 7.7 | $7.4{ }^{2}$ | $72.7{ }^{2}$ | $79.3{ }^{2}$ | 72.83, ${ }^{\text {m }}$ | 79.43,4 |
| Austria ${ }^{9}$ | 8.9 | 6.2 | 7.5 | 7.5 5.81 |  |  |  |  |
| Finland ${ }^{9}$ | 6.1 14.5 | 6.2 10.3 | 5.8 5.5 | 5.81 5.81 | 70.94 75.74 | 78.94 80.34 | $71.3^{1, \mathrm{a}}$ $75.1{ }^{1, \mathrm{a}}$ | $79.31, \mathrm{a}$ $80.81, \mathrm{a}$ |
| Iceland ${ }^{9}$ | 14.5 | 10.3 5.6 | 5.5 6.94 | 5.51 6.41 | 75.74 73.4 | 80.34 79.84 | $75.1{ }^{1, \mathrm{a}}$ $74.0^{1, \mathrm{a}}$ | $80.8^{1, a}$ $80.1^{1, \mathrm{a}}$ |
| Norway ${ }^{9}$ | 5.6 6.2 | 5.6 6.2 | 6.94 6.1 | 6.4 5.4 | 73.4 75.0 | 79.8 80.5 | 74.0 75.3 | $80.1^{1, \mathrm{a}}$ 80.8 |
| Sweden ${ }^{9}$ Switzerland ${ }^{12}$ | 6.2 11.8 | 6.2 11.1 | 6.1 6.9 | 6.4 6.4 | 75.0 74.0 | 80.5 80.86 | 75.3 74.3 | 80.8 81.2 |
| Leichtenstein ${ }^{9}$ | 8.7 | 1.7 | 6.9 | 5.4 | 69.5 | 73.6 | 69.51 ,a | $73.6{ }^{1, \mathrm{a}}$ |
| EFTA ${ }^{\text {a }}$, 9 | 8.0 | 5.8 | 6.6 | - | 73.5 | 79.9 | - | -• |
| EEA ${ }^{\text {a }}$ | 4.0 | 3.6 | 7.6 | 7.3 ${ }^{\text {a }}$ | 72.8 | 79.4 | 72.93,2 | 79.53,4 |
| Canada | 11.4 | 11.3 | 7.0 | 6.41 | 74.0 | 80.6 |  |  |
| United States | 11.0 | 11.0 | 9.2 | 8.5 |  |  | 72.2 67.0 | $79.1^{7}$ |
| Mexico | 21.5 | .. | 37.0 | .. | 66.54 | 73.14 | 67.0 | 73.7 |
| North America | $\cdots$ | ... | ... | ... | ... | ... | ... | $\cdots$ |
| Australia | 14.2 | 10.6 | 7.2 | 7.0 |  |  |  |  |
| New-Zealand | 11.5 | 9.1 | 8.3 | 7.3 | 71.94 | $78.0{ }^{4}$ | 71.91 76.2 | $78.0^{1}$ |
| Japan | 3.3 | 3.2 | 4.4 | 4.5 | 76.1 | 82.1 | 76.2 | 82.2 |

See notes at the end of this table.
Table 3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992 - Concluded

| Country | Total Fertility Rate |  | Marriages 1991 |  | Marriages 1992 |  | Divorces 1991 |  | Divorces 1992 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1991 | 1992 | Marriages (in thousands) | $\begin{gathered} \text { Rate } \\ \text { (per } 1,000 \text { ) } \end{gathered}$ | Marriages (in thousands) | $\begin{gathered} \text { Rate } \\ \text { (per } 1,000 \text { ) } \end{gathered}$ | Divorces (in thousands) | $\begin{gathered} \text { Rate } \\ \text { (per } 1,000 \text { ) } \end{gathered}$ | Divorces (in thousands) | $\begin{gathered} \text { Rate } \\ \text { (per } 1,000 \text { ) } \end{gathered}$ |
| Belgium | 1.57 | 1.56 | 60.8 | 6.1 | 58.3 | 5.8 | 20.8 | 2.1 | 22.3 | 2.2 |
| Denmark | 1.68 | $1.77{ }^{\text {a }}$ | 30.9 | 6.0 | 32.3 | 6.2 | 12.6 | 2.5 | 13.0 | 2.5 |
| Germany | $1.35{ }^{\text {a }}$ | $1.30{ }^{\text {a }}$ | 453.3 | 5.7 | 452.1 | 5.6 | $176.7^{3}$ | $2.2{ }^{3}$ | $136.3^{1}$ | 1.71 |
| Greece | 1.40 | 1.41 | 62.0 | 6.1 | 50.0 | 4.9 | 6.0 | 0.6 | 6.5 | 0.6 |
| Spain | 1.28 | 1.23 | 219.8 | 5.6 | 215.1 | 5.5 | 23.13 | 0.6 | 23.14 | 0.64 |
| France | 1.77 | 1.73 | 280.5 | 4.9 | 269.9 | 4.7 | $105.8{ }^{4}$ | 1.94 | $108.1{ }^{1}$ | 1.91 |
| Ireland | 2.18 | 2.11 | 16.9 | 4.8 | 16.1 | 4.5 |  |  |  |  |
| Italy | 1.26 | 1.26 | 309.1 | 5.4 | 306.9 | 5.4 | 26.5 | 0.5 | 24.0 | 0.4 |
| Luxembourg | $1.64{ }^{\text {a }}$ | $1.65{ }^{\text {a }}$ | 2.6 | 6.7 | 2.5 | 6.4 | 0.8 | 2.0 | $0.8{ }^{1}$ | 2.01 |
| Netherlands | 1.61 | 1.59 | 94.9 | 6.3 | 93.6 | 6.2 | 28.0 | 1.9 | 30.1 | 2.0 |
| Portugal | $1.42{ }^{\text {a }}$ | 1.48 | 71.8 | 7.3 | 69.9 | 7.1 | 10.6 | 1.1 | 12.4 | 1.3 |
| United Kingdom | $1.82{ }^{\text {a }}$ | $1.80{ }^{\text {a }}$ | $390.0^{\text {a }}$ | $6.8{ }^{\text {a }}$ | $375.4{ }^{3}$ | 6.53 | 167.54 | 2.94 | 165.73 | 2.93 |
| EEC Members ${ }^{\text {a }}$ | 1.55 | $1.48{ }^{\text {a }}$ | 1,992.6 | 5.8 | 1,942.1 | 5.6 | 578.4 | 1.7 | 542.31, ${ }^{\text {a }}$ | $1.6{ }^{1}$ |
| Austria ${ }^{9}$ | 1.50 | 1.51 | 44.1 | 5.6 | 45.7 | 5.8 | 16.4 | 2.1 | 16.3 | 2.1 |
| Finland ${ }^{9}$ | 1.71 | 1.86 | 23.6 | 4.7 | 23.0 | 4.6 | 12.8 | 2.6 | 12.8 | 2.5 |
| Iceland ${ }^{9}$ | 2.19 | 2.22 | 1.2 | 4.8 | 1.2 | 4.6 | 0.5 | 2.1 | $0.5{ }^{1}$ | 1.91 |
| Norway ${ }^{9}$ | $1.92{ }^{\text {a }}$ | 1.88 | 20.3 | 4.8 | 19.3 | 4.5 | 10.3 | 2.4 | 10.2 | 2.4 |
| Sweden ${ }^{\text {9 }}$ | 2.10 | 2.09 | 35.9 | 4.2 | 37.1 | 4.3 | 19.5 | 2.3 | 21.9 | 2.5 |
| Switzerland ${ }^{12}$ | $1.60{ }^{\text {a }}$ | 1.58 | 46.3 | 6.8 | 45.1 | 6.6 | 13.7 | 2.0 | 14.5 | 2.1 |
| Leichtenstein ${ }^{9}$ | . | .. | 0.4 | 12.1 | $0.2^{1}$ | 6.71 | 0.0 | 1.2 | $0.0{ }^{1}$ | $1.2{ }^{1}$ |
| EFTA ${ }^{\text {a, }}{ }^{9}$ | 1.79 | - | 171.8 | 5.2 | 171.6 | 5.2 | 73.2 | 2.2 | 76.2 | 2.3 |
| EEA | 1.57 | 1.49 | 2,164.4 | 5.7 | 2,113.7 ${ }^{\text {a }}$ | $5.6{ }^{\text {a }}$ | 651.6 | 1.7 | 618.5 ${ }^{1,2}$ | $1.6{ }^{1,2}$ |
| Canada | 1.70 |  | 188.7 |  | 168.9 | 5.9 | 78.0 |  |  |  |
| United States Mexico | 2.013 | $2.08{ }^{1}$ | 2,371.0 | 9.4 | 2,362.0 | 9.3 | 1,187.0 | 4.7 | 1,215.0 | 4.8 |
| Mexico | 3.29 | .. | 652.4 | 7.5 | 650.0 | .. | 49.2 | 0.6 | 49.1 | .. |
| North America | $\cdots$ | $\cdots$ | ... | $\ldots$ | ... | $\cdots$ | ... | ... | ... | $\ldots$ |
| Australia | 1.91 | 1.90 | 113.8 | 6.5 | 114.8 | 6.6 | 45.6 | 2.6 | 45.7 | 2.6 |
| New-Zealand | 2.16 | 2.12 | 23.1 | 6.7 | 22.0 | 6.3 | 9.1 | 2.6 | 9.1 | 2.6 |
| Japan | . | 1.50 | 742.3 | 6.0 | 754.4 | 6.1 | 168.9 | 1.4 | 179.2 | 1.4 |

[^2] Notes for 1991
 administrative corrections. 7 Preliminary for $1991 . \quad$ For New Zealand: Data conmmunicated by the Department of Statistics. ${ }^{8}$ By difference between the ins and outs of foreigners. $\quad$ For Mexico: Instituto Nadional de Estadistica, Geografia e Informatica. For Switzerland (1992): Data obtained directly from Geneva.
governing divorce, abortion and contraception, and fertility rates are thus still quite low: 1.41, 1.23 and 1.26 for Greece, Spain and Italy, respectively. These rates are the result of delayed child-bearing by the younger birth cohorts at a time when older cohorts have very low fertility rates since they have already had all the children they wanted. The countries of northern Europe, however, have returned to total fertility rates closer to the cumulative fertility of participating birth cohorts since the effects of the change in tempo initiated some time ago are now dwindling. The new tempo of fertility has seemed to stabilize and is affected by the fairly late arrival of children. Thus, Finland had a total fertility rate of 1.86 , Norway 1.88 and Sweden 2.09.

In absolute terms, Germany shows an increasingly negative natural increase because of an aging population whose fertility has long been low.

Portugal and Ireland were the only European countries with negative migration balances, while Italy is increasingly a receiving country. The position of Greece is uncertain, since the slight decline in net migration is not easy to explain and may be temporary. Admittance of expatriate Greeks and deportation of Albanians make for irregular trends in statistics.

In the great majority of industrialized countries, marriage was on the decline, while the divorce rate was generally up slightly. This slight change reflects the world economic situation, which is on the whole sombre enough to influence demographic phenomena.

On the other hand, a great many countries showed a significant decrease in infant mortality rates between 1991 and 1992.

Bearing in mind the reservations expressed regarding migration accounts, certain industrialized countries, which even quite recently had high immigration rates, tended to have positive but lower balances. This was the case of Germany and Austria and one receiving country, Australia. Since the ending of the "White Australia Policy", this country, like Canada, has seen major fluctuations in its attitudes regarding immigration. The result has been that, within a few years, major flows have been seen in the number of landed immigrants and the origin of these immigrants. Not only did the number of entries decrease in 1991, plans for 1992-93 forecast a much greater reduction, and low admission levels ${ }^{2}$ are expected for several years to come. The number of refugees admitted will be down by 2,000 , skilled independent workers will decrease by $55 \%$ (to 13,400 ) and those in the concessional, or assisted, family category by $68 \%$ (to 6,000). The number of immigrants dropped from 136,000 in 1988-89 to 80,000 in 1992-93 - a decline of $41 \%$.

## AUTONOMY OF POPULATION ESTIMATES

## Background

Apart from providing justification for parliamentary representation of regions by the size of their population, Canada has over time set up a number of national programs aimed at an equitable redistribution of the country's wealth, also on the basis of the size of the sub-populations involved. This is one of the main reasons for the almost constant updating of population estimates at various geographical levels. These estimates are based on natural changes in population (births and deaths) and internal and international migratory flows. However carefully these estimates are calculated, they can only be based on an exhaustive counting of the entire population at a given moment in time, i.e., a census. This is one of the oldest institutions found in almost all countries. In Canada, censuses began centuries before the keeping of continuous accounts of demographic events. Occurring at intervals over time, they were until recently the only reliable way of determining the volume and structure of the country's population and its components. It should come as no surprise, then, that considerable care is taken in preparing a census, and a major operation in logistics goes into carrying it out. Societies change, however, and such phenomena as the increase in numbers, greater mobility of the population, and diminished concern by individuals for the interests of the group have hindered the taking of censuses in all countries, rendering the operation increasingly difficult despite advances in logistics.

The quality of enumeration of a census depends mainly on the extent of under-enumeration, but there are also cases of over-enumeration. Since the former is almost always greater than the latter, there is almost always a net under-enumeration. Under-enumeration is the result of inevitable weaknesses in the data-collection network, often exploited by those who, for whatever reason, wish not to be enumerated. Over-enumeration, on the other hand, is often due to a poor understanding by some people of the census process, with the result that they are counted twice. It may also be due to certain persons allowing themselves to be counted when they should not, while others may add fictitious individuals with a view to increasing the size of their category. An awareness of these imperfections has long motivated government agencies to produce estimates using various statistics-based processes. In Canada, the current Chief Statistician, Dr. Fellegi, began in 1961 to develop a means of checking the efficiency of the counting "machine", the reverse record check. Further improvements have been made to the system by Statistics Canada methodologists. We can thus determine, starting with the 1966 census, the extent to which census data for certain geographical areas and categories of people are over-estimated. This knowledge is nevertheless not reliable enough to make adjustments that cannot be questioned. To date, therefore, census figures have necessarily been used as a basis for post-census estimates and as limits to which inter-census estimates must be adjusted. From a legal standpoint and for

Figure 1
Population of the 1967-1971 Birth Cohorts at Successive Censuses Adjusted or Non Adjusted for Net Undercoverage, Canada



Source: Demography Division, Estimates Section.
accounting purposes, the practice, for lack of a better system, has remained acceptable and accepted. From an analytical point of view, however, the inherent anomalies have always posed a problem. A comparison of numbers for one group of birth cohorts from census to census clearly shows up irregularities which can only be due to the incorrect enumeration of individuals in certain categories. For example, it is normal that the population aged 0-4 (Figure 1), augmented by immigrants during a five-year period, is larger five years later, when the children are in the 5-9 age group. It can be demonstrated that the numerical growth of these birth cohorts continues for the next ten years, but when they move from the 15-19 age group to the 20-24 group, the number of males decreases; however, this cannot be justified by either mortality or emigration, the extent of which are both known. Conversely, it may be satisfactorily explained by the still-significant under-enumeration of this particularly mobile group of young adults. It may also be seen that the corresponding group of female birth cohorts does not show the same anomaly in its changes over time, and this is quite in line with the knowledge we have of under-enumeration of women, which is lower than for males at these ages.

## Improvement

A systematic study of the many irregularities of various types, of which the above case is an example, as well as progress by the methodologists at Statistics Canada in methods for calculating errors in enumeration, convinced the Chief Statistician that the population estimates based on them would certainly be improved if they took into consideration the measurable weaknesses in recent counts. It also proved desirable to include in the population of the country not only returning Canadians, because of their increasing numbers since 1981, but particularly non-permanent residents, which in any case is a United Nations requirement. Among these are of course refugees awaiting landed immigrant status, students and workers with visas long enough to entitle them for social programs and benefits. By including them in the accounts, the census remains a "de jure" census, since the people in question may be considered as habitual residents of Canada.

Census data are thus not adjusted and are always provided as is, but in 1991 non-residents have been added. For this reason, 1991 census figures are not directly comparable with those of previous censuses. As for estimates, they will now take into account net under-enumeration and will be calculated on different dates from those of the census itself. The annual estimates are now calculated on July 1, which corresponds to the middle of the year, as opposed to June 1 as was previously the case.

The result of this very long exercise is what is known as the new series of estimates used to construct the demographic accounts table. Thus, although estimates are always dependent on censuses, some distance has now been established between them and, unless otherwise specified, since September 16, 1993,

Table 4. Canadian Population by Cohort, Census Data Adjusted for Undercoverage

| Age in 1971 | Stocks |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1971 | $1976{ }^{1}$ | $1981^{2}$ | 1986 | 1991 |
|  | Males |  |  |  |  |
| 0-4 | 940,700 | 980,900 | 993,200 | 1,025,200 | 1,067,700 |
| 5-9 | 1,161,600 | 1,173,500 | 1,216,500 | 1,266,900 | 1,282,200 |
| 10-14 | 1,191,500 | 1,220,400 | 1,262,600 | 1,264,600 | 1,312,000 |
| 15-19 | 1,104,000 | 1,144,200 | 1,135,700 | 1,148,400 | 1,173,500 |
| 20-24 | 999,500 | 1,052,400 | 1,053,600 | 1,046,800 | 1,077,000 |
| 25-29 | 844,000 | 861,700 | 856,200 | 849,200 | 844,100 |
| 30-34 | 689,500 | 692,200 | 702,000 | 675,700 | 673,200 |
| 35-39 | 664,300 | 659,000 | 643,400 | 626,000 | 618,200 |
| 40-44 | 658,200 | 642,200 | 627,300 | 607,400 | 578,600 |
| 45-49 | 625,200 | 602,400 | 573,600 | 537,000 | 497,900 |
| 50-54 | 527,600 | 500,500 | 466,500 | 420,800 | 364,300 |
| 55-59 | 480,100 | 441,700 | 392,900 | 328,200 | 255,600 |
| 60-64 | 386,900 | 344,000 | 283,400 | 212,900 | 142,200 |
|  | Females |  |  |  |  |
| 0-4 | 899,600 | 933,000 | 944,000 | 970,200 | 1,041,300 |
| 5.9 | 1,110,300 | 1,120,800 | 1,162,900 | 1,207,100 | 1,246,500 |
| 10-14 | 1,140,500 | 1,174,500 | 1,237,300 | 1,231,400 | 1,285,900 |
| 15-19 | 1,067,900 | 1,126,600 | 1,126,000 | 1,147,500 | 1,171,200 |
| 20-24 | 991,900 | 1,020,200 | 1,037,200 | 1,027,100 | 1,061,800 |
| 25-29 | 807,200 | 827,600 | 819,600 | 823,400 | 830,000 |
| 30-34 | 658,500 | 664,700 | 672,600 | 662,400 | 666,700 |
| 35-39 | 625,900 | 630,100 | 622,900 | 621,200 | 620,200 |
| 40-44 | 630,000 | 626,800 | 623,900 | 623,700 | 611,600 |
| 45-49 | 629,800 | 628,300 | 616,000 | 603,700 | 586,700 |
| 50-54 | 539,700 | 531,700 | 521,900 | 506,500 | 469,700 |
| 55-59 | 486,600 | 472,500 | 457,000 | 420,900 | 366,600 |
| 60-64 | 399,900 | 385,500 | 355,100 | 305,900 | 240,100 |
|  | Both Sexes |  |  |  |  |
| 0-4 | 1,840,300 | 1,913,900 | 1,937,200 | 1,995,400 | 2,109,000 |
| 5.9 | 2,271,900 | 2,294,300 | 2,379,400 | 2,474,000 | 2,528,700 |
| 10-14 | 2,332,000 | 2,394,900 | 2,499,900 | 2,496,000 | 2,597,900 |
| 15-19 | 2,171,900 | 2,270,800 | 2,261,700 | 2,295,900 | 2,344,700 |
| 20-24 | 1,991,400 | 2,072,600 | 2,090,800 | 2,073,900 | 2,138,800 |
| 25-29 | 1,651,200 | 1,689,300 | 1,675,800 | 1,672,600 | 1,674,100 |
| 30-34 | 1,348,000 | 1,356,900 | 1,374,600 | 1,338,100 | 1,339,900 |
| 35-39 | 1,290,200 | 1,289,100 | 1,266,300 | 1,247,200 | 1,238,400 |
| 40-44 | 1,288,200 | 1,269,000 | 1,251,200 | 1,231,100 | 1,190,200 |
| 45-49 | 1,255,000 | 1,230,700 | 1,189,600 | 1,140,700 | 1,084,600 |
| 50-54 | 1,067,300 | 1,032,200 | 988,400 | 927,300 | 834,000 |
| 55-59 | 966,700 | 914,200 | 849,900 | 749,100 | 622,200 |
| 60-64 | 786,800 | 729,500 | 638,500 | 518,800 | 382,300 |

[^3]Source: Demography Division, Estimates Section, July 1st, 1993.

Table 5. Total Fertility Rates (Former and New Estimates), Canada, (Excluding Newfoundland), 1971-1991

| Year/Age |  | Former Rates | New Rates | Change in \% |
| :---: | :---: | :---: | :---: | :---: |
| 1971: | 15-19 | 0.0398 | 0.0387 | -2.8 |
|  | 20-24 | 0.1344 | 0.1284 | -4.5 |
|  | 25-29 | 0.1420 | 0.1380 | -2.8 |
|  | 30-34 | 0.0773 | 0.0758 | -1.9 |
|  | 35-39 | 0.0336 | 0.0333 | -0.9 |
|  | 40-44 | 0.0094 | 0.0093 | -- |
|  | 45-49 | 0.0006 | 0.0006 | -- |
|  | T.F.R. | 2.1852 | 2.1202 | - 3.0 |
| 1976: | 15-19 | 0.0334 | 0.0327 | -2.1 |
|  | 20-24 | 0.1103 | 0.1045 | - 5.3 |
|  | 25-29 | 0.1299 | 0.1263 | -2.8 |
|  | 30-34 | 0.0656 | 0.0637 | -2.9 |
|  | 35-39 | 0.0211 | 0.0208 | -1.4 |
|  | 40-44 | 0.0043 | 0.0043 | -- |
|  | 45-49 | 0.0003 | 0.0003 | -- |
|  | T.F.R. | 1.8244 | 1.7634 | -3.3 |
| 1981: | 15-19 | 0.0264 | 0.0257 | -2.7 |
|  | 20-24 | 0.0967 | 0.0914 | - 5.5 |
|  | 25-29 | 0.1269 | 0.1233 | -2.8 |
|  | 30-34 | 0.0680 | 0.0667 | -1.9 |
|  | 35-39 | 0.0194 | 0.0191 | -1.5 |
|  | 40-44 | 0.0032 | 0.0032 | .- |
|  | 45-49 | 0.0002 | 0.0002 | -- |
|  | T.F.R. | 1.7039 | 1.6474 | -3.3 |
| 1986: | 15-19 | 0.0235 | 0.0228 | -3.0 |
|  | 20-24 | 0.0846 | 0.0787 | - 7.0 |
|  | 25-29 | 0.1244 | 0.1190 | -4.3 |
|  | 30-34 | 0.0755 | 0.0725 | -4.0 |
|  | 35-39 | 0.0225 | 0.0223 | -0.9 |
|  | 40-44 | 0.0032 | 0.0031 | -. |
|  | 45-49 | 0.0001 | 0.0001 | -- |
|  | T.F.R. | 1.6705 | 1.5932 | -4.6 |
| 1991: | 15-19 | 0.0269 | 0.0256 | -4.8 |
|  | 20-24 | 0.0829 | 0.0775 | -6.5 |
|  | 25-29 | 0.1288 | 0.1207 | -6.3 |
|  | 30-34 | 0.0886 | 0.0842 | - 5.0 |
|  | 35-39 | 0.0295 | 0.0285 | -3.4 |
|  | 40-44 | 0.0041 | 0.0039 | . |
|  | 45-49 | 0.0002 | 0.0002 | -- |
|  | T.F.R. | 1.8050 | 1.6834 | -6.7 |

Note: Changes were not considered for extremely small rates.
Source: Demography Division, Estimates Section.
it is the new series that is used, based on the most recent 1991 census. In future, estimates will continue to be calculated by the method using components which have become increasingly numerous, and these will be rectified when new census figures become available and the accuracy of these figures has been assessed. To avoid any unwelcome discontinuity in assessment of the demographic situation, population figures for the past 20 years have been recalculated.

The new series of estimates has made it necessary to recalculate demographic rates and normal indices from 1971 on; however, the changes are not very large. The negative effects of inadequate enumeration in the censuses on which estimates are based mainly affects the earlier years of adulthood, with a lesser effect on children and older adults, so it is mainly the rates of phenomena frequent at these ages that show slight changes (e.g. fertility, abortion, marriage, delinquency). Table 5 gives an example of the effects on fertility rates.

It is clear that the reduction in rates caused by correcting estimates is significant between ages 20 and 29 and then becomes smaller. The lowering of rates due only to the increase in the denominator tends to become greater over time due to the slight but constant rise in under-enumeration and the inclusion of returning Canadians and temporary residents.

The effect on the total fertility rate, while not negligible, is nevertheless low, and the changes do not affect trends and concern only the past.

Since the new estimates have been drawn up for 1971 on, we can calculate the completed fertility in a uniform series for the 1951-1956 birth cohort groups, whose members have, for all practices, come to the end of their fertile period (Table 6). Here again, the difference between the results of calculations using the old and new estimates is small ( 0.073 children or $3.8 \%$ of the value of the rate). Although the difference between completed fertility rates is smaller than between recent total fertility rates, this is due to the fact that the women for whom completed fertility is being calculated have experienced slightly lower rates early in their fertile lives.

Although not a significant factor, the rates calculated now with the new estimates are more rationally constructed than those published previously. The universes of the numerator and denominator are the same, which was not the case before. The events (births, marriages, deaths, etc.) experienced by non-residents were included as events, but the people responsible for them were not counted in the population at risk.

## More Progress to Come

Despite substantial improvements to estimates, all involved are aware that certain unexplainable irregularities subsist in the series and that there is accordingly still room for improvement, as Table 7 would indicate.

Table 6. Cumulative Fertility ${ }^{1}$ by Cohort, Using Former and New Population Estimates

| Cohort | 20 years | 25 years | 30 years | 35 years | 40 years |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Former Estimates |  |  |  |  |  |
| $1951-56$ | 1,990 | 7,505 | 13,850 | 17,625 | 19,100 |  |
| $1956-61$ | 1,670 | 6,505 | 12,725 | 17,155 |  |  |
| $1961-66$ | 1,320 | 5,550 | 11,990 |  |  |  |
| $1966-71$ | 1,175 | 5,320 |  |  |  |  |
| $1971-76$ | 1,345 |  |  |  |  |  |
|  | New Estimates |  |  |  |  |  |
| $1951-56$ | 1,935 | 7,160 | 13,325 | 16,950 | 18,375 |  |
| $1956-61$ | 1,635 | 6,205 | 12,155 | 16,365 |  |  |
| $1961-66$ | 1,285 | 5,220 | 11,855 |  |  |  |
| $1966-71$ | 1,140 | 5,015 |  |  |  |  |
| $1971-76$ | 1,280 |  |  |  |  |  |

${ }^{1}$ For 10,000 women.
Source: Demography Division, Estimates Section.

Table 7. Variations in the Sex Ratio for Some Cohorts According to the Adjusted and Non-Adjusted Net Undercoverage of the Census

|  | Age Groups |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 |
| Non-Adjusted Adjusted | Cohort 1952-1956 |  |  |  |  |  |  |
|  | 1.03 | 1.00 | 0.99 | 0.98 | 0.99 |  |  |
|  | 1.03 | 1.02 | 1.01 | 1.00 | 1.00 |  |  |
|  |  | Cohort 1947-1951 |  |  |  |  |  |
| Non-Adjusted Adjusted |  | 0.99 | 1.01 | 1.00 | 1.00 | 1.00 |  |
|  |  | 1.01 | 1.03 | 1.02 | 1.02 | 1.01 |  |
|  |  |  | Cohort 1942-1946 |  |  |  |  |
| Non-Adjusted |  |  | 1.02 | 1.02 | 1.02 | 1.01 | 1.01 |
| Adjusted |  |  | 1.05 | 1.04 | 1.05 | 1.03 | 1.02 |

Source: Demography Division, Estimates Section and calculations by author.

As a rule, male mortality is a little higher than that of females, but since there are more males born than females, the numbers of each sex tend to become equal late in adult life and then give way, at each age, to larger numbers of women than men. The male sex ratio, which is greater than 1 at birth, reaches this value around age 40 and falls below unity for older age groups.

Table 7 shows that, in the new estimates as in the old, the trend in the sex ratio is not in line with the model. We cannot attribute to immigration this abnormal trend in the sex ratio with age, since for many years the sex ratio of immigrants has been little different from that of the population born in Canada and we thus cannot sustain the thesis of excess male emigration.

Attempts are thus being made to refine adjustments for certain age groups to achieve better correspondence between the estimates where there are gaps in coverage of the components of population change.

## MARRIAGE AND DIVORCE

Since 1968, there have never been fewer marriages than in 1991 (172,251). As opposed to 1968, however, the population of the age groups most likely to marry ( $15-49$ ) was $48 \%$ larger ( $14,709,240$ instead of $9,931,338$ ). As a result, the "rate" that we can calculate for this year using these figures ( 11.7 per 1,000 instead of 17.3 per 1,000 ) is that much lower.

For over 20 years now, the near-constant number of marriages has been a signal of a very clear trend towards fewer marriages shown by all indicators, and this trend continues. It is true that 1991 was an especially bad year for marriages, because of particularly hard economic times. The total number of marriages, including remarriages, which was already down slightly in 1990 compared to 1989, fell this time by over 8\%, a drop never before seen in the history of Canada, with first marriages being as severely affected as remarriages (Table 8). Total first marriage rates (Table 9) for both males and females thus fell to levels which would have been unbelievable only a few years ago ( 584 for males and 623 for females in 1991).

In past years, an almost regular decline was noted in rates for younger ages, which was partially compensated by some increase in rates at later ages, indicating a later age at marriage. In 1991, on the other hand, all rates were on the decline, with only minor exceptions. This would clearly indicate that to the general downward trend have been added the effects of the economic difficulties which Canada is experiencing (Tables A3 in the Appendix and figures 2A and 2B). All provinces again showed a drop in the rate, which had risen slightly over the preceding three years. Quebec is at an all-time low with a rate of 400 per 1,000 for males and 443 per 1,000 for females, while the eastern provinces which on the whole had the lowest rates also had the largest percentage declines.
Table 8. Marriages, First Marriages, Remarriages, Canada, 1967-1991

| Year | Number of Marriages | Number of First Marriages |  | Number and Proportion of Marriages in which at least one Spouse had been Previously Married |  | Number and Proportion of Remarriages in which both Spouses had been Previously Married |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Females | Number | \% | Number | \% |
| 1967 | 165,879 | 151,883 | 151,488 | 20,417 | 12.3 | 7,970 | 39.0 |
| 1968 | 171,766 | 157,309 | 156,783 | 21,133 | 12.3 | 8,307 | 39.3 |
| 1969 | 182,183 | 162,853 | 162,690 | 27,494 | 15.1 | 11,329 | 41.2 |
| 1970 | 188,428 | 167,267 | 167,421 | 29,975 | 15.9 | 12,193 | 40.7 |
| 1971 | 191,324 | 168,944 | 169,072 | 31,698 | 16.6 | 12,934 | 40.8 |
| 1972 | 200,470 | 176,537 | 177,155 | 33,582 | 16.8 | 13,666 | 40.7 |
| 1973 | 199,064 | 173,355 | 174,135 | 36,047 | 18.1 | 14,591 | 40.5 |
| 1974 | 198,824 | 170,678 | 172,107 | 39,063 | 19.6 | 15,800 | 40.4 |
| 1975 | 197,585 | 167,022 | 168,817 | 42,300 | 21.4 | 17,031 | 40.3 |
| 1976 | 186,844 | 155,679 | 157,412 | 43,098 | 23.1 | 17,499 | 40.6 |
| 1977 | 187,344 | 154,906 | 156,854 | 44,750 | 23.9 | 18,178 | 40.6 |
| 1978 | 185,523 | 151,884 | 154,016 | 46,254 | 24.9 | 18,892 | 40.8 |
| 1979 | 187,811 | 152,731 | 154,982 | 48,309 | 25.7 | 19,600 | 40.6 |
| 1980 | 191,069 | 154,138 | 156,918 | 50,600 | 26.5 | 20,422 | 40.4 |
| 1981 | 190,082 | 151,978 | 154,506 | 52,340 | 27.5 | 21,340 | 40.8 |
| 1982 | 188,360 | 149,419 | 152,825 | 52,979 | 28.1 | 21,438 | 40.5 |
| 1983 | 184,675 | 144,960 | 147,968 | 53,342 | 28.9 | 22,080 | 41.4 |
| 1984 | 185,597 | 144,674 | 147,907 | 55,436 | 29.9 | 23,177 | 41.8 |
| 1985 | 184,096 | 144,009 | 146,718 | 54,632 | 29.7 | 22,833 | 41.8 |
| 1986 | 175,518 | 137,665 | 138,523 | 52,678 | 30.0 | 22,170 | 42.1 |
| 1987 | 182,151 | 138,454 | 139,324 | 60,106 | 33.0 | 26,529 | 44.1 |
| 1988 | 187,728 | 142,956 | 143,943 | 61,665 | 32.8 | 26,892 | 43.6 |
| 1989 | 190,640 | 145,733 | 146,242 | 62,276 | 32.7 | 27,029 | 43.4 |
| $1990$ | 187,738 | 143,637 | 145,350 | 60,393 | 32.2 | 26,094 | 43.2 |
| 1991 | 172,251 | 131,996 | 133,576 | 55,578 | 32.3 | 23,644 | 42.5 |

Sources: Statistics Canada, Vital Statistics, Marriages and Divorces, Catalogue No. 84-205 (Annual) from 1967 to 1986 and Canadian Center for Health Information, Marriages, Catalogue No. 82-003 (Annual) from 1987 to 1991.

Figure 2A
Age-specific First Marriage Rates for Recent Cohorts, Males, Canada


Source: Table A2.

## 1991 Nuptiality Table

As discussed in previous reports, ${ }^{3}$ the total rate, by its very construction, contains weaknesses that do not affect the marriage table which uses as the denominator of the rates on which it is based only the population at risk. Although this does not give it a predictive value, it is more effective than the total marriage rate ${ }^{3}$ in showing the behaviour of a fictitious cohort that at each age followed the propensity to marry for the year in question. It was possible to calculate the 1991 first marriage table using the census which counted the

[^4]Figure 2B

## Age-specific First Marriage Rates for Recent Cohorts, Females, Canada



Source: Table A2.
number of people never legally married forming the denominator of rates ${ }^{4}$ (tables 10A and 10B). This table indicates that, at the observed marriage rate, of 100,000 never-married 15 year-old women, 23,279 will still be unmarried at age 50 , and of 100,000 men, 27,706 will not have married by that age. The comparison with previous tables shows how rapidly the institution is falling into disfavour. Quite recently, in 1976, the number of never-married individuals was 8,137 for males and 7,244 for females (Table 11).

[^5]Table 9. Total First-Marriage Rate, Canada, Provinces and Territories, 1987 to 1991 (per thousands) ${ }^{1}$

| Province | 1987 |  | 1988 |  | 1989 |  | 1990 |  | 1991 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females |
| Newfoundland | 623 | 596 | 657 | 634 | 689 | 678 | 668 | 664 | 609 | 606 |
| Prince Edward Island | 691 | 701 | 741 | 747 | 795 | 796 | 755 | 753 | 690 | 699 |
| Nova Scotia | 651 | 672 | 671 | 710 | 674 | 707 | 626 | 662 | 578 | 611 |
| New Brunswick | 632 | 646 | 687 | 711 | 678 | 705 | 651 | 682 | 593 | 620 |
| Quebec | 449 | 457 | 460 | 488 | 461 | 479 | 438 | 481 | 400 | 443 |
| Ontario | 688 | 718 | 705 | 761 | 727 | 770 | 725 | 769 | 666 | 705 |
| Manitoba | 659 | 686 | 655 | 700 | 657 | 697 | 664 | 706 | 613 | 656 |
| Saskatchewan | 624 | 657 | 632 | 677 | 653 | 695 | 633 | 673 | 626 | 652 |
| Alberta | 603 | 640 | 640 | 696 | 673 | 702 | 669 | 710 | 628 | 666 |
| British Columbia | 662 | 692 | 705 | 756 | 712 | 748 | 701 | 745 | 658 | 699 |
| Yukon | 493 | 513 | 574 | 695 | 535 | 599 | 547 | 629 | 517 | 544 |
| Northwest Territories | 343 | 377 | 349 | 343 | 349 | 361 | 363 | 372 | 343 | 353 |
| CANADA | 606 | 629 | 627 | 657 | 642 | 675 | 631 | 674 | 584 | 623 |
| CANADA WITHOUT QUEBEC | 661 | 689 | 685 | 713 | 704 | 741 | 697 | 738 | 647 | 683 |

${ }^{1}$ Males aged 17-49 and females aged 15-49.
Note: Age specific rates calculated using former population estimates.
Sources: Statistics Canada, Canadian Center for Health Information, Marriages, Catalogue No. 82-003 (Annual) and author's calculations.

Table 10A. Male First-Marriage Table, Canada, 1990-1991

| Age | Marriages | Population Single | $\mathrm{t}_{\mathrm{x}}$ | $\mathrm{q}_{\boldsymbol{x}}$ | $c_{x}$ | $\mathrm{m}_{x}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males |  |  |  |  |  |
| 15 | 2 | 193,075 | 0.000010 | 0.000010 | 100,000 | 1 |
| 16 | 18 | 193,965 | 0.000093 | 0.000093 | 99,999 | 9 |
| 17 | 74 | 186,935 | 0.000396 | 0.000396 | 99,990 | 40 |
| 18 | 507 | 188,820 | 0.002685 | 0.002681 | 99,950 | 268 |
| 19 | 1,406 | 190,200 | 0.007392 | 0.007365 | 99,682 | 734 |
| 20 | 3,064 | 195,055 | 0.015708 | 0.015586 | 98,948 | 1,542 |
| 21 | 5,246 | 189,650 | 0.027661 | 0.027284 | 97,406 | 2,658 |
| 22 | 7,688 | 178,190 | 0.043145 | 0.042234 | 94,748 | 4,002 |
| 23 | 10,272 | 168,800 | 0.060850 | 0.059053 | 90,747 | 5,359 |
| 24 | 12,218 | 161,320 | 0.075738 | 0.072974 | 85,388 | 6,231 |
| 25 | 13,739 | 156,910 | 0.087557 | 0.083884 | 79,157 | 6,640 |
| 26 | 13,645 | 153,840 | 0.088693 | 0.084927 | 72,517 | 6,159 |
| 27 | 12,495 | 141,510 | 0.088298 | 0.084564 | 66,358 | 5,612 |
| 28 | 10,788 | 127,845 | 0.084380 | 0.080964 | 60,746 | 4,918 |
| 29 | 9,144 | 113,140 | 0.080820 | 0.077681 | 55,828 | 4,337 |
| 30 | 7,482 | 103,305 | 0.072421 | 0.069891 | 51,491 | 3,599 |
| 31 | 6,008 | 90,600 | 0.066313 | 0.064185 | 47,893 | 3,074 |
| 32 | 4,719 | 79,370 | 0.059449 | 0.057733 | 44,819 | 2,588 |
| 33 | 3,840 | 71,585 | 0.053636 | 0.052235 | 42,231 | 2,206 |
| 34 | 3,035 | 63,365 | 0.047889 | 0.046769 | 40,025 | 1,872 |
| 35 | 2,397 | 55,490 | 0.043188 | 0.042275 | 38,153 | 1,613 |
| 36 | 1,906 | 50,155 | 0.037992 | 0.037284 | 36,540 | 1,362 |
| 37 | 1,505 | 43,925 | 0.034263 | 0.033686 | 35,178 | 1,185 |
| 38 | 1,151 | 38,095 | 0.030201 | 0.029752 | 33,993 | 1,011 |
| 39 | 909 | 34,550 | 0.026310 | 0.025968 | 32,982 | 856 |
| 40 | 710 | 31,160 | 0.022770 | 0.022513 | 32,125 | 723 |
| 41 | 546 | 27,585 | 0.019775 | 0.019582 | 31,402 | 615 |
| 42 | 467 | 24,440 | 0.019108 | 0.018927 | 30,787 | 583 |
| 43 | 385 | 22,770 | 0.016886 | 0.016745 | 30,204 | 506 |
| 44 | 315 | 21,060 | 0.014934 | 0.014823 | 29,698 | 440 |
| 45 | 226 | 17,420 | 0.012945 | 0.012862 | 29,258 | 376 |
| 46 | 166 | 15,820 | 0.010461 | 0.010407 | 28,882 | 301 |
| 47 | 158 | 14,375 | 0.010991 | 0.010931 | 28,581 | 312 |
| 48 | 144 | 13,295 | 0.010794 | 0.010736 | 28,269 | 303 |
| 49 | 113 | 12,100 | 0.009339 | 0.009295 | 27,965 | 260 |
| 50 | 94 | 11,610 | 0.008096 | 0.008064 | 27,706 | 223 |
| 51 | 85 | 10,470 | 0.008118 | 0.008086 | 27,482 | 222 |
| 52 | 68 | 9,805 | 0.006935 | 0.006911 | 27,260 | 188 |
| 53 | 66 | 9,405 | 0.007018 | 0.006993 | 27,072 | 189 |
| 54 | 56 | 8,830 | 0.006285 | 0.006266 | 26,882 | 168 |
| 55 | 61 | 9,060 | 0.006678 | 0.006655 | 26,714 | 178 |
| Mean age |  | 28.78 |  |  |  |  |
| Median age |  | 27.45 | - For | 15 to 49 | span. |  |
| Modal age |  | 25.00 |  |  |  |  |

Sources: Vital Statistics, census and calculations by author.

Table 10B. Female First-Marriage Table, Canada, 1990-1991

| Age | Marriages | Population Single | ${ }^{\text {t }}$ | $\mathrm{q}_{\boldsymbol{x}}$ | $c_{x}$ | $\mathrm{m}_{\boldsymbol{x}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Females |  |  |  |  |  |
| 15 | 35 | 182,515 | 0.000192 | 0.000192 | 100,000 | 19 |
| 16 | 288 | 182,650 | 0.001574 | 0.001573 | 99,981 | 157 |
| 17 | 779 | 176,735 | 0.004408 | 0.004398 | 99,824 | 439 |
| 18 | 2,695 | 177,025 | 0.015221 | 0.015106 | 99,385 | 1,501 |
| 19 | 4,920 | 177,195 | 0.027766 | 0.027386 | 97,883 | 2,681 |
| 20 | 7,830 | 179,885 | 0.043525 | 0.042598 | 95,203 | 4,055 |
| 21 | 10,364 | 168,270 | 0.061589 | 0.059749 | 91,147 | 5,446 |
| 22 | 12,252 | 153,050 | 0.080049 | 0.076968 | 85,701 | 6,596 |
| 23 | 13,472 | 138,465 | 0.097292 | 0.092778 | 79,105 | 7,339 |
| 24 | 13,645 | 126,560 | 0.107814 | 0.102300 | 71,766 | 7,342 |
| 25 | 13,205 | 117,730 | 0.112159 | 0.106203 | 64,424 | 6,842 |
| 26 | 11,897 | 112,000 | 0.106219 | 0.100862 | 57,582 | 5,808 |
| 27 | 9,970 | 100,780 | 0.098923 | 0.094261 | 51,774 | 4,880 |
| 28 | 7,978 | 90,355 | 0.088296 | 0.084563 | 46,894 | 3,965 |
| 29 | 6,318 | 79,695 | 0.079277 | 0.076255 | 42,928 | 3,273 |
| 30 | 5,037 | 72,705 | 0.069280 | 0.066960 | 39,655 | 2,655 |
| 31 | 3,822 | 64,680 | 0.059083 | 0.057388 | 37,000 | 2,123 |
| 32 | 3,030 | 56,870 | 0.053279 | 0.051897 | 34,876 | 1,810 |
| 33 | 2,338 | 51,160 | 0.045700 | 0.044679 | 33,066 | 1,477 |
| 34 | 1,896 | 45,770 | 0.041425 | 0.040584 | 31,589 | 1,282 |
| 35 | 1,502 | 39,830 | 0.037698 | 0.037000 | 30,307 | 1,121 |
| 36 | 1,198 | 36,595 | 0.032737 | 0.032209 | 29,186 | 940 |
| 37 | 873 | 33,120 | 0.026344 | 0.026001 | 28,246 | 734 |
| 38 | 662 | 28,680 | 0.023082 | 0.022819 | 27,511 | 628 |
| 39 | 568 | 25,845 | 0.021977 | 0.021738 | 26,883 | 584 |
| 40 | 452 | 23,715 | 0.019060 | 0.018880 | 26,299 | 497 |
| 41 | 353 | 21,585 | 0.016354 | 0.016221 | 25,802 | 419 |
| 42 | 319 | 19,685 | 0.016205 | 0.016075 | 25,384 | 408 |
| 43 | 233 | 17,885 | 0.013000 | 0.012916 | 24,976 | 323 |
| 44 | 195 | 16,790 | 0.011584 | 0.011518 | 24,653 | 284 |
| 45 | 142 | 14,035 | 0.010082 | 0.010031 | 24,369 | 244 |
| 46 | 131 | 12,780 | 0.010250 | 0.010198 | 24,125 | 246 |
| 47 | 111 | 11,720 | 0.009471 | 0.009426 | 23,879 | 225 |
| 48 | 91 | 11,180 | 0.008140 | 0.008107 | 23,654 | 192 |
| 49 | 79 | 10,015 | 0.007838 | 0.007808 | 23,462 | 183 |
| 50 | 60 | 9,305 | 0.006448 | 0.006427 | 23,279 | 150 |
| 51 | 57 | 8,540 | 0.006616 | 0.006594 | 23,129 | 153 |
| 52 | 52 | 8,345 | 0.006231 | 0.006212 | 22,977 | 143 |
| 53 | 39 | 7,590 | 0.005072 | 0.005060 | 22,834 | 116 |
| 54 | 36 | 7,310 | 0.004856 | 0.004845 | 22,718 | 110 |
| 55 | 35 | 7,275 | 0.004811 | 0.004799 | 22,608 | 109 |
| Mean age <br> Median age <br> Modal age |  | $\begin{aligned} & 26.67 \\ & 25.41 \\ & 24.00 \end{aligned}$ | - For | 15 to 49 | span. |  |

Sources: Vital Statistics, census and calculations by author.

Table 11. Number of Singles at Age 50 from the First-Marriage Table, Canada, 1976-1991

|  | Year |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1976 | 1981 | 1986 | 1991 |
|  |  |  | 16,042 | 21,528 |
| Males | 8,137 | 14,691 | 19,689 | 27,706 |
|  | 7,244 | 23,279 |  |  |

Source: Statistics Canada. Marriage and Conjugal Life in Canada, Appendix B, Catalogue No. 91-534, Jean Dumas and Yves Peron.

Table 12. Singles at Age $5^{1}$ Mean and Median Ages at First-Marriage, According to the First-Marriage Table of 1991, Canada and Provinces

|  | Number of Singles |  | Mean Age |  | Median Age |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females | Males | Females |
|  |  |  |  |  |  |  |
| Newfoundland | 21,192 | 19,968 | 28.18 | 26.23 | 27.09 | 25.21 |
| Prince Edward Island | 14,910 | 13,516 | 27.89 | 25.93 | 26.52 | 24.99 |
| Nova Scotia | 23,371 | 20,373 | 28.57 | 26.63 | 27.21 | 25.40 |
| New Brunswick | 24,036 | 20,179 | 27.82 | 25.99 | 26.64 | 24.84 |
| Quebec | 47,579 | 42,496 | 29.28 | 27.31 | 27.83 | 25.79 |
| Ontario | 19,742 | 16,229 | 28.66 | 26.57 | 27.39 | 25.41 |
| Manitoba | 23,118 | 18,878 | 28.32 | 26.11 | 26.95 | 24.92 |
| Saskatchewan | 22,677 | 18,036 | 27.82 | 25.68 | 26.50 | 24.45 |
| Alberta | 22,887 | 17,526 | 28.58 | 26.30 | 27.31 | 25.09 |
| British Columbia | 23,865 | 18,045 | 28.98 | 26.74 | 27.76 | 25.54 |
| Canada |  |  |  |  |  |  |

[^6]Source: Author's calculations.

Figure 3

## First Marriage Probabilities, Canada (without Quebec) and Quebec, 1991



Source: Nuptiality tables calculated by the author from marriages of singles provided by the Canadian Centre for Health Infomation.

The sensitivity of the marriage rate to the current poor economic situation certainly does not invalidate the trend, since the decline has been observed for at least 15 years.

Like total events, the nuptiality table shows differences between provinces (Table 12). The most noteworthy point is the very high never-married rate in Quebec. Never-married individuals at age 50 in the table were close to twice as numerous as those of other provinces and average age at marriage about one year higher (figures 3 and 4). The second point is an exception: the intensity of marriage in Prince Edward Island, which was over three times higher than that of Quebec.

Figure 4
Proportion Remaining Single and Mean Age at First Marriage, by Province, 1991


Source: Table A8.

## Divorce

At the time of this analysis of the demographic situation, detailed figures for 1991 divorces were not yet available. We know that 77,031 divorce decrees were handed down, slightly less than in $1990(78,152)$. From the standpoint of life in a legal relationship, the legal system increased the number of unions by 172,251 (marriages) and deducted close to half (45\%) of this figure by divorce.

## BIRTHS AND FERTILITY

## Births

The number of births in $1991(402,481)$ was down 3,005 from the previous year (Table A4 in the Appendix), following a steady rise since $1987(369,742)$. This slight decrease was enough to reduce the crude birth rate by a tenth of a point to 14.2 per 1,000 . All provinces with the exception of Ontario and British Columbia and both territories recorded declines. The reason for the increase in Ontario and the stability in British Columbia is merely a question of the number of women of child-bearing age, which increased in these two provinces due to internal and international migration rather than a rise in fertility (see below).

While the number of births declined in Quebec, this was due to first and second-order births, since higher-order births continued to increase. In most of the other provinces, all birth orders were involved in the drop except in Ontario where fourth and fifth-order births were up by a few hundred. This observation might lead us to conclude that Quebec government assistance granted on third and subsequent births has been successful; however, preliminary data indicate that the number of births in 1992 was down. The few hundred more births in Ontario are no doubt due to the fact that Ontario has more female immigrants than the rest of the country.

## Fertility

Not unexpectedly, the new population estimates place fertility and total fertility rates at lower levels than those published in previous years, however, there is no change in trends and comparisons (Table 13). During the past 11 years, the level of fertility in period rates was lowest in 1987 for both Quebec and the rest of Canada. The only noteworthy difference is the level of 1.37 children per woman in Quebec, down from 1.42 and 1.65 for the rest of Canada instead of 1.74 . The period fertility rate was lower than previously estimated, as was the cumulative fertility of birth cohorts.

The year 1991, not surprisingly, showed a lower T.F.R. than 1990 for all of Canada with the exception of Quebec. The slight decline affected first, second and third-order births, while in Quebec the increase in fertility, although also slight, affected all orders and the total rate thus continued to rise. As with births, however, we are already certain that the Quebec rate was down in 1992.

Fertility in the 35-39 age group for Canada as a whole has been rising for the past 11 years. The rate for those $30-34$ dipped slightly in the rest of Canada after a significant and sustained increase for at least 10 years and continued to increase in Quebec, although remaining at a much lower level than in the rest of Canada. Fertility rates for those 20-24 in the rest of Canada were still down, losing $23 \%$ over 11 years. These observations could lead us to conclude that child-bearing is occurring increasingly later.

Figure 5
Distribution of the Birth Index by Day of the Week,
Canada, 1977-1990


Source: Vital Statistics, unpublished data.

It is less simple than in the case of marriages to attribute the slight decline to hard economic times, since fertility is less subject to very rapid changes than nuptiality, particularly when levels are very low. We may nevertheless reasonably assume that births were at least deferred due to lower than expected income levels for many couples.

## Birth Under Control

Practitioners have known for some time how to induce delivery in a woman whose baby is ready to be born. ${ }^{5}$ With this knowledge, the birth of a child is increasingly a social event, with more and more births being induced as time goes by to satisfy the wishes of the mother, the family... or the obstetrician. As a result, instead of births being uniformly distributed throughout the week, examination of the statistics shows that fewer and fewer births take place on weekends (Figure 5).

## Abortion

Abortion was up slightly in $1991(95,059)$ over $1990(92,901)$, an increase of 2,158 , while births were down by 3,005 , from 405,486 to 402,481 . If there was a direct relation between births and abortion, we might say that we should have expected 92,213 abortions. The link is far from being direct, however. The fact remains that, all other things being equal, abortion appears to be gaining ground slightly over contraception. We should bear in mind that the number of known abortions has never coincided with the actual number of abortions. This increase in legal abortions was due to the increase in abortions carried out in clinics ( 23,343 in 1991 compared to 20,236 in 1990). This increase in turn was predictable given the fact that the number of clinics is increasing and so consequently is access to abortion itself. Abortions in hospitals, on the other hand, were down from 71,069 to 70,262.

[^7]Table 13．Age－Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother，

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Table 13. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother,

| Birth Order | Year | 15-19 |  | 20-24 |  | 25-29 |  | 30-34 |  | 35-39 |  | 40-44 |  | Total Fertility Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quebec | Rest of Canada | Quebec | Rest of Canada | Quebec | Rest of Canada | Quebec | Rest of Canada | Quebec | Rest of Canada | Quebec | Rest of Canada | Quebec | Rest of Canada | Canada |
| 4 | 1981 | 0.01 | 0.05 | 0.54 | 1.58 | 2.93 | 5.28 | 4.47 | 5.66 | 2.23 | 2.63 | 0.42 | 0.50 | 0.0530 | 0.0785 | 0.0715 |
|  | 1982 | 0.01 | 0.03 | 0.55 | 1.58 | 2.85 | 5.28 | 4.19 | 5.87 | 2.20 | 2.76 | 0.42 | 0.47 | 0.0512 | 0.0800 | 0.0720 |
|  | 1983 | 0.01 | 0.03 | 0.58 | 1.48 | 2.77 | 5.17 | 3.89 | 5.83 | 1.93 | 2.77 | 0.34 | 0.47 | 0.0476 | 0.0788 | 0.0703 |
|  | 1984 | 0.02 | 0.04 | 0.51 | 1.47 | 2.61 | 5.34 | 3.64 | 5.82 | 1.74 | 2.73 | 0.33 | 0.43 | 0.0443 | 0.0792 | 0.0697 |
|  | 1985 | 0.02 | 0.04 | 0.47 | 1.44 | 2.44 | 5.22 | 3.48 | 5.96 | 1.83 | 2.84 | 0.28 | 0.54 | 0.0426 | 0.0802 | 0.0700 |
|  | 1986 | 0.02 | 0.03 | 0.48 | 1.48 | 2.39 | 5.16 | 3.31 | 5.95 | 1.70 | 2.83 | 0.37 | 0.49 | 0.0413 | 0.0797 | 0.0694 |
|  | 1987 | 0.02 | 0.04 | 0.50 | 1.50 | 2.21 | 5.02 | 3.19 | 5.71 | 1.67 | 2.86 | 0.35 | 0.46 | 0.0397 | 0.0780 | 0.0677 |
|  | 1988 | 0.02 | 0.05 | 0.54 | 1.48 | 2.40 | 4.94 | 3.07 | 5.78 | 1.69 | 2.91 | 0.43 | 0.49 | 0.0407 | 0.0783 | 0.0683 |
|  | 1989 | 0.01 | 0.05 | 0.58 | 1.57 | 2.59 | 4.87 | 3.65 | 6.13 | 1.67 | 3.07 | 0.35 | 0.56 | 0.0442 | 0.0813 | 0.0716 |
|  | 1990 | 0.00 | 0.04 | 0.75 | 1.65 | 2.79 | 4.73 | 3.95 | 6.02 | 2.24 | 3.11 | 0.35 | 0.54 | 0.0504 | 0.0805 | 0.0727 |
|  | 1991 | 0.01 | 0.05 | 0.81 | 1.65 | 3.22 | 4.69 | 4.18 | 6.03 | 2.11 | 3.22 | 0.35 | 0.47 | 0.0534 | 0.0805 | 0.0737 |
| $5+$ | 1981 | 0.00 | 0.01 | 0.12 | 0.35 | 0.77 | 1.83 | 1.53 | 3.16 | 1.54 | 2.60 | 0.57 | 0.93 | 0.0226 | 0.0443 | 0.0382 |
|  | 1982 | 0.00 | 0.00 | 0.12 | 0.37 | 0.79 | 1.89 | 1.34 | 3.04 | 1.36 | 2.53 | 0.51 | 0.91 | 0.0206 | 0.0437 | 0.0373 |
|  | 1983 | 0.00 | 0.00 | 0.10 | 0.33 | 0.69 | 1.86 | 1.39 | 3.05 | 1.22 | 2.23 | 0.49 | 0.75 | 0.0195 | 0.0411 | 0.0352 |
|  | 1984 | 0.00 | 0.00 | 0.07 | 0.33 | 0.65 | 1.85 | 1.33 | 2.96 | 1.22 | 2.33 | 0.39 | 0.73 | 0.0183 | 0.0410 | 0.0348 |
|  | 1985 | 0.00 | 0.01 | 0.08 | 0.37 | 0.66 | 1.85 | 1.13 | 2.91 | 1.03 | 2.12 | 0.33 | 0.67 | 0.0162 | 0.0396 | 0.0332 |
|  | 1986 | 0.00 | 0.00 | 0.09 | 0.36 | 0.67 | 1.81 | 1.28 | 2.83 | 1.07 | 2.07 | 0.36 | 0.65 | 0.0174 | 0.0387 | 0.0329 |
|  | 1987 | 0.00 | 0.01 | 0.11 | 0.34 | 0.64 | 1.85 | 1.17 | 2.87 | 0.94 | 2.19 | 0.34 | 0.71 | 0.0160 | 0.0398 | 0.0334 |
|  | 1988 | 0.00 | 0.00 | 0.09 | 0.38 | 0.62 | 1.71 | 1.31 | 2.97 | 1.18 | 2.11 | 0.40 | 0.68 | 0.0180 | 0.0393 | 0.0336 |
|  | 1989 | 0.00 | 0.00 | 0.13 | 0.41 | 0.77 | 1.76 | 1.60 | 2.87 | 1.30 | 2.15 | 0.35 | 0.63 | 0.0207 | 0.0391 | 0.0342 |
|  | 1990 | 0.01 | 0.01 | 0.14 | 0.44 | 0.76 | 1.91 | 1.51 | 2.92 | 1.30 | 2.27 | 0.39 | 0.67 | 0.0206 | 0.0411 | 0.0357 |
|  | 1991 | 0.00 | 0.00 | 0.14 | 0.43 | 0.80 | 1.94 | 1.62 | 3.00 | 1.39 | 2.27 | 0.34 | 0.59 | 0.0214 | 0.0412 | 0.0362 |
| All Orders | 1981 | 14.63 | 29.86 | 83.75 | 94.26 | 127.63 | 121.49 | 66.48 | 66.71 | 17.86 | 19.48 | 2.67 | 3.22 | 1.5650 | 1.6751 | 1.6446 |
|  | 1982 | 14.60 | 29.97 | 79.86 | 94.09 | 117.52 | 121.05 | 61.44 | 69.35 | 17.42 | 20.69 | 2.58 | 3.15 | 1.4671 | 1.6915 | 1.6301 |
|  | 1983 | 14.16 | 28.07 | 77.89 | 91.88 | 115.18 | 121.65 | 60.40 | 72.26 | 16.23 | 21.66 | 2.43 | 3.09 | 1.4315 | 1.6931 | 1.6221 |
|  | 1984 | 14.10 | 27.23 | 74.54 | 88.65 | 115.53 | 123.13 | 61.23 | 75.26 | 16.86 | 22.78 | 2.43 | 3.06 | 1.4235 | 1.7006 | 1.6261 |
|  | 1985 | 14.28 | 26.15 | 71.65 | 85.00 | 113.84 | 123.25 | 60.62 | 76.70 | 16.84 | 23.22 | 2.16 | 3.26 | 1.3970 | 1.6878 | 1.6101 |
|  | 1986 | 14.82 | 25.46 | 69.49 | 82.01 | 111.60 | 121.75 | 59.24 | 77.40 | 17.19 | 24.14 | 2.47 | 3.35 | 1.3740 | 1.6705 | 1.5920 |
|  | 1987 | 15.49 | 24.89 | 68.60 | 78.74 | 109.60 | 119.32 | 59.75 | 78.19 | 16.99 | 25.56 | 2.59 | 3.60 | 1.3651 | 1.6515 | 1.5758 |
|  | 1988 | 15.87 | 25.04 | 71.95 | 78.26 | 113.30 | 119.37 | 62.90 | 80.13 | 18.39 | 27.05 | 2.87 | 3.90 | 1.4265 | 1.6687 | 1.6051 |
|  | 1989 | 17.02 | 26.76 | 76.34 | 79.19 | 120.21 | 119.17 | 69.20 | 83.33 | 19.82 | 28.21 | 2.72 | 4.11 | 1.5266 | 1.7039 | 1.6577 |
|  | 1990 | 18.06 | 27.53 | 80.26 | 78.80 | 127.98 | 120.77 | 75.66 | 86.27 | 22.38 | 29.66 | 2.89 | 4.21 | 1.6361. | 1.7362 | 1.7101 |
|  | 1991 | 17.23 | 28.41 | 79.93 | 76.79 | 128.76 | 117.62 | 77.95 | 85.65 | 23.00 | 30.11 | 2.93 | 4.01 | 1.6490 | 1.7130 | 1.6966 |

Sources: Statistics Canada, Vital Statistics, Births and Deaths, Catalogue No. 84-204 and Population Estimates Demography Division.

## MORTALITY

## 1990 Life Table

Over time, a number of techniques have been developed for drawing up life tables, all of which adhere strictly to the same principle, using various statistical refinements. Notwithstanding slight differences in the figures obtained depending on the method chosen, when the same method is used consistently for a given population, comparisons over time provide the desired information on changes in the various parameters.

For the time being, the data shown in the Report on the Demographic Situation in Canada come from the table constructed using the same method over many years. ${ }^{6}$ The accounts for deaths remain unquestioned, and all that has varied are the estimates of population by age. In the next report a new series of tables will be presented covering the period since 1971, although no significant variances are anticipated with the old tables. For the time being, if we merely compare the preliminary table for 1990 without the deaths for 1991 and that which includes the 1991 deaths now available, we can see that, for both males and females, the 1990 preliminary table was a little optimistic. For 1991, we obviously have only the preliminary table, and the minimal gain in life expectancies may not be real (table A6). According to Table 14, we must conclude that the 1980s were the second best decade since 1921 for gains by males. For females on the other hand, never since the 1920s have gains been so low, making it the first decade during which males gained more ground than females.

According to the United Nations and the World Health Organization (WHO), Canada ranks eighth for male life expectancy at birth, 2.6 years behind Japan. For females, Canada is in fifth place, 1.9 years behind Japan which held first place for both sexes.

Table 14. Gain in Life Expectancy (in years) by Decade, Canada, 1921-1991

| Sex | Decade |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1921-$ <br> 1931 | $1931-$ <br> 1941 | $1941-$ <br> 1951 | $1951-$ <br> 1961 | $1961-$ <br> 1971 | $1971-$ <br> 1981 | $1981-$ <br> 1991 |  |
|  | 1.16 | 1.73 | 3.36 | 2.04 | 0.96 | 2.48 | 2.71 |  |
| Females | 1.45 | 4.25 | 4.59 | 3.36 | 2.19 | 2.60 | 1.66 |  |

Source: Statistics Canada, Canadian Centre for Health Information, D. Nagnur, Longevity and Historical Life Tables, 1921-1981, Canada and Provinces.

[^8]Table 15. Cause-Specific Mortality Rate by Diseases of the Circulatory System and by Tumors, by Sex, Canada, 1969-1991 ${ }^{1}$

| Year | Discases of the Circulatory System ${ }^{2}$ | Ischemic Heart Diseases ${ }^{3}$ | Cerebrovascular Diseases | $\begin{gathered} \text { Tumors } \\ \text { and } \\ \text { Cancers } s \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | Males |  |  |  |
| 1969 | 438.47 | 299.14 | 74.41 | - |
| 1970 | 431.50 | 297.73 | 73.57 | - |
| 1971 | 423.36 | 289.09 | 72.45 | - |
| 1972 | 425.73 | 289.79 | 73.58 | - |
| 1973 | 419.72 | 284.53 | 71.00 | - |
| 1974 | 420.32 | 285.07 | 70.39 | - |
| 1975 | 404.52 | 274.18 | 67.49 | 997- |
| 1976 | 400.27 | 271.66 | 64.17 | 169.37 |
| 1977 | 398.39 | 266.14 | 61.21 | 173.73 |
| 1978 | 374.85 | 253.05 | 58.69 | 175.32 |
| 1979 | 362.97 | 237.96 | 56.50 | 177.02 |
| 1980 | 354.56 | 232.80 | 53.49 | 178.25 |
| 1981 | 340.03 | 224.87 | 51.36 | 175.70 |
| 1982 | 333.28 | 218.93 | 48.09 | 179.32 |
| 1983 | 320.20 | 209.96 | 45.33 | 178.57 |
| 1984 | 306.12 | 200.68 | 43.98 | 182.40 |
| 1985 | 298.76 | 195.73 | 41.77 | 182.87 |
| 1986 | 291.37 | 188.44 | 40.45 | 183.52 |
| 1987 | 275.09 | 179.17 | 39.61 | 183.25 |
| 1988 | 268.41 | 174.32 | 37.90 | 187.67 |
| 1989 | 258.51 | 165.15 | 38.44 | 185.37 |
| 1990 | 239.49 | 151.71 | 37.00 | 183.82 |
| 1991 | 238.39 | 149.90 | 36.22 | 186.76 |
|  |  |  |  |  |
| 1969 | 363.54 | 204.35 | 90.58 | - |
| 1970 | 351.71 | 200.24 | 87.32 | - |
| 1971 | 342.54 | 192.24 | 86.41 | - |
| 1972 | 341.65 | 191.55 | 86.31 | - |
| 1973 | 335.05 | 190.07 | 81.73 | - |
| 1974 | 332.95 | 190.05 | 81.81 | - |
| 1975 | 318.28 | 178.17 | 79.46 | 32- |
| 1976 | 309.05 | 174.28 | 74.45 | 132.30 |
| 1977 | 298.59 | 169.11 | 69.92 | 134.77 |
| 1978 | 289.00 | 164.90 | 66.12 | 134.83 |
| 1979 | 278.88 277 | 151.93 1509 | 64.85 | 137.49 13588 |
| 1981 | 263.16 | 150.92 | 61.87 59.65 | 136.40 |
| 1982 | 259.87 | 141.57 | 57.13 | 136.71 |
| 1983 | 247.29 | 133.93 | 54.02 | 136.80 |
| 1984 | 239.43 | 131.70 | 50.98 | 139.19 |
| 1985 | 233.61 | 125.74 | 49.98 | 142.22 |
| 1986 | 230.55 | 124.51 | 49.67 | 142.40 |
| 1987 | 216.41 | 117.74 | 46.24 | 142.60 |
| 1988 | 211.94 | 113.78 | 46.40 | 143.53 |
| 1989 | 203.25 | 108.10 | 45.10 | 141.71 |
| 1990 1991 | 191.57 | 102.71 101.91 | 41.68 42.20 | 141.82 143.87 |

[^9]Source: Data from Canadian Centre for Health Information, Catalogue Nos. 82-003 and 84-203 and calculations made by the Demography Division.

For males, and excluding Japan, the following countries ranked ahead of Canada: Hong Kong, Greece, Sweden, Switzerland, Israel and the Netherlands, and for females, France, Switzerland and the Netherlands.

## Major Causes of Death

In the modern world, mortality is the demographic phenomenon that shows the greatest inertia. Although we are never totally guaranteed that mortality will not rise again, populations are slowly, with time, gaining ground against death. After combating microbial disease, preventive and curative medicine has since the 1960s marked unexpected success against cardio-vascular disease, which had been rising steadily since the turn of the century. Adjusted rates for these causes of death continued to decline, although gains over the past year were smaller for males and up only slightly for females (Table 15).

Although progress in the fight against premature death due to cardio-vascular disease will no doubt begin to slow down, it is anticipated that only advances made in the fight against cancer would mark a stage in the increase in life expectancy. Although still in second place in causes of death, cancers seem destined to increase still more (Table 15). A thorough discussion of the situation would, however, require an analysis beyond the framework of this annual review. We must reiterate that, despite the increase in cancer death rates, the fight has not been in vain. The gains made in combatting other causes of death, and in particular cardio-vascular disease, mask the more modest gains against cancer. Mortality due to traffic accidents remained stationary (Table 16).

## The Impact of AIDS

For five years now, deaths of HIV-positive individuals have been clearly identified in the causes of death listed in the 9th revision (still in use) of the WHO classification. This disease, which has claimed a considerable number of victims world-wide, has not spared Canada, but it is not yet counted as one of the major causes of death in this country (Table 17). Although the number of victims has increased by $102 \%$ in the five-year period, the annual total number of deaths is still only $1,062(0.5 \%$ of total). No change has been observed in the overall distribution of victims by age and sex. The overwhelming majority in 1991 were men in the $30-44$ age group ( $70 \%$ of the 1,004 male victims), while there was a marginal increase in the number of female victims (total of 58 compared to 45 in 1990). We should, however, expect an increase in deaths in the coming years, since a large number of people are infected, and their risk of developing the disease is high, even though the latency period is long.

## How Does Canada Rank for Major Causes of Death?

Two researchers with the Polish Demographic Society (Krystyna Drzewienieka and Kamiriez Dzienio) have undertaken to standardize death rates due to cardiovascular disease and cancers in order to rank certain industrialized countries
Table 16. Mortality ${ }^{1}$ Rate Due to Traffic Accidents (Causes 810 to 819 in the I.C.D.) by Age Group and Sex,


[^10]${ }^{1}$ Rate per 100,000.

Table 17. Deaths Due to Human Immunodeficiency Virus (H.I.V.) (Causes 042-044 in the IC.D.) by Broad Age Groups and Sex, Canada, 1987-1991

| Year | Sex | Age Groups |  |  |  |  |  |
| :---: | :--- | :---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |
|  |  | $0-14$ | $15-29$ | $30-44$ | $45-59$ | $60+$ |  |
| 1987 |  | 1 | 85 | 293 | 87 | 22 | 488 |
|  |  | 5 | 7 | 12 | 8 | 5 | 37 |
| 1988 |  | 2 | 96 | 361 | 126 | 29 | 614 |
|  |  | 3 | 10 | 28 | 7 | 9 | 57 |
| 1989 | Males | 3 | 124 | 485 | 164 | 21 | 797 |
|  | Females | 2 | 10 | 20 | 10 | 12 | 54 |
| 1990 | Males | 3 | 108 | 576 | 215 | 35 | 937 |
|  | Females | 1 | 14 | 19 | 7 | 4 | 45 |
|  | Males | 3 | 129 | 698 | 132 | 42 | 1,004 |
|  | Females | 4 | 15 | 25 | 7 | 7 | 58 |

Source: Statistics Canada, Canadian Centre for Health Information, Causes of Death, Annual.
by using the world population as the standard (tables 18 and 19). For cardiovascular disease, the results show that for the most recent period for which rates could be calculated (1980-1984), Canada ranked a respectable seventh for males and females (all ages combined) and ninth for males and females for death due to the same causes in the 45-64 age group. In terms of progress achieved since $1960-1964$ (decrease of $\mathbf{3 6 . 7 \%}$ ), it ranked fourth in importance for both males and females. Among the leading countries where mortality from these causes was low we find France, Japan, Greece, Switzerland, the Netherlands and Iceland.

In terms of deaths from cancers, Canada ranked 11th for males and 15th for females overall, and 11th for the $45-64$ male age group and 18th for the female group. The situation was much less favourable for cancers of the respiratory system (19th place for males and 22nd out of 27 for females).

The choice of the world population as the standard population has the tendency to give to Canada low adjusted rates, given that the world population is a young population while the diseases analysed are degenerative diseases which affect mainly older populations. But since the majority of countries in the group analysed also have relatively old populations, the comparisons remain valid.

## INTERNATIONAL MIGRATION

All 1992 immigrants were admitted under the 1976 law and not C-86, since it came into effect only in the spring of 1993. The objectives set in 1990 for the year $1992(250,000)$ were reached and even slightly exceeded, since the number of admissions was 252,842 .
Table 18. Standardized Mortality Rates Resulting from Cancer, by Sex, per 100,000 People (Period 1980-1984)

|  | Males |  |  |  |  |  | Females |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All Types of Cancer |  |  |  | Cancer of <br> Respiratory SystemAll Ages |  | All Types of Cancer |  |  |  | Cancer of Respiratory System <br> All Ages |  |
|  | All Ages |  | Age Group 45-64 |  |  |  | All Ages |  | Age Group 45-64 |  |  |  |
|  | Rate | Ranking | Rate | Ranking | Rate | Ranking | Rate | Ranking | Rate | Ranking | Rate | Ranking |
| Austria | 196.5 | 22 | 354.4 | 22 | 52.6 | 15 | 123.5 | 22 | 246.5 | 19 | 8.1 | 18 |
| Belgium | 216.3 | 25 | 385.1 | 23 | 83.5 | 27 | 115.1 | 18 | 237.1 | 15 | 6.8 | 11 |
| Bulgaria | 140.8 | 4 | 315.0 | 10 | 41.5 | 6 | 88.8 | 5 | 199.6 | 7 | 6.3 | 7 |
| Czechoslovakia | 224.5 | 27 | 483.5 | 27 | 75.7 | 25 | 121.4 | 20 | 259.7 | 22 | 7.3 | 14 |
| Denmark | 185.9 | 18 | 326.6 | 16 | 56.8 | 18 | 138.7 | 27 | 314.7 | 27 | 17.9 | 24 |
| Finland | 175.6 | 16 | 300.2 | 7 | 63.6 | 21 | 95.8 | 6 | 185.0 | 4 | 5.9 | 4 |
| France | 210.4 | 24 | 439.0 | 25 | 53.5 | 16 | 97.9 | 7 | 198.5 | 6 | 4.4 | 2 |
| FRG | 194.3 | 21 | 338.4 | 19 | 51.6 | 14 | 121.9 | 21 | 240.9 | 17 | 6.4 | 8 |
| GDR | 170.4 | 13 | 347.8 | 21 | 54.0 | 17 | 107.7 | 13 | 238.5 | 16 | 5.4 | 3 |
| Great Britain | 189.1 | 20 | 336.7 | 18 | 70.2 | 24 | 127.4 | 25 | 288.0 | 26 | 19.0 | 26 |
| Greece | 150.1 | 7 | 286.4 | 5 | 49.4 | 8 | 84.2 | 1 | 176.1 | 2 | 6.5 | 9 |
| Hungary | 222.1 | 26 | 451.2 | 26 | 68.9 | 23 | 131.6 | 26 | 272.8 | 23 | 11.2 | 20 |
| Iceland | 136.5 | 2 | 216.3 | 1 | 26.8 | 3 | 110.9 | 16 | 214.6 | 9 | 21.6 | 27 |
| Ireland | 170.1 | 12 | 314.2 | 9 | 50.2 | 9 | 126.4 | 24 | 283.7 | 25 | 17.2 | 23 |
| Italy |  | .. |  |  |  |  |  |  |  | . | .. |  |
| Malta | 171.2 | 14 | 322.5 | 14 | 51.5 | 13 | 115.3 | 19 | 228.2 | 13 | 6.2 | 6 |
| Netherlands | 203.1 | 23 | 339.2 | 20 | 79.2 | 26 | 111.1 | 17 | 230.0 | 14 | 7.1 | 13 |
| Norway | 147.4 | 6 | 245.0 | 3 | 28.9 | 5 | 102.6 | 9 | 216.0 | 10 | 6.7 | 10 |
| Poland | 188.7 | 19 | 434.0 | 24 | 65.4 | 22 | 107.6 | 12 | 246.7 | 20 | 7.8 | 16 |
| Portugal | 137.6 | 3 | 275.1 | 4 | 26.6 | 2 | 86.3 | 2 | 180.3 | 3 | 4.2 | 1 |
| Spain |  | 1 |  | \% | 2 | 1 |  | $\ddot{0}$ |  | $\because$ |  | $\because$ |
| Sweden | 135.3 | 17 | 221.4 | 2 | 24.9 | 1 | 103.5 | 10 | 218.2 | 11 | 7.9 | 17 |
| Switzerland | 181.1 | 17 | 316.7 | 13 | 51.5 | 11 | 105.3 | 11 | 209.6 | 8 | 6.0 | 5 |
| Yugoslavia | 147.3 | 5 | 324.9 | 15 | 46.6 | 7 | 87.5 | 4 | 194.8 | 5 | 7.0 | 12 |
| Australia | 166.9 | 10 | 304.4 | 8 | 51.2 | 10 | 100.8 | 8 | 219.0 | 12 | 10.2 | 19 |
| Canada | 169.6 | 11 | 315.0 | 11 | 57.4 | 19 | 110.8 | 15 | 241.7 | 18 | 15.4 | 22 |
| Japan | 155.2 | 8 | 290.6 | 6 | 27.0 | 4 | 86.9 | 3 | 170.8 | 1 | 7.5 | 15 |
| New Zealand | 174.9 | 15 | 315.9 | 12 | 51.5 | 12 | 123.6 | 23 | 275.2 | 24 | 14.0 | 21 |
| USA | 166.8 | 9 | 329.4 | 17 | 58.7 | 20 | 109.5 | 14 | 252.8 | 21 | 18.9 | 25 |

Source: Drzewienieka Krystyna and Kazimierz Dzienio, "Mortality by sex, age, and cause of death in European and highly extra-european countries in the years 1960-1984" in Polish
Population Review, No. 3. Warsaw 1993.
Table 19. Standardized Rates of Mortality from Cardiovascular Diseases, by Sex, per 100,000 People (1980-1984 Period)

|  | Males |  |  |  | Females |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All Ages |  | Age Group 45-64 |  | All Ages |  | Age Group 45-64 |  |
|  | Rate | Ranking | Rate | Ranking | Rate | Ranking | Rate | Ranking |
| Austria | 381.0 | 18 | 437.4 | 10 | 237.2 | 19 | 163.4 | 13 |
| Belgium | 312.0 | 8 | 410.7 | 8 | 186.3 | 11 | 148.4 | 12 |
| Bulgaria | 454.7 | 24 | 586.2 | 21 | 337.6 | 26 | 290.5 | 26 |
| CzechosIovakia | 503.0 | 25 | 716.3 | 26 | 314.6 | 24 | 270.3 | 24 |
| Denmark | 326.6 | 11 | 445.9 | 13 | 175.6 | 8 | 147.9 | 11 |
| Finland | 423.0 | 21 | 688.7 | 25 | 212.3 | 17 | I65.5 | 14 |
| France | 219.1 | 1 | 263.7 | 2 | 124.1 | 1 | 83.4 | 1 |
| FRG | 356.2 | 14 | 440.7 | 11 | 208.3 | 15 | 145.6 | 10 |
| GDR | 453.5 | 23 | 483.8 | 16 | 311.5 | 22 | 203.6 | 17 |
| Great Britain | 371.2 | 17 | 568.8 | 20 | 207.3 | 14 | 206.8 | 19 |
| Greece | 244.4 | 3 | 302.9 | 3 | 185.9 | 10 | 127.2 | 8 |
| Hungary | 528.4 | 27 | 805.3 | 27 | 334.5 | 25 | 333.2 | 27 |
| Iceland | 296.1 | 6 | 461.6 | 14 | 141.8 | 2 | 119.3 | 6 |
| Ireland | 422.9 | 20 | 601.4 | 22 | 253.5 | 20 | 240.7 | 21 |
| Italy | 525: ${ }^{\text {\% }}$ |  | 5 | 24 | 363.5 | 27 | 284.8 | 25 |
| Malta | 525.6 | 26 | 645.5 | 24 | 363.5 | 27 | 284.8 | 25 |
| Netherlands | 287.7 | 5 | 396.7 | 6 | 151.3 | 3 | [19.8 | 7 |
| Norway | 312.1 | 9 | 444.6 | 12 | 158.9 | 5 | 112.6 | 3 |
| Poland | 442.5 | 22 | 641.5 | 23 | 264.6 | 21 | 247.2 | 22 |
| Portugal | 319.2 | 10 | 365.3 | 5 | 221.0 | 18 | 173.3 | 15 |
| Spain | 33.6 | 12 | 405. | 7 |  | $\ddot{9}$ | 113.3 |  |
| Sweden | 333.6 | 12 | 405.1 | 7 | 177.0 | 9 | 113.3 | 4 |
| Switzerland | 275.8 | 4 | 312.4 | 4 | 160.1 | 6 | 94.6 | 2 |
| Yugoslavia | 401.8 | 19 | 481.9 | 15 | 312.1 | 23 | 257.6 | 23 |
| Australia | 356.6 | 15 | 497.7 | 17 | 206.3 | 13 | 186.2 | 16 |
| Canada | 299.8 | 7 | 429.9 | 9 | I62.8 | 7 | 144.6 | 9 |
| Japan | 226.1 | 2 | 242.0 | 1 | 153.5 | 4 | 118.8 | 5 |
| New Zealand | 365.6 | 16 | 529.7 | 19 | 210.2 | 16 | 213.2 | 20 |
| USA | 340.4 | 13 | 523.6 | 18 | 191.7 | 12 | 204.1 | 18 |

Source: Drzewienieka Krystyna and Kazimierz Dzienio, "Mortality by sex, age, and cause of death in European and highly extra-european countries in the years 1960-1984" in Polish
Figure 6
Number of Immigrants and Immigration Rates, Canada, 1944-1992

Source: Employment and Immigration Canada, Immigration Statistics, annual.

Table 20. Immigrants to Canada by Category, 1981-1992

|  |  | Family <br> Category | Refugees | Designated <br> Persons | Assisted <br> Relatives | Independent <br> Immigrants | Total |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1981 | No. | 51,017 | 810 | 14,169 | 17,590 | 45,032 | 128,618 |
|  | $\%$ | 39.7 | 0.6 | 11.0 | 13.7 | 35.0 | 100.0 |
| 1982 | No. | 49,980 | 1,791 | 15,134 | 11,948 | 42,294 | 12,147 |
|  | $\%$ | 41.3 | 1.5 | 12.5 | 9.9 | 34.9 | 100.0 |
| 1983 | No. | 48,698 | 4,100 | 9,867 | 4,997 | 21,495 | 89,157 |
|  | $\%$ | 54.6 | 4.6 | 11.1 | 5.6 | 24.1 | 100.0 |
| 1984 | No. | 43,814 | 5,625 | 9,717 | 8,167 | 20,916 | 88,239 |
|  | $\%$ | 49.7 | 6.4 | 11.0 | 9.3 | 23.7 | 100.0 |
| 1985 | No. | 38,514 | 6,080 | 10,680 | 7,396 | 21,632 | 84,302 |
|  | $\%$ | 45.7 | 7.2 | 12.7 | 8.8 | 25.7 | 100.0 |
| 1986 | No. | 42,197 | 6,490 | 12,657 | 5,890 | 31,985 | 99,219 |
|  | $\%$ | 42.5 | 6.5 | 12.8 | 5.9 | 32.2 | 100.0 |
| 1987 | No. | 53,598 | 7,473 | 14,092 | 12,283 | 64,652 | 152,098 |
|  | $\%$ | 35.2 | 4.9 | 9.3 | 8.1 | 42.5 | 100.0 |
| 1988 | No. | 51,331 | 8,741 | 18,095 | 15,567 | 68,195 | 161,929 |
|  | $\%$ | 31.7 | 5.4 | 11.2 | 9.6 | 42.1 | 100.0 |
| 1989 | No. | 60,774 | 10,210 | 26,794 | 21,520 | 72,703 | 192,001 |
|  | $\%$ | 31.7 | 5.3 | 14.0 | 11.2 | 37.9 | 100.0 |
| 1990 | No. | 73,457 | 11,398 | 28,291 | 23,393 | 77,691 | 214,230 |
|  | $\%$ | 34.3 | 5.3 | 13.2 | 10.9 | 36.3 | 100.0 |
| 1991 | No. | 86,378 | 18,374 | 35,027 | 22,247 | 68,755 | 230,781 |
|  | $\%$ | 37.4 | 8.0 | 15.2 | 9.6 | 29.8 | 100.0 |
|  | No. | 99,960 | 28,699 | 23,176 | 19,880 | 81,127 | 252,842 |
|  | $\%$ | 39.5 | 11.4 | 9.2 | 7.9 | 32.1 | 100.0 |

Source: Employment and Immigration Canada, Immigration Statistics, annual publication.

Of this number, $60 \%$ were admitted in the family and refugee categories, and in designated classes, that is, persons not subject to the eligibility criteria of the assessment unit system (Table 20).

## Where Do They Come From?

With the dismantling of the U.S.S.R., many analysts expected a large wave of emigration, mainly towards the European countries, but also towards countries that have traditionally been immigration destinations, such as Canada, Australia and the United States. In fact, the only significant movements were toward Germany and Austria, and they failed to reach anticipated levels. Perhaps not enough time has yet passed between the event and its consequences.

Figure 7
Immigrant Distribution by Class and Category, 1992


Source: Employment and Immigration Canada, Immigration Statistics, 1992.

Table 21. Immigrants Born in Communist Countries (frontier of 1985)

|  | Year of Admission |  |
| :--- | :---: | :---: |
|  | $(84,302$ admissions $)$ | 1992 |
|  |  | $(252,842$ admissions $)$ |
|  | 1 | 112 |
| Albania | 49 | 1,120 |
| Culgaria | 929 | 823 |
| Estonia | 1 | 62 |
| East Germany | 32 | 15 |
| Hungary | 642 | 782 |
| Lithuania | 1 | 76 |
| Poland | 3,642 | 11,912 |
| Romania | 938 | 3,290 |
| U.S.S.R. | 376 | $2,803+4051$ |
| Yugoslavia | 516 | $3,164+497^{2}$ |
| Total | 7,127 | 25,061 |
| \% of admissions | 8.5 | 9.9 |

[^11]Source: Employment and Immigration Canada, Immigration Statistics for 1985 and 1992.

Table 22. Countries from which more than $\mathbf{4 , 0 0 0}$ Immigrants were Admitted in Canada During the Last Four Years

| Country of Birth | 1989-1992 ${ }^{1}$ | 1989-1991 <br> Average | $1992{ }^{1}$ | Tendancy |
| :---: | :---: | :---: | :---: | :---: |
| Hong Kong | 83,126 | 18,418 | 27,873 | + |
| China | 65,946 | 14,605 | 22,131 | + |
| Poland | 60,227 | 16,105 | 11,912 | - |
| India | 51,767 | 12,519 | 14,209 | + |
| Philippines | 50,840 | 12,374 | 13,717 | + |
| Libanon | 38,669 | 10,684 | 6,616 | - |
| Vietnam | 35,464 | 9,210 | 7,834 | - |
| United Kingdom | 26,231 | 6,804 | 5,818 | - |
| Sri Lanka | 26,051 | 4,401 | 12,849 | + |
| Portugal (Azores-Madeira) | 24,226 | 7,176 | 2,697 | - |
| United States | 22,033 | 5,384 | 5,882 | - |
| Iran | 21,838 | 4,931 | 7,046 | + |
| Jamaica | 20,149 | 4,709 | 6,021 | + |
| El Salvador | 20,115 | 4,806 | 5,697 | + |
| Taiwan | 17,997 | 3,659 | 7,019 | + |
| Trinidad and Tobago | 13,102 | 2,928 | 4,318 | + |
| Guyana | 12,655 | 3,207 | 3,035 | 0 |
| South Korea | 11,470 | 2,562 | 3,784 | + |
| Romania | 11,060 | 2,590 | 3,290 | + |
| Pakistan | 10,667 | 2,312 | 3,731 | + |
| Somalia | 10,303 | 1,598 | 5,509 | + |
| Haiti | 10,048 | 2,543 | 2,419 | $\bigcirc$ |
| U.S.S.R. | 9,918 | 2,472 | 2,503 | 0 |
| France | 9,845 | 2,248 | 3,102 | + |
| Ethiopia | 9,561 | 2,432 | 2,264 | 0 |
| Yugoslavia | 9,032 | 1,956 | 3,164 | + |
| Egypt | 7,848 | 2,071 | 1,634 | - |
| Malaysia | 7,299 | 1,926 | 1,520 | - |
| West Germany | 6,431 | 1,682 | 1,386 | - |
| Syria | 6,232 | 1,676 | 1,204 | - |
| Peru | 6,194 | 1,528 | 1,610 | 0 |
| Guatemala | 5,861 | 1,313 | 1,922 | + |
| Morocco | 5,382 | 1,408 | 1,159 | - |
| Chile | 5,322 | 1,378 | 1,187 | - |
| Fiji | 5,206 | 1,154 | 1,745 | + |
| Iraq | 5,083 | 975 | 2,158 | + |
| Nicaragua | 5,023 | 980 | 2,084 | + |
| Israel | 4,810 | 1,271 | 996 | - |
| Afghanistan | 4,635 | 1,137 | 1,223 | 0 |
| Ghana | 4,569 | 691 | 2,495 | + |
| Mexico | 4,569 | 1,125 | 1,194 | 0 |
| South Africa | 4,485 | 1,120 | 1,125 | 0 |
| Czechoslovakia | 4,212 | 1,130 | 823 | - |
| Total | 775,501 | 192,469 | 219,905 | + |

[^12][^13]Admissions to Canada have certainly increased considerably, as shown in Table 21, but without taking on drastic proportions given the increase in the total number of immigrants admitted. They nevertheless represented $61 \%$ of immigrants born in Europe. It should be emphasized, however, that these are not among the most numerous anymore (Table A7 in the Appendix).

In 1992, Hong Kong moved back into first place in the list of countries from which immigrants were admitted $(27,873)$, followed closely by China $(22,131)$ (Table 22). These two countries alone supplied nearly 150,000 immigrants to Canada in 4 years (1989-1992). This means that in the last four years almost one immigrant out of six was born in China or Hong Kong. The third supplier country, India, sent 14,209 people in 1992. Also noteworthy are a sharp increase in immigrants from Sri Lanka (particularly as refugees) and a decrease in the number arriving from Poland. For the latter, the decline is due to the increase mobility enjoyed by Poles in Europe. The number of immigrants from the Philippines was still on the rise $(13,717)$.

In the refugee category, the highest proportions were Sri Lankans $(4,786)$, Somalis $(4,010)$, Iranians ( 2,432 ), Vietnamese $(1,777)$, Salvadorans $(1,514)$, Ethiopians $(1,451)$, Iraqis $(1,395)$ and Lebanese $(1,370)$.

## Where Are They Going?

The distribution of new arrivals in the Canadian provinces changes little from one year to another (Table 23). Ontario received less than $50 \%$ of immigrants only between 1981 and 1985, and in 1992 was host to nearly $55 \%$. There are a few differences in terms of provenance: $68 \%$ of Eastern Europeans chose this province (Table 24), $52 \%$ of Asians, $73 \%$ of West Indians, $65 \%$ of South Americans, $59 \%$ of Africans, $51 \%$ of those from the Middle East and only $47 \%$ of those from North and Central America.

The very high proportion of Asian immigrants choosing Ontario contradicts a commonly held idea that these people tend to settle mainly in British Columbia. It is thought that they concentrate in that province mainly through internal migration, where they seem to be so numerous, but this is far from clear. Although this does not prove that there are no grounds to the theory, the 1991 census showed that the proportion of those born in Asia living in Ontario and British Columbia respectively was the same as in the flow of immigrants from Asia during recent years in these provinces. This impression comes from the fact that in Ontario people originating in Southern, Eastern and Southeast Asia represented $6.8 \%$ of the population while they accounted for $11 \%$ in British Columbia.
Table 23. Percentage Distribution of Admitted Immigrants by Intended Province of Destination, Canada, 1956-1992

| Province | Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1956 | 1961 | 1971 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | $1992{ }^{1}$ |
| Newfoundland | 0.3 | 0.5 | 0.7 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 |
| Prince Edward Island | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nova Scotia | 1.0 | 1.3 | 1.5 | 1.1 | 1.0 | 0.9 | 1.2 | 1.2 | 1.1 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.9 |
| New Brunswick | 0.5 | 1.1 | 0.9 | 0.8 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.4 | 0.4 | 0.5 | 0.4 | 0.3 | 0.3 |
| Quebec | 19.0 | 23.6 | 15.8 | 16.4 | 17.6 | 18.4 | 16.6 | 17.7 | 19.6 | 17.6 | 15.9 | 17.8 | 19.1 | 22.4 | 19.1 |
| Ontario | 55.0 | 50.9 | 52.8 | 42.7 | 43.8 | 44.9 | 47.1 | 48.3 | 50.0 | 55.8 | 55.0 | 54.6 | 53.0 | 51.5 | 54.7 |
| Manitoba | 3.5 | 3.5 | 4.4 | 4.2 | 4.1 | 4.5 | 4.4 | 4.1 | 3.8 | 3.2 | 3.1 | 3.2 | 3.1 | 2.4 | 2.0 |
| Saskatchewan | 1.3 | 1.9 | 1.2 | 1.9 | 1.8 | 2.0 | 2.4 | 2.3 | 1.9 | 1.4 | 1.4 | 1.1 | 1.1 | 1.1 | 1.0 |
| Alberta | 6.0 | 6.7 | 7.1 | 15.0 | 14.8 | 12.0 | 12.1 | 10.7 | 9.8 | 7.9 | 8.7 | 8.4 | 8.8 | 7.4 | 7.0 |
| British Columbia | 10.8 | 10.2 | 15.5 | 17.1 | 15.7 | 16.2 | 15.0 | 14.5 | 12.7 | 12.4 | 14.3 | 13.2 | 13.4 | 13.9 | 14.5 |
| Yukon and Northwest Territories | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Unknown | 2.4 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total in Percentage | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total in Number | 164,857 | 71,689 | 121,900 | 128,618 | 121,147 | 89,157 | 88,239 | 84,302 | 99,219 | 152,098 | 161,929 | 192,001 | 214,230 | 230,765 | 252,574 |

[^14]Table 24. International Immigrants to the Province of Ontario by Place of Birth, 1992

| Place of Birth |  | Number |  |
| :--- | ---: | ---: | :---: |
|  |  |  |  |
|  | Ontario | Canada |  |
| Africa | 11,920 | 20,091 | 59.3 |
|  | 16,944 | 25,061 | 67.6 |
| Rest of Europe | 8,371 | 28,969 | 28.9 |
| Caribbean | 11,028 | 15,131 | 72.9 |
| Middle East ${ }^{2}$ | 10,563 | 20,621 | 51.2 |
| Asia | 63,143 | 121,152 | 52.1 |
| North and Central America | 8,781 | 18,658 | 47.1 |
| South America | 6,600 | 10,231 | 64.5 |

${ }^{1}$ Includes Czechoslovakia, Estonia, Latvia, Lithuania, Hungary, Poland, U.S.S.R., Croatia, Yugoslavia, East Germany, Slovenia, Bosnia-Hercegovina, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine, Uzbekistan, Albania, Bulgaria and Romania.
2 Includes Israel, Libanon, Syria, Cyprus, Iran, Iraq, Jordan, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, Yemen Arab Rep., Yemen Dem. Rep. and the Arab Emirates.
Source: Employment and Immigration Canada, Immigration Statistics, annual publication.

## Investors

Since 1986, there has been a special class within the category of independent immigrants, the investors. These are people who have a net worth of at least half a million dollars and undertake to:

- invest $\$ 150,000$ dollars, for a minimum of three years, in a province which during the preceding year, received less than $3 \%$ of immigrants in the business class, or
- invest $\$ 250,000$ dollars in Canada for a minimum of three years, or
- invest $\$ 500,000$ for a minimum of five years - these persons must have a fortune of $\$ 700,000$.

In all three cases, the investment must obviously create some economic benefit for the province and contribute to job creation. The annual number of these immigrants is growing steadily, as shown in Table 25.

Table 25. Immigrants in the Investor Category, Canada, 1986-1992

| Category | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Principal Applicant | 5 | 87 | 249 | 533 | 1,000 | 1,238 | 2,196 |
| Dependants | 18 | 229 | 779 | 1,738 | 3,208 | 3,951 | 7,165 |
| Total | 23 | 316 | 1,028 | 2,271 | 4,208 | 5,189 | 9,361 |
| Dependants by Applicant | 3.6 | 2.6 | 3.1 | 3.3 | 3.2 | 3.2 | 3.3 |

Source: Employment and Immigration Canada, Immigration Statistics, annual publication.

Table 26. Investments of Investing Immigrants, Canada, 1989-1992 (in dollars)

|  | 1989 | 1990 | 1991 | 1992 | Total <br> $1989 \cdot 1992$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Number of Investing <br> Immigrants | 533 | 1,000 | 1,238 | 2,196 | 4,967 |
| Total Monies Declared <br> at Port of Entry | $67,150,000$ | $127,962,000$ | $169,123,000$ | $176,536,000$ | $540,771,000$ |
| Total Money of Applicants <br> with a Positive Final <br> Disposition | $1,173,995,000$ | $2,312,085,000$ | $3,492,264,000$ | $4,571,753,000$ | $11,550,097,000$ |
| Average Money at Port <br> of Entry | 125,985 | 127,962 | 136,610 | 80,390 | 108,873 |
| Average Money Available | $2,202,617$ | $2,312,085$ | $2,820,892$ | $2,081,855$ | $2,325,367$ |

Source: Employment and Immigration Canada, Business Immigration: Immigrant Investor Program, 1989 to 1992, April 1, 1993.

Table 27. Distribution of Investing Immigrants by City of Destination, Canada, 1992

| City | Number | Distribution |
| :--- | ---: | ---: |
| Vancouver | 4,098 |  |
| Montreal | 1,931 | 43.8 |
| Toronto | 1,748 | 20.6 |
| Calgary | 315 | 18.7 |
| Halifax | 225 | 3.4 |
| Regina | 104 | 2.4 |
| Winnipeg | 79 | 1.1 |
| Edmonton | 71 | 0.8 |
| Saskatoon | 58 | 0.8 |
| Hamilton | 53 | 0.6 |
| Ottawa-Hull | 27 | 0.6 |
| Windsor | 17 | 0.3 |
| St-John's | 15 | 0.2 |
| Victoria | 13 | 0.2 |
| London | 11 | 0.1 |
| St-Catharines-Niagara | 6 | 0.1 |
| Kitchener | 4 | 0.1 |
| Other Cities | 586 | 0.0 |
| Total | 9,361 | 6.3 |

[^15]Table 28. Distribution of Investing Immigrants by Country of Origin, Canada, 1992

| Country of Origin | Number | Distribution |
| :--- | :---: | :---: |
| Hong Kong | 993 | 45.2 |
| Taiwan | 928 | 42.3 |
| South Korea | 60 | 2.7 |
| Philippines | 55 | 2.5 |
| Egypt | 27 | 1.2 |
| England | 12 | 0.5 |
| Jordan | 10 | 0.5 |
| United States | 7 | 0.3 |
| Saudi Arabia | 5 | 0.2 |
| Switzerland | 2 | 0.1 |
| Other Countries | 97 | 4.4 |
| Total | 2,196 | 100.0 |

Source: Employment and Immigration Canada, Business Immigration: Immigrant Investor Program, Statistical Highlights, 1989-1992, April 1, 1993.

From 1989 to 1992, these investors brought into Canada, in addition to the investment for which they were accepted as immigrants, $\$ 109,000$ per principal applicant for immigrant status (Table 26). In fact, each of these immigrants brought or was prepared to bring an average of $\$ 2,325,000$ into Canada. As might have been expected, it was the three major census metropolitan areas which received these immigrants (in 1992 Vancouver $44 \%$, Toronto $19 \%$, Montreal 21\%) (Table 27), although we might be somewhat surprised by the fact that Toronto was in the third place. Nearly 9 out of 10 (87.5\%) of these investors came from only two countries in 1992, Hong Kong (45.2\%) and Taiwan ( $42.3 \%$ ). The remaining $12.5 \%$ was divided among the other countries of the world, and of these, South Korea-was responsible for $2.7 \%$ and the Philippines $2.5 \%$ (Table 28).

## Refugees

Canada is certainly one of the most open countries for those seeking asylum. Every year, agents visit refugees camps and select a certain number of people likely to settle successfully in Canada. When these people set foot on Canadian soil, they are already cleared and are included among the immigrants admitted as refugees. But there are others who make their own way to Canada and request asylum. The majority of them arrive at the Canada/United States border. These people are then investigated by Employment and Immigration Canada, following which they are either admitted as immigrants or refused this status.

Table 29. Number of Refugee Demands in Canada, Individuals Accepted or Refused as Landed Immigrants and Withdrawn Requests

| Year | Demands | Accepted | Refused | Withdrawn |
| :---: | :---: | :---: | :---: | :---: |
| 1989 | 20,267 | 4,744 | 562 | 70 |
| 1990 | 36,198 | 10,710 | 2,913 | 374 |
| 1991 | 30,530 | 19,425 | 7,516 | 1,339 |
| 1992 | 37,720 | 17,437 | 9,871 | 1,867 |

Source: Statistical Summary, Immigration and Refugee Board Commission, Refugee Determination Division.

A certain number drop their applications. Those who were refused status may appeal this decision, which involves procedures that to date have proved lengthy. Table 29 gives the figures for recent years of asylum-seekers, those admitted and refused and applications abandoned. It must be borne in mind that the accounts are not "closed" each year, since processing of applications takes time and there is always a waiting list of people who arrived the previous year or earlier.

It can be seen that the number of people admitted was fairly large in terms of the number of applicants. The figures in Table 29 for the four years in question would appear to indicate that close to $42 \%$ of applications are accepted, $17 \%$ rejected and $3 \%$ dropped. This percentage of admissions was considerably higher than for any of the other OECD countries.

For example, according to information from SOPEMI, ${ }^{7}$ requests for asylum in the Netherlands rose from 7,500 in 1988 to 13,900 in 1989 and 21,208 in 1990, but the number recognized as refugees was 1,428 in 1990.

In Germany, the number of applicants rose from 121,318 in 1989 to 193,063 in 1990, but the percentage recognition of refugee status, which had reached $29.2 \%$ in 1985 , fell to $4.4 \%$ in 1990 . In Norway, only $3 \%$ of applicants were accepted in 1990 and $60 \%$ did not receive permission to remain in the country. In Sweden, the quota for 1991-1992 was set at 3,250, and the number of applications in 1990 was 29,400. Switzerland accepted 571 people as refugees in 1990 out of a total of 35,836 applicants.

It should also be emphasized that people who are refused immigrant status are not always deported. They should, like those who abandon their application, leave the country, but there is no guarantee of this. They may attempt to live there illegally, being either counted or missed by censuses, joining those who remain in the country when their work permits or student visas expire, increasing the ranks of illegal immigrants, the total number of which of course cannot be determined.

[^16]
## Some International Comparisons

The other major countries that traditionally attract permanent immigrants are Australia and the United States, and they may thus be compared with Canada. Based on information supplied by SOPEMI (Continuous Reporting System on Migration), the United States, excluding legalizations under IRCA (Immigration Reform Control Act), admitted in recent years a little over 600,000 people a year for a population in the order of 250 million, for a rate of less than 2.5 per 1,000; Australia some 130,000 , for a population of 17 million, or 7.6 per 1,000 . Canada, with 250,000 immigrants for a population of 28.5 million, or 8.8 per 1,000 , thus ranks first among the three.

In Australia, immigrants from Asia (not including western Asia) accounted for $35 \%$ of those admitted in 1990, and people from the United Kingdom for $\mathbf{2 8 \%}$. Third place went to immigrants from Oceania ( $11 \%$ ). But the figures show that this country varies its sources of immigrants. For example, those from southern Europe represented $5.9 \%$ of immigrants in 1983, $6.4 \%$ in 1986 and $3.1 \%$ in 1990 . Immigrants from Oceania in 1988 represented $21 \%$ of all arrivals and less than $9 \%$ in 1983.

Leaving aside the granting of status to illegal Mexican immigrants under IRCA, the majority of immigrants to the United States come from Asia (41\% in 1988). Second place was shared by Mexicans and West Indians ( $17 \%$ ), while Europe contributed $10 \%$ and South America 6\%. Because of quotas, there are not, as in Australia, significant fluctuations from one year to the next.

The three countries admit refugees differently. On average, for the years 1988 , 1989 and 1990 , refugees represented about $15 \%$ of all immigrants to the U.S., while they amounted to $8 \%$ in Australia and $5.3 \%$ in Canada. However, the number of immigrants and size of the population are not the same and, given varying degrees of delay in procedures, we should not jump to the conclusion that attitudes are fundamentally different in the three countries.

Family reunification is also a policy common to all three countries, but since the categories are not the same, even numerical comparisons by period, to reduce random annual variations, might be misleading as to the levels in each country.

Traditionally the European countries are distinguished from so-called host countries. This custom originates in the fact that, from the 16th and 17th centuries on, Europe has mainly been an area of emigration to the Americas and Australia rather than receiving immigrants from the rest of the world. The basis for this distinction is now becoming increasingly weak. On the one hand, the Americas and Australia lose population each year through significant volumes of emigration. On the other, although the countries of the New World were formerly settlement countries as opposed to European countries where immigration was quite often temporary for reasons of work, the difference tends to diminish over time since the main motive for migration anywhere is the
Table 30. Inflows of Foreign Population into OECD Countries, 1980-1990 (in thousands) ${ }^{1}$

| . | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Belgium | 46.8 | 41.3 | 36.2 | 34.3 | 37.2 | 37.5 | 39.3 | 40.1 | 38.2 | 43.5 | 52.3 |
| France ${ }^{2}$ | 59.4 | 75.0 | 144.4 | 64.2 | 51.4 | 43.4 | 38.3 | 39.0 | 44.0 | 53.2 | 63.1 |
| Germany | 523.6 | 451.7 | 275.5 | 253.5 | 295.8 | 324.4 | 378.6 | 414.9 | 545.4 | 649.5 | ... |
| Luxembourg | 7.4 | 6.9 | 6.4 | 6.2 | 6.0 | 6.6 | 7.4 | 8.3 | 9.0 | 9.1 | ... |
| Netherlands | 78.5 | 49.6 | 39.7 | 34.4 | 34.7 | 40.6 | 46.9 | 47.4 | 50.8 | 51.5 | 60.1 |
| Norway ${ }^{3}$ | 11.8 | 13.1 | 14.0 | 13.1 | 12.8 | 14.9 | 16.5 | 15.2 | 16.4 | 14.0 | 11.7 |
| Sweden ${ }^{4}$ | ... | $\cdots$ | $\cdots$ | 18.3 | 14.1 | 13.4 | 19.4 | 19.0 | 24.9 | 28.9 | 23.9 |
| SwitzerIand ${ }^{5}$ | 70.5 | 80.3 | 74.7 | 58.3 | 58.6 | 59.4 | 66.8 | 71.5 | 76.1 | 80.4 | 101.4 |
| United Kingdom ${ }^{6}$ | 69.8 | 59.1 | 53.9 | 53.5 | 51.0 | 55.4 | 47.8 | 46.0 | 49.3 | 49.7 | 52.4 |

${ }^{1}$ Population register data, except for France and the United Kingdom. Asylum-seekers are excluded.
2 Entries of new foreign workers, including holders of provisional work permit (APT) and foreigners admitted on family re-unification grounds. Does not include residents from EEC countries (workers and family members) who have not been brought in by the International Migration Office (OMI).
Entries of foreigners intending to stay longer than six months in Norway.
5 Entries of foreigners with annual residence permits and those with settlement permits (permanent permits) who return to Switzerland after a temorary stay abroad. Includes, up to December 31 st 1982, holders of permits of durations below 12 monthis. Seasonal and frontier workers (including seasonal workers
who obtain permanent permits) are excluded.
${ }^{6}$ Entries correspond to permanent settlers within the meaning of the 1971 Immigration Act and subsequent amendments.
Source: SOPEMI 1992.
possibility of finding work. Considerable improvements in communications increasingly favour the growing exchanges of professionals, scientists and technicians, and there is increasing administrative flexibility between developed countries. It also seems clear that the great problems experienced with migration by developed countries are caused by arrivals from the Third World, the majority of whom are not used to the work situation in the host country, and this is true for both Europe and the newer countries. For the moment, there persists a very significant difference between the European countries and newer countries, that of the status of "foreigner". Holders of this title in Europe may reside in a country for a very long period, sometimes even their whole lives, without becoming permanent residents and with much more limited rights and privileges than the citizens of the country. This situation is fairly uncommon in North America, where it is still fairly easy to obtain citizenship.

For the moment, the European countries do not keep uniform accounts of migrations. Each uses its own categories, thus making overall comparisons almost impossible (see 1991 Report, Part II). We will accordingly confine urselves to reproducing recent SOPEMI data which show that immigration is proportional neither to the size of a country nor to that of its population.

## Immigrants and Language

With the diversification of countries of origin, the proportion of immigrants speaking neither of the official languages is on the rise. Based on statistics from Employment and Immigration Canada, this proportion was a third around 1978 and in recent years has been around half, although the most recent trend is downward ( $50 \%$ in $1989,47 \%$ in 1990 and $44 \%$ in 1991). Since close to $60 \%$ of immigrants are headed for the labour force, the need to learn one language or the other, or even both, is quickly felt. Canada provides these immigrants with courses to aid in their integration. According to census figures, despite the arrival of many people who spoke neither language, there were only 378,000 people in this situation in 1991! Even though some respondents tended to overestimate their abilities somewhat, the fact remains that figures like these are an indication of remarkable performance.

## INTERPROVINCIAL MIGRATION

The mobility of a population is fairly closely linked to the economic vitality of the country, provided we bear in mind there is often some lag between the economic indicators and demographic reactions, particularly when an annual observation unit is used. In Figure 8, we can clearly see the effects of the recession of the first half of the 1980s. The drop in the curve from 1990 to 1991 may well be destined to continue in 1992 and not rise as preliminary figures may have indicated. Since 1972, there has also been a general trend towards lower mobility, whereas since the 1950s this factor moved to a certain extent in parallel with the growth of the population.

Figure 8
Canadian Population and Interprovincial Migration, 1950 to 1992 (in millions)


Source: Statistics Canada, Demography Division, Estimates Section.

There are no surprises in the 1991 figures; the two far western provinces and particularly British Columbia are the only provinces with a positive balance if we consider Nova Scotia's gain of 1,400 people as an exception.

The negative balance in Quebec, which was smallest in 1986 ( $-3,020$ ), has since worsened from one year to the next ( $-11,690$ in 1991) (Table 31). Curiously enough, the Ontario balance was only marginally negative, and preliminary figures for 1992 do not show this province losing to any greater degree. The recession which, according to economic indicators, affected Ontario more severely than the rest of Canada, apparently failed to cause as many departures as had been feared. Closer examination indicates that the movements could only have been toward Alberta and British Columbia, since the other provinces had little or nothing to offer people who were not economically at ease in Ontario. Ontario did in fact chalk up deficits with these two provinces in 1991 (4,105 with the former and 11,470 with the latter) (Table 32). The Ontario population is currently trapped to a certain extent. At the very most, we might have expected new arrivals to be pushed back to the Atlantic Provinces, as in the second half of the 70 s when a nil balance $(-316)$ was observed. It is a common observation that, when hard times come, immigrants prefer to experience them in their home region.

Preliminary figures for 1992 (Table 33) show a negative balance of 3,600 for Newfoundland, although this might be higher when the final figures become available; continued high losses for the Prairies (Manitoba and Saskatchewan), mainly to the far-western provinces; an increase in the negative balance for Quebec, mainly to Ontario, and an overall deficit for the Atlantic Provinces with Ontario in the order of 2,500 people, due to job losses in the fishing industry.
Table 31. Net Migration for Provinces and Territories, 1970-1992

| Year | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alb. | B.C. | Yukon and N.W.T. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1970 | -5,950 | -29 | -3,967 | - 2,373 | -41,156 | 54,590 | -7,707 | -28,358 | 9,898 | 22,579 | 2,473 | 412,559 |
| 1971 | 733 | -129 | -755 | 1,798 | -25,005 | 18,580 | -7,251 | -17,986 | 2,408 | 25,034 | 2,573 | 405,301 |
| 1972 | -189 | 858 | 2,845 | 241 | - 19,891 | 8,227 | -7,735 | - 17,296 | 6,538 | 24,927 | 1,475 | 375,185 |
| 1973 | -2,510 | 478 | 2,107 | 2,841 | -14,730 | -5,275 | -2,200 | $-13,261$ | 2,698 | 30,537 | -685 | 433,993 |
| 1974 | -618 | 1,386 | 1,576 | 4,192 | -11,852 | -22,163 | -5,400 | -4,835 | 14,810 | 22,655 | 249 | 421,336 |
| 1975 | 915 | 814 | 4,454 | 7,572 | -12,340 | -25,057 | -4,134 | 6,555 | 23,463 | -2,864 | 622 | 385,327 |
| 1976 | -2,732 | 309 | 361 | 1,640 | -20,801 | $-10,508$ | -3,655 | 3,819 | 34,215 | $-1,490$ | -1,158 | 376,971 |
| 1977 | -4,009 | 614 | -1,277 | -886 | -46,536 | 8,596 | -3,789 | 384 | 32,344 | 15,507 | -948 | 366,918 |
| 1978 | $-3,540$ | 25 | -109 | -1,644 | -33,424 | 415 | -9,557 | -3,701 | 31,987 | 20,698 | -1,150 | 348,929 |
| 1979 | -4,217 | -225 | $-1,840$ | $-2,219$ | -30,025 | -15,317 | -13,806 | - 3,510 | 39,212 | 33,241 | -1,294 | 370,862 |
| 1980 | -3,082 | -1,082 | -2,494 | -4,165 | -24,283 | -34,919 | -11,342 | - 4,382 | 46,933 | 40,165 | -1,349 | 372,167 |
| 1981 | -6,238 | -783 | $-2,465$ | -4,766 | - 22,549 | $-19,665$ | -3,621 | - 520 | 40,243 | 21,565 | -1,201 | 380,041 |
| 1982 | 261 | -6 | 1,591 | 2,183 | -28,169 | 19,614 | 1,498 | 1,743 | 3,961 | -2,019 | -657 | 322,634 |
| 1983 | -1,092 | 799 | 3,861 | 2,296 | - 19,080 | 32,825 | 950 | 2,501 | -26,246 | 4,029 | -843 | 285,599 |
| 1984 | -3,585 | 524 | 2,963 | 812 | -10,943 | 36,691 | -49 | 733 | -30,591 | 3,505 | -60 | 273,323 |
| 1985 | -5,019 | -13 | - 234 | -1,559 | -6,023 | 33,414 | -1,755 | -5,014 | -9,568 | -3,199 | -1,030 | 281,275 |
| 1986 | -4,682 | -493 | -739 | -2,897 | $-3,020$ | 42,916 | -3,039 | -7,020 | -20,293 | 910 | -1,643 | 302,352 |
| 1987 | -4,374 | 301 | $-2,183$ | -1,762 | -7,410 | 40,278 | -4,751 | -9,043 | -27,595 | 17,618 | -1,079 | 318,890 |
| 1988 | -2,154 | 424 | 71 | $-1,215$ | -7,003 | 14,898 | -8,584 | -16,338 | -5,535 | 25,865 | -429 | 323,685 |
| 1989 | -2,606 | -102 | 572 | -21 | -8,379 | -1,205 | -10,004 | -18,589 | 3,366 | 37,367 | -399 | 347,990 |
| 1990 | $-1,137$ | -273 | -106 | 1,014 | -9,567 | $-15,117$ | $-8,613$ | - 15,928 | 11,055 | 38,704 | -32 | 332,637 |
| 1991 | -1,636 | -1,577 | 1,388 | -1,771 | - 11,690 | -5,591 | -7,898 | -9,926 | 5,891 | 32,263 | 547 | 341,005 |
| 1992 | -3,626 | 504 | $-2,132$ | $-1,890$ | $-15,497$ | -2,956 | -6,513 | -8,472 | $-1,278$ | 41,240 | 620 | 348,568 |
| Total | -61,087 | 2,324 | 3,488 | -2,579 | -429,373 | 153,271 | $-128,955$ | $-168,444$ | 187,916 | 448,837 | -5,398 | 8,127,547 |

Note: From 1970 to 1976 and in 1992, data are provided by Family Allowance Files. From 1977 to 1991, data are provided by Revenue Canada Tax files.
Source: Statistics Canada, Demography Division, Estimates Section.
Table 32. Annual Number of Interprovincial Migrants from Revenue Canada Tax Files and Family Allowance Files, January to December 1991
Total Number of Migrants: 341,005

| Province of Origin | Province of Destination |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alb. | B.C. | Yukon | N.W.T. |
| Newfoundland | - | 233 | 2,082 | 801 | 358 | 5,567 | 246 | 115 | 1,382 | 1,119 | 44 | 166 |
| Prince Edward Island | 170 | - | 1,508 | 565 | 170 | 1,119 | 116 | 77 | 539 | 389 | - | 14 |
| Nova Scotia | 1,546 | 721 | - | 2,884 | 1,102 | 8,194 | 669 | 350 | 2,043 | 2,279 | 40 | 227 |
| New Brunswick | 558 | 449 | 3,568 | - | 2,540 | 5,211 | 579 | 190 | 1,337 | 1,321 | 55 | 65 |
| Quebec | 286 | 139 | 1,369 | 2,468 | - | 25,383 | 747 | 290 | 3,089 | 4,522 | 22 | 268 |
| Ontario | 6,196 | 951 | 8,163 | 5,006 | 17,125 | - | 5,464 | 2,363 | 15,817 | 22,372 | 204 | 728 |
| Manitoba | 117 | 87 | 594 | 376 | 843 | 7,383 | - | 2,858 | 6,148 | 7,188 | 45 | 237 |
| Saskatchewan: | 132 | 40 | 325 | 213 | 539 | 2,742 | 2,952 | - | 14,547 | 6,286 | 179 | 410 |
| Alberta | 905 | 295 | 1,795 | 1,046 | 1,832 | 11,712 | 3,754 | 8,785 | - | 29,213 | 559 | 1,214 |
| British Columbia | 404 | 115 | 1,860 | 701 | 2,152 | 10,902 | 3,212 | 3,210 | 20,060 | - | 1,082 | 518 |
| Yukon | 57 | - | 29 | 7 | 31 | 180 | 58 | 37 | 431 | 989 | - | 58 |
| Northwest Territories | 106 | 60 | 150 | 35 | 201 | 405 | 181 | 164 | 1,608 | 801 | 170 | - |
| In | 10,477 | 3,090 | 21,443 | 14,102 | 26,893 | 78,798 | 17,978 | 18,439 | 67,001 | 76,479 | 2,400 | 3,905 |
| Out | 12,113 | 4,667 | 20,055 | 15,873 | 38,583 | 84,389 | 25,876 | 28,365 | 61,110 | 44,216 | 1,877 | 3,881 |
| Net Migration | -1,636 | -1,577 | 1,388 | -1,771 | -11,690 | -5,591 | -7,898 | -9,926 | 5,891 | 32,263 | 523 | 24 |

Source: Statistics Canada, Demography Division, Estimates Section.

- 65 -
Table 33. Annual Number of Interprovincial Migrants from Family Allowances Files,

| Province of Origin | Province of Destination |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alb. | B.C. | Yukon | N.W.T. |
| Newfoundland | - | 211 | 2,099 | 844 | 297 | 5,873 | 201 | 120 | 1,622 | 1,045 | 66 | 168 |
| Prince Edward Island | 69 | - | 625 | 374 | 141 | 732 | 53 | 71 | 262 | 150 | 4 | 20 |
| Nova Scotia | 1,329 | 665 | - | 2,709 | 1,358 | 8,757 | 617 | 389 | 2,355 | 2,966 | 37 | 71 |
| New Brunswick | 451 | 560 | 3,011 | - | 2,799 | 5,760 | 417 | 195 | 318 | 267 | 41 | 6 |
| Quebec | 292 | 247 | 1,314 | 2,729 | - | 4 |  |  | 1,318 | 1,267 | 41 | 46 |
|  |  |  |  |  | - | 124 | 804 | 449 | 3,068 | 5,935 | 58 | 267 |
| Ontario | 5,038 | 923 | 7,351 | 5,047 | 17,716 | - | 5,201 | 2,984 | 14,173 | 26,381 | 359 | 545 |
| Manitoba | 259 | 23 | 790 | 392 | 821 | 6,570 | - | 2,501 | 6,170 | 7,191 | 114 | 263 |
| Saskatchewan | 87 | 27 | 310 | 134 | 453 | 2,622 | 3,697 | - | 13,569 | 6,667 | 303 | 310 |
| Alberta | 673 | 192 | 1,591 | 976 | 1,780 | 12,422 |  |  | 13,569 | 6,667 | 303 | 310 |
| British Columbia |  |  |  |  | 1,780 | 12,422 | 4,018 | 9,381 | - | 31,790 | 588 | 1,168 |
| British Columbia | 576 | 111 | 1,934 | 714 | 2,192 | 11,367 | 3,297 | 3,352 | 19,001 | - | 1,025 | 373 |
| Yukon | 32 | - | 30 | 19 | 51 | 118 | 15 | 79 | 318 | 985 | - | 57 |
| Northwest Territories | 114 | 46 | 66 | 37 | 182 | 417 | 261 | 186 | 1,445 | 805 | 341 | - |
| In | 8,920 | 3,005 | 19,121 | 13,975 | 27,790 | 82,762 | 18,581 | 19,707 | 63,301 | 85,182 | 2,936 | 3,288 |
| Out | 12,546 | 2,501 | 21,253 | 15,865 | 43,287 | 85,718 | 25,094 | 28,179 | 64,579 | 43,942 | 1,704 | 3,900 |
| Net Migration | -3,626 | 504 | -2,132 | -1,890 | -15,497 | -2,956 | -6,513 | -8,472 | -1,278 | 41,240 | 1,232 | -612 |

Source: Statistics Canada, Demography Division, Estimates Section.

## MIGRATION TRENDS IN CENSUS METROPOLITAN AREAS IN CANADA

Population concentration appears to be a universal model, and in Canada, the trend is to concentration in the metropolitan areas of the country. Obviously the concept of the census metropolitan area (CMA) does not correspond to that of the city, since in a census metropolitan area the urban population is specifically distinguished from the rural population. However, this rural population still represents only a small fraction of the total population. In the 1991 census, of the $16,665,360$ people counted in census metropolitan areas, $1,189,635$ only, or $7.1 \%$, were classified as rural, and almost all were non-farming ( $93 \%$ ), that is, for all practical purposes, people living almost directly from and with the large central city. This trend towards concentration translates into faster growth of the population of census metropolitan areas than of the country as a whole. From 1981 to 1986, the Canadian population increased by $4.3 \%$ while that of the census metropolitan areas increased by $6 \%$, and during the five-year period 1986-1991, total growth for the country was $6.2 \%$ and for census metropolitan areas $10 \%$. The result of these differences is that the population of census metropolitan areas, which accounted for $58.8 \%$ of the total population in 1981, represented $61.1 \%$ in 1991.

It seemed worthwhile to examine how these centres grew. There is no doubt that on-site growth (which is not exactly a natural increase in the population of a census metropolitan area), by the action of births and deaths, make up a large proportion of the growth in each (Table 34) but since this non-differential growth is proportional to the size of the census metropolitan area it arouses no interest. Conversely, it is the migratory flows that are intriguing insofar as they are an indication of interest in the region. We thus attempted to answer the question: "Where did the people come from who were counted in the various census metropolitan areas in 1991 and who were not there five years earlier", and to identify a few flow patterns. Table 34 provides a sort of summary of the components of this movement.

Of course, the only possible estimates using census data are based on figures at the end of the period, the total number of flows remaining unknown. The people from whom information is obtained are only people over five years old who have avoided death and international migration, but their movements during the five-year period lie outside the question. In the main, however, the general profile of population change should not be affected by the limitations of these data.

Although it is expected that part of the growth should come from non-urban areas, we would also expect that, since over $60 \%$ of the population lives in census metropolitan areas, there should be many exchanges between them and these should partially explain the differential growth. The pages that follow will therefore present the movements of the recent period. Changes in the geographical breakdown were minimal.
Table 34. Growth Components of Census Metropolitan Areas, 1986-1991

|  | Total Gain 1986-1991 <br> (1) | Net Between Census Metropolitan Areas <br> (2) | Net with Rest of Country <br> (3) | External Migration <br> (4) | Growth on Site <br> (1) $-((2)+(3)+(4))$ <br> (5) | Growth Due to External Migration $(4)+(1)$ | Growth Due to Net Internal Migration $((2)+(3))+(1)$ | Part of the Growth on Site $(5)+(1)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | (in \%) | (in \%) | (in \%) |
| St-John's | 9,955 | -3,975 | 5,610 | 1,675 | 6,645 | 17 | 16 | 67 |
| Halifax | 24,579 | -4,145 | 4,900 | 5,635 | 18,190 | 23 | 3 | 74 |
| St-John | 3,716 | -1,040 | 435 | 870 | 3,451 | 23 | -16 | 93 |
| Chicoutimi | 2,460 | -5,655 | 1,630 | 535 | 5,950 | 22 | -164 | 242 |
| Québec | 42,283 | -6,815 | 15,650 | 5,620 | 27,825 | 13 | 21 | 66 |
| Trois-Rivières | 7,415 | -2,175 | 3,750 | 275 | 5,565 | 4 | 21 | 75 |
| Sherbrooke | 9,234 | -3,035 | 2,870 | 1,705 | 7,694 | 18 | -2 | 83 |
| Montréal | 205,885 | -10,625 | -20,000 | 124,005 | 112,505 | 60 | -15 | 55 |
| Ottawa-Hull | 101,594 | 17,625 | 7,385 | 38,735 | 37,849 | 38 | 25 | 37 |
| Oshawa | 36,561 | 21,595 | -5,735 | 4,905 | 15,796 | 13 | 43 | 43 |
| Toronto | 461,065 | -32,500 | -82,490 | 358,405 | 217,650 | 78 | -25 | 47 |
| Hamilton | 42,931 | 12,755 | -8,980 | 18,255 | 20,700 | 43 | 9 | 48 |
| St-Catherine | 21,294 | 6,885 | 55 | 6,260 | 8,094 | 29 | 33 | 38 |
| London | 39,220 | 3,105 | 2,575 | 14,645 | 18,895 | 37 | 14 | 48 |
| Kitchener | 45,226 | 12,870 | -2,875 | 14,790 | 20,440 | 33 | 22 | 45 |
| Windsor | 8,087 | -3,445 | -2,155 | 8,745 | 4,945 | 108 | -69 | 61 |
| Sudbury | 8,936 | -30 | 2,660 | 725 | 5,385 | 8 | 30 | 62 |
| Thunder Bay | 2,210 | -2,315 | -1,075 | 1,205 | 4,395 | 55 | -153 | 199 |
| Winnipeg | 27,050 | -18,565 | -590 | 21,160 | 25,045 | 78 | -71 | 93 |
| Regina | 5,171 | -9,985 | 2,200 | 2,605 | 10,350 | 50 | -151 | 200 |
| Saskatoon | 9,358 | -13,925 | 3,485 | 3,435 | 16,365 | 37 | -112 | 175 |
| Calgary | 82,580 | 1,470 | 1,600 | 33,435 | 46,075 | 40 | 4 | 56 |
| Edmonton | 65,898 | -17,940 | 6,200 | 30,015 | 47,625 | 46 | -18 | 72 |
| Vancouver | 221,773 | 46,970 | -7,050 | 119,735 | 62,115 | 54 | 18 | 28 |
| Victoria | 32,672 | 12,890 | -6,640 | 6,630 | 19,790 | 20 | 19 | 61 |

[^17]Source: Statistics Canada, 1991 Census, Catalogue No. 93-222.

## Eastern Canada

It was observed that, in general, Ontario census metropolitan areas, particularly those in southern Ontario (Hamilton, St. Catharines, London, Kitchener and Windsor) recruited a large percentage of their immigrants in the other census metropolitan areas, particularly in the same region (Table 35, Column 3). Calgary, Vancouver and Victoria were in the same situation. For those in eastern Canada, northern Ontario and the Prairies, however, immigrants from other census metropolitan areas represented a lower percentage of all the population attracted. As an example, in St. Catharines, immigrants from another census

Table 35. Percentage Distribution of In- and Out-Migrants According to Some Geographical Characteristics by Census Metropolitan Areas, 1986-1991

|  | Population <br> Coming from <br> Outside the <br> Province | Population <br> Coming from <br> a CMA <br> Outside the <br> Province | Population <br> Coming from <br> a CMA | Population <br> Leaving a <br> CMA for <br> a Region <br> Other than <br> a CMA |
| :--- | :---: | :---: | :---: | :---: |
| (1) | $(2)$ | $(3)$ | $(4)$ |  |
| St-John's | 67 | 24 | 24 | 49 |
| Halifax | 73 | 36 | 36 | 54 |
| St-John | 46 | 34 | 34 | 59 |
| Chicoutimi | 19 | 5 | 39 | 34 |
| Québec | 14 | 7 | 36 | 44 |
| Trois-Rivières | 4 | 3 | 33 | 47 |
| Sherbrooke | 8 | 5 | 36 | 47 |
| Montréal | 29 | 20 | 41 | 60 |
| Ottawa-Hull | 52 | 35 | 56 | 48 |
| Oshawa | 14 | 8 | 76 | 55 |
| Toronto | 44 | 34 | 65 | 48 |
| Hamilton | 18 | 15 | 74 | 45 |
| St-Catherine | 18 | 10 | 71 | 37 |
| London | 17 | 13 | 53 | 48 |
| Kitchener | 16 | 10 | 61 | 55 |
| Windsor | 25 | 13 | 52 | 46 |
| Sudbury | 16 | 13 | 42 | 51 |
| Thunder Bay | 37 | 21 | 43 | 51 |
| Winnipeg | 66 | 33 | 33 | 47 |
| Regina | 45 | 23 | 36 | 42 |
| Saskatoon | 44 | 19 | 30 | 44 |
| Calgary | 64 | 39 | 52 | 48 |
| Edmonton | 56 | 28 | 38 | 49 |
| Vancouver | 59 | 51 | 56 | 64 |
| Victoria | 48 | 44 | 61 | 50 |

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222.
metropolitan area represented $71 \%$ of the total but only $10 \%$ came from a census metropolitan area in another province (Table 35, Column 2). In other words, these census metropolitan areas exchanged population mainly with each other and then with Toronto, Ottawa, Thunder Bay and Sudbury.

In Quebec, all census metropolitan areas received relatively small proportions from other census metropolitan areas in the province (in the order of $35 \%$ : Table 35, Column 3) but very small proportions from census metropolitan areas in the rest of the country; in general, they received very little population that was not from Quebec (Table 35, Column 1).

The Atlantic Provinces were in a special situation since there is at most only one census metropolitan area per province. The proportion of immigrants from a province other than where the census metropolitan area was located, was accordingly fairly high.

From these observations, we conclude that in Quebec and the Atlantic Provinces, census metropolitan areas recruit their immigrants in smaller towns or rural areas. In the province of Quebec, the phenomenon of a local recruitment was particularly clear since, with the exception of Montreal, no census metropolitan area recruited $20 \%$ of its immigrants outside the province (Table 35, Column 2).

## Western Canada

This situation is in contrast to that which prevailed in all of Western Canada where from $44 \%$ in Saskatoon to $66 \%$ in Winnipeg, immigrants came from a province other than that in which the census metropolitan area in question is located. Each of the western census metropolitan areas, of which there are few, recruited differently, both in the country's census metropolitan areas ( $30 \%$ in Saskatoon and $61 \%$ in Victoria) and in smaller cities.

## Another Approach

The residual number of movements ${ }^{8}$ between 1986 and 1991 of people living in Canada's census metropolitan areas in 1986 (and still living in 1991) was considerable. There were 775,870 movements between census metropolitan areas. As well, $\mathbf{7 1 8 , 1 6 0}$ people from regions other than census metropolitan areas moved to one of the 25 census metropolitan areas during this period, and 780,535 left one census metropolitan area to live elsewhere in the country. All other things being equal, there was thus a tendency for people living in census metropolitan areas in 1986 to abandon these metropolitan regions to a certain extent for smaller communities ( 62,375 people). This observation is not in contradiction with the general trend mentioned at the outset, which includes on-site growth.

[^18]In all census metropolitan areas combined, 804,945 people were counted at the end of the period who were not in Canada in 1986. We should not be surprised that this figure is higher than the number of immigrant entries over the period, since among the people not living in Canada, some were Canadians who were living abroad. Even then, the overwhelming majority were actually immigrants (approximately 563,580 ). We must also assume that there were some deaths and departures among these immigrants.

## Major Trends

Of all census metropolitan areas, with the exception of Calgary, the nine census metropolitan areas that gained population were in Ontario and British Columbia (Table 36). All those east of Ottawa were on the list of losers.

For the five-year period 1986-91, Vancouver was the census metropolitan area which recorded the highest gains $(46,970)$. With the exception of some very minimal losses to Oshawa and Victoria, it gained from all the others. From Calgary and Edmonton it gained over 18,000 people, almost 7,000 from Toronto and over 7,500 from Winnipeg.

Table 36. Net Migration Between Census Metropolitan Areas, Canada, 1986-1991

| Census Metropolitan Areas <br> Showing Gains |  | Census Metropolitan Areas <br> Showing Losses |  |
| :--- | ---: | :--- | ---: |
| Ottawa-Hull | 17,625 | St-John's | 3,975 |
| Oshawa | 21,595 | Halifax | 4,145 |
| Hamilton | 12,755 | St-John | 1,040 |
| London | 3,105 | Chicoutimi | 5,655 |
| St-Catherine | 6,885 | Québec | 6,815 |
| Kitchener | 12,870 | Trois-Rivières | 2,175 |
| Calgary | 1,470 | Sherbrooke | 3,035 |
| Vancouver | 46,970 | Montréal | 10,625 |
| Victoria | 12,890 | Toronto | 32,500 |
|  |  | Windsor | 3,445 |
| Total | 136,165 | Sudbury | 30 |
|  |  | Thunder Bay | 2,315 |
|  |  | Winnipeg | 18,565 |
|  |  | Regina | 9,985 |
|  |  | Saskatoon | 13,925 |
|  |  | Edmonton | 17,940 |
|  |  |  |  |
|  |  | Total | 136,170 |

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222.

Since Toronto is the largest census metropolitan area, it was also the one that recorded the largest number of moves $(308,010)$, but it is also the one that lost the most in its exchanges $(32,500)$. The main losses were due to exchanges with Oshawa $(20,074)$, Hamilton $(11,975)$ and $\operatorname{Kitchener}(9,975)$ and the largest gains were due to exchanges with Montreal ( 10,280 losses compared to 23,410 gains).

Montreal, a city almost three times the size of Vancouver, experienced hardly any more moves $(144,305)$. The Quebec metropolis gained in all its exchanges with census metropolitan areas in the province of Quebec and the Atlantic Provinces and lost with almost all census metropolitan areas located in the west; the minimal gains, numbering only a few hundred, were with Windsor (845), Edmonton (230) and Winnipeg (175). Overall, Montreal seemed to draw population from the eastern part of the country and lose it to the west, thus participating in the East-to-West shift of the Canadian population from one birth cohort to another.

Ottawa, because of its role as the national capital, behaves in a special way. Exchanges are numerous for a city of this size $(105,895)$, and it gained in all its exchanges with the other census metropolitan areas, except for Victoria and Vancouver.

## Relations Between Census Metropolitan Areas and Non-Metropolitan Areas

Census metropolitan areas maintain exchanges with the rest of the country, and the number of movements is in the same order of magnitude as between census metropolitan areas. It would be difficult to analyse in detail all types of movements (census metropolitan area and census agglomeration, census metropolitan area and rural areas, etc.), and we will thus look mainly at the level of relations between census metropolitan areas and the rest of the country as a whole.

We see that in these exchanges (Table 37), there were more census metropolitan areas that gained (16) than census metropolitan areas that lost (9). However, the 16 winners gained less people $(67,645)$ than the 9 losers lost $(130,950)$. The largest positive balance was in the Quebec City CMA and the big loser was Toronto. In recruitment of migrants from census agglomerations (CA) we can see that the majority are almost always from the province in which the census metropolitan areas are located. In other words, this is mainly local recruitment (Table 38).

It can be seen that Quebec is highly self-sufficient, but so are the Ontario census metropolitan areas, as shown in their exchanges with the other census metropolitan areas.

Table 37. Gains, Losses and Net Migration of the $\mathbf{2 5}$ Census Metropolitan Areas in Their Exchanges Between Themselves and With

Non-Metropolitan Areas

|  | Gains | Losses | Net <br> Gain |  | Gains | Losses | Net <br> Losses |
| :--- | ---: | ---: | ---: | :--- | ---: | ---: | ---: |
| Calgary | 51,375 | 49,775 | 1,600 | Hamilton | 15,330 | 24,305 | 8,980 |
| Chicoutimi | 6,815 | 5,185 | 1,630 | Kitchener | 19,820 | 22,695 | 2,875 |
| Edmonton | 60,090 | 53,890 | 6,200 | Montreal | 97,930 | 17,035 | 20,000 |
| Halifax | 27,970 | 23,070 | 4,900 | Oshawa | 11,385 | 17,120 | 5,735 |
| London | 23,790 | 21,215 | 2,575 | Thunder Bay | 5,840 | 6,915 | 1,075 |
| Ottawa | 47,795 | 40,410 | 7,385 | Toronto | 74,690 | 157,180 | 82,490 |
| Québec | 37,630 | 21,980 | 15,650 | Vancouver | 73,100 | 80,150 | 7,050 |
| Regina | 16,115 | 13,915 | 2,200 | Windsor | 7,875 | 10,030 | 2,155 |
| Saskatoon | 22,065 | 18,580 | 3,485 | Winnipeg | 31,720 | 32,310 | 590 |
| Sherbrooke | 11,425 | 8,555 | 2,870 |  |  |  |  |
| St-Catherine | 9,255 | 9,200 | 55 | Total | 337,690 | 467,740 | 130,950 |
| St-John's | 13,685 | 8,075 | 5,610 |  |  |  |  |
| St-John | 7,365 | 6,930 | 435 |  |  |  |  |
| Sudbury | 10,900 | 8,240 | 2,660 |  |  |  |  |
| Trois-Rivières | 10,040 | 6,290 | 3,750 |  |  |  |  |
| Victoria | 24,140 | 17,500 | 6,640 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Total | 380,455 | 312,810 | 67,645 |  |  |  |  |

Source: Statistics Canada, 1991 Census, Mobility and Migration, Catalogue No. 93-322.

Table 38. Proportion of In-Migrants Coming From Census Agglomerations of the Province Among All In-Migrants Coming From Census Agglomerations, 1991

| Census Metropolitan <br> Areas | Pro- <br> portion | Census Metropolitan <br> Areas | Pro- <br> portion |
| :--- | :---: | :--- | :---: |
|  |  |  |  |
| St-John's | 43 | London | 82 |
| Halifax | 42 | Kitchener | 83 |
| St-John | 57 | Windsor | 74 |
| Chicoutimi | 77 | Sudbury | 93 |
| Québec | 90 | Thunder Bay | 73 |
| Trois-Rivières | 98 | Winnipeg | 44 |
| Sherbrooke | 95 | Regina | 66 |
| Montréal | 85 | Saskatoon | 64 |
| Ottawa-Hull | 60 | Calgary | 48 |
| Oshawa | 75 | Edmonton | 55 |
| Toronto | 72 | Vancouver | 80 |
| Hamilton | 89 | Victoria | 90 |
| St-Catherine | 74 |  |  |

Source: Statistics Canada, 1991 Census, unpublished data.

## Census Metropolitan Areas and International Migration

The last category of people who influence the numerical development of census metropolitan areas by their movements is international immigrants. Obviously, and this is worth reiterating, given the intrinsic nature of censuses, we can only determine the number of surviving immigrants. Since mortality in this group is fairly low (approximately 3 per 1,000 ), we may make an approximate comparison of the numbers admitted and surviving with those counted by the census. There were some 813,000 surviving immigrants in Canada of those who arrived in the five years prior to the census; ${ }^{9}$ however, the census counted $563,580^{10}$ in census metropolitan areas, or $69 \%$. Proportionately speaking, these immigrants were thus slightly more heavily concentrated in census metropolitan areas than the Canadian population as a whole ( $61 \%$ ) without assuming what effect internal migration could have on them. Table 39 demonstrates that in approximate terms, it was again the three largest census metropolitan areas, those of southern Ontario and Alberta, which attracted immigrants, while those in Quebec, the Maritimes and the Prairies aroused little interest.

Table 39. Population Aged Five Years and Over, Living Outside Canada Five Years Ago and Received as Immigrants Between 1986 and 1991, by Census Metropolitan Areas

| Census Metropolitan | Number | Census Metropolitan <br> Areas | Number |
| :--- | ---: | :--- | ---: |
| St-John's | 680 | Kitchener | 10,770 |
| Halifax | 2,700 | Windsor | 6,120 |
| St-John | 470 | Sudbury | 330 |
| Chicoutimi | 130 | Thunder Bay | 720 |
| Québec | 2,375 | Winnipeg | 15,240 |
| Trois-Rivières | 145 | Regina | 1,735 |
| Sherbrooke | 1,025 | Saskatoon | 1,680 |
| Montréal | 80,115 | Calgary | 22,645 |
| Ottawa-Hull | 23,095 | Edmonton | 21,245 |
| Oshawa | 3,665 | Vancouver | 87,410 |
| Toronto | 250,950 | Victoria | 3,055 |
| Hamilton | 12,910 |  |  |
| St-Catherine | 3,535 |  | 563,580 |
| London | 10,835 | Total |  |

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222 and unpublished data.

[^19]
## Conclusion

This short analysis of the situation in the five-year period 1986-1991 allows us to make only a few general remarks on the growth of census metropolitan areas. The figures do not lend themselves to detailed analyses, since they come from a $1 / 5$ sample, they are not directly comparable with $100 \%$ population enumerations and even less with those derived from changes in the population (births and deaths).
(1) It would appear that balances were modest compared to the flows which engendered them and of which we have an estimate in the annual accounts of interprovincial migration (see section on internal migration).
(2) Apart from a degree of correlation between the size of the CMA and its power of attraction, there does not appear to be a net model of the organization of movements. These appear to be linked to non-demographic factors, probably mainly economic, and subject to rapid change.

Table 40. Net Migration by Census Metropolitan Areas, 1986-1991

|  | Net <br> with Non- <br> CMA | Net <br> Between <br> CMA | Total <br> Internal <br> Migration | Inter- <br> national <br> Migration | Total |
| :--- | ---: | ---: | ---: | ---: | ---: |
| St-John's | 5,610 | $-3,975$ | 1,635 | 680 | 2,315 |
| Halifax | 4,900 | $-4,145$ | 755 | 2,700 | 3,455 |
| St-John | 435 | $-1,040$ | -605 | 470 | -135 |
| Chicoutimi | 1,630 | $-5,655$ | $-4,025$ | 130 | $-3,895$ |
| Quebec | 15,650 | $-6,915$ | 8,835 | 2,375 | 11,210 |
| Trois-Rivierres | 3,750 | $-2,175$ | 1,575 | 145 | 1,720 |
| Sherbrooke | 2,870 | $-3,035$ | -165 | 1,025 | 860 |
| Montréal | $-20,000$ | $-10,625$ | $-30,625$ | 80,115 | 49,490 |
| Ottawa | 7,385 | 17,625 | 25,010 | 23,095 | 48,105 |
| Oshawa | $-5,735$ | 21,595 | 15,860 | 3,665 | 19,525 |
| Toronto | $-82,490$ | $-32,500$ | $-114,990$ | 250,950 | 135,960 |
| Hamilton | $-8,980$ | 12,755 | 3,805 | 12,910 | 16,715 |
| St-Catherine | 55 | 6,885 | 6,940 | 3,535 | 10,475 |
| London | 2,575 | 3,105 | 5,600 | 10,835 | 16,515 |
| Kitchener | $-2,875$ | 12,870 | 9,995 | 10,770 | 20,765 |
| Windsor | $-2,155$ | $-3,445$ | $-5,600$ | 6,120 | 520 |
| Sudbury | 2,660 | -30 | 2,630 | 330 | 2,960 |
| Thunder Bay | $-1,075$ | $-2,315$ | $-3,390$ | 720 | $-2,670$ |
| Winnipeg | -590 | $-18,565$ | $-19,155$ | 15,240 | $-3,915$ |
| Regina | 2,200 | $-9,985$ | $-7,785$ | 1,735 | $-6,050$ |
| Saskatoon | 3,485 | $-13,925$ | $-10,440$ | 1,680 | $-8,760$ |
| Calgary | 1,600 | 1,470 | 3,070 | 22,645 | 25,715 |
| Edmonton | 6,200 | $-17,940$ | $-11,740$ | 21,245 | 9,505 |
| Vancouver | $-7,050$ | 46,970 | 39,920 | 87,410 | 127,330 |
| Victoria | 6,640 | 12,890 | 19,530 | 3,055 | 22,585 |

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222.
(3) In very general terms, the population shift from east to west shows up in residual migration from census metropolitan areas as well as concentration in the five major centres of Montreal, Toronto, southern Ontario and Vancouver, and to a lesser degree Calgary.
(4) Total migration had a negative effect on the growth of six census metropolitan areas, all of which were located in relatively unprosperous regions (Table 40).

## LABOUR FORCE

In most cases, labour economists analyse the activity of a population from a cross-sectional perspective. Time series thus show upward or downward movements in participation, employment, unemployment, etc. every year, in certain segments of life or by category of individuals. The analysis thus takes the form more of a examination of a segment of life or a category than of the individuals that comprise it. This results in frequent comments on such questions as youth unemployment, the participation rate of 20-40 year-olds or the income of seniors.

Considering that the activity of individuals and their social and demographic behaviour are interdependent, we can organize the information so as to envisage the histories, or at least fragments of the histories, of the life of birth cohorts so as to gain some measure of understanding of the attitudes or reactions of their members. In this case, we will be looking at those who, in the past 20 years, have experienced the disturbing economic events of the recessions. The base "materials" were the various rates (participation, unemployment, etc.) drawn from the Labour Force Survey. Unfortunately, the series is uniform only for the 17 years from 1975 to 1992.

To clearly show the main characteristics of the activity of individuals, we had to assign to each birth cohort, in a group of five, the average value for the group to measure levels and make comparisons. We are thus in the area of statistics, and far from the case study method. Once an average birth cohort has been identified (for example, the 1958 birth cohort, which summarizes those from 1956 to 1960), we simply had to follow it year after year at the successive ages of its members to determine how they lived in terms of work during the 17 years of life for which we have documentation and make a summary.

These histories, considered from the standpoints of work, employment and unemployment lend themselves to graphic representations which deliver messages that are sometimes strikingly clear. Attention will be drawn to those which seem to provide the most information.

Figure 9
Participation Rates for Males, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.
Source: Data from the Labour Force Survey.

## Males

## Participation Rates

Even at ages of maximum activity, the participation rate is never $100 \%$ since there are always men who, for various reasons, among them physical disability, are not part of the labour force. But it can be seen that the curves for birth cohorts in Figure 9 dip at ever younger ages as we look at most recent birth cohorts. For older workers, early retirement may account for the reduction in activity, but for the younger ones, the explanation that comes to mind is that some have become discouraged and withdrawn (temporarily no doubt) from the labour force given the period of stagnation that coincided with the end of the observation period (1991-1992).

## Part-time Work (Figure 10)

This has never been a major factor. The younger birth cohorts are characterized by a sharp drop at ages when people normally work full time. For the other birth cohorts at the same ages, the younger ones generally have slightly higher

Table 41. Age-Specific Participation Rates for Certain Male Cohorts, Canada

| Age | Cohort | Participation Rate |
| :---: | :---: | :---: |
| 35.0 | $1941-45$ | 96.4 |
|  | $1946-50$ | 95.5 |
| 45.0 | $1951-55$ | 94.9 |
|  | $1931-35$ | 95.0 |
|  | $1936-40$ | 94.2 |
| 47.5 | $1941-45$ | 94.4 |
|  | $1931-35$ | 94.1 |
|  | $1936-40$ | 93.0 |
|  | $1941-45$ | 92.7 |

Source: Data from the Labour Force Survey.

Figure 10
Part Time Employment Rates for Males, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.
Source: Data from the Labour Force Survey.

Figure 11
Full Time Employment Rates for Males, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last
the rate for 1992 .
Source: Data from the Labour Force Survey.
rates than those of previous birth cohorts. The 1948 birth cohort at age 42.5 had a rate of 1.16 , while for the 1933 cohort it was 0.46 . Although these differences were minimal, they could signal changes taking place in demand, notably job-sharing, particularly in the service industry.

## Full-time Work and Unemployment

Since part-time work and absence of activity were low, the impact of unemployment explains fluctuations in full-time work.

While unemployment may result from weaknesses in economic activity in certain years, it may also be endemic for longer or shorter periods with peaks during recessions. Figures 11 and 12 show how old members of various birth cohorts were during the recessions of 1977, 1983 ${ }^{11}$ and 1991-92.

[^20]Figure 12
Unemployment Rates for Males, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.
Source: Data from the Labour Force Survey.

The first observation deals with the universal nature of the last two recessions. To varying extents, all birth cohorts were significantly affected by the recessions of 1983 and the early 1990s. The 1977 recession was less pronounced, to the point where the oldest birth cohorts saw their unemployment increase only marginally.

Table 42. Age of Certain Male Cohort Members During the Recessions of 1983 and 1991 and Corresponding Unemployment Rates

| Cohort | 1983 |  | 1991 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Age | Unemployment <br> Rate | Age | Unemployment <br> Rate |
| $1956-60$ | 25 | 14.6 | 33 | 9.1 |
| $1951-55$ | 30 | 10.8 | 38 | 9.2 |
| $1946-50$ | 35 | 8.2 | 43 | 7.1 |
| $1941-45$ | 40 | 7.5 | 48 | 6.2 |
| $1936-40$ | 45 | 7.2 | 53 | 6.7 |
| $1931-35$ | 50 | 6.9 | 58 | 5.9 |

Source: Data from the Labour Force Survey.

The second has to do with intensity. The more recent the birth cohorts, the more they were affected; probably because, since their members were younger, they were more vulnerable due to being less well protected or less experienced in their jobs. Past age 35, whatever the age, unemployment rates differed little; however, the younger cohorts experienced very high peaks in unemployment (Table 42).

The insidious consequences of this situation come less from the peaks in unemployment than from the endemic nature of unemployment. For example, the 1958 birth cohort lived from age 18 to 35 with an average unemployment rate of nearly $10 \%(9.63)$, and those five years older with an average rate of close to $8 \%$ (7.95). Concretely, one person out of 10 may have been constantly unemployed between the ages of 18 and 35 and one person out of 12 between 22 and 40, that is, during the greater part of their adult life, when couples are formed and children born. It is therefore not surprising that marriage and birth rates have remained low and that the average age at child-bearing and marriage has been high during years when men and women were going through these experiences. In comparison, the mean unemployment rate for the 1933 birth cohort was $5.3 \%$ between the ages of 43 and 60 . Although this rate is not low, it had a lesser demographic effect since, at these ages, family formation and even extension tend to be complete.

Figure 13
Participation Rates for Females, According to the Average Cohorts, Canada, 1975-1992


[^21]
## Females

## Participation Rates

It is agreed that female participation rates have increased considerably from year to year since 1975, but the history of cohorts gives a more exact accounting of the large-scale entry of women to the labour force at various ages (Figure 13).

Perhaps the most impressive feature of Figure 13 is the steepness of curves for most birth cohorts. The increase in the overall participation rate recorded using cross-sectional analysis from one year to another was due not only to large number of young people coming onto the market, but also older women. The more recent the birth cohort, the sharper the curve, indicating that from year to year more and more women from these birth cohorts came into the labour force a year older. Thus in the 1943 birth cohort, almost half of the women were in the job market at age 33, but with successive additions, $72.5 \%$ of them were in the labour force 17 years later. The same is true for the 1948 birth cohort which rose from $55 \%$ to $79 \%$ in 15 years. The rate for the 1958 birth cohort rose from $47.8 \%$ of members to $76 \%$ in 16 years, etc.

Figure 14
Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.
Source: Data from the Labour Force Survey.

Figure 15
Full Time Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.
Source: Data from the Labour Force Survey.

Figure 16
Part Time Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992


Source: See Figure 15.

The second observation is that, the older the birth cohorts, the quicker they reached a maximum, and the lower this maximum was. From another viewpoint, we can see a slowdown in cohort participation at younger and younger ages in the more recent birth cohorts. Thus the 1933 birth cohort reached its maximum at age 49 with a rate of $58.4 \%$; the 1938 cohort at 47 with $65.8 \%$; the 1943 at 45 with $74.1 \%$ and the 1948 cohort at 43 with $79.2 \%$.

The phenomenon is just as visible when we look at rates of employment (employment population ratio) and full-time employment (Figures 14). It is as if certain members of the various birth cohorts systematically retired after the same duration of working life.

For the 1953 birth cohort, we can also see a clear saddlepoint centred on age 27, which doubtless expresses temporary withdrawal from the labour force to give birth to children; this behaviour is noticeably different from that of the following 1958 birth cohort which, from age 23 to 30 , maintained the same employment rate, around $54 \%$ (figure 15).

## Part-time Work

This form of employment has always been more common than for males, but in the more recent birth cohorts, it has become increasingly widespread. Figure 16 shows an entirely logical phenomenon: the 1953 and 1958 birth cohorts in their 20 s who are finding less and less full-time work (see above), also show significant increases from one age to another in part-time jobs.

Each of the older birth cohorts, which worked full-time for shorter periods than subsequent birth cohorts, also had a lower rate of part-time work, indicating that the two forms of employment developed simultaneously.

## Unemployment

The figure showing female unemployment (Figure 17) is almost identical to that for males, with the difference that the extent of this phenomenon is considerably lower. The comment would only be the same. The birth cohorts most affected are also the most recent, but the figures are lower. The 1958 birth cohort lived with an average rate of $8.2 \%$ and that of 1953 with $6.9 \%$. However, no birth cohort has had, either in 1983 or in 1990-91, peaks as high as the corresponding male cohorts. For the 1958 birth cohort, the peak was $9.08 \%$ when these women were 27 . In 1990-91, the rate was $7.3 \%$ and they were 35 . For the subsequent average birth cohort (1953), we see a rate of $7.8 \%$ at age 33 and $7.2 \%$ at age 40 .

## Overview

Individual observation of one cohort or group of cohorts shows up (for participation, employment or unemployment) a sort of cumulative aspect of these situations for the groups of individuals making up the birth cohort. It is

Figure 17
Unemployment Rates for Females, According to the Average Cohorts, Canada, 1975-1992


Note: The first point of each line indicates the rate for 1975 and the last, the rate for 1992.
Source: Data from the Labour Force Survey.
clear that an increase in female participation is not due to age and only distantly related to birth cohort, but is a period effect such as the baby-boom - a period when fertility rates were seen to increase at all ages and affected a whole series of birth cohorts. It is also important to measure the effects that the two major unemployment crises had on certain birth cohorts, particularly those taken at ages when the life potential is at its maximum, bearing in mind that the measurements used are averages and even averages of averages, which considerably tones down the extent of phenomena experienced by some sub-groups. The lost generations?

## CONCLUSION

Overall, the main indicators of Canada's demographic health had a rather poor showing in 1991. Marriage, birth and fertility rates were down, abortions were on the rise, divorces remained stationary and deaths were down only slightly. Arrivals of immigrants were in line with forecasts, and internal movements were at a moderate level.

## Appendices

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

Newfoundland

| Year | Popu- <br> lation on January $1^{\text {st }}$ | Total Growth | Natural Increase | Net Inter. national Migration ${ }^{1}$ | Returning Canadians | Net <br> Nonpermanem Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 537.8 | 7.4 | 9.5 | 0.3 | 0.3 | 0.0 | 11.2 | 11.4 | -0.2 | 2.5 |
| 1973 | 545.2 | 4.2 | 8.5 | 0.5 | 0.3 | 0.1 | 13.0 | 15.5 | -2.5 | 2.7 |
| 1974 | 549.4 | 4.5 | 6.9 | 0.5 | 0.2 | 0.0 | 12.4 | 13.0 | -0.6 | 2.5 |
| 1975 | 553.9 | 7.3 | 8.0 | 0.6 | 0.2 | 0.1 | 12.4 | 11.4 | 1.0 | 2.6 |
| 1976 | 561.2 | 4.0 | 7.8 | 0.3 | 0.2 | 0.0 | 9.7 | 12.4 | -2.7 | 1.6 |
| 1977 | 565.2 | 2.7 | 7.3 | 0.2 | 0.2 | 0.0 | 8.1 | 12.2 | -4.1 | 0.9 |
| 1978 | 567.9 | 2.0 | 6.4 | 0.0 | 0.2 | 0.0 | 8.2 | 11.7 | -3.5 | 1.1 |
| 1979 | 569.9 | 2.4 | 7.1 | 0.2 | 0.2 | 0.1 | 8.9 | 13.1 | -4.2 | 1.0 |
| 1980 | 572.3 | 3.5 | 6.9 | 0.3 | 0.2 | 0.1 | 9.3 | 12.4 | -3.1 | 0.9 |
| 1981 | 575.8 | -0.6 | 6.9 | 0.1 | 0.2 | 0.1 | 8.5 | 14.8 | -6.3 | 1.6 |
| 1982 | 575.2 | 4.2 | 5.8 | -0.1 | 0.2 | 0.1 | 10.6 | 10.3 | 0.3 | 2.1 |
| 1983 | 579.4 | 2.0 | 5.4 | -0.2 | 0.2 | -0.2 | 7.6 | 8.7 | -1.1 | 2.1 |
| 1984 | 581.4 | -0.5 | 5.1 | -0.1 | 0.2 | 0.1 | 5.7 | 9.3 | -3.6 | 2.2 |
| 1985 | 580.9 | -2.1 | 4.9 | -0.1 | 0.2 | 0.0 | 6.0 | 11.0 | - 5.0 | 2.1 |
| 1986 | 578.8 | -1.7 | 4.6 | -0.2 | 0.2 | 0.2 | 7.7 | 12.4 | -4.7 | 1.8 |
| 1987 | 577.1 | -1.2 | 4.2 | 0.1 | 0.2 | 0.3 | 8.4 | 12.8 | -4.4 | 1.6 |
| 1988 | 575.9 | 0.9 | 3.9 | 0.2 | 0.2 | 0.3 | 10.0 | 12.2 | -2.2 | 1.5 |
| 1989 | 576.8 | 0.7 | 4.1 | 0.3 | 0.1 | 0.4 | 10.0 | 12.7 | -2.7 | 1.5 |
| 1990 | 577.5 | 1.4 | 3.7 | 0.4 | 0.1 | -0.1 | 10.3 | 11.4 | -1.1 | 1.6 |
| 1991 | 578.9 | 1.0 | 3.4 | 0.3 | $0.0{ }^{3}$ | -0.4 | 10.5 | 12.0 | -1.5 | 0.8 |
| 1992 PR | 579.9 | -0.1 | 3.6 | 0.5 | - | -0.6 | 8.9 | 12.6 | -3.7 | - |
| 1993 PR | 579.8 | - | - | - | - | - | - | - | - | - |
|  | Population on January $1^{\text {st }}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natural Increase | Rate of Net International Immigration ${ }^{\text {t }}$ |  |  | Growth <br> Rate by <br> Flow ${ }^{4}$ |
| 1972 | 537.8 | 13.7 |  | 23.8 | 6.3 | 17.5 | 0.6 |  |  | -3.9 |
| 1973 | 545.2 | 7.7 |  | 21.7 | 6.2 | 15.5 | 0.9 |  |  | -7.9 |
| 1974 | 549.4 | 8.2 |  | 18.5 | 6.0 | 12.5 | 0.9 |  |  | -4.4 |
| 1975 | 553.9 | 13.1 |  | 20.1 | 5.7 | 14.3 | 1.1 |  |  | -1.3 |
| 1976 | 561.2 | 7.1 |  | 19.7 | 5.9 | 13.8 | 0.5 |  |  | -6.7 |
| 1977 | 565.2 | 4.8 |  | 18.4 | 5.5 | 12.9 | 0.4 |  |  | -8.1 |
| 1978 | 567.9 | 3.5 |  | 16.7 |  | 11.2 | 0.0 |  |  | -7.7 |
| 1979 | 569.9 | 4.26.1 |  | 17.9 | 5.4 | 12.4 | 0.4 |  |  | -8.2 |
| 1980 | 572.3 |  |  | 17.9 | 5.9 | 12.0 | 0.5 |  |  | - 5.9 |
| 1981 | 575.8 | 6.1-1.0 |  | 17.5 | 5.6 | 12.0 | 0.2 |  |  | - 13.0 |
| 1982 | 575.2 | -1.07.3 |  | 15.9 | 5.9 | 10.0 | -0.2 |  |  | -2.8 |
| 1983 | 579.4 | 7.33.4 |  | 15.3 | 6.0 | 9.3 | -0.3 |  |  | - 5.9 |
| 1984 | 581.4 | 3.4-0.9 |  | 14.8 | 6.0 | 8.8 | -0.2 |  |  | -9.6 |
| 1985 | 580.9 | -0.9-3.6 |  | 14.7 |  | 8.5 | -0.2 |  |  | -12.1 |
| 1986 | 578.8 | -3.6-2.9 |  | 14.0 | 6.1 | 8.0 | -0.3 |  |  | -10.9 |
| 1987 | 577.1 | -2.1 |  | 13.5 | 6.2 | 7.3 | 0.2 |  |  | -9.4 |
| 1988 | 575.9 | 1.6 |  | 13.0 | 6.2 | 6.8 | 0.3 |  |  | - 5.2 |
| 1989 | 576.8 | 1.2 |  | 13.5 | 6.4 | 7.1 | 0.5 |  |  | -5.9 |
| 1990 | 577.5 | 2.4 |  | 13.1 | 6.7 | 6.4 | 0.7 |  |  | -4.0 |
| 1991 | 578.9 | 1.7 |  | 12.4 | 6.6 | 5.9 | 0.5 |  |  | $-4.1^{5}$ |
| 1992 PR | 579.9 | -0.2 |  | 12.9 | 6.7 | 6.2- | 0.9 |  |  | -6.4 |
| 1993 PR | 579.8 | - |  | - | - |  |  |  |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)
Prince Edward Island

| Year | Population on January $1^{\text {st }}$ | Total Growth | Natural Increase | Net International Migration ${ }^{1}$ | Returning Canadians | Net Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 113.2 | 1.3 | 1.0 | 0.1 | 0.1 | 0.0 | 4.2 | 3.4 | 0.9 | 0.7 |
| 1973 | 114.5 | 0.9 | 0.9 | 0.1 | 0.1 | 0.0 | 4.8 | 4.3 | 0.5 | 0.7 |
| 1974 | 115.4 | 1.8 | 0.9 | 0.2 | 0.1 | 0.0 | 5.2 | 3.8 | 1.4 | 0.7 |
| 1975 | 117.2 | 1.2 | 0.9 | 0.1 | 0.1 | 0.0 | 4.6 | 3.8 | 0.8 | 0.7 |
| 1976 | 118.4 | 1.1 | 0.8 | 0.1 | 0.1 | -0.0 | 4.3 | 4.0 | 0.3 | 0.2 |
| 1977 | 119.5 | 1.8 | 0.9 | 0.1 | 0.1 | 0.0 | 3.9 | 3.3 | 0.6 | -0.1 |
| 1978 | 121.3 | 1.2 | 1.0 | 0.0 | 0.1 | 0.0 | 3.5 | 3.5 | 0.0 | -0.1 |
| 1979 | 122.5 | 1.0 | 0.9 | 0.2 | 0.1 | 0.0 | 3.4 | 3.6 | -0.2 | -0.1 |
| 1980 | 123.5 | 0.1 | 0.9 | 0.1 | 0.0 | 0.0 | 3.0 | 4.1 | -1.1 | -0.1 |
| 1981 | 123.6 | 0.2 | 0.9 | 0.0 | 0.1 | 0.0 | 3.5 | 4.3 | -0.8 | 0.0 |
| 1982 | 123.8 | 1.0 | 0.9 | 0.1 | 0.1 | -0.0 | 3.4 | 3.4 | -0.0 | 0.1 |
| 1983 | 124.8 | 1.6 | 0.9 | -0.0 | 0.0 | 0.0 | 3.3 | 2.5 | 0.8 | 0.1 |
| 1984 | 126.4 | 1.3 | 0.8 | 0.0 | 0.0 | -0.0 | 3.1 | 2.5 | 0.5 | 0.1 |
| 1985 | 127.8 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 2.8 | 2.8 | -0.0 | 0.1 |
| 1986 | 128.7 | 0.2 | 0.8 | 0.1 | 0.0 | 0.1 | 2.5 | 3.0 | -0.5 | 0.4 |
| 1987 | 128.8 | 0.7 | 0.8 | 0.1 | 0.0 | 0.0 | 3.1 | 2.8 | 0.3 | 0.6 |
| 1988 | 129.6 | 0.9 | 0.9 | 0.1 | 0.0 | 0.0 | 3.5 | 3.1 | 0.4 | 0.6 |
| 1989 | 130.5 | 0.3 | 0.8 | 0.1 | 0.0 | 0.0 | 3.3 | 3.4 | -0.1 | 0.6 |
| 1990 | 130.8 | 0.2 | 0.9 | 0.1 | 0.0 | -0.0 | 2.8 | 3.1 | -0.3 | 0.6 |
| 1991 | 131.0 | -1.1 | 0.7 | 0.0 | $0: 0^{3}$ | -0.0 | 3.1 | 4.7 | -1.6 | 0.2 |
| 1992 PR | 129.9 | 1.2 | 0.7 | 0.0 | - | -0.0 | 3.0 | 2.5 | 0.5 | - |
| 1993 PR | 131.1 | - | - | - | - | - | - | - | - | - |
|  | Population on January $1^{\text {st }}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natural Increase | Rate of Net Internationa! Immigration |  |  | Growth Rate by Flow |
| 1972 | 113.2 | 11.3 |  | 17.7 | 9.2 | 8.4 | 0.6 |  | 2.9 |  |
| 1973 | 114.5 | 7.7 |  | 16.4 | 8.9 | 7.5 | 1.3 |  | 0.2 |  |
| 1974 | 115.4 | 15.6 |  | 16.7 | 9.4 | 7.3 | 1.6 |  | 8.3 |  |
| 1975 | 117.2 | 10.2 |  | 16.4 | 9.0 | 7.4 | 1.1 |  | 2.8 |  |
| 1976 | 118.4 | 9.3 |  | 16.3 | 9.2 | 7.1 | 1.1 |  | 2.2 |  |
| 1977 | 119.5 | 14.6 |  | 16.4 | 8.7 | 7.7 | 0.8 |  | 7.0 |  |
| 1978 | 121.3 | 9.8 |  | 16.3 | 8.2 | 8.1 | 0.4 |  | 1.7 |  |
| 1979 | 122.5 | 8.3 |  | 15.7 | 8.3 | 7.4 | 1.7 |  | 0.9 |  |
| 1980 | 123.5 | 0.7 |  | 15.8 | 8.4 | 7.5 | 1.0 |  | -6.7 |  |
| 1981 | 123.6 | 2.0 |  | 15.3 | 8.0 | 7.3 | 0.3 |  | - 9.3 |  |
| 1982 | 123.8 | 7.7 |  | 15.5 | 7.9 | 7.6 | 0.6 |  | 0.2 |  |
| 1983 | 124.8 | 13.1 |  | 15.2 | 8.4 | 6.8 | -0.0 |  | 6.2 |  |
| 1984 | 126.4 | 10.6 |  | 15.4 | 8.7 | 6.6 | 0.1 |  | 3.9 |  |
| 1985 | 127.8 | 6.9 |  | 15.7 | 8.7 | 7.0 | 0.2 |  | -0.1 |  |
| 1986 | 128.7 | 1.2 |  | 15.0 | 8.7 | 6.3 | 0.7 |  | -5.0 |  |
| 1987 | 128.8 | 5.8 |  | 15.1 | 8.6 | 6.5 | 0.9 |  | -0.7 |  |
| 1988 | 129.6 | 6.8 |  | 15.2 | 8.6 | 6.7 | 0.7 |  | 0.2 |  |
| 1989 | 130.5 | 2.6 |  | 14.8 | 8.3 | 6.5 | 0.7 |  | -3.9 |  |
| 1990 | 130.8 | 1.4-8.3 |  | 15.4 | 8.7 | 6.7 | 1.1 |  | $\begin{array}{r} -5.2 \\ -13.6^{5} \end{array}$ |  |
| 1991 | 131.0129.9 |  |  | 14.5 | 9.1 | 5.35.1 | 0.40.4 |  |  |  |  |
| 1992 PR |  | 9.2 |  | 14.5 | 9.3 |  |  |  | 4.0 |  |
| 1993 PR | 131.1 | - |  | - |  | - | - |  | - |  |

See notes at the end of this lable.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000 )

Nova Scotia

| Year | $\begin{gathered} \text { Popu- } \\ \text { lation } \\ \text { on } \\ \text { January } \text { I }^{\text {st }} \end{gathered}$ | Total Growth | Natural Increase | NetInter-nationalMigration | Returning Canadians | Net Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 802.4 | 8.0 | 6.6 | 1.3 | 0.4 | 0.0 | 22.7 | 19.9 | 2.8 | 3.2 |
| 1973 | 810.4 | 7.6 | 6.4 | 1.8 | 0.4 | 0.1 | 26.3 | 24.1 | 2.1 | 3.2 |
| 1974 | 818.1 | 6.6 | 6.0 | 1.9 | 0.3 | -0.1 | 27.2 | 25.6 | 1.6 | 3.2 |
| 1975 | 824.7 | 9.6 | 6.3 | 1.5 | 0.3 | 0.1 | 25.6 | 21.1 | 4.5 | 3.2 |
| 1976 | 834.2 | 5.8 | 5.9 | 1.4 | 0.3 | -0.1 | 23.0 | 22.6 | 0.4 | 2.1 |
| 1977 | 840.0 | 4.1 | 5.4 | 1.0 | 0.3 | -0.1 | 19.9 | 21.2 | -1.3 | 1.3 |
| 1978 | 844.2 | 4.9 | 5.7 | 0.4 | 0.3 | -0.1 | 19.5 | 19.6 | -0.1 | 1.3 |
| 1979 | 849.1 | 3.7 | 5.6 | 0.8 | 0.3 | 0.1 | 18.4 | 20.3 | -1.8 | 1.3 |
| 1980 | 852.8 | 3.3 | 5.4 | 1.2 | 0.3 | 0.2 | 18.5 | 21.0 | -2.5 | 1.3 |
| 1981 | 856.1 | 3.5 | 5.1 | 0.9 | 0.3 | 0.6 | 19.3 | 21.7 | -2.5 | 0.9 |
| 1982 | 859.6 | 7.5 | 5.4 | 0.8 | 0.2 | 0.2 | 18.8 | 17.3 | 1.6 | 0.6 |
| 1983 | 867.1 | 9.4 | 3.4 | 0.3 | 0.2 | 0.2 | 18.3 | 14.5 | 3.9 | 0.6 |
| 1984 | 876.5 | 8.7 | 5.5 | 0.6 | 0.2 | 0.0 | 17.3 | 14.4 | 3.0 | 0.6 |
| 1985 | 885.2 | 4.8 | 5.1 | 0.5 | 0.2 | -0.2 | 16.7 | 16.9 | -0.2 | 0.6 |
| 1986 | 890.0 | 4.4 | 5.1 | 0.6 | 0.2 | 0.0 | 17.1 | 17.8 | -0.7 | 0.8 |
| 1987 | 894.4 | 3.1 | 5.0 | 0.7 | 0.3 | 0.3 | 17.6 | 19.8 | -2.2 | 1.0 |
| 1988 | 897.5 | 5.8 | 4.8 | 0.9 | 0.2 | 0.8 | 19.2 | 19.1 | 0.1 | 1.0 |
| 1989 | 903.2 | 6.5 | 5.0 | 1.0 | 0.2 | 0.7 | 20.4 | 19.8 | 0.6 | 1.0 |
| 1990 | 909.8 | 5.4 | 5.5 | 0.9 | 0.2 | -0.2 | 18.6 | 18.7 | -0.1 | 1.0 |
| 1991 | 915.2 | 4.6 | 4.8 | 0.5 | $0.1{ }^{3}$ | -1.7 | 21.4 | 20.1 | 1.4 | 0.4 |
| 1992 PR | 919.8 | 1.7 | 4.5 | 1.3 | - | -2.0 | 19.1 | 21.3 | -2.1 | - |
| 1993 PR | 921.5 | - | - | - | - | - | - | - | - | - |
|  | Population on January $1^{\text {st }}$ |  | Total Growth Rate | Birth Rate | Death Rate | Rate of Natura! Increase | Rate of Net International Immigration ${ }^{1}$ |  |  | Growth Ratc by Flow ${ }^{4}$ |
| 1972 | 802.4 |  | 9.9 | 16.8 | 8.6 | 8.2 | 1.6 |  |  | 1.7 |
| 1973 | 810.4 | 9.4 |  | 16.3 | 8.5 | 7.8 |  | 2.2 |  | 1.5 |
| 1974 | 818.1 | 8.1 |  | 15.8 | 8.4 | 7.4 |  | 2.3 |  | 0.7 |
| 1975 | 824.7 | 11.5 |  | 15.8 | 8.2 | 7.6 |  | 1.8 |  | 3.9 |
| 1976 | 834.2 | 6.9 |  | 15.3 | 8.3 | 7.0 |  | 1.6 |  | -0.1 |
| 1977 | 840.0 | 4.9 |  | 14.7 | 8.3 | 6.4 |  | 1.2 |  | -1.5 |
| 1978 | 844.2 | 5.8 |  | 14.8 | 8.1 | 6.7 |  | 0.5 |  | -0.9 |
| 1979 | 849.1 | 4.4 |  | 14.6 | 8.0 | 6.3 |  | 1.0 |  | -2.2 |
| 1980 | 852.8 | 3.9 |  | 14.5 | 8.2 | 6.3 |  | 1.4 |  | -2.4 |
| 1981 | 856.1 | 4.1 |  | 14.1 | 8.1 | 6.0 |  | 1.0 |  | -1.9 |
| 1982 | 859.6 | 8.7 |  | 14.3 | 8.0 | 6.2 |  | 0.9 |  | 2.5 |
| 1983 | 867.1 | 10.8 |  | 14.2 | 8.1 | 6.1 |  | 0.4 |  | 4.6 |
| 1984 | 876.5 | 9.8 |  | 14.1 | 7.8 | 6.2 |  | 0.7 |  | 3.6 |
| 1985 | 885.2 | 5.4 |  | 14.0 | 8.2 | 5.8 |  | 0.5 |  | -0.4 |
| 1986 | 890.0 | 4.9 |  | 13.9 | 8.1 | 5.7 |  | 0.7 |  | -0.8 |
| 1987 | 894.4 | 3.5 |  | 13.5 | 7.9 | 5.6 |  | 0.8 |  | -2.1 |
| 1988 | 897.5 | 6.4 |  | 13.5 | 8.2 | 5.3 |  | 1.0 |  | 1.1 |
| 1989 | 903.2 |  | 7.2 | 13.8 | 8.3 | 5.5 |  | 1.1 |  | 1.7 |
| 1990 | 909.8 |  | 5.9 | 14.1 | 8.1 | 6.0 |  | 1.0 |  | -0.1 |
| 1991 | 915.2 |  | 5.1 | 13.1 | 7.9 | 5.2 |  | 0.6 |  | $-0.1^{5}$ |
| 1992 PR | 919.8 |  | 1.9 | 13.0 | 8.1 | 4.9 |  | 1.5 |  | -3.0 |
| 1993 PR | 921.5 |  | - | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)
New Brunswick

| Year | $\begin{array}{\|c\|} \hline \text { Popu- } \\ \text { lation } \\ \text { on } \\ \text { January I }{ }^{\text {st }} \end{array}$ | Total Growth | Natural Increase | $\begin{array}{\|c\|} \hline \text { Net } \\ \text { Inter- } \\ \text { national } \\ \text { Migration }{ }^{1} \end{array}$ | Returning Canadians | Net Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 648.3 | 6.2 | 6.8 | 0.2 | 0.6 | 0.0 | 18.2 | 17.9 | 0.2 | 1.8 |
| 1973 | 654.4 | 8.5 | 6.3 | 0.4 | 0.7 | 0.1 | 22.7 | 19.9 | 2.8 | 1.8 |
| 1974 | 663.0 | 10.1 | 6.2 | 0.9 | 0.6 | -0.0 | 22.9 | 18.7 | 4.2 | 1.8 |
| 1975 | 673.1 | 14.0 | 6.6 | 0.9 | 0.6 | 0.1 | 24.2 | 16.6 | 7.6 | 1.8 |
| 1976 | 687.2 | 8.1 | 6.6 | 0.7 | 0.6 | -0.0 | 18.9 | 17.3 | 1.6 | 1.4 |
| 1977 | 695.3 | 5.0 | 6.3 | 0.1 | 0.5 | -0.0 | 15.5 | 16.4 | -0.9 | 1.1 |
| 1978 | 700.4 | 3.0 | 5.6 | -0.4 | 0.5 | -0.0 | 14.3 | 16.0 | -1.6 | 1.1 |
| 1979 | 703.4 | 3.2 | 5.7 | 0.2 | 0.5 | 0.1 | 14.3 | 16.5 | -2.2 | 1.1 |
| 1980 | 706.6 | 1.2 | 5.3 | 0.5 | 0.5 | 0.2 | 13.2 | 17.4 | -4.2 | 1.1 |
| 1981 | 707.9 | 0.1 | 5.4 | -0.1 | 0.5 | 0.4 | 13.8 | 18.6 | -4.8 | 1.3 |
| 1982 | 708.0 | 6.0 | 5.3 | -0.3 | 0.4 | -0.2 | 14.8 | 12.7 | 2.2 | 1.4 |
| 1983 | 714.0 | 6.3 | 5.3 | -0.2 | 0.4 | -0.0 | 13.2 | 10.9 | 2.3 | 1.4 |
| 1984 | 720.3 | 4.6 | 5.1 | -0.3 | 0.4 | -0.1 | 12.0 | 11.2 | 0.8 | 1.4 |
| 1985 | 724.9 | 2.0 | 4.9 | -0.4 | 0.5 | -0.0 | 11.5 | 13.1 | -1.6 | 1.4 |
| 1986 | 726.9 | 1.3 | 4.3 | -0.3 | 0.4 | 0.1 | 11.4 | 14.3 | -2.9 | 0.4 |
| 1987 | 728.1 | 3.0 | 4.2 | -0.2 | 0.4 | 0.1 | 13.2 | 15.0 | -1.8 | -0.3 |
| 1988 | 731.2 | 4.1 | 4.2 | -0.2 | 0.4 | 0.6 | 13.7 | 14.9 | -1.2 | -0.3 |
| 1989 | 735.2 | 4.9 | 4.2 | 0.0 | 0.4 | 0.1 | 15.0 | 15.0 | -0.0 | -0.3 |
| 1990 | 740.1 | 5.9 | 4.4 | -0.0 | 0.4 | -0.1 | 14.2 | 13.2 | 1.0 | -0.3 |
| 1991 | 746.1 | 1.7 | 4.0 | -0.2 | $0.1{ }^{3}$ | -0.5 | 14.1 | 15.9 | -1.8 | -0.1 |
| 1992 PR | 747.8 | 1.2 | 4.0 | -0.1 | - | -0.8 | 14.0 | 15.9 | -1.9 | - |
| 1993 PR | 749.0 | - | - | - | - | - | - | - | - | - |
|  | Population on January $1^{\text {st }}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natural Increase | Rate of Ne International Immigration ${ }^{\text {l }}$ |  |  | Growth <br> Rate by <br> Flow ${ }^{4}$ |
| 1972 | 648.3 | 9.5 |  | 18.1 | 7.6 | 10.5 |  | 0.4 |  | -1.0 |
| 1973 | 654.4 | 13.0 |  | 17.3 | 7.7 | 9.6 |  | 0.6 |  | 3.3 |
| 1974 | 663.0 | 15.2 |  | 17.1 | 7.8 | 9.3 |  | 1.3 |  | 5.8 |
| 1975 | 673.1 | 20.7 |  | 17.3 | 7.6 | 9.8 |  | 1.3 |  | 10.9 |
| 1976 | 687.2 | 11.8 |  | 17.1 | 7.5 | 9.6 |  | 1.0 |  | 2.2 |
| 1977 | 695.3 | 7.2 |  | 16.5 | 7.4 | 9.1 |  | 0.2 |  | -1.8 |
| 1978 | 700.4 | 4.3 |  | 15.4 | 7.4 | 8.0 |  | 0.6 |  | -3.7 |
| 1979 | 703.4 | 4.6 |  | 15.4 | 7.3 | 8.1 |  | 0.3 |  | -3.4 |
| 1980 | 706.6 | 1.8 |  | 15.0 | 7.5 | 7.5 |  | 0.7 |  | -5.8 |
| 1981 | 707.9 | 0.2 |  | 14.8 | 7.3 | 7.6 |  | 0.1 |  | -7.4 |
| 1982 | 708.0 | 8.4 |  | 14.8 | 7.3 | 7.4 |  | 0.4 |  | 1.0 |
| 1983 | 714.0 | 8.8 |  | 14.7 | 7.3 | 7.4 |  | 0.3 |  | 1.4 |
| 1984 | 720.3 | 6.3 |  | 14.3 | 7.3 | 7.0 |  | -0.4 |  | -0.7 |
| 1985 | 724.9 | 2.8 |  | 13.9 | 7.2 | 6.7 |  | 0.5 |  | -4.0 |
| 1986 | 726.9 | 1.8 |  | 13.9 | 7.5 | 6.0 |  | 0.4 |  | -4.2 |
| 1987 | 728.1 | 4.2 |  | 13.1 | 7.4 | 5.7 |  | 0.3 |  | -1.6 |
| 1988 | 731.2 | 5.5 |  | 13.1 | 7.4 | 5.7 |  | 0.2 |  | -0.2 |
| 1989 | 735.2 | 6.6 |  | 13.1 | 7.5 | 5.7 |  | 0.0 |  | 1.0 |
| 1990 | 740.1 | 8.0 |  | 13.2 | 7.3 | 5.9 |  | 0.1 |  | 2.1 |
| 1991 | 746.1 | 2.3 |  | 12.7 | 7.3 | 5.4 |  | 0.2 |  | $-3.15$ |
| 1992 PR | 747.8 | 1.6 |  | 12.8 | 7.5 | 5.3 |  | 0.2 |  | -3.7 |
| 1993 PR | 749.0 | - |  | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

Quebec

| Year | Popu- <br> lation on January $1^{\text {st }}$ | Tocal Growth | Natural Increase | Ne <br> International Migration ${ }^{1}$ | Returning Canadians | Ne <br> Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 6,172.2 | 38.6 | 41.3 | 7.6 | 6.6 | 0.7 | 36.2 | 56.0 | -19.9 | -2.3 |
| 1973 | 6,210.8 | 50.7 | 41.4 | 13.4 | 6.7 | 1.7 | 39.6 | 54.4 | - 14.7 | -2.3 |
| 1974 | 6.261 .4 | 59.5 | 42.9 | 20.1 | 6.3 | -0.3 | 39.3 | 51.2 | - 11.9 | -2.3 |
| 1975 | 6,320.9 | 64.2 | 50.2 | 16.1 | 6.3 | 1.7 | 34.5 | 46.8 | - 12.3 | -2.3 |
| 1976 | 6,385.1 | 52.2 | 53.3 | 18.4 | 6.2 | -0.5 | 31.6 | 52.4 | -20.8 | 4.5 |
| 1977 | 6,437.3 | 12.0 | 53.7 | 9.0 | 5.5 | -0.3 | 24.4 | 71.0 | -46.5 | 9.4 |
| 1978 | 6,449.3 | 17.6 | 51.8 | 3.8 | 5.4 | -0.5 | 24.5 | 57.9 | -33.4 | 9.4 |
| 1979 | 6,466.9 | 33.3 | 55.3 | 10.5 | 5.1 | 1.8 | 23.6 | 53.7 | -30.0 | 9.4 |
| 1980 | 6,500.2 | 43.3 | 53.9 | 15.1 | 4.7 | 3.3 | 21.9 | 46.2 | -24.3 | 9.4 |
| 1981 | 6,543.5 | 42.6 | 52.6 | 13.4 | 4.2 | 4.8 | 23.6 | 46.1 | -22.5 | 9.8 |
| 1982 | 6,586.1 | 22.9 | 47.3 | 11.8 | 4.8 | -2.8 | 19.9 | 48.1 | -28.2 | 10.1 |
| 1983 | 6,609.0 | 27.6 | 43.9 | 7.0 | 4.3 | 1.6 | 22.3 | 41.4 | -19.1 | 10.1 |
| 1984 | 6,636.6 | 33.0 | 43.4 | 5.8 | 4.3 | 0.6 | 25.2 | 36.2 | - 10.9 | 10.1 |
| 1985 | 6,669.6 | 40.5 | 40.6 | 7.2 | 4.1 | 4.6 | 25.4 | 31.4 | -6.0 | 10.1 |
| 1986 | 6,710.1 | 60.0 | 37.7 | 12.4 | 4.0 | 13.9 | 26.0 | 29.0 | -3.0 | 5.0 |
| 1987 | 6,770.1 | 59.0 | 36.2 | 21.1 | 3.5 | 7.1 | 26.0 | 33.4 | - 7.4 | 1.4 |
| 1988 | 6,829.1 | 77.0 | 38.8 | 20.7 | 3.0 | 22.9 | 27.8 | 34.8 | -7.0 | 1.4 |
| 1989 | 6,906.0 | 73.0 | 44.1 | 28.7 | 2.9 | 7.2 | 29.5 | 37.8 | -8.4 | 1.4 |
| 1990 | 6,979.0 | 69.4 | 49.6 | 35.5 | 2.6 | -7.4 | 26.9 | 36.4 | -9.6 | 1.4 |
| 1991 | 7,048.4 | 68.3 | 48.2 | 45.1 | $1.0^{3}$ | -13.7 | 26.9 | 38.6 | -11.7 | 0.6 |
| 1992 PR | 7,116.7 | 65.5 | 46.9 | 41.4 | - | - 7.3 | 27.8 | 43.3 | $-15.5$ | - |
| 1993 PR | 7,182.2 | - | - | - | - | - | - | - | - | - |
|  | Population <br> On <br> January I ${ }^{\text {st }}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natural Increase |  | ate of Net nationa gration |  | Growth Rate by Flow ${ }^{4}$ |
| 1972 | 6,172.2 | 6.2 |  | 13.5 | 6.8 | 6.7 |  | 1.2 |  | -0.4 |
| 1973 | 6,210.8 | 8.1 |  | 13.5 | 6.8 | 6.6 |  | 2.1 |  | 1.5 |
| 1974 | 6,261.4 | 9.5 |  | 13.6 | 6.8 | 6.8 |  | 3.2 |  | 2.6 |
| 1975 | 6,320.9 | 10.1 |  | 14.7 | 6.8 | 7.9 |  | 2.5 |  | 2.2 |
| 1976 | 6,385.1 | 8.1 |  | 15.0 | 6.7 | 8.3 |  | 2.9 |  | -0.2 |
| 1977 | 6,437.3 | 1.9 |  | 15.1 | 6.7 | 8.3 |  | 1.4 |  | -6.5 |
| 1978 | 6,449.3 | 2.7 |  | 14.8 | 6.7 | 8.0 |  | 0.6 |  | -5.3 |
| 1979 | 6,466.9 | 5.1 |  | 15.2 | 6.7 | 8.5 |  | 1.6 |  | -3.4 |
| 1980 | 6,500.2 | 6.6 |  | 14.9 | 6.7 | 8.3 |  | 2.3 |  | -1.6 |
| 1981 | 6,543.5 | 6.5 |  | 14.5 | 6.5 | 8.0 |  | 2.0 |  | -1.5 |
| 1982 | 6,586.1 | 3.5 |  | 13.8 | 6.6 | 7.2 |  | 1.8 |  | -3.7 |
| 1983 | 6,609.0 | 4.2 |  | 13.3 | 6.7 | 6.6 |  | 1.1 |  | -2.5 |
| 1984 | 6,636.6 | 5.0 |  | 13.2 | 6.7 | 6.5 |  | 0.9 |  | -1.6 |
| 1985 | 6,669.6 | 6.0 |  | 12.9 | 6.8 | 6.1 |  | 1.1 |  | -0.0 |
| 1986 | 6,710.1 | 8.9 |  | 12.6 | 7.0 | 5.6 |  | 1.8 |  | 3.3 |
| 1987 | 6,770.1 | 8.7 |  | 12.3 | 7.0 | 5.3 |  | 3.1 |  | 3.4 |
| 1988 | 6,829.1 | 11.2 |  | 12.6 | 7.0 | 5.7 |  | 3.0 |  | 5.6 |
| 1989 | 6,906.0 | 10.5 |  | 13.3 | 7.0 | 6.3 |  | 4.1 |  | 4.2 |
| 1990 | 6,979.0 | 9.9 |  | 14.0 | 6.9 | 7.1 |  | 5.1 |  | 2.8 |
| 1991 | 7,048.4 | 9.6 |  | 13.7 | 6.9 | 6.8 |  | 6.4 |  | 2.85 |
| 1992 PR | 7,116.7 | 9.2 |  | 13.6 | 7.1 | 6.6 |  | 5.8 |  | 2.6 |
| 1993 PR | 7,182.2 | - |  | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

Ontario

| Year | Population on January $1^{\text {st }}$ | Tocal Growth | Natural Increase | Net <br> International Migration ${ }^{1}$ | Rearning Canadians | Net <br> Nonpermanent Residents | interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 7,925.7 | 106.8 | 66.2 | 33.5 | 17.7 | 1.5 | 97.0 | 88.8 | 8.2 | 20.2 |
| 1973 | 8,032.5 | 126.1 | 63.9 | 65.5 | 18.I | 4.1 | 104.2 | 109.4 | - 5.3 | 20.2 |
| 1974 | 8,158.7 | I20.I | 63.7 | 82.6 | 17.3 | -I. 2 | 89.5 | 111.7 | -22.2 | 20.2 |
| 1975 | 8,278.7 | 106.1 | 65.2 | 64.6 | 17.5 | 4.1 | 80.9 | 106.0 | -25.1 | 20.2 |
| 1976 | 8,384.8 | 92.2 | 62.1 | 41.3 | 17.3 | -I. 7 | 88.7 | 99.2 | -10.5 | 16.2 |
| 1977 | 8,477.0 | 98.2 | 61.3 | 27.3 | 15.4 | -I. 2 | 98.6 | 90.0 | 8.6 | 13.4 |
| 1978 | 8,575.2 | 72.6 | 59.8 | 12.3 | 15.2 | -1.7 | 86.6 | 86.2 | 0.4 | 13.4 |
| 1979 | 8,647.8 | 76.0 | 60.2 | 26.1 | 14.4 | 4.0 | 83.5 | 98.9 | $-15.3$ | 13.4 |
| 1980 | 8,723.9 | 74.0 | 60.6 | 41.1 | 13.0 | 7.6 | 74.2 | 109.1 | - 34.9 | 13.4 |
| 1981 | 8,797.9 | 96.3 | 59.3 | 32.2 | 11.9 | 17.5 | 80.6 | 100.2 | -19.7 | 5.0 |
| 1982 | 8,894.1 | 120.4 | 61.2 | 25.4 | 13.4 | -0.1 | 89.1 | 69.5 | 19.6 | $-1.0$ |
| 1983 | 9,014.5 | 123.6 | 62.3 | 13.5 | 12.3 | 1.7 | 88.2 | 55.4 | 32.8 | $-1.0$ |
| 1984 | 9,138.1 | 131.3 | 66.6 | 16.7 | 11.9 | -1.6 | 89.1 | 52.4 | 36.7 | $-1.0$ |
| 1985 | 9,269.4 | 132.2 | 65.5 | 16.6 | 12.4 | 3.4 | 88.4 | 54.9 | 33.4 | -1.0 |
| 1986 | 9,401.7 | 174.1 | 66.0 | 27.9 | 11.4 | 24.7 | 100.1 | 57.1 | 42.9 | -1.1 |
| 1987 | 9,575.8 | 206.4 | 66.5 | 65.4 | 10.8 | 22.2 | 104.7 | 64.4 | 40.3 | - 1.2 |
| 1988 | 9,782.2 | 235.2 | 67.4 | 72.2 | 9.5 | 70.0 | 91.4 | 76.5 | 14.9 | -1.2 |
| 1989 | 10,017.4 | 218.6 | 74.4 | 87.3 | 9.3 | 47.6 | 87.3 | 88.5 | -1.2 | -1.2 |
| 1990 | 10,236.0 | 165.4 | 80.1 | 96.8 | 8.4 | -6.0 | 75.2 | 90.3 | -15.1 | -1.2 |
| 1991 | 10,401.4 | 135.8 | 78.6 | 98.0 | $3.2{ }^{3}$ | -38.9 | 78.8 | 84.4 | - 3.6 | -0.5 |
| 1992 PR | 10,537.1 | 136.7 | 79.2 | 115.4 | - | -55.0 | 82.8 | 85.7 | -3.0 | - |
| 1993 PR | 10,673.8 | - | - | - | - | - | - | - | - | - |
|  | Population <br> on <br> January $1^{\text {st }}$ |  |  | Birth Rate | Death Rate | Rate of Natural lncrease |  | ate of Net national igration ${ }^{1}$ |  | Growth Rale by Flow ${ }^{4}$ |
| 1972 | 7,925.7 |  | 3.4 | 15.7 | 7.4 | 8.3 |  | 4.2 |  | 5.1 |
| 1973 | 8,032.5 |  | 5.6 | 15.3 | 7.4 | 7.9 |  | 8.1 |  | 7.7 |
| 1974 | 8,158.7 |  | 4.6 | 15.1 | 7.4 | 7.7 |  | 10.1 |  | 6.9 |
| 1975 | 8,278.7 |  | 2.7 | 15.1 | 7.3 | 7.8 |  | 7.8 |  | 4.9 |
| 1976 | 8,384.8 |  | 0.9 | 14.6 | 7.2 | 7.4 |  | 4.9 |  | 3.6 |
| 1977 | 8,477.0 |  | 1.5 | 14.4 | 7.2 | 7.2 |  | 3.2 |  | 4.3 |
| 1978 | 8,575.2 |  | 8.4 | 14.0 | 7.1 | 6.9 |  | 1.4 |  | 1.5 |
| 1979 | 8,647.8 |  | 8.8 | 14.0 | 7.1 | 6.9 |  | 3.0 |  | 1.8 |
| 1980 | 8,723.9 |  | 8.4 | 14.1 | 7.2 | 6.9 |  | 4.7 |  | 1.5 |
| 1981 | 8,797.9 |  | 0.9 | 13.8 | 7.1 | 6.7 |  | 3.6 |  | 4.2 |
| 1982 | 8,894.1 |  | 3.4 | 13.9 | 7.1 | 6.8 |  | 2.8 |  | 6.6 |
| 1983 | 9,014.5 |  | 3.6 | 14.0 | 7.1 | 6.9 |  | 1.5 |  | 6.7 |
| 1984 | 9,138.1 |  | 4.3 | 14.3 | 7.0 | 7.2 |  | 1.8 |  | 7.0 |
| 1985 | 9,269.4 |  | 4.2 | 14.2 | 7.1 | 7.0 |  | 1.8 |  | 7.2 |
| 1986 | 9,401.7 |  | 18.4 | 14.1 | 7.2 | 7.0 |  | 2.9 |  | 11.4 |
| 1987 | 9,575.8 |  | 1.3 | 13.9 | 7.0 | 6.9 |  | 6.8 |  | 14.5 |
| 1988 | 9,782.2 |  | 23.8 | 13.9 | 7.1 | 6.8 |  | 7.3 |  | 16.9 |
| 1989 | 10,017.4 |  | 21.6 | 14.4 | 7.0 | 7.3 |  | 8.6 |  | 14.2 |
| 1990 | 10,236.0 |  | 6.0 | 14.6 | 6.9 | 7.8 |  | 9.4 |  | 8.3 |
| 1991 | 10,401.4 |  | 3.0 | 14.5 | 7.0 | 7.5 |  | 9.4 |  | 5.55 |
| 1992 PR | ' 10,537.1 |  | 12.9 | 14.4 | 6.9 | 7.5 |  | 10.9 |  | 5.4 |
| 1993 PR | 10,673.8 |  | - | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

Manitoba

| Year | Popu- <br> lation on January $1^{\text {st }}$ | Total Growth | Natural Increase | Ne <br> International Migration ${ }^{1}$ | Returning Canadians | Net <br> Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 1,000.9 | 3.7 | 9.2 | 2.9 | 1.4 | 0.1 | 26.1 | 33.8 | -7.7 | 2.1 |
| 1973 | 1,004.5 | 9.8 | 8.8 | 3.7 | 1.4 | 0.2 | 33.8 | 36.0 | -2.2 | 2.1 |
| 1974 | 1,014.3 | 7.2 | 8.9 | 4.5 | 1.4 | -0.1 | 30.2 | 35.6 | - 5.4 | 2.1 |
| 1975 | 1,021.5 | 8.6 | 8.8 | 4.5 | 1.4 | 0.2 | 28.4 | 32.5 | -4.1 | 2.1 |
| 1976 | 1,030.1 | 6.4 | 8.5 | 3.2 | 1.3 | -0.1 | 25.1 | 28.7 | -3.7 | 2.9 |
| 1977 | 1,036.5 | 5.3 | 8.5 | 2.8 | 1.2 | -0.1 | 21.6 | 25.3 | -3.8 | 3.4 |
| 1978 | 1,041.8 | -2.5 | 8.1 | 1.3 | 1.2 | -0.1 | 18.7 | 28.2 | -9.6 | 3.4 |
| 1979 | 1,039.3 | -4.9 | 8.0 | 3.0 | 1.1 | 0.2 | 18.8 | 32.6 | -13.8 | 3.4 |
| 1980 | 1,034.5 | 0.3 | 7.6 | 6.1 | 1.0 | 0.4 | 19.0 | 30.4 | $-11.3$ | 3.4 |
| 1981 | 1,034.8 | 7.8 | 7.4 | 3.4 | 1.0 | 0.7 | 22.7 | 26.3 | -3.6 | 1.2 |
| 1982 | 1,042.6 | 13.7 | 7.6 | 3.2 | 0.8 | 0.2 | 20.9 | 19.4 | 1.5 | -0.4 |
| 1983 | 1,056.2 | 12.7 | 8.1 | 1.8 | 1.0 | 0.4 | 18.5 | 17.5 | 1.0 | -0.4 |
| 1984 | 1,069.0 | 11.7 | 8.4 | 2.3 | 0.8 | -0.2 | 17.2 | 17.2 | -0.0 | -0.4 |
| 1985 | 1,080.7 | 9.4 | 8.3 | 1.6 | 0.9 | -0.1 | 17.2 | 19.0 | -1.8 | -0.4 |
| 1986 | 1,090.1 | 7.0 | 8.1 | 1.9 | 0.9 | 0.2 | 17.4 | 20.5 | -3.0 | 1.0 |
| 1987 | 1,097.0 | 5.3 | 8.2 | 2.8 | 0.9 | 0.1 | 18.1 | 22.9 | -4.8 | 2.0 |
| 1988 | 1,102.3 | 1.8 | 7.9 | 3.0 | 0.8 | 0.7 | 16.1 | 24.7 | -8.6 | 2.0 |
| 1989 | 1,104.1 | 1.4 | 8.5 | 3.7 | 1.0 | 0.2 | 17.1 | 27.1 | $-10.0$ | 2.0 |
| 1990 | 1,105.6 | 3.5 | 8.5 | 4.6 | 0.9 | 0.2 | 16.9 | 25.5 | -8.6 | 2.0 |
| 1991 | 1,109.1 | 2.0 | 8.3 | 3.5 | $0.4{ }^{3}$ | -1.5 | 18.0 | 25.9 | -7.9 | 0.8 |
| 1992 PR | 1,111.1 | 2.4 | 8.2 | 2.8 | - | -2.1 | 18.6 | 25.1 | -6.5 | - |
| 1993 PR | 1,113.5 | - | - | - | - | - | - | - | - | - |
|  | Population <br> on January $1^{\text {st }}$ |  | otal <br> owth Rate | Birth <br> Rate | Death Rate | Rate of Natural Increase |  | ate of Net national gration ${ }^{1}$ |  | Growth Rate by Flow ${ }^{4}$ |
| 1972 | 1,000.9 |  | 3.7 | 17.4 | 8.2 | 9.1 |  | 2.9 |  | - 5.5 |
| 1973 | 1,004.5 |  | 9.7 | 16.8 | 8.1 | 8.7 |  | 3.7 |  | 1.0 |
| 1974 | 1,014.3 |  | 7.0 | 17.0 | 8.3 | 8.7 |  | 4.5 |  | -1.7 |
| 1975 | 1,021.5 |  | 8.4 | 16.7 | 8.2 | 8.5 |  | 4.4 |  | -0.1 |
| 1976 | 1,030.1 |  | 6.1 | 16.2 | 8.0 | 8.2 |  | 3.1 |  | -2.0 |
| 1977 | 1,036.5 |  | 5.1 | 16.1 | 7.9 | 8.2 |  | 2.7 |  | -3.1 |
| 1978 | 1,041.8 |  | -2.4 | 15.8 | 8.0 | 7.8 |  | 1.3 |  | - 10.2 |
| 1979 | $1,039.3$ |  | -4.7 | 15.7 | 7.9 | 7.7 |  | 2.9 |  | - 12.4 |
| 1980 | 1,034.5 |  | 0.3 | 15.5 | 8.2 | 7.3 |  | 5.9 |  | -7.0 |
| 1981 | 1,034.8 |  | 7.5 | 15.5 | 8.3 | 7.1 |  | 3.3 |  | 0.3 |
| 1982 | 1,042.6 |  | 13.0 | 15.4 | 8.1 | 7.3 |  | 3.1 |  | 5.8 |
| 1983 | 1,056.2 |  | 12.0 | 15.6 | 8.0 | 7.6 |  | 1.7 |  | 4.4 |
| 1984 | 1,069.0 |  | 10.9 | 15.5 | 7.7 | 7.8 |  | 2.2 |  | 3.1 |
| 1985 | 1,080.7 |  | 8.7 | 15.8 | 8.1 | 7.7 |  | 1.5 |  | 1.0 |
| 1986 | 1,090.1 |  | 6.4 | 15.6 | 8.1 | 7.4 |  | 1.7 |  | -1.0 |
| 1987 | 1,097.0 |  | 4.8 | 15.4 | 7.9 | 7.5 |  | 2.5 |  | -2.7 |
| 1988 | 1,102.3 |  | 1.7 | 15.4 | 8.2 | 7.2 |  | 2.7 |  | - 5.5 |
| 1989 | 1,104.1 |  | 1.3 | 15.7 | 8.0 | 7.7 |  | 3.4 |  | -6.4 |
| 1990 | 1,105.6 |  | 3.2 | 15.7 | 8.0 | 7.7 |  | 4.1 |  | -4.5 |
| 1991 | 1,109.1 |  | 1.8 | 15.6 | 8.1 | 7.5 |  | 3.1 |  | -5.75 |
| 1992 PR | 1,111.1 |  | 2.1 | 15.7 | 8.3 | 7.4 |  | 2.5 |  | - 5.3 |
| 1993 PR | 1,113.5 |  | - | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

Saskatchewan

| Year | $\begin{gathered} \text { Popu- } \\ \text { lation } \\ \text { on } \\ \text { January }{ }^{\text {st }} \end{gathered}$ | Total Growth | Natural Increase | $\begin{gathered} \text { Net } \\ \text { Inter- } \\ \text { national } \\ \text { Migration } \end{gathered}$ | Returning Canadians | Net Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 925.5 | -9.6 | 7.9 | 0.3 | 0.8 | 0.0 | 19.5 | 36.8 | -17.3 | 1.3 |
| 1973 | 915.9 | -6.1 | 7.2 | 0.4 | 0.7 | 0.1 | 26.2 | 39.4 | -13.3 | 1.3 |
| 1974 | 909.8 | 2.7 | 7.3 | 0.8 | 0.7 | -0.0 | 28.0 | 32.8 | -4.8 | 1.3 |
| 1975 | 912.5 | 15.3 | 7.6 | 1.6 | 0.7 | 0.1 | 30.0 | 23.4 | 6.6 | 1.3 |
| 1976 | 927.8 | 13.0 | 8.2 | 1.2 | 0.7 | -0.0 | 26.2 | 22.4 | 3.8 | 0.8 |
| 1977 | 940.7 | 10.6 | 9.0 | 1.1 | 0.6 | -0.0 | 22.2 | 21.8 | 0.4 | 0.4 |
| 1978 | 951.3 | 5.6 | 8.8 | 0.4 | 0.6 | -0.0 | 19.3 | 23.0 | -3.7 | 0.4 |
| 1979 | 956.9 | 8.1 | 9.6 | 1.8 | 0.5 | 0.1 | 21.1 | 24.6 | -3.5 | 0.4 |
| 1980 | 965.0 | 8.1 | 9.4 | 2.8 | 0.5 | 0.2 | 20.7 | 25.0 | -4.4 | 0.4 |
| 1981 | 973.1 | 11.3 | 9.7 | 1.4 | 0.5 | 0.3 | 23.2 | 23.7 | -0.9 | 0.1 |
| 1982 | 984.4 | 12.9 | 9.5 | 1.0 | 0.5 | -0.0 | 21.0 | 19.3 | 1.7 | -0.1 |
| 1983 | 997.3 | 14.0 | 10.2 | 0.5 | 0.5 | 0.1 | 19.5 | 17.0 | 2.5 | -0.1 |
| 1984 | 1,011.3 | 12.9 | 10.3 | 1.1 | 0.5 | 0.2 | 17.3 | 16.6 | 0.7 | -0.1 |
| 1985 | 1,024.2 | 6.6 | 10.1 | 0.5 | 0.6 | 0.3 | 15.8 | 20.8 | -5.0 | -0.1 |
| 1986 | 1,030.8 | 2.8 | 9.5 | 1.0 | 0.5 | 0.4 | 15.9 | 22.9 | -7.0 | 1.5 |
| 1987 | 1,033.6 | -0.4 | 9.2 | 1.1 | 0.5 | 0.4 | 15.7 | 24.7 | -9.0 | 2.6 |
| 1988 | 1,033.2 | -8.1 | 8.7 | 1.3 | 0.5 | 0.4 | 13.6 | 30.0 | -16.3 | 2.6 |
| 1989 | 1,025.1 | -10.6 | 8.7 | 1.2 | 0.5 | 0.2 | 15.3 | 33.9 | -18.6 | 2.6 |
| 1990 | 1,014.5 | -8.4 | 8.0 | 1.5 | 0.5 | 0.1 | 16.1 | 32.0 | -15.9 | 2.6 |
| 1991 | 1,006.1 | -3.1 | 7.2 | 1.6 | $0.1{ }^{3}$ | -1.0 | 18.4 | 28.4 | -9.9 | 1.1 |
| 1992 PR | 1,003.0 | -1.0 | 7.1 | 1.6 | - | -1.2 | 19.7 | 28.2 | -8.5 | - |
| 1993 PR | 1,002.0 | - | - | - | - | - | - | - | - | - |
|  | $\begin{aligned} & \text { Population } \\ & \text { on } \\ & \text { January } 1^{\text {st }} \end{aligned}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natura] Increase | Rate of Na International Immigration ${ }^{\text { }}$ |  |  | Growth <br> Rate by Flow ${ }^{4}$ |
| 1972 | 925.5 | -10.4 |  | 16.8 | 8.2 | 8.6 | 0.3 |  |  | -19.0 |
| 1973 | 915.9 | -6.7 |  | 16.2 | 8.4 | 7.8 | 0.5 |  |  | -14.5 |
| 1974 | 909.8 | 3.0 |  | 16.6 | 8.6 | 8.0 | 0.9 |  |  | -5.1 |
| 1975 | 912.5 | 16.6 |  | 16.6 | 8.3 | 8.3 | 1.7 |  |  | 8.3 |
| 1976 | 927.8 | 13.9 |  | 17.1 | 8.4 | 8.7 | 1.2 |  |  | 5.2 |
| 1977 | 940.7 | 11.2 |  | 17.5 | 8.08.1 | 9.5 | 1.2 |  |  | 1.7 |
| 1978 | 951.3 | 5.9 |  | 17.3 |  | 9.2 | 0.4 |  |  | -3.3 |
| 1979 | 956.9 | 8.4 |  | 17.6 | 7.7 | 10.0 | 1.9 |  |  | -1.6 |
| 1980 | 965.0 | 8.4 |  | 17.6 | 7.9 | 9.7 | 2.9 |  |  | -1.3 |
| 1981 | 973.1 | 11.5 |  | 17.6 | 7.7 | 9.9 | 1.5 |  |  | 1.6 |
| 1982 | 984.4 | 13.0 |  | 17.9 | 8.3 | 9.6 | 1.1 |  | 3.4 |  |
| 1983 | 997.3 | 14.0 |  | 17.8 | 7.6 | 10.2 | 0.5 |  | 3.8 |  |
| 1984 | 1,011.3 | 12.7 |  | 17.7 | 7.6 | 10.1 | 1.1 |  | 2.6 |  |
| 1985 | 1,024.2 | 6.4 |  | 17.7 | 7.8 | 9.9 | 0.5 |  | -3.4 |  |
| 1986 | 1,030.8 | 2.7 |  | 17.0 | 7.8 | 9.2 | 1.0 |  | -6.4 |  |
| 1987 | 1,033.6 | -0.4 |  | 16.5 | 7.6 | 8.9 | 1.1 |  | -9.3 |  |
| 1988 | 1,033.2 | - 7.9 |  | 16.3 | 7.9 | 8.4 | 1.3 |  | - 16.3 |  |
| 1989 | 1,029.1 | -10.4 |  | 16.3 | 7.8 | 8.6 | 1.1 |  | -19.0 |  |
| 1990 | 1,014.5 | -8.3-3.0 |  | 15.9 | 8.0 | 8.07.2 | 1.5 |  | $\begin{aligned} & -16.3 \\ & -10.2^{5} \end{aligned}$ |  |
| 1991 | $1,006.1$$1,003.0$ |  |  | 15.2 | $\begin{aligned} & 8.1 \\ & 8.3 \end{aligned}$ |  |  |  |  |  |  |
| 1992 PR |  | -1.0 |  | 15.4- |  | 7.1 | 1.6 |  | -8.1 |  |
| 1993 PR | 1,002.0 | - |  |  | - | - | - |  | - |  |

See notes al the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

## Alberta

| Year | Popu- <br> lation on January $1^{\text {st }}$ | Total Growth | Natural Increase | Ne Inter. national Migration ${ }^{1}$ | Returning Canadians | Ne <br> Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | ln | Out | Net |  |
| 1972 | 1,686.0 | 30.6 | 18.6 | 0.6 | 4.5 | 0.3 | 60.5 | 54.0 | 6.5 | -0.1 |
| 1973 | 1,716.6 | 28.8 | 18.5 | 2.2 | 4.6 | 0.7 | 70.5 | 67.8 | 2.7 | -0.1 |
| 1974 | 1,745.5 | 42.4 | 18.6 | 4.6 | 4.4 | -0.1 | 75.4 | 60.6 | 14.8 | -0.1 |
| 1975 | 1,787.9 | 56.4 | 20.2 | 7.4 | 4.5 | 0.7 | 76.7 | 53.2 | 23.5 | -0.1 |
| 1976 | 1,844.2 | 74.0 | 21.5 | 6.6 | 4.5 | -0.2 | 83.5 | 49.3 | 34.2 | -7.4 |
| 1977 | 1,918.2 | 76.2 | 22.8 | 4.6 | 4.1 | -0.1 | 82.8 | 50.5 | 32.3 | - 12.5 |
| 1978 | 1,994.4 | 73.1 | 23.5 | 1.3 | 4.1 | -0.2 | 82.6 | 50.6 | 32.0 | - 12.5 |
| 1979 | 2,067.5 | 86.5 | 24.9 | 5.2 | 4.0 | 0.7 | 96.1 | 56.9 | 39.2 | - 12.5 |
| 1980 | 2,154.1 | 103.9 | 27.0 | 12.4 | 3.7 | 1.2 | 106.7 | 59.8 | 46.9 | -12.5 |
| 1981 | 2,257.9 | 90.0 | 29.8 | 11.6 | 3.6 | 2.5 | 107.6 | 67.3 | 40.2 | -2.3 |
| 1982 | 2,347.9 | 43.4 | 32.1 | 8.8 | 4.1 | -0.4 | 72.7 | 68.8 | 4.0 | 5.0 |
| 1983 | 2,391.4 | 7.2 | 33.0 | 1.5 | 4.0 | 0.0 | 45.9 | 72.1 | -26.2 | 5.0 |
| 1984 | 2,398.6 | 2.2 | 31.4 | 2.3 | 3.9 | 0.2 | 39.3 | 69.9 | -30.6 | 5.0 |
| 1985 | 2,400.8 | 22.1 | 30.6 | 0.5 | 4.3 | 1.2 | 49.9 | 59.5 | -9.6 | 5.0 |
| 1986 | 2,422.9 | 14.5 | 30.2 | 2.4 | 3.7 | 2.5 | 49.5 | 69.8 | -20.3 | 3.9 |
| 1987 | 2,437.4 | 11.2 | 28.8 | 4.6 | 3.8 | 4.6 | 45.3 | 72.9 | -27.6 | 3.0 |
| 1988 | $2,448.6$ | 35.3 | 28.2 | 7.5 | 3.6 | 4.7 | 54.8 | 60.3 | -5.5 | 3.0 |
| 1989 | 2,483.9 | 44.8 | 29.5 | 9.8 | 3.3 | 1.9 | 64.7 | 61.3 | 3.4 | 3.0 |
| 1990 | 2,528.7 | 52.0 | 28.9 | 12.4 | 3.1 | -0.4 | 67.4 | 56.3 | 11.1 | 3.0 |
| 1991 | 2,580.7 | 36.5 | 28.3 | 8.3 | $1.2{ }^{3}$ | -6.0 | 67.0 | 61.1 | 5.9 | 1.3 |
| 1992 PR | 2,617.2 | 29.7 | 28.1 | 8.7 | - | - 5.7 | 63.3 | 64.6 | -1.3 | - |
| 1993 PR | 2,646.9 | - | - | - | - | - | - | - | - | - |
|  | Population on January $1^{\text {st }}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natural Increase | Rate of Net International Immigration ${ }^{1}$ |  |  | Growth Rate by Flow |
| 1972 | 1,686.0 | 18.0 |  | 17.2 | 6.3 | 10.9 | 0.4 |  |  | 7.1 |
| 1973 | 1.716 .6 | 16.7 |  | 16.9 | 6.2 | 10.7 |  | 1.3 |  | 6.0 |
| 1974 | 1,745.5 | 24.0 |  | 16.9 | 6.4 | 10.5 |  | 2.6 |  | 13.5 |
| 1975 | 1,787.9 | 31.0 |  | 17.4 | 6.3 | 11.1 |  | 4.1 |  | 19.9 |
| 1976 | 1,844.2 | 39.3 |  | 17.6 | 6.2 | 11.4 |  | 3.5 |  | 27.9 |
| 1977 | 1,918.2 | 39.0 |  | 17.6 | 5.9 | 11.7 |  | 2.3 |  | 27.3 |
| 1978 | 1,994.4 | 36.0 |  | 17.4 | 5.9 | 11.5 |  | 0.6 |  | 24.5 |
| 1979 | 2,067.5 | 41.0 |  | 17.5 | 5.7 | 11.8 |  | 2.5 |  | 29.2 |
| 1980 | 2,154.1 | 47.1 |  | 18.0 | 5.8 | 12.3 |  | 5.6 |  | 34.8 |
| 1981 | 2,257.9 | 39.1 |  | 18.5 | 5.6 | 12.9 |  | 5.0 |  | 26.1 |
| 1982 | 2,347.9 | 18.3 |  | 19.0 | 5.5 | 13.5 |  | 3.7 |  | 4.8 |
| 1983 | 2,391.4 | 3.0 |  | 19.0 | 5.3 | 13.8 |  | 0.6 |  | - 10.8 |
| 1984 | 2,398.6 | 0.9 |  | 18.4 | 5.3 | 13.1 |  | 1.0 |  | -12.1 |
| 1985 | 2,400.8 | 9.1 |  | 18.2 | 5.5 | 12.7 |  | 0.2 |  | -3.5 |
| 1986 | 2,422.9 | 6.0 |  | 18.0 | 5.6 | 12.4 |  | 1.0 |  | -6.4 |
| 1987 | 2,437.4 | 4.6 |  | 17.2 | 5.5 | 11.8 |  | 1.9 |  | - 7.2 |
| 1988 | 2,448.6 | 14.3 |  | 17.1 | 5.6 | 11.4 |  | 3.0 |  | 2.9 |
| 1989 | 2,483.9 | 17.9 |  | 17.3 | 5.5 | 11.8 |  | 3.9 |  | 6.1 |
| 1990 | 2,528.7 | 20.3 |  | 16.8 | 5.5 | 11.3 |  | 4.8 |  | 9.0 |
| 1991 | 2,580.7 | 14.0 |  | 16.5 | 5.6 | 10.9 |  | 3.2 |  | 3.15 |
| 1992 PR | 2,617.2 | 11.3 |  | 16.2 | 5.5 | 10.7 |  | 3.3 |  | 0.6 |
| 1993 PR | 2,646.9 | - |  | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

British Columbia

| Year | Population on January $1^{\text {st }}$ | Total Growth | Natural Increase | Net International Migration ${ }^{1}$ | Returning Canadians | Net <br> Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 2,288.0 | 60.4 | 16.5 | 11.9 | 4.7 | 0.3 | 72.3 | 47.4 | 24.9 | -2.0 |
| 1973 | 2,348.3 | 72.1 | 16.3 | 17.6 | 4.8 | 0.8 | 87.1 | 56.6 | 30.5 | -2.0 |
| 1974 | 2,420.4 | 69.5 | 16.3 | 24.0 | 4.7 | -0.2 | 84.2 | 61.5 | 22.7 | -2.0 |
| 1975 | 2,489.9 | 41.6 | 17.1 | 19.7 | 4.8 | 0.8 | 61.1 | 64.0 | -2.9 | -2.0 |
| 1976 | 2,531.5 | 32.1 | 17.1 | 11.8 | 4.8 | -0.3 | 59.3 | 60.8 | -1.5 | -0.3 |
| 1977 | 2,563.6 | 43.8 | 18.1 | 7.1 | 4.3 | -0.2 | 62.8 | 47.3 | 15.5 | 1.0 |
| 1978 | 2,607.5 | 45.6 | 18.2 | 3.8 | 4.3 | -0.3 | 65.4 | 44.7 | 20.7 | 1.0 |
| 1979 | 2,653.1 | 65.5 | 19.2 | 9.2 | 4.1 | 0.8 | 76.6 | 43.4 | 33.2 | 1.0 |
| 1980 | 2,718.5 | 83.4 | 20.7 | 18.2 | 3.8 | 1.5 | 80.0 | 39.8 | 40.2 | 1.0 |
| 1981 | 2,801.9 | 65.3 | 21.6 | 15.5 | 3.4 | 3.3 | 70.4 | 48.8 | 21.6 | 0.1 |
| 1982 | 2,867.2 | 34.8 | 22.0 | 10.9 | 3.9 | -0.6 | 45.9 | 47.9 | -2.0 | -0.6 |
| 1983 | 2,901.9 | 38.3 | 23.1 | 6.4 | 3.7 | 0.5 | 43.9 | 39.9 | 4.0 | -0.6 |
| 1984 | 2,940.3 | 36.0 | 23.2 | 4.5 | 3.8 | 0.4 | 42.0 | 38.5 | 3.5 | -0.6 |
| 1985 | 2,976.2 | 28.6 | 21.8 | 3.6 | 3.9 | 1.8 | 42.6 | 45.8 | -3.2 | -0.6 |
| 1986 | 3,004.8 | 33.9 | 20.8 | 4.3 | 4.0 | 4.5 | 49.5 | 48.6 | 0.9 | 0.6 |
| 1987 | 3,038.7 | 57.7 | 20.0 | 12.0 | 3.7 | 5.8 | 60.9 | 43.3 | 17.6 | 1.5 |
| 1988 | 3,096.4 | 74.0 | 20.4 | 17.5 | 3.2 | 8.5 | 67.5 | 41.6 | 25.9 | 1.5 |
| 1989 | 3,170.4 | 88.2 | 20.8 | 19.3 | 3.2 | 9.0 | 79.4 | 42.0 | 37.4 | 1.5 |
| 1990 | 3,258.6 | 87.7 | 22.0 | 22.5 | 3.1 | 2.8 | 78.4 | 39.7 | 38.7 | 1.5 |
| 1991 | 3,346.3 | 72.1 | 21.6 | 25.1 | $1.0^{3}$ | -7.2 | 76.5 | 44.2 | 32.3 | 0.6 |
| 1992 PR | 3,418.4 | 81.5 | 21.2 | 28.4 | - | -9.4 | 85.2 | 43.9 | 41.2 | - |
| 1993 PR | 3,499.9 | - | - | - | - | - | - | - | - | - |
|  | Population <br> on January $1^{\text {st }}$ | Total Growth Rate |  | Birth Rate | Death Rate | Rate of Natural Increase |  | te of Nat national gration ${ }^{\text {' }}$ |  | Growth <br> Rate by <br> Flow ${ }^{4}$ |
| 1972 | 2,288.0 | 26.0 |  | 14.9 | 7.8 | 7.1 |  | 5.1 |  | 18.9 |
| 1973 | 2,348.3 | 30.2 |  | 14.4 | 7.6 | 6.8 |  | 7.4 |  | 23.4 |
| 1974 | 2,420.4 | 28.3 |  | 14.4 | 7.8 | 6.6 |  | 9.8 |  | 21.7 |
| 1975 | 2,489.9 | 16.6 |  | 14.5 | 7.6 | 6.8 |  | 7.9 |  | 9.8 |
| 1976 | 2,531.5 | 12.6 |  | 14.1 | 7.4 | 6.7 |  | 4.6 |  | 5.9 |
| 1977 | 2,563.6 | 17.0 |  | 14.2 | 7.2 | 7.0 |  | 2.8 |  | 10.0 |
| 1978 | 2,607.5 | 17.3 |  | 14.2 | 7.2 | 6.9 |  | 1.4 |  | 10.4 |
| 1979 | 2,653.1 | 24.4 |  | 14.3 | 7.2 | 7.2 |  | 3.4 |  | 17.2 |
| 1980 | 2,718.5 | 30.2 |  | 14.5 | 7.0 | 7.5 |  | 6.6 |  | 22.7 |
| 1981 | 2,801.9 | 23.0 |  | 14.6 | 7.0 | 7.6 |  | 5.5 |  | 15.4 |
| 1982 | 2,867.2 | 12.1 |  | 14.8 | 7.2 | 7.6 |  | 3.8 |  | 4.4 |
| 1983 | 2,901.9 | 13.1 |  | 14.7 | 6.8 | 7.9 |  | 2.2 |  | 5.2 |
| 1984 | 2,940.3 | 12.2 |  | 14.8 | 7.0 | 7.9 |  | 1.5 |  | 4.3 |
| 1985 | 2,976.2 | 9.6 |  | 14.4 | 7.1 | 7.3 |  | 1.2 |  | 2.3 |
| 1986 | 3,004.8 | 11.2 |  | 13.9 | 7.0 | 6.9 |  | 1.4 |  | 4.3 |
| 1987 | 3,038.7 | 18.8 |  | 13.6 | 7.1 | 6.5 |  | 3.9 |  | 12.3 |
| 1988 | 3,096.4 | 23.6 |  | 13.7 | 7.2 | 6.5 |  | 5.6 |  | 17.1 |
| 1989 | 3,170.4 | 27.4 |  | 13.6 | 7.2 | 6.5 |  | 6.0 |  | 21.0 |
| 1990 | 3,258.6 | 26.6 |  | 13.8 | 7.1 | 6.7 |  | 6.8 |  | 19.9 |
| 1991 | 3,346.3 | 21.3 |  | 13.5 | 7.1 | 6.4 |  | 7.4 |  | 14.95 |
| 1992 PR | 3,418.4 | 23.6 |  | 13.3 | 7.2 | 6.1 |  | 8.2 |  | 17.4 |
| 1993 PR | 3,499.9 | - |  | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000)

Yukon

| Year | Population on January $1^{\text {st }}$ | Total Growth | Natural Increase | Net International Migration ${ }^{1}$ | Returning Canadians | Net <br> Nonpermanent Residents | lnterprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | In | Out | Net |  |
| 1972 | 19.9 | 1.1 | 0.3 | 0.0 | 0.0 | 0.0 | 2.8 | 2.2 | 0.6 | -0.1 |
| 1973 | 20.9 | 0.2 | 0.3 | -0.0 | 0.0 | 0.0 | 2.3 | 2.6 | -0.3 | -0.1 |
| 1974 | 21.1 | 0.6 | 0.4 | -0.0 | 0.0 | 0.0 | 2.8 | 2.7 | 0.1 | -0.1 |
| 1975 | 21.7 | 0.7 | 0.3 | -0.0 | 0.1 | 0.0 | 2.8 | 2.5 | 0.2 | -0.1 |
| 1976 | 22.4 | 0.3 | 0.3 | -0.0 | 0.0 | 0.0 | 2.6 | 2.9 | -0.4 | -0.3 |
| 1977 | 22.7 | 0.8 | 0.3 | -0.0 | 0.0 | 0.0 | 2.8 | 2.7 | 0.1 | -0.4 |
| 1978 | 23.5 | 0.6 | 0.4 | -0.0 | 0.0 | 0.0 | 2.7 | 2.8 | -0.2 | -0.4 |
| 1979 | 24.1 | 0.4 | 0.4 | -0.0 | 0.0 | 0.0 | 2.4 | 2.8 | -0.4 | -0.4 |
| 1980 | 24.5 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 2.3 | 2.7 | -0.4 | -0.4 |
| 1981 | 24.9 | -0.5 | 0.4 | 0.0 | 0.0 | 0.0 | 2.7 | 4.1 | -1.4 | -0.3 |
| 1982 | 24.4 | -0.5 | 0.4 | -0.0 | 0.1 | -0.0 | 1.6 | 2.8 | -1.2 | -0.3 |
| 1983 | 23.8 | -0.1 | 0.4 | 0.0 | 0.0 | -0.0 | 1.6 | 2.4 | -0.8 | -0.3 |
| 1984 | 23.8 | 0.6 | 0.4 | -0.0 | 0.0 | 0.0 | 1.6 | 1.7 | -0.1 | -0.3 |
| 1985 | 24.4 | 0.2 | 0.3 | -0.0 | 0.0 | 0.0 | 1.6 | 2.0 | -0.4 | -0.3 |
| 1986 | 24.6 | 0.8 | 0.4 | -0.0 | 0.0 | -0.0 | 2.2 | 2.0 | 0.2 | -0.2 |
| 1987 | 25.4 | 0.7 | 0.4 | 0.0 | 0.0 | 0.0 | 2.3 | 2.2 | 0.1 | -0.2 |
| 1988 | 26.1 | 1.0 | 0.4 | 0.0 | 0.0 | -0.0 | 2.4 | 2.1 | 0.3 | -0.2 |
| 1989 | 27.1 | 0.6 | 0.4 | 0.1 | 0.0 | 0.0 | 2.3 | 2.3 | $-0.0$ | -0.2 |
| 1990 | 27.8 | 0.6 | 0.4 | 0.0 | 0.0 | 0.0 | 2.2 | 2.2 | -0.0 | -0.2 |
| 1991 | 28.4 | 1.1 | 0.5 | 0.0 | $0.0^{3}$ | -0.0 | 2.4 | 1.9 | 0.5 | -0.1 |
| 1992 PR | 29.5 | 1.7 | 0.5 | 0.0 | - | -0.1 | 2.9 | 1.7 | 1.2 | - |
| 1993 PR | 31.1 | - | - | - | - | - | - | - | - | - |
|  | Population <br> on January $\mathbf{I}^{\text {st }}$ |  | Total Growth Rate | Birth Rate | Death Rate | Rate of Natural Increase |  | e of Net nationa gration |  | Growth Rate by Flow ${ }^{4}$ |
| 1972 | 19.9 |  | 53.5 | 22.1 | 5.0 | 17.1 |  | 1.6 |  | 36.5 |
| 1973 | 20.9 |  | 7.7 | 20.0 | 5.3 | 14.7 |  | -0.9 |  | - 7.0 |
| 1974 | 21.1 |  | 28.4 | 23.1 | 5.3 | 17.8 |  | -0.3 |  | 10.6 |
| 1975 | 21.7 |  | 30.9 | 18.5 | 5.1 | 13.4 |  | -0.0 |  | 17.5 |
| 1976 | 22.4 |  | 12.7 | 19.9 | 5.5 | 14.4 |  | -0.7 |  | -1.7 |
| 1977 | 22.7 |  | 35.2 | 18.8 | 4.5 | 14.2 |  | -1.4 |  | 21.0 |
| 1978 | 23.5 |  | 25.5 | 18.8 | 3.7 | 15.0 |  | 1.3 |  | 10.5 |
| 1979 | 24.1 |  | 15.8 | 20.6 | 3.2 | 15.4 |  | -0.3 |  | 0.5 |
| 1980 | 24.5 |  | 17.1 | 19.3 | 5.2 | 14.1 |  | 1.4 |  | 3.0 |
| 1981 | 24.9 |  | -21.8 | 21.8 | 5.7 | 16.0 |  | 1.0 |  | -37.9 |
| 1982 | 24.4 |  | -21.9 | 21.8 | 4.9 | 16.9 |  | -1.7 |  | -38.7 |
| 1983 | 23.8 |  | -2.4 | 22.7 | 4.7 | 17.9 |  | 0.5 |  | -20.4 |
| 1984 | 23.8 |  | 25.6 | 21.5 | 4.5 | 17.1 |  | 0.4 |  | 8.6 |
| 1985 | 24.4 |  | 9.7 | 18.9 | 5.0 | 13.9 |  | -0.3 |  | -4.2 |
| 1986 | 24.6 |  | 31.3 | 19.3 | 4.5 | 14.8 |  | -0.2 |  | 16.5 |
| 1987 | 25.4 |  | 28.1 | 18.5 | 4.2 | 14.3 |  | 0.8 |  | 13.8 |
| 1988 | 26.1 |  | 36.0 | 19.6 | 3.1 | 14.5 |  | 1.0 |  | 21.6 |
| 1989 | 27.1 |  | 23.6 | 17.5 | 3.5 | 14.0 |  | 2.1 |  | 9.5 |
| 1990 | 27.8 |  | 22.9 | 19.8 | 4.1 | 15.7 |  | 0.9 |  | 7.2 |
| 1991 | 28.4 |  | 36.9 | 19.6 | 3.9 | 15.7 |  | 0.3 |  | 21. $2^{5}$ |
| 1992 PR | 29.5 |  | 55.3 | 18.8 | 4.0 | 14.9 |  | 1.6 |  | 40.5 |
| 1993 PR | 31.1 |  | - | - | - | - |  | - |  | - |

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993, New Estimates (in thousands and rates per 1,000 )

Northwest Territories

| Year | Popu- <br> lation on January $1^{\text {st }}$ | Total Growth | Natural Increase | Net <br> International Migration ${ }^{1}$ | Returning Canadians | Net <br> Nonpermanent Residents | Interprovincial Migration |  |  | Residual ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 1 n | Out | Net |  |
| 1972 | 38.1 | 2.2 | 1.0 | 0.2 | 0.0 | -0.0 | 4.4 | 3.5 | 0.9 | -0.1 |
| 1973 | 40.3 | 0.8 | 1.0 | 0.1 | 0.0 | 0.0 | 3.6 | 4.0 | -0.4 | -0.1 |
| 1974 | 41.2 | 1.3 | 0.8 | 0.2 | 0.0 | -0.0 | 4.3 | 4.2 | 0.2 | -0.1 |
| 1975 | 42.4 | 1.7 | 1.0 | 0.2 | 0.0 | 0.0 | 4.3 | 3.9 | 0.4 | -0.1 |
| 1976 | 44.1 | 0.6 | 1.0 | 0.1 | 0.0 | -0.0 | 4.1 | 4.9 | -0.8 | -0.3 |
| 1977 | 44.7 | 0.4 | 1.0 | 0.1 | 0.0 | -0.0 | 4.4 | 5.4 | -1.0 | -0.3 |
| 1978 | 45.1 | 0.5 | 1.0 | 0.1 | 0.0 | -0.0 | 3.9 | 4.8 | -1.0 | -0.3 |
| 1979 | 45.6 | 0.7 | 1.1 | 0.1 | 0.0 | -0.0 | 3.7 | 4.6 | -0.8 | -0.3 |
| 1980 | 46.3 | 0.6 | 1.1 | 0.1 | 0.0 | 0.0 | 3.4 | 4.3 | -0.9 | -0.3 |
| 1981 | 46.9 | 1.8 | 1.1 | 0.1 | 0.0 | 0.0 | 4.2 | 4.1 | 0.2 | -0.4 |
| 1982 | 48.6 | 2.2 | 1.1 | 0.0 | 0.0 | 0.0 | 3.8 | 3.2 | 0.6 | -0.4 |
| 1983 | 50.8 | 1.7 | 1.3 | 0.0 | 0.0 | -0.0 | 3.4 | 3.4 | -0.0 | -0.4 |
| 1984 | 52.5 | 1.7 | 1.2 | 0.0 | 0.0 | -0.0 | 3.5 | 3.5 | 0.1 | -0.4 |
| 1985 | 54.2 | 1.1 | 1.2 | -0.0 | 0.0 | -0.0 | 3.4 | 4.0 | -0.6 | -0.4 |
| 1986 | 55.3 | -0.1 | 1.3 | -0.0 | 0.0 | 0.0 | 3.1 | 4.9 | -1.8 | -0.4 |
| 1987 | 55.2 | 0.6 | 1.3 | 0.0 | 0.0 | 0.0 | 3.5 | 4.7 | -1.2 | -0.4 |
| 1988 | 55.8 | 1.1 | 1.3 | 0.0 | 0.0 | 0.1 | 3.5 | 4.3 | -0.8 | -0.4 |
| 1989 | 56.9 | 1.3 | 1.2 | -0.0 | 0.0 | 0.0 | 3.7 | 4.1 | -0.4 | -0.4 |
| 1990 | 58.3 | 1.9 | 1.4 | -0.0 | 0.0 | 0.1 | 3.8 | 3.8 | -0.0 | -0.4 |
| 1991 | 60.1 | 1.6 | 1.4 | 0.1 | $0.0^{3}$ | -0.1 | 3.9 | 3.9 | 0.0 | -0.2 |
| 1992 PR | 61.8 | 0.7 | 1.3 | 0.1 | - | -0.1 | 3.3 | 3.9 | -0.6 | - |
| 1993 PR | 62.4 | - | - | - | - | - | - | - | - | - |
|  | Population on January $1^{\text {st }}$ |  | Total Growth Rate | Birth Rate | Death Rate | Rate of Natural Increase |  | te of Ne national ration ${ }^{1}$ |  | Growth Rate by Flow ${ }^{4}$ |
| 1972 | 38.1 |  | 55.6 | 31.6 | 6.9 | 24.7 |  | 4.1 |  | 30.9 |
| 1973 | 40.3 |  | 20.5 | 29.6 | 6.1 | 23.4 |  | 3.4 |  | -2.9 |
| 1974 | 41.2 |  | 31.1 | 24.9 | 4.9 | 20.0 |  | 3.9 |  | 11.1 |
| 1975 | 42.4 |  | 38.2 | 27.2 | 5.0 | 22.2 |  | 3.6 |  | 16.0 |
| 1976 | 44.1 |  | 13.1 | 26.6 | 4.8 | 21.9 |  | 3.2 |  | -8.8 |
| 1977 | 44.7 |  | 9.8 | 26.5 | 4.5 | 22.1 |  | 2.0 |  | -12.3 |
| 1978 | 45.1 |  | 10.3 | 26.5 | 4.5 | 22.0 |  | 1.8 |  | -11.7 |
| 1979 | 45.6 |  | 15.3 | 27.9 | 4.5 | 23.5 |  | 2.4 |  | -8.1 |
| 1980 | 46.3 |  | 12.2 | 28.0 | 5.1 | 22.8 |  | 1.5 |  | -10.7 |
| 1981 | 46.9 |  | 37.5 | 27.3 | 4.1 | 23.2 |  | 1.5 |  | 14.4 |
| 1982 | 48.6 |  | 44.0 | 27.4 | 4.7 | 22.7 |  | 0.6 |  | 21.3 |
| 1983 | 50.8 |  | 31.9 | 28.9 | 4.7 | 24.2 |  | 0.4 |  | 7.7 |
| 1984 | 52.5 |  | 32.1 | 27.1 | 4.4 | 22.6 |  | 0.6 |  | 9.5 |
| 1985 | 54.2 |  | 19.5 | 26.3 | 3.9 | 22.3 |  | 0.2 |  | -2.9 |
| 1986 | 55.3 |  | -1.8 | 27.3 | 4.3 | 23.0 |  | 0.2 |  | -24.8 |
| 1987 | 55.2 |  | 11.5 | 27.4 | 3.6 | 23.9 |  | 0.1 |  | -12.4 |
| 1988 | 55.8 |  | 19.6 | 27.6 | 3.9 | 23.7 |  | 0.4 |  | -4.1 |
| 1989 | 56.9 |  | 23.4 | 25.7 | 4.3 | 21.4 |  | 0.2 |  | 2.0 |
| 1990 | 58.3 |  | 31.8 | 26.8 | 3.8 | 22.9 |  | 0.4 |  | 8.9 |
| 1991 | 60.1 |  | 26.8 | 26.8 | 3.9 | 22.9 |  | 1.1 |  | 3.95 |
| 1992 PR | 61.8 |  | 10.6 | 25.4 | 4.0 | 21.4 |  | 0.9 |  | -10.8 |
| 1993 PR | 62.4 |  | - | - | - | - |  | - |  | - |

[^22]Table A2. Nuptiality

| Year | Nfid | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alb. | B.C. | Yukon | N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Marriages |  |  |  |  |  |  |  |  |  |  |  |  |
| 1978 | 3,841 | 939 | 6,560 | 5,310 | 45,936 | 67,491 | 8,232 | 7,139 | 18,277 | 21,388 | 194 | 216 | 185,523 |
| 1979 | 3,737 | 893 | 6,920 | 5,355 | 46,341 | 67,980 | 7,769 | 7,272 | 18,999 | 22,087 | 181 | 277 | 187,811 |
| 1980 | 3,783 | 939 | 6,791 | 5,321 | 44,848 | 68,840 | 7,869 | 7,561 | 20,818 | 23,830 | 200 | 269 | 191,069 |
| 1981 | 3,758 | 849 | 6,632 | 5,108 | 41,005 | 70,281 | 8,123 | 7,329 | 21,781 | 24,699 | 235 | 282 | 190,082 |
| 1982 | 3,764 | 855 | 6,486 | 4,923 | 38,354 | 71,595 | 8,264 | 7,491 | 23,312 | 23,831 | 225 | 260 | 188,360 |
| 1983 | 3,778 | 937 | 6,505 | 5,260 | 36,144 | 70,893 | 8,261 | 7,504 | 21,172 | 23,692 | 243 | 286 | 184,675 |
| 1984 | 3,567 | 1,057 | 6,798 | 5,294 | 37,433 | 71,922 | 8,393 | 7,213 | 20,052 | 23,397 | 212 | 259 | 185,597 |
| 1985 | 3,220 | 956 | 6,807 | 5,312 | 37,026 | 72,891 | 8,296 | 7,132 | 19,750 | 22,292 | 185 | 229 | 184,096 |
| 1986 | 3,421 | 970 | 6,445 | 4,962 | 33,083 | 70,839 | 7,816 | 6,820 | 18,896 | 21,826 | 183 | 257 | 175,518 |
| 1987 | 3,481 | 924 | 6,697 | 4,924 | 32,616 | 76,201 | 7,994 | 6,853 | 18,640 | 23,395 | 189 | 237 | 182,151 |
| 1988 | 3,686 | 965 | 6,894 | 5,292 | 33,519 | 78,533 | 7,908 | 6,767 | 19,272 | 24,461 | 209 | 222 | 187,728 |
| 1989 | 3,905 | 1,019 | 6,828 | 5,254 | 33,325 | 80,377 | 7,800 | 6,637 | 19,888 | 25,170 | 214 | 223 | 190,640 |
| 1990 | 3,791 | 996 | 6,386 | 5,044 | 32,060 | 80,097 | 7,666 | 6,229 | 19,806 | 25,216 | 218 | 228 | 187,737 |
| 1991 | 3,480 | 876 | 5,845 | 4,521 | 28,922 | 72,938 | 7,032 | 5,923 | 18,612 | 23,691 | 196 | 215 | 172,251 |
| 1992 | 3,254 | 850 | 5,623 | 4,313 | 25,841 | 70,079 | 6,899 | 5,664 | 17,871 | 23,749 | 221 | 209 | 164,573 |

Sources: Statistics Canada, Vital Statistics, Marriages and Divorces, annual, and Canadian Centre on Health Information, Marriages (annual) from 1987 to 1991.

Table A3.1 Age-specific First Marriage Rates (per 1,000) for Male Cohorts, 1943-1974, Canada (former estimates)

Table A3.2 Age-specific First Marriage Rates (per 1,000) for Females Cohorts, 1943-1976, Canada (former estimates)

Source: Statistics Canada, calculations by author from population estimates, and marriage data published by the Canadian Centre for Health Information.
Table A4．Fertility

|  |  |  |  |  <br>  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \underset{3}{3} \\ & \underset{2}{2} \end{aligned}$ |  | W |  |  <br>  |
| $\begin{aligned} & \text { E } \\ & \frac{3}{3} \\ & \text { 2 } \end{aligned}$ |  |  |  |  <br>  |
| نِ |  |  <br>  |  |  <br>  |
| $\dot{8}$ |  |  <br>  <br>  |  |  <br>  |
| $\stackrel{\dot{4}}{\ddot{3}}$ | 号 |  <br>  | $\begin{aligned} & 8 \\ & 9 \\ & 9 \\ & 0 \end{aligned}$ |  <br>  |
|  | $\begin{aligned} & 7 \\ & 0 \\ & 5 \\ & 5 \end{aligned}$ |  <br>  | 5 0 0 |  <br>  |
| 它 | $\underline{z}$ |  <br>  | $\begin{aligned} & \text { 雪 } \\ & \text { 号 } \end{aligned}$ | noonont 寸rannnz Oromonn内ionnox |
| $\dot{\tilde{0}}$ |  |  <br>  |  |  <br>  |
| $\stackrel{\infty}{\mathbf{z}}$ |  |  óo |  |  <br>  |
| $\underset{\sim}{\dot{z}}$ |  |  <br>  |  |  |
| $\underset{\text { uix }}{\substack{\text { in }}}$ |  |  <br>  |  |  <br>  |
| $\frac{\square}{\Sigma}$ |  |  <br>  |  | murnoan mint－nme mannuy <br>  |
| $\underset{\sim}{\mathrm{y}}$ |  |  <br>  |  |  <br> 哭 |

See notes at the end of this table．
Table A4. Fertility - Concluded

| Year | Nfld ${ }^{2}$ | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alb. | B.C. | Yukon | N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1989: $\begin{array}{ll}1 \\ & 2 \\ & 3 \\ & 4 \\ & 5+\end{array}$ | Fertility Rate by Parity (for 1,000 women) ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - | 26.3 | 25.5 | 24.4 | 26.2 | 25.7 | 28.0 | 27.1 | 27.2 | 24.9 | 28.1 | 34.1 |  |
|  | - | 20.4 | 19.8 | 19.0 | 19.0 | 20.5 | 21.9 | 23.7 | 24.4 | 20.4 | 23.0 | 29.4 | 20.6 |
|  | - | 10.9 | 8.4 | 7.7 | 6.9 | 8.7 | 11.0 | 14.0 | 11.5 | 8.7 | 7.3 | 18.4 | 8.8 |
|  | - | 4.4 | 2.3 | 2.1 | 1.6 | 2.5 | 4.0 | 5.3 | 3.9 | 2.6 | 4.4 | 9.6 | 2.6 |
|  | - | 1.7 | 1.0 | 0.7 | 0.7 | 1.0 | 2.6 | 3.5 | 2.2 | 1.0 | 1.5 | 8.8 | 1.2 |
| 1990: $\begin{array}{ll}1 \\ & 2 \\ & 3 \\ & 4 \\ & 4 \\ & 5+\end{array}$ | - | 26.5 | 26.7 | 24.9 | 27.1 | 26.6 | 28.2 | 26.3 | 26.8 | 25.6 | 31.7 | 34.3 | 26.7 |
|  | - | 22.9 | 19.9 | 19.2 | 20.5 | 20.9 | 21.8 | 23.5 | 23.4 | 20.4 | 25.8 | 30.9 | 21.1 |
|  | - | 11.3 | 8.2 | 7.5 | 7.5 | 8.6 | 11.1 | 13.8 | 11.2 | 8.6 | 10.1 | 19.0 | 8.82.6 |
|  | - | 3.9 | 2.6 | 2.0 | 1.9 | 2.5 | 4.0 |  |  | 2.61.2 | 4.12.1 | 9.8 |  |
|  | - | 1.8 | 1.1 | 0.8 | 0.7 | 1.1 | 2.9 |  |  |  |  | 9.8 | 1.3 |
| 1991: $\begin{aligned} & 1 \\ & \\ & \\ & 2 \\ & 3 \\ & \\ & \\ & 4 \\ & \\ & \\ & 5\end{aligned}$ | $\begin{array}{r} 22.2 \\ 17.5 \\ 6.5 \\ 2.0 \\ 0.9 \end{array}$ | $\begin{array}{r} 24.3 \\ 22.0 \\ 10.7 \\ 3.7 \\ 2.0 \end{array}$ | $\begin{array}{r} 24.4 \\ 18.8 \\ 8.0 \\ 2.3 \\ 1.0 \end{array}$ | 23.9 | $\begin{array}{r} 26.8 \\ 20.2 \\ 7.6 \\ 2.0 \\ 0.8 \end{array}$ | $\begin{array}{r} 25.9 \\ 20.5 \\ 8.6 \\ 2.5 \\ 1.2 \end{array}$ | $\begin{array}{r} 28.3 \\ 21.2 \\ 10.9 \\ 4.3 \\ 3.0 \end{array}$ | $\begin{array}{r} 25.0 \\ 22.9 \\ 12.9 \\ 5.3 \\ 3.3 \end{array}$ | $\begin{array}{r} 26.4 \\ 22.9 \\ 11.0 \\ 3.8 \\ 2.2 \end{array}$ | $\begin{array}{r} 24.9 \\ 20.0 \\ 8.7 \\ 2.5 \\ 1.2 \end{array}$ | $\begin{array}{r} 31.0 \\ 23.9 \\ 10.8 \\ 3.8 \\ 2.2 \end{array}$ | $\begin{array}{r} 34.4 \\ 31.1 \\ 18.9 \\ 11.0 \\ 9.5 \end{array}$ | $\begin{array}{r} 25.9 \\ 20.6 \\ 8.8 \\ 2.7 \\ 1.3 \end{array}$ |
|  |  |  |  | 18.6 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 7.1 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 1.9 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |
|  | Total Fertility Rate (women aged is to 49) ${ }^{1, \mathrm{a}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 1978 | - | 2.04 | 1.75 | 1.76 | 1.63 | 1.63 | 1.88 | 2.17 | 1.88 | 1.63 | 1.80 | 2.90 | 1.70 |
| 1979 | - | 1.941.94 | 1.70 | 1.75 | 1.67 | 1.61 | 1.86 | 2.18 | 1.85 | 1.63 | $\begin{aligned} & 1.95 \\ & 1.79 \end{aligned}$ | 3.02 | $\begin{aligned} & 1.70 \\ & 1.67 \end{aligned}$ |
| 1980 | - |  | 1.67 | 1.69 | 1.62 | 1.61 | 1.82 | 2.13 | 1.85 | 1.63 |  | $\begin{aligned} & 3.02 \\ & 2.83 \end{aligned}$ |  |
| 1981 | - | 1.87 | 1.62 | 1.67 | $\begin{aligned} & 1.57 \\ & 1.48 \end{aligned}$ | 1.57 | 1.82 | 2.11 | 1.86 | 1.63 | $\begin{aligned} & 1.79 \\ & 2.06 \end{aligned}$ |  | 1.65 |
| 1982 | - | 1.89 | 1.64 | 1.66 |  | 1.59 | $\begin{aligned} & 1.80 \\ & 1.83 \end{aligned}$ | 2.142.10 | 1.891.90 | 1.65 | $\begin{aligned} & 2.06 \\ & 1.96 \end{aligned}$ | 2.81 | 1.641.62 |
| 1983 | - | 1.83 | 1.63 | 1.65 | $\begin{aligned} & 1.43 \\ & 1.43 \end{aligned}$ | 1.59 |  |  |  | 1.65 | 2.16 | 3.00 |  |
| 1984 | - | 1.84 | 1.60 | 1.61 |  | 1.62 | 1.82 | $\begin{aligned} & 2.08 \\ & 2.08 \end{aligned}$ | 1.86 | 1.68 | $\begin{aligned} & 2.07 \\ & 1.83 \end{aligned}$ | 2.80 | 1.62 1.63 |
| 1985 | - | 1.86 | 1.60 | 1.57 | 1.40 | 1.60 | 1.85 |  | 1.86 | 1.65 |  | 2.66 | 1.61 |
| 1986 | - | 1.78 | 1.58 | 1.53 | $\begin{aligned} & 1.37 \\ & 1.37 \end{aligned}$ | 1.60 | 1.83 | 2.02 | 1.85 | 1.61 | $\begin{aligned} & 1.92 \\ & 1.88 \end{aligned}$ | 2.81 | 1.591.58 |
| 1987 | 1.53 | 1.82 | 1.55 | 1.51 |  | 1.58 | $\begin{aligned} & 1.83 \\ & 1.85 \end{aligned}$ | $\begin{aligned} & 1.98 \\ & 1.99 \end{aligned}$ | $\begin{aligned} & 1.82 \\ & 1.84 \end{aligned}$ | 1.601.64 |  | 2.82 |  |
| 1988 | 1.47 | 1.85 | 1.57 | 1.53 | 1.43 | 1.59 |  |  |  |  | 1.98 | 2.90 | 1.58 1.60 |
| 1989 | 1.53 | 1.83 | 1.62 | 1.55 | $\begin{aligned} & 1.53 \\ & 1.64 \end{aligned}$ | $1.63$ | 1.92 | 2.05 | 1.90 | 1.65 | 1.85 | 2.70 | 1.66 |
| 1990 | 1.52 | 1.93 | 1.68 | 1.58 |  | 1.67 | 1.95 | 2.07 | 1.88 | 1.68 | 2.15 | 2.79 | 1.71 |
| 1991 | 1.44 | 1.85 | 1.58 | 1.54 | 1.65 | 1.66 | 1.96 | 2.02 | 1.89 | 1.67 | 2.14 | 2.86 | 1.70 |

[^23]Table A5. Mortality

| Year | Nfld | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alb. | B.C. | Yukon | N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Deaths |  |  |  |  |  |  |  |  |  |  |  |  |
| 1978 | 3,115 | 994 | 6,877 | 5,183 | 43,552 | 61,116 | 8,297 | 7.749 | 11,944 | 19,058 | 89 | 205 | 168,179 |
| 1979 | 3,136 | 1,022 | 6,843 | 5,172 | 43,311 | 61,468 | 8,217 | 7,369 | 12,109 | 19,204 | 127 | 205 | 168,183 |
| 1980 | 3,345 | 1,035 | 7,004 | 5,297 | 43,512 | 62,746 | 8,436 | 7,651 | 12,710 | 19,371 | 128 | 238 | 171,473 |
| 1981 | 3,230 | 992 | 6,958 | 5,139 | 42,684 | 62,838 | 8,648 | 7,523 | 12,823 | 19,857 | 141 | 196 | 171,029 |
| 1982 | 3,385 | 980 | 6941 | 5,197 | 43,497 | 63,696 | 8,490 | 8,202 | 12,968 | 20,707 | 118 | 232 | 174,413 |
| 1983 | 3,498 | 1,050 | 7,047 | 5,206 | 44,275 | 64,507 | 8,521 | 7,611 | 12,588 | 19,827 | 113 | 241 | 174,484 |
| 1984 | 3,520 | 1,109 | 6,913 | 5,272 | 44,449 | 64,703 | 8,290 | 7,710 | 12,730 | 20,686 | 108 | 237 | 175,727 |
| 1985 | 3,557 | 1,110 | 7,315 | 5,230 | 45,707 | 66,747 | 8,756 | 8,031 | 13,231 | 21,302 | 123 | 214 | 181,323 |
| 1986 | 3,540 | 1,121 | 7,255 | 5,458 | 46,892 | 67,865 | 8,911 | 8,061 | 13,560. | 21,213 | 113 | 235 | 184,224 |
| 1987 | 3,629 | 1,116 | 7,112 | 5,408 | 47,616 | 68,119 | 8,710 | 7,808 | 13,316 | 21,814 | 108 | 197 | 184,953 |
| 1988 | 3,591 | 1,112 | 7,412 | 5,450 | 47,771 | 70,679 | 9,100 | 8,100 | 13,894 | 22,546 | 136 | 220 | 190,011 |
| 1989 | 3,718 | 1,089 | 7,516 | 5,496 | 48,305 | 70,907 | 8,819 | 7,920 | 13,854 | 22,997 | 95 | 249 | 190,965 |
| 1990 | 3,884 | 1,143 | 7,388 | 5,426 | 48,420 | 70,818 | 8,863 | 8,044 | 14,068 | 23,577 | 115 | 227 | 191,973 |
| 1991 | 3,798 | 1,188 | 7,255 | 5,469 | 49,121 | 72,917 | 8,943 | 8,098 | 14,451 | 23,977 | 114 | 237 | 195,568 |
|  | Number of Infant Deaths |  |  |  |  |  |  |  |  |  |  |  |  |
| 1978 | 128 | 15 | 149 | 127 | 1,126 | 1,373 | 225 | 236 | 405 | 472 | 5 | 28 | 4,289 |
| 1979 | 109 | 21 | 148 | 124 | 1,040 | 1,247 | 211 | 194 | 423 | 434 | 8 | 35 | 3,994 |
| 1980 | 110 | 22 | 135 | 116 | 953 | 1,175 | 184 | 193 | 500 | 442 | 9 | 29 | 3,868 |
| 1981 | 98 | 25 | 139 | 114 | 807 | 1073 | 191 | 203 | 452 | 424 | 8 | 28 | 3,562 |
| 1982 | 99 | 15 | 106 | 110 | 800 | 1,041 | 146 | 186 | 442 | 423 | 11 | 22 | 3,401 |
| 1983 | 95 | 16 | 116 | 112 | 676 | 1,013 | 173 | 180 | 383 | 377 | 10 | 31 | 3,182 |
| 1984 | 79 | 16 | 97 | 81 | 645 | 992 | 144 | 169 | 425 | 378 | 7 | 25 | 3,058 |
| 1985 | 92 | 8 | 98 | 97 | 626 | 961 | 170 | 200 | 352 | 349 | 5 | 24 | 2,982 |
| 1986 | 65 | 13 | 104 | 81 | 604 | 969 | 157 | 157 | 393 | 355 | 12 | 28 | 2,938 |
| 1987 | 59 | 13 | 90 | 67 | 594 | 888 | 142 | 155 | 315 | 359 | 5 | 19 | 2,706 |
| 1988 | 70 | 14 | 79 | 69 | 563 | 910 | 132 | 140 | 347 | 362 | 3 | 16 | 2,705 |
| 1989 | 64 | 12 | 73 | 69 | 632 | 985 | 115 | 134 | 325 | 360 | 2 | 24 | 2,795 |
| 1990 | 70 | 12 | 81 | 71 | 612 | 946 | 138 | 123 | 346 | 344 | 4 | 19 | 2,766 |
| 1991 | 56 | 13 | 69 | 58 | 577 | 952 | 112 | 126 | 285 | 298 | 6 | 19 | 2,571 |

Table A6. Estimated Life Expectancy at Different Ages, Canada, 1990 and 1991

| Age | 1990 Table (Triennial) ${ }^{1}$ |  | 1991 Table (Preliminary) ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
| 0 | 73.90 | 80.49 | 74.19 | 80.72 |
| 1 | 73.46 | 79.98 | 73.73 | 80.21 |
| 5 | 69.58 | 76.08 | 69.84 | 76.30 |
| 10 | 64.65 | 71.14 | 64.91 | 71.36 |
| 15 | 59.74 | 66.20 | 59.99 | 66.42 |
| 20 | 55.02 | 61.32 | 55.27 | 61.54 |
| 25 | 50.35 | 56.44 | 50.60 | 56.65 |
| 30 | 45.65 | 51.56 | 45.90 | 51.78 |
| 35 | 40.96 | 46.71 | 41.20 | 46.92 |
| 40 | 36.28 | 41.89 | 36.53 | 42.10 |
| 45 | 31.66 | 37.14 | 31.90 | 37.35 |
| 50 | 27.18 | 32.51 | 27.42 | 32.70 |
| 55 | 22.92 | 28.02 | 23.14 | 28.20 |
| 60 | 18.95 | 23.72 | 19.16 | 23.90 |
| 65 | 15.38 | 19.63 | 15.56 | 19.81 |
| 70 | 12.18 | 15.82 | 12.35 | 16.01 |
| 75 | 9.40 | 12.34 | 9.52 | 12.49 |
| 80 | 7.04 | 9.26 | 7.16 | 9.42 |
| 85 | 5.20 | 6.74 | 5.27 | 6.85 |
| 90 | 3.69 | 4.76 | 3.77 | 4.85 |

${ }^{1}$ Calculated with the average of deaths in 1989, 1990 and 1991.
${ }^{2}$ Calculated with the average of deaths in 1990 and 1991.
Note: In the two cases, the denominators of the rates are the 'old' mid-year population estimates.
Source: Author's calculations.
Table A7. Immigrant Population in Canada by Country of Birth, 1980-1992

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \& 1980 \& 1981 \& 1982 \& 1983 \& 1984 \& 1985 \& 1986 \& 1987 \& 1988 \& 1989 \& 1990 \& 1991 \& $1992{ }^{3}$ <br>
\hline Europe \& 40,210 \& 44,784 \& 44,356 \& 23,664 \& 20,581 \& 18,530 \& 22,518 \& 36,486 \& 38,598 \& 50,844 \& 50,561 \& 46,651 \& <br>
\hline Great Britain ${ }^{1}$ \& 16,445 \& 18,912 \& 14,525 \& 4,945 \& 4,657 \& 18,598 \& 4,612 \& 3,4,65 \& 38,58
7,476 \& 50,844
$\mathbf{6 , 2 4 4}$ \& 6,5897 \& 46,651
$\mathbf{6 , 3 8 3}$ \& 43,297
5,818 <br>
\hline Portugal \& 4,222 \& 3,292 \& 2,308 \& 1,373 \& 869 \& 917 \& 1,981 \& 5,904 \& 3,976 \& 5,094 \& 5,405 \& 5,837 \& 2,697 <br>
\hline France \& 1,461 \& 1,681 \& 1,821 \& 1,237 \& 970 \& 994 \& 1,124 \& 1,486 \& 1,809 \& 2,128 \& 1,996 \& 2,617 \& 3,102 <br>
\hline Greece \& 1,044 \& 924 \& 884 \& 617 \& 578 \& 579 \& 555 \& 750 \& 590 \& 798 \& 604 \& 618 \& 592 <br>
\hline Italy \& 1,873 \& 2,057 \& 1,496 \& 879 \& 892 \& 733 \& 785 \& 1,123 \& 955 \& 1,204 \& 1,066 \& 775 \& 663 <br>
\hline Poland \& 1,395 \& 4,093 \& 9,259 \& 5,374 \& 4,640 \& 3,642 \& 5,283 \& 7,132 \& 9,308 \& 16,042 \& 16,536 \& 15,737 \& 11,912 <br>
\hline Others \& 13,770 \& 13,825 \& 14,063 \& 9,239 \& 7,975 \& 7,667 \& 11,480 \& 12,441 \& 14,484 \& 19,334 \& 18,057 \& 14,684 \& 18,513 <br>
\hline Africa \& 5,383 \& 5,901 \& 5,196 \& 3,913 \& 3,851 \& 3,912 \& 5,189 \& 9,048 \& 9,497 \& 12,483 \& 13,846 \& 16,530 \& 20,091 <br>
\hline Asta \& 73,026 \& 50,759 \& 43,863 \& 38,183 \& 42,730 \& 39,438 \& 42,417 \& 69,146 \& 82,334 \& 95,393 \& 113,978 \& 122,228 \& 141,773 <br>
\hline Philippines \& 6,147 \& 5,978 \& 5,295 \& 4,597 \& 3,858 \& 3,183 \& 4,203 \& 7,420 \& 82,334
8,636 \& 11,907 \& 12,590 \& 122,228
12,626 \& 141,773
13,717 <br>
\hline India \& 9,531 \& 9,415 \& 8,858 \& 7.810 \& 6,082 \& 4,517 \& 7,481 \& 10,635 \& 11,864 \& 10,738 \& 12,572 \& 14,248 \& 14,209 <br>
\hline Hong Kong (B.C.C.) \& 3,874 \& 4,039 \& 4,452 \& 4,238 \& 5,013 \& 5,121 \& 4,318 \& 12,618 \& 18,033 \& 15,694 \& 23,134 \& 16,425 \& 27,873 <br>
\hline China
The Middle East ${ }^{2}$ \& 8,965 \& 9,798 \& 6,295 \& 5,321 \& 5,769 \& 5,166 \& 4,178 \& 6,611 \& 7,784 \& 9,001 \& 14,193 \& 20,621 \& 22,131 <br>
\hline The Middie East ${ }^{2}$
Others \& 4,665
39,844 \& 5,409
16,120 \& 6,321
13,642 \& 3,964
12,253 \& 4,951
17,057 \& 5,239
$\mathbf{1 6 , 2 1 2}$ \& 6,947
15,290 \& 10,904
20,958 \& 12,325 \& 17,697
30,356 \& 23,826 \& 25,561 \& 21,803 <br>
\hline North Americs and Central America \& 9,442 \& 10,183 \& 10,030 \& 10,200 \& 10,223 \& 10,898 \& 12,412 \& 13,691 \& 11,435 \& 30,366
11,899 \& 27,663
13,042 \& 32,747
18,899 \& 42,040

18,658 <br>
\hline United States \& 8,098 \& 8,695 \& 7,841 \& 6,136 \& 5,727 \& 5,614 \& 6,094 \& 6,547 \& 1,4,552 \& 11,899
$\mathbf{5 , 8 1 4}$ \& 13,042
5,067 \& 18,899

5,270 \& $$
\begin{array}{r}
18,658 \\
5,882
\end{array}
$$ <br>

\hline The Antilles and Bermuda \& 7,515 \& 8,797 \& 8,717 \& 7,258 \& 5,696 \& 6,240 \& 8,948 \& 11,210 \& 9,440 \& 10,967 \& 11,784 \& 13,046 \& 15,131 <br>
\hline Australasia \& 1,215 \& 1,020 \& 758 \& 394 \& 430 \& 399 \& 449 \& 540 \& 525 \& 634 \& 725 \& 735 \& 916 <br>
\hline South America \& 5,381 \& 6,114 \& 6,892 \& 4,825 \& 4,046 \& 4,273 \& 6,546 \& 10,833 \& 7,178 \& 8,595 \& 8,602 \& 10,468 \& 10,231 <br>
\hline Oceanir \& 944 \& 1,024 \& 1,183 \& 720 \& 599 \& 612 \& 740 \& 1,144 \& 1,135 \& 1,186 \& 1,692 \& 2,213 \& 2,477 <br>
\hline Others \& 1 \& 36 \& 152 \& - \& 83 \& - \& - \& - \& - \& - \& - \& 11 \& - <br>
\hline Total \& 143,117 \& 128,618 \& 121,147 \& 89,157 \& 88,239 \& 84,302 \& 99,219 \& 152,098 \& 160,143 \& 192,001 \& 214,230 \& 230,228 \& 252,574 <br>
\hline
\end{tabular} 1 Includes England, North Ireland, Scotland, Wales and the British Isles. Includes Turkey, Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, ${ }^{3}$ Preliminary as of August 31, 1993.

Source: Employment and Immigration Canada, Immigration Statistics, annual publication.

Table A8. Canadian Population as of January 1st, 1991 and 1992, by Age and Sex (former estimates) (in thousands)

| Age | 1991 |  | 1992 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
| 0 | 205.6 | 195.6 | 210.1 | 199.6 |
| 1 | 201.9 | 192.3 | 206.9 | 196.7 |
| 2 | 194.1 | 185.1 | 203.0 | 193.3 |
| 3 | 191.5 | 182.9 | 195.3 | 186.2 |
| 4 | 191.8 | 183.1 | 192.8 | 184.2 |
| 5 | 191.1 | 181.4 | 193.2 | 184.5 |
| 6 | 190.9 | 181.0 | 192.6 | 182.7 |
| 7 | 190.3 | 181.3 | 192.3 | 182.3 |
| 8 | 190.4 | 181.2 | 191.8 | 182.7 |
| 9 | 190.8 | 181.8 | 191.9 | 182.6 |
| 10 | 192.0 | 182.5 | 192.2 | 183.1 |
| 11 | 190.4 | 180.6 | 193.4 | 183.8 |
| 12 | 186.9 | 177.4 | 191.8 | 181.9 |
| 13 | 186.6 | 177.2 | 188.2 | 178.6 |
| 14 | 188.1 | 178.7 | 187.9 | 178.4 |
| 15 | 188.4 | 178.7 | 189.3 | 179.8 |
| 16 | 186.3 | 177.3 | 189.6 | 179.9 |
| 17 | 184.7 | 175.9 | 187.3 | 178.4 |
| 18 | 189.7 | 179.7 | 185.7 | 177.0 |
| 19 | 197.7 | 187.7 | 190.8 | 181.0 |
| 20 | 204.6 | 194.8 | 198.9 | 189.1 |
| 21 | 202.5 | 192.4 | 206.0 | 196.5 |
| 22 | 199.6 | 191.3 | 204.2 | 194.3 |
| 23 | 200.9 | 195.2 | 201.5 | 193.4 |
| 24 | 208.9 | 204.5 | 203.1 | 197.5 |
| 25 | 222.5 | 219.4 | 211.4 | 207.0 |
| 26 | 235.3 | 233.2 | 225.4 | 222.0 |
| 27 | 240.9 | 240.0 | 238.5 | 236.0 |
| 28 | 241.9 | 242.7 | 244.0 | 242.8 |
| 29 | 242.5 | 243.9 | 244.8 | 245.3 |
| 30 | 244.6 | 246.0 | 245.2 | 246.5 |
| 31 | 241.5 | 243.8 | 247.1 | 248.4 |
| 32 | 239.1 | 242.2 | 243.8 | 246.1 |
| 33 | 238.4 | 241.7 | 241.4 | 244.4 |
| 34 | 234.4 | 238.0 | 240.6 | 243.9 |
| 35 | 230.6 | 234.1 | 236.4 | 240.0 |
| 36 | 227.4 | 232.1 | 232.3 | 235.9 |
| 37 | 220.2 | 225.2 | 228.9 | 233.7 |
| 38 | 213.4 | 217.3 | 221.5 | 226.6 |
| 39 | 208.7 | 211.2 | 214.5 | 218.5 |
| 40 | 206.1 | 207.8 | 209.7 | 212.3 |
| 41 | 203.1 | 205.0 | 206.9 | 208.8 |
| 42 | 202.3 | 204.3 | 203.7 | 205.8 |
| 43 | 204.1 | 205.0 | 202.9 | 205.0 |
| 44 | 193.1 | 193.3 | 204.5 | 205.5 |
| 45 | 171.6 | 170.9 | 193.4 | 193.7 |
| 46 | 164.8 | 163.6 | 171.8 | 171.2 |

Table A8. Canadian Population as of January 1st, 1991 and 1992, by Age and Sex (former estimates) (in thousands) - Concluded

| Age | 1991 |  | 1992 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
| 47 | 161.2 | 160.6 | 164.8 | 163.8 |
| 48 | 153.7 | 153.3 | 161.2 | 160.8 |
| 49 | 144.6 | 144.4 | 153.6 | 153.5 |
| 50 | 138.2 | 138.8 | 144.4 | 144.6 |
| 51 | 132.4 | 133.0 | 138.0 | 139.0 |
| 52 | 128.5 | 128.8 | 132.2 | 133.2 |
| 53 | 124.1 | 125.0 | 128.2 | 128.9 |
| 54 | 122.5 | 124.0 | 123.7 | 125.1 |
| 55 | 121.3 | 123.3 | 122.0 | 124.0 |
| 56 | 118.3 | 120.4 | 120.7 | 123.3 |
| 57 | 118.8 | 120.7 | 117.6 | 120.4 |
| 58 | 120.9 | 123.0 | 118.0 | 120.6 |
| 59 | 120.0 | 123.0 | 119.9 | 122.9 |
| 60 | 118.6 | 123.3 | 118.9 | 122.9 |
| 61 | 114.9 | 120.9 | 117.4 | 123.0 |
| 62 | 111.1 | 118.8 | 113.6 | 120.5 |
| 63 | 109.2 | 118.6 | 109.6 | 118.3 |
| 64 | 106.0 | 118.0 | 107.5 | 118.0 |
| 65 | 103.1 | 117.9 | 104.2 | 117.2 |
| 66 | 99.4 | 116.0 | 101.1 | 117.0 |
| 67 | 95.3 | 113.5 | 97.1 | 114.9 |
| 68 | 92.4 | 111.9 | 92.9 | 112.3 |
| 69 | 89.6 | 110.4 | 89.9 | 110.6 |
| 70 | 84.1 | 105.6 | 87.1 | 109.0 |
| 71 | 75.6 | 96.6 | 81.7 | 104.0 |
| 72 | 66.0 | 86.5 | 73.0 | 95.0 |
| 73 | 62.7 | 83.4 | 63.2 | 84.8 |
| 74 | 60.0 | 81.6 | 59.7 | 81.4 |
| 75 | 58.2 | 80.1 | 56.9 | 79.4 |
| 76 | 55.4 | 77.9 | 55.1 | 77.8 |
| 77 | 50.3 | 72.6 | 52.3 | 75.5 |
| 78 | 45.0 | 66.7 | 47.3 | 70.2 |
| 79 | 39.7 | 61.3 | 42.0 | 64.1 |
| 80 | 35.5 | 56.5 | 36.7 | 58.6 |
| 81 | 31.3 | 51.2 | 32.6 | 53.8 |
| 82 | 27.1 | 46.6 | 28.5 | 48.4 |
| 83 | 23.4 | 41.9 | 24.4 | 43.7 |
| 84 | 19.9 | 37.4 | 20.8 | 39.0 |
| 85 | 16.8 | 33.4 | 17.5 | 34.5 |
| 86 | 14.3 | 29.2 | 14.7 | 30.6 |
| 87 | 12.0 | 25.2 | 12.3 | 26.6 |
| 88 | 9.8 | 21.3 | 10.2 | 22.7 |
| 89 | 7.8 | 18.1 | 8.3 | 18.9 |
| $90+$ | 22.4 | 66.3 | 23.6 | 69.9 |
| Total | 13,233.5 | 13,607.4 | 13,433.0 | 13,810.0 |

Source: Statistics Canada, Demography Division, Estimates Section.
1991: Updated postcensal estimates.
1992: Preliminary postcensal estimates.

## Part II

## The Demographic Situation of Mexico at the Signing of NAFTA

The author wishes to express his appreciation to all those who contributed to this presentation of the population of Mexico, whether by indicating sources of information, comments on various drafts, correcting errors, indicating omissions or suggesting improvements:

José Luis Hernandez, Director of National Institute of Statistics, Geography and Informatics (INEGI), in Mexico City, as well as his collaborators;

Maria Isabel Monterrubio, Director General of Population Studies at the National Population Council;

Julieta Quilodran, Professor, College of Mexico;
Marta Mier Y Terán, of the Institute of Social Research, Autonomous National University of Mexico;

José Gomez De León and Olga Lopez Rios, of the Mexican Centre for Studies on Population and Health;

Manuel Garcia y Griego, professor, University of California
Alonzo De Gortari, Minister for Economic Affairs; and
Alejandro Negrin, Second Secretary, Embassy of Mexico in Canada.

## PRESENTATION

## Introduction

Any time two countries are preparing to join forces, it is normal that each of them should attempt to obtain a better understanding of the other, and normally this is done by means of comparisons. Only the comparable can be compared, however. Thus, if we were to confine ourselves to a systematic listing of the differences between Mexico's population and that of Canada, we would arrive at misleading conclusions both from a historical and a social point of view, since those differences are huge at any given moment. The population of Mexico is that of a developing country in the midst of a demographic transition, while the population of Canada has built one of the world's most highly industrialized countries, already entering the as yet uncharted "post-transition" phase. Moreover, Canada and Mexico have very little in common: neither geography, climate, culture, nor language, nor any aspect of their history to date. They now find themselves, through a rapid broadening of international relations, advances in communications, and thus a restructuring of the economies of the great regions of the world, in a position of acting as neighbours and forging relations that would formerly have been judged almost inconceivable and certainly unnecessary. It is a sign of new times and a major challenge that simple economic interests can suddenly attain such importance that they serve as the basis for lasting relations and strong ties between countries, despite major differences in areas that were once felt to be fundamental.

In keeping with the style of the "Current Demographic Analysis" series, the text that follows is intended to give a brief but comprehensive presentation, supported by relevant statistics, of the Mexican demography and the principal mechanisms at work in its development, to provide some measurement of the speed of transformation, describe structural changes, and present the policies implemented by the Mexican government to adapt the economy of the country to its rapidly changing population. This description is designed simply to show the current status of the Mexican population based on available data and, if it does not amount to only a collection of statistics, this is because these must, in many cases, be critically examined and explained before the reader can draw any valid conclusions from them.

There may well be some criticism of the fact that certain areas are either not dealt with or are handled very superficially. We deemed it desirable to confine ourselves fairly strictly to the field of demography, fully aware that, apart from the interest of a few experts in the field, demographic description is not an end in itself, but in fact only one component of a portrait of a society.

Drawing up an analytical description of demographic change in a country basically amounts to showing and explaining changes in the volume, structure and distribution of its population. Volume and structure, however, both depend

Figure 1

## Distribution of the Canadian (1991) and Mexican (1990) Populations by Region




Canada 1991
Population: 27,297,000


## Key Dates Marking Mexico's Recent History and Demographic Development

| September | 1821: | Declaration of independence |
| :---: | :---: | :---: |
|  | 1824: | Adoption of Mexican constitution |
|  | 1836: | Texas, New Mexico and California declare their independence |
| February 2 | 1848: | Treaty of Guadelupe-Hidalgo |
| January 27 | 1857: | Act creating the Vital Statistics Registry |
|  | 1858: | Loss of the Messilla Valley - Mexico's present boundaries established |
|  | 1864: | Second Empire begins |
|  | 1867: | Restoration of the republic |
| May 26 | 1882: | Statistics Branch set up |
|  | 1884-1911: | Porfiriato period (Porfirio Diaz) |
|  | 1910-1917: | Armed conflict period of the Mexican revolution |
|  | 1928: | Act regarding family relations and the new Civil Code |
|  | 1929: | Formation of the National Revolutionary Party |
| August 24 | 1936: | First law regarding population |
|  | 1938: | Nationalization of oil companies and railroads |
| August 4 | 1942: | Implementation of BRACERO program |
|  | 1946: | New legislation on colonization |
| December 23 | 1947: | Second umbrella legislation on population |
|  | 1959: | Creation of Family Welfare Association |
|  | 1966: | Opening of first (IPPF) ${ }^{\mathbf{1}}$ clinic |
| March 13 | 1973: | New health code (authorizing sale of contraceptives) |
| January 7 | 1974: | General Population Act |
| May 27 | 1974: | Creation of National Population Council (CONAPO) |
| October 28 | 1977: | Presentation of National Family Planning Plan |
|  | 1982: | Nationalization of banks |

[^24]on changes in births, deaths and migrations as well as on the interactions between them. Although these phenomena are closely linked, a clearer picture may be obtained if we describe them separately.

We will discuss growth, fertility, mortality and migrations in that order, and then will describe some characteristics of the population which may contribute to an understanding of its behaviour.

## Geographical organization of the population

Mexico is a country with a population of some 84 million $^{1}$ (about three times more populated than Canada). It is made up of 32 federated entities ( 31 states and one federal district), hence the name, United States of Mexico; 25 of these states have a population of over a million. Half the population ( $50.8 \%$ ), however, is concentrated in only seven states, but there are seven other states with a population of under a million which together account for only $5 \%$ of the total population of the country.

This description does not fairly portray the exact distribution of the population. Although no official rule exists, Mexicans of ten divide their country into eight regions of unequal size (Figure 1), each made up of varying numbers of states (Table 1A in Appendix). The largest is the central region, where a third of the population is concentrated, and the smallest in terms of population is the southeast, which with three states has $2.9 \%$ of the total population of the country.

Looking at Table 1 A (in the Appendix), we see that in the past 30 years, the population of Mexico has increased close to two and a half times, but the distribution by region has not changed significantly. The most noteworthy increase took place in the central region, which grew from $31 \%$ of the total in 1960 to $33 \%$ in 1990 . The region which has lost the most ground is the North, which accounted for $14 \%$ of the national total and now has only $11 \%$. This overall growth does, however, mask quite significant differences between states which cannot be described in this brief general presentation.

## MEXICAN SOURCES OF DEMOGRAPHIC DATA

## Introduction

Before we embark on a description of changes in demographic phenomena in Mexico, we must identify and weigh the validity of the sources of data used, as well as the role played by the organizations which publish information. The most important are:

[^25]1) the National Institute of Statistics, Geography and Informatics (INEGI), which is the organization mandated by the government to collect information and prepare statistics both at the national level and for regional and local administrative units (states and municipalities ${ }^{2}$ );
2) the Demographic Studies Centre of the College of Mexico, which since 1964 has trained almost all Mexican demographers and employs many researchers of international repute;
3) the Social Research Institute of the Autonomous National University of Mexico, which has carried out a number of major projects since the early 1970s;
4) the National Population Registry, which began publishing vital statistics figures in 1982;
5) the Family Planning Coordination Services of the Secretariat of Health and the Mexican Institute of Social Security. These two bodies have played a major role in conducting and analyzing surveys;
6) the National Population Council (CONAPO) which since 1973 has been responsible for the country's demographic planning, and
7) the recently founded Centre for Studies on Population and Health (CEPS) of the Secretariat of Health, which publishes studies and analyses mainly in the fields of mortality and morbidity, not to mention other institutions such as the Mexican Demography Society.

## Censuses

Mexico has a long history of keeping population statistics. For earlier periods, there are, as in Quebec, various types of parish records that were kept throughout the colonial period and even afterwards by the Catholic clergy.

In modern times, the first large-scale undertaking to gain more information on the Mexican population ${ }^{3}$ was in 1895 , the year of the first Census. A second Census was held five years later (1900) and another every 10 years since then, with the most recent taking place in 1990, giving the situation as of March 12 (see tables 1A and 1B).

Given the problems caused by Mexico's particularly difficult geography, along with poor facilities and services early in this century, lack of education, a traditionally haphazard administrative system and the revolution that wracked the country from 1910 to 1920, it is not surprising that the quality of census data has been erratic over time.

[^26]Table 1A. Main Characteristics of Mexican Censuses, 1895 to 1990

| Year | Date | Surveyed Population | Survey Unit | Origin of Information | People per Questionnaire | Year of Publication |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1895 | October 20 | De facto/de jure ${ }^{1}$ | Family | Self-enumeration | .. | 1899 |
| 1900 | October 27 | De facto ${ }^{2}$ | Family | Self-enumeration | - | 1904 |
| 1910 | October 25 | De facto ${ }^{3}$ | Family | Interview | . | 1918-1920 |
| 1921 | November 30 | De facto ${ }^{3}$ | Family | Interview | $\cdots$ | 1928 |
| 1930 | May 15 | De jure | Collectively | Interview | 100 | 1934 |
| 1940 | March 6 | De jure | Collectively | Interview | 80 | 1948 |
| 1950 | June 6 | De jure | Collectively | Interview | 45 | 1955 |
| 1960 | June 8 | De jure | Collectively | Interview | 50 | 1962-1963 |
| 1970 | January 28 | De jure | Household | Interview | 14 | 1971-1972 |
| 1980 | June 4 | De jure | Household | Interview | 14 | 1984 |
| 1990 | March 12 | De jure | Household | Interview | -• | 1992- |

${ }^{1}$ Three questionnaires were used: The first one was intended for the resident population, the second for transients and the third, for the temporarily absent population. Publications present separated results for the three types of populations and for de facto and de jure population.
${ }^{2}$ Three questionnaires were used; but the data were not published separately and, according to the General Directorate of Statistics (GDS), we can consider the population as de facto.
The census questionnaire was written with the goal of enumerating de jure population, but the modifications made to the questionnaire did not reach that goal. So the survey enumerated de facto population (GDS).
Table 1B. Main Characteristics of Canadian Censuses, 1851 to 1991

| Year | Date | Surveyed Population | Survey Unit | Origin of Information | Year of Publication |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1851-1852 ${ }^{1}$ | January 12,1852 | De jure | Household | Interview | 1853 |
| 1860-1861 ${ }^{1}$ | Without | De jure | Household | Interview | 1863 |
| $1871{ }^{2}$ | April 2 | De jure | Household | Interview | 1873 |
| $1881{ }^{3}$ | April 4 | De jure | Household | Interview | 1882 |
| $1891{ }^{4}$ | April 5 | De jure | Household | Interview | 1893 |
| 1901 | April 1st | De jure | Household | Interview | 1902 |
| $1911^{5}$ | June 1st | De jure | Household | Interview | 1912 |
| 1921 | June 1st | De jure | Househiold | Interview | 1924 |
| 1931 | June 1st | De jure | Household | Interview | 1936 |
| 1941 | June 11 | De jure | Household | Interview | 1950 |
| 1951 | June 1st | De jure | Household | Interview | 1953 |
| $1956{ }^{6}$ | June 1st | De jure | Household | Interview | 1958 |
| 1961 | June 1st | De jure | Household | Interview | 1963 |
| 1966 | June 1st | De jure | Household | Interview | 1969 |
| 1971 | June 1st | De jure | Household | Self-enumeration | 1974 |
| 1976 | June 1st | De jure | Household | Self-enumeration | 1977-1980 |
| 1981 | June 3 | De jure | Household | Self-enumeration | 1982-1984 |
| 1986 | June 3 | De jure | Household | Self-enumeration | 1987-1989 |
| 1991 | June 4 | De jure | Household | Self-enumeration | 1992-1993 |

[^27]In a doctoral thesis on demographic change in Mexico, Marta Mier y Teran ${ }^{4}$ provided an assessment of various censuses. She estimates that census coverage for 1950, 1960 and 1970 was comparable. ${ }^{5}$ According to her research, the 1940 population was probably under estimated by $2.0 \%$, that of 1930 by $0.8 \%$ and that of 1920 by $4.0 \%$. It seems likely that the 1910 Census overestimated the population by $1.8 \%$, while the underestimate was $1.3 \%$ in 1900 and $5.9 \%$ in 1895. These are, of course, only estimates arrived at by a series of complex calculations and hypotheses on the 1970 Census coverage. Her analysis demonstrates that, at least at the national level, the quality of census data is acceptable.

Most Mexican demographers have, however, expressed doubts regarding the quality of the 1980 Census, in which they feel there was over-enumeration. Conversely, they feel that the 1990 figures are too low. There has as yet been no official document issued by INEGI. According to CONAPO, work is underway to produce annual estimates from 1970 on. For all these reasons, Mexico does not appear in most of the tables in the U.N. Demographic Yearbook, and in those where it is included, the figures are described as being "of lesser reliability." Mexican demographers consulted are of the opinion that the population of Mexico in 1990 was probably 84.5 million.

## Vital statistics

The "Vital Statistics Registry Regulation" has existed in principle since July 10,1871 . This data-collection system has been implemented gradually across the country since the initial law set up the Civil Registry in 1857. The registry began operations in Veracruz in 1861 but application throughout the country proceeded slowly, and it was some time before relatively complete figures on demographic events (births, deaths and marriages) were produced. The many political upheavals that marked the country's history also had an impact on the smooth operation of such a registry. Vital statistics certificates were introduced in $1935^{6}$ but the standardization of such documents throughout the country was only achieved in 1983.7 The rapid growth of the population in recent decades has made it difficult to maintain an efficient network of registry offices, so that registration of a birth or death may require a special trip, resulting in many omissions. (In 1976, there were vital statistics

[^28]registry offices in only $8 \%$ of communities with less than 2,500 inhabitants; yet, at the same time, $34 \%$ of Mexicans lived in communities with less than 2,500 inhabitants.) From a procedural point of view, Mexico differs little from Canada. Once an event is registered locally, the information is transcribed and forwarded to the Statistics Branch which compiles the documents, draws up statistics, prepares tables and makes these available to the public. The antiquated methods of information processing used to date, along with variations in the quality of services from one state to another and in the training of staff, have resulted in often significant levels of errors, gaps and omissions (occasionally in the order of $20 \%$ to $25 \%$ ). ${ }^{8}$ Added to this, at the practical level, are quite surprising disagreements on the definition of terms (such as live births), despite the fact that these terms are precisely defined by international organizations, along with significant late registration. Notwithstanding these problems, demographic phenomena in the recent period have been reasonably well documented through indirect methods and the competence of Mexican statisticians and international experts. INEGI has made remarkable strides in data collection and processing. Organizations such as the National Population Council (CONAPO), the College of Mexico, the Centre for Population and Health Studies, Mexican universities and joint projects with international bodies such as the Latin-American Centre for Demography (CELADE) have produced studies of good quality.

Some essential precautions must be taken when using vital statistics data, because of the two major weaknesses mentioned: under-registration and late registration.

## Under-registration

There are indications that events (births, marriages, deaths) are not uniformly registered and the extent of under-registration varies from year to year and from one administrative unit to another. It is difficult to justify the fact, for example, that two states may have proportions of infant deaths to total deaths varying from $6.8 \%$ to $27.5 \%$. In such a situation, the necessary data adjustments give rise to concern since the hypotheses on which they are made are often hard to defend. ${ }^{9}$

## Late registration

Vital statistics offices are not easily accessible to the entire population. A major proportion of births do not take place in hospital, as in Canada, and therefore must be reported by the mother or father. Moreover, there is no

[^29]Figure 3
Distribution of Registered Births by Cohort and Age at Registration in 1971, 1972, 1973 and 1974


$$
\begin{array}{ll}
\text { Source: } & \text { Mier y Terán, Marta (1989). La Fecundidad en México: 1940-1980, } \\
\text { La Fecundidad en México: Cambios y Perspectivas, } \\
\text { Beatriz Figueroa (Ed.), El Colegio de México, p. } 57 .
\end{array}
$$

powerful incentive such as family allowance to encourage registration. The result is late registration, which, in addition to providing questionable information, makes the annual accounting for each place of residence at the time of the event much more complicated, given the extent of internal migration.

To take just one example, two tables (Tables 2 and 3) and a figure (Figure 3) illustrate the difficulties demographers have in calculating the basic birth and fertility rates. The result is that it is hard to get an idea of current trends, both in terms of variations in intensity and with respect to changes in tempo.

Weaknesses in information collection and the uncertainty of population estimates based on flawed census data mean that our knowledge of Mexican population trends:

Table 2. Registered Live Births by Age at Registration, Mexico, 1986-1989

| Year | Age at Registration |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Less than <br> 1 year old | 1 | 2 | 3 | 4 | 5 | 6 and <br> over | Unknown |  |
| 1986 | $2,579,301$ | $2,040,909$ | 251,618 | 36,377 | 28,181 | 26,478 | 25,764 | 168,584 | 1,390 |  |
| 1987 | $2,794,390$ | $2,087,752$ | 174,142 | 79,459 | 63,489 | 56,240 | 53,079 | 279,008 | 1,221 |  |
| 1988 | $2,622,031$ | $2,078,323$ | 124,235 | 56,970 | 42,788 | 37,931 | 37,911 | 241,680 | 2,193 |  |
| 1989 | $2,620,262$ | $2,063,386$ | 132,907 | 63,575 | 45,021 | 39,612 | 38,033 | 236,746 | 982 |  |

Source: I.N.E.G.I. (1992). Estadisticas Demograficas: Cuaderno de Población No. 3, Mexico, p. 13-16.

1) is often based on simple indices calculated on a multi-year basis (generally three-year averages);
2) requires readers to assess estimates proposed by several researchers;
3) obliges researchers to compare results obtained from different sources and by different methods;
4) is obtained using indirect methods or models;
5) often depends on survey results because, despite the smaller size of the sample and its inherent drawbacks, the interview process yields more accurate data than the information coming from Vital Statistics Registry.

## Demographic surveys

The less satisfactory the measurement of demographic phenomena provided by censuses and vital statistics, the more common it is to use ad hoc surveys. Listed below are the four best-known surveys carried out in recent years:

1) 1976 Mexican Fertility Survey (EMF);
2) 1979 National Survey on Birth Control Methods and Prevalence of Use (ENPUMA);
3) 1982 National Demographic Survey (END);
4) 1987 National Fertility and Health Survey (ENFES).

These studies were mainly intended to track trends in fertility, mortality, nuptiality and contraception, all top priority phenomena for the country's development since the promulgation of the new Population Act in January 1974.
Table 3. Live Births by Year of Birth and Registration Year, Mexico, 1985-1989

| Registration Year | Total | Year of Birth |  |  |  |  |  |  |  | Previous Years | Unknown |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 |  |  |
| 1989 | 2,602,262 | 1,626,556 | 522,144 | 84,778 | 50,929 | 41,778 | 38,412 | .. | .. | 254,683 | 982 |
| 1988 | 2,622,031 | ... | 1,637,966 | 519,233 | 74,986 | 47,569 | 39,953 | 37,314 | .. | 262,817 | 2,193 |
| 1987 | 2,794,390 | ... | $\ldots$ | 1,612,991 | 564,868 | 105,219 | 72,033 | 62,187 | 57,076 | 318,795 | 1,221 |
| 1986 | 2,579,301 | ... | ... | $\cdots$ | 1,611,930 | 499,957 | 75,139 | 50,847 | 43,716 | 296,322 | 1,390 |
| 1985 | 2,655,571 | $\ldots$ | ... | $\ldots$ | $\ldots$ | 1,589,344 | 509,318 | 83,390 | 58,593 | 407,736 | 5,190 |

Source: I.N.E.G.I. (1992). Estadisticas Demograficas: Cuaderno de Población No. 3, Mexico, p. 11.

## DEMOGRAPHIC GROWTH

The Mexico described here is the country with its current boundaries and its republican constitution as proclaimed in 1857 and restored in 1867 (the year of Canadian Confederation).

At the time of the first Census in 1895, Mexico had 12,632,427 inhabitants and at the turn of the century 13,607,259, while the 1901 Census in Canada counted 5,371,300 people. In 1990, the population of Mexico was estimated at 84 million ${ }^{10}$ while that of Canada was 27.3 million. In a little under a century, Mexico's population has increased 6.2 times and that of Canada 5.1. Seen from this angle, the difference does not seem that great; however, the initial populations were not the same, hence the significant numerical difference today. ${ }^{11}$ But the real differences show up mainly in the stages and mechanisms of growth.

Growth in Canada over this century has been marked by gradually declining natural increase, interrupted by two relatively brief episodes: a severe drop during the depression of the 1930s and a remarkable surge during the 20 years of the baby-boom, approximately 1945 to 1965. But this growth was also the result of a great wave of international immigration. This immigration was very strong in the early part of the century (between 1900 and 1914) and weaker during the two world wars and the depression era. Since the end of the Second World War, despite its many ups and downs, immigration has nevertheless been responsible for close to a third of the average annual growth.

Growth in Mexico during this period followed a quite different pattern. It was never augmented by any significant immigration, even though, until the Second World War, encouragement was given to European immigration and "return" migration by Mexicans who had moved to the United States at the end of the 19th century and during the civil war. Growth was thus due almost exclusively to natural increase. Although growth was slightly weaker up to the Second World War, this was due partly to emigration and military losses and partly to the lower birth rate during the decade of armed combat. It should also be borne in mind that mortality was still quite high during that period. Since 1940, as may be seen in Figure 4, growth has been considerably more rapid than that of either Canada or the United States.

During the decade preceding the last World War, Mexico was at about the midway point of its demographic transition. Even though the death rate had been declining for some time, it was not yet sufficiently differentiated from a birth rate which remained very high. It is only towards the end of the war that we see a clear drop in mortality (see chapter on mortality) shown by unprecedented gains in life expectancy. Fertility remained at very high levels until around

[^30]Figure 4

## Population of Mexico, Canada and the United States, 1891 to 2030



Note: $\quad$ The straight lines are adjusted, allowing a comparison between mean slopes.
Sources: Mexico: From 1895 to 1970: Censuses; 1980: Mier y Terán (1982); 1990: Census; from 2000 to 2030: CELADE estimates.
Canada: From 1891 to 1991: Censuses; from 2000 to 2030: Statistics Canada (December 1991). Population Projections 1990-2011, Demography Division, Projection Section, p. 11.
United States: From 1900 to 1990: U.S. Census Bureau; from 2000 to 2030: U.S. Census Bureau Projections.
the 1970s, resulting in a significant increase in the number of births over the 30-year period. Maintenance of high birth rates combined with a decrease in the death rate yielded a considerable increase in annual population growth. The annual rate, which had declined slowly to $1.7 \%$ a year between 1930 and 1940, rose to $2.7 \%$ between 1940 and 1950 , then $3.1 \%$ between 1950 and 1960 and $3.4 \%$ between 1960 and 1970; it then dropped to only $2.8 \%$ between 1970 and 1980 and to $2.5 \%$ between 1980 and 1990 . These high growth rates were achieved despite a certain level of emigration to the United States, with immigration being negligible. The result of this trend was a country of 84 million inhabitants in 1990 which had been trying for 20 years to slow its growth but which had such strong momentum in the form of a large female population of childbearing age, that any decrease in the birth rate could only be accomplished slowly, as any abrupt halt, assuming this is possible, would necessarily result in the short and medium term in severe imbalances in the population age structure (Figure 5).

In other words, to avoid the detrimental effects of very strong growth, the country faces a dilemma. It could either opt for a relatively slow reduction in fertility which would, in the long run, make Mexico a country that, although heavily populated, might reasonably hope that its economy would have time to grow to the point where it could deal with the increase in population, or it could attempt to reduce growth rapidly, with the result that the age structure would be severely destabilized with no guarantee that, in the same time frame, the economy would improve to the point where it could provide jobs for a population already too large for it.

The adaptation of Mexico to the rest of the continent is the North American version of the North-South antagonism; a current worldwide problem caused by imbalances in the rate of demographic and economic development between developing countries and western countries, loosely termed. These relations have major implications for the economic life and policies not only of the countries involved, but also of the other industrialized countries. If a given standard of living is to be maintained, and technical advances incorporated, population growth will bring with it the need for either an increase in economic activity or an increase in emigration. An increase in economic activity inevitably leads, for example, to an increase in capital investment which, if not generated internally, must be imported. For certain segments of the populations involved, these imports may be cause for concern. ${ }^{12}$ As well, population growth causes demographic pressure which is quickly felt on the southern border of the U.S. This pressure has been so strong for the past two decades that it has become increasingly difficult to control, particularly since not all economic stakeholders in the U.S. have the same view of the advantages and disadvantages of legal or illegal Mexican immigration, or of injections of capital into the neighbouring

[^31]Figure 5

## Birth and Death Rates, Mexico and Canada,

 1895-2025

Canada
Rate per 1,000


Source: Table A2.
Table 4. Population (in millions) from Different Scenarios for Mexico, Canada and the United States according to Simple Calculations Using Mean Annual Growth Rates,


[^32]country. It is thus evident that the study of demographic phenomena has a much broader scope than the simple intellectual satisfaction derived from understanding them, and that thinking in this area is naturally directed towards the future.

Without going into population projections as such, since these will be analyzed later, we may, using some simple calculations, arrive at an approximation of the possible dimensions of the Mexican population according to different horizons. Population growth follows the law of compound interest and thus, based on a census population of 81.5 million in 1990 (which we will not discuss), we may estimate future population size at various dates using a variety of growth rates maintained constant over a decade (Table 4).

These figures, however approximate they may be, demonstrate the desirability of acting rapidly on the growth rate if expansion of the population is the goal. The difference between maintaining $2 \%$ growth for 40 years and gradually reducing it to $1 \%$-is 50 million people. Given the current economic situation, it is easy to understand why the Mexican government has adopted the population policies it has, to slow growth, the measures implemented since the 1970s and the support received for them from the rest of the North American continent.

## Population policies

Since the 19th century, Mexican thinking has always associated economic development with strong population growth. In this, Mexico differs little from other countries in both North and South America. This has led to attempts to attract settlers, as in the United States and Canada, assistance in repatriating Mexicans who emigrated to the U.S., emphasis on the family, land settlement assistance and encouragement for cross-breeding with the Indian populations; these measures have persisted until quite recently. All measures did not meet with the same success, particularly as political instability and the revolutionary period of the 1910 decade failed to create the same favourable climate, for immigration in particular, as prevailed in the rest of North America. The growth rate of $1.2 \%$ to $1.5 \%$ between 1900 and 1910 , was well below that of Canada ( $2.9 \%$ ), the United States ( $1.9 \%$ ) and even Brazil ( $2.9 \%$ ). The few immigrants, even those from Europe, did not receive a particularly warm welcome overall; this period was followed by strong nationalist pressure promoting the concept of Mexico for Mexicans, which resulted in a veritable wave of xenophobia.

From the 1917 constitution forming the United States of Mexico to the Second World War, the various laws on population, including the Family Relations Act and the New Civil Code of 1928, all had basically the same inspiration: integration of indigenous populations, implementation of measures to keep Mexicans in Mexico through land reform and improvement, and benefits for emigres returning to Mexico, especially after the severe laws enacted in the United States at the time of the Great Depression. During this period of strong nationalism, priority went to the family and the rights of women and children, and mixed
marriages were encouraged, while certain eugenic aspects continued to be present. Mexico acted then, like Canada, as a stepping-off place for foreigners seeking to emigrate to the United States, and it proved to be as intolerant to Asians as were its northern neighbours.

The Second World War had some effect on Mexican population policy. The government continued to be motivated by the populationist notions of previous periods and encouraged marriage and fertility, while the Bracero Program, introduced on August 4, 1942, allowed Mexicans to work temporarily in the United States during a period when industrialization was accelerating in their country. The government was gratified at the decline in mortality, which brought a population increase that was still felt to favour economic development. In 1946, planning still included a policy on colonization. The second law on population, passed in December 1947, was clearly populationist in tone. And yet it was at this time that the effect of urban growth, and its driving force, rural migration, began to cause concern. By 1950, it began to be clear that population growth was not synchronized with economic growth: there were discrepancies between population increase and the growth of resources. The rate of increase in average income dropped from $6.1 \%$ to $1.4 \%$ between 1951 to 1952 , which was not compatible with the sustained annual population growth of $3.0 \%$ since 1940. Government thinking then turned towards measures to speed up economic development in order to adapt it to demographic growth, the advantages of which had not yet been openly questioned. During the years that followed, the government refrained from taking a position, and this laissez-faire attitude was accepted in silence by both those in favour of population control, who however remained active, and the proponents of economic development strategies.

Around the 1970s, the question of demographic change began to be raised pointedly on the basis of scientific population projections. ${ }^{13}$ 'To what extent has the demographic growth of the country stimulated or hindered economic growth?''The government's response came with the passing of the Population Act in December 1973. This law was characterized by a change in government attitude from that of previous years, which was marked by cautious indifference, and denoted a radical change in the till-then natalist philosophy. It took the form of a population policy that sought to harmonize population size and structure with the level of economic development in the country. Figures that were hard to contest supported the decision to take energetic action. Between 1950 and 1970, the population doubled, the urban population increased from $\mathbf{2 8 \%}$ to $45 \%$, the population of Mexico City rose from $11 \%$ to $17 \%$ of the national total and the number of people between 15 and 64 increased by a factor of 2.2. It had been proved that demographic growth would not slow down of its own momentum while progress continued and the arrival of young people on the job market was outstripping job creation.

[^33]Supported by many groups in favour of controlling population growth, the President's Office dared to confront traditionalists, who in any case aroused little sympathy among the general public, by proposing the new law which set the government firmly on the road to lower fertility.

Following the usual statements of universal principles and general goals, the law provided more specific low numerical growth objectives to be attained gradually, based on various horizons and practical measures for achieving them. This will be analyzed in the next chapter, on fertility.

To conclude briefly, in a century of demographic growth, we can recognize ideas and behaviours related as much to the major current of thought of a period as to particular Mexican views (importance of settlement, role of immigration, desire for assimilation, belief in the virtues of fertility, self-regulation of the economy and of demographic growth, etc.) found also in the history of population development in the United States and Canada. In the absence of adequate economic development, the results in Mexico were obviously quite different, as demonstrated by the current situation, and the recent consensus on the need to lower fertility will only yield results in the long term.

## BIRTH RATE AND FERTILITY

The natural growth rate of a population is the difference between its crude birth and death rates. The crude birth rate is obviously determined by the proportion of women and their average propensity to give birth (fertility) and the population size. Not only is this growth rate indispensable to calculate projections, but it is also a primary indicator of the reproductive power of a population. We will thus begin with a description of this rate, as we will be referring to it repeatedly in the discussion that follows.

Since the turn of the century we observe that, with very minor fluctuations, the crude birth rate, based on the best available estimates, remained between 40 and 45 per thousand until the mid-1970s (Table 5). The year 1975 clearly seems to mark the beginning of a permanent decline. Despite figures that vary from one author to another due to adjustments to data, there is a clear downward trend.

## Fertility

The decrease in the birth rate of a growing population is clearly the result of a decrease in fertility. ${ }^{14}$ The onset of this decrease more or less coincided with the change in government policy described in the previous chapter. In addition to calculations using adjusted vital statistics registrations and population

[^34]Table 5. Estimated Birth Rates from Calculations by Some Authors or Organisms Mexico, 1895-1990 (per 1,000)

| Period | Rate | Year | Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1895-1899$ | 47.3 | 1971 | $45.3^{\mathrm{b}}$ | $40.3^{\mathrm{c}}$ |  |
| $1900-1904$ | 46.5 | 1972 | $24.0^{\mathrm{b}}$ | $43.2^{\mathrm{d}}$ |  |
| $1905-1909$ | 46.0 | 1973 | $45.8^{\mathrm{d}}$ |  |  |
| $1910-1914$ | 43.2 | 1974 | $45.0^{\mathrm{b}}$ | $44.7^{\mathrm{d}}$ |  |
| $1915-1919$ | 40.6 | 1975 | $40.4^{\mathrm{a}}$ | $40.3^{\mathrm{b}}$ | $40.4^{\mathrm{c}}$ |
| $1920-1924$ | 45.3 | 1976 | $39.3^{\mathrm{e}}$ |  |  |
| $1925-1929$ | 44.3 | 1977 | $37.6^{\mathrm{d}}$ | $37.9^{\mathrm{f}}$ |  |
| $1930-1934$ | 44.6 | 1978 | $35.7^{\mathrm{g}}$ |  |  |
| $1935-1939$ | 43.5 | 1979 | $36.1^{\mathrm{g}}$ |  |  |
| $1940-1944$ | 44.6 | 1990 | $34.4^{\mathrm{g}}$ | $26.6^{\mathrm{b}}$ |  |
| $1945-1949$ | 45.0 |  |  |  |  |
| $1950-1954$ | 45.1 |  |  |  |  |
| $1955-1959$ | 44.9 |  |  |  |  |
| $1960-1964$ | 44.4 |  |  |  |  |
| $1965-1969$ | 44.3 |  |  |  |  |
| $1970-1974$ | $43.7^{\mathrm{a}}$ |  |  |  |  |

${ }^{a}$ Secretaría de Programación y Presupuesto. Agenda Estadisticas 1978.
${ }^{\mathrm{b}}$ Lailson: Estimated births and corrected for the age at the year of registration, corrected denominator for undercoverage.
${ }^{c}$ Lailson: Same method with a correction factor for late registrations.
${ }^{\text {d }}$ D.G.E.: Registered births and population corrected for undercoverage.
${ }^{\text {e }}$ CONAPO: No indication on the numbers used.
f ORDORICA: No indication on the corrections made to the data by the G.D.S.
8 INEGI: Registered births and G.D.S. population projections.
${ }^{h}$ Estimations by Gómez and Partida.
Sources: From 1895 to 1929: Collver, Andrew (1965). Birth Rates in Latin America. New Estimates of Historical Trends and Fluctuations. From 1930 to 1970, Dindmica de la poblacion de México, CEED, El Colegio de México, 1970 y Dirección General de Estadistica. SIC: Anuarios Estadisticos, various years. Figueroa, Beatriz (1989). La Fecundidad en México, El Colegio de México.
estimates from 1964 to 1982, other estimates were deduced on the basis of at least six surveys, of which we have already mentioned the four most commonly quoted. In each of the surveys, between 3,000 and 20,482 women aged 15 to 49 were questioned about their fertility.

The data collected provided information by various methods, on birth cohort fertility (longitudinal aspect) and by indirect methods on current fertility trends (age-specific fertility rate and total fertility rate) (Table 6). There is thus a great profusion of data, which mainly allow us to measure the changes that had already occurred, since the speed with which fertility has declined in recent years reduced the interest in figures projected on the basis of trends.
Table 6. Selection of Fertility Rate Estimates for Mexico, by Age, According to Different Authors, Different Methods,

| Age Group | Census of Mexico, 1970 ${ }^{\text {a,1 }}$ |  |  | Mexicain Fertility Surveys ${ }^{\text {a, }}{ }^{\text {a }}$ |  |  | Mexicain Fertility Surveys ${ }^{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1955-1959 | 1960-1964 | 1965-1969 | 1962-1964 | 1965-1969 | 1970-1974 | $\begin{gathered} \text { 1972-1976 } \\ \text { EMF } \end{gathered}$ | $\begin{gathered} \text { 1977-1981 } \\ \text { END } \end{gathered}$ | $\begin{gathered} \text { 1982-1986 } \\ \text { ENFES } \end{gathered}$ |
| 15-19 | 150 | 142 | 107 | 142 | 118 | 102 | 135 | 119 | 96 |
| 20-24 | 305 | 305 | 271 | 308 | 307 | 297 | 268 | 233 | 213 |
| 25-29 | 306 | 325 | 288 | 356 | 329 | 323 | 269 | 224 | 201 |
| 30-34 | 266 | 270 | 252 | 306 | 293 | 271 | 245 | 174 | 151 |
| 35-39 | 177 | 195 | 177 | 208 | 204 | 201 | 180 | 131 | 106 |
| 40-44 | 87 | 89 | 83 | 100 | 102 | 94 | 81 | 59 | 39 |
| 45-49 | 26 | 27 | 22 | 25 | 27 | 21 | 11 | 8 | 5 |
| T.F.R. | 6.59 | 6.76 | 5.88 | 7.21 | 6.90 | 6.54 | 5.94 | 4.74 | 4.06 |

${ }^{\text {a }}$ CELADE calculations using the own children method.
Sources: ${ }^{1}$ Mier y Teran, Marta (1989). La Fecundidad en México: Cambios y Perspectivas, Compiladora, Beatriz Figueroa (Pub.), El Colegio de México, p. 43. ${ }^{2}$ Palma, Yolanda, Javier Suárez (1991). El Descenso de la Fecundidad en México, proceedings from the Demographic and Health Surveys World

Table 7. Total Fertility Rates for Mexico According to Different Sources and Different Methods of Calculations, 1962-1981

| Year | Surveys |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1970 <br> Census Own Children Method | Vital Statistics | $\begin{aligned} & \text { EMF - } 1976 \\ & \text { Own } \\ & \text { Children } \\ & \text { Method } \end{aligned}$ | EMF - 1976 Pregnancy History | ENP - 1979 Own Children Method | END - 1982 <br> Live <br> Births <br> History |
| 1962 | 6.77 | 6.56 | 7.12 |  |  |  |
| 1963 | 6.79 | 6.54 | 6.99 |  |  |  |
| 1964 | 6.85 | 6.70 | 7.52 |  |  |  |
| 1965 | 6.74 | 6.67 | 6.67 |  | 6.74 |  |
| 1966 | 6.40 | 6.73 | 7.50 |  | 6.18 |  |
| 1967 | 6.15 | 6.61 | 6.50 |  | 6.34 |  |
| 1968 | 5.14 | 6.60 | 7.17 |  | 6.09 |  |
| 1969 | 5.54 | 6.52 | 6.64 |  | 6.78 |  |
| 1970 |  | 6.48 | 6.82 | 7.00 | 6.47 | 6.79 |
| 1971 |  | 6.51 | 6.90 | 6.54 | 6.72 | 6.82 |
| 1972 |  | 6.60 | 6.62 | 6.65 | 6.67 | 6.55 |
| 1973 |  | 6.76 | 6.42 | 6.45 | 6.40 | 6.42 |
| 1974 |  | 6.59 | 5.93 | 6.00 | 6.13 | 6.13 |
| 1975 |  | 5.96 | 5.37 | 6.03 | 5.94 | 5.83 |
| 1976 |  | 5.56 | 5.40 | 5.49 | 5.42 | 5.50 |
| 1977 |  | 5.43 |  |  | 5.37 | 4.92 |
| 1978 |  | 5.13 |  |  | 4.82 | 4.54 |
| 1979 |  |  |  |  | 4.63 | 4.32 |
| 1980 |  |  |  |  |  | 4.30 |
| 1981 |  |  |  |  |  | 4.38 |

Source: Nuriez, Leopoldo (1989). Mexico: Las Encuestas Nacionales en la Estimacion de Los Niveles de Fecundidad, La Fecundidad en México, Cambios y Perspectivas, Beatriz Figueroa (Ed.), El Colegio de México, p. 104.

Table 7, drawn up by Leopoldo NuEez Fernandez ${ }^{15}$ is one of the best summaries of the trend in the total fertility rate (T.F.R.) for various years between 1962 and 1981. Whatever the survey and data-processing method, it seems clear that 1975 marks the rupture between fertility that was stationary and "natural" for the country and controlled fertility. If we accept the approximate figure of 6.0 for the 1975 T.F.R. and 4.4 for that of 1981, we can see a drop of close to $30 \%$ in 7 years. The term "natural" is used because, until 1975, the T.F.R. varied only slightly from the overall completed fertility rate of birth cohorts, the last of which ended their fertile life around 1970.

[^35]With this kind of data, it is difficult not to link the decline in the birth rate and the drop in fertility to population policy introduced during the same period. Although the national family planning program was only implemented on October 28, 1977, its objectives had already been set and measures to limit the number of births had already been introduced. ${ }^{16}$

The goal of the national family planning plan was 25 per thousand growth in 1982 and 10 per thousand by the year 2000. Since the growth rate at the time was 32 per thousand and the death rate 8.5 per thousand, the birth rate was actually 40 per thousand. As a preliminary estimate, achieving growth of 10 per thousand would mean, given a probable death rate of 6 per thousand by the year 2000, that the birth rate would have to fall to about 16 per thousand in 24 years, a decline of approximately 0.7 per thousand per year. The link between the birth rate and fertility is not a simple one, since we must consider the size of the total population, the number of women and the tempo of births; various calculations have thus led to approximate estimates of age-specific total fertility rates and the crude birth rate until the year 2000 . It is interesting to look at what the results of the plan have been to date.

In the past and the early phase of the transition, we mentioned previously that different analyses yielded comparable results: birth rates in the order of 40 to 44 per thousand are compatible with a T.F.R. of about 6.5. According to CONAPO, the birth rate in 1978 was 38 per thousand, congruent with a T.F.R. of 4.94.

## 1977 to 1982

The first stage in the national population planning program (1977 to 1982) set a target growth rate of 25 per thousand for the end of the period. Given the death rate of 8.1 per thousand, the projected birth rate was 34.4 per thousand. This objective appears to have been attained, since according to figures from the National Population Council, the rate apparently fell to 37.6 per thousand in 1977 and 34.0 per thousand in 1981,17 resulting in a growth rate of 25 per thousand.

The reduction in fertility in the first phase was to be obtained by setting up effective family planning services and by intensive promotion of contraceptive methods. At the outset, it would appear that, based on data from the 1982 National Demographic Survey, campaigns to limit births achieved positive results. The anticipated number of users of contraceptive methods was $3,450,000$

[^36]in 1982, and the survey determined that there were $4,784,000-\mathrm{a} 139 \%$ success rate. ${ }^{18}$ But this success was the result of a determined, systematic campaign, particularly in rural areas which even set the number of new users, doctors were to recruit each month. ${ }^{19}$ Participants included the Mexican Institute of Social Insurance (IMSS), the Institute of Social Services and Security of the Workers of the State (ISSSTE), and the Secretariat of Health and Aid (SSA). Under the program, 71 rural hospitals and 3,024 clinics were built and between 1974 and 1983, close to 15,000 midwives were trained.

## 1983 to 1988

The second phase of the planning process (from 1983 to 1988) was obviously the logical continuation of the first, and we may judge from the results whether the measures which led to the success of the first phase were still appropriate for attaining longer-term objectives.

The results of the second phase, in fact, appear to have been less striking than those of the previous one. Whereas the total fertility rate was brought down from 5.9 children per woman (in 1974) to 4.4 (in 1982), a reduction of $25 \%$ in five years, the reduction from 1980 to 1986 would have been much smaller if at this date the rate had been 3.8 children per woman, ${ }^{20}$ or a drop of $14 \%$ in 7 years ${ }^{21}$, notwithstanding an increase in the proportion of users of contraceptive methods. The number of users apparently went from $30 \%$ of married women of child-bearing age in 1976, according to the EMF, to $53 \%$ in 1987 (ENFES). To summarize, according to the surveys, the number of users grew as follows: from 2.4 million in 1977 to 4.8 million in 1982 , and 7.5 million in 1988 (of whom 2.4 million were sterilized).

## The limits of contraception

An initial sharp drop in the cross-sectional index followed by a more gradual decline raises questions regarding the reproductive behaviour of the women involved in the change, which can only appear in analyses of cohort completed fertility, for the moment difficult to obtain. It can be seen that, from the 1976 E.M.F. to the 1987 EMFES, female sterilization had become the most common contraceptive method, rising from $9 \%$ of women aged 15 to 49 in couples who practised contraception in 1976 to $36 \%$ in 198722. There are many women who use modern contraceptive methods, but if the target objectives are to be achieved, there must be many more of them, and they must begin using contraception

[^37]Table 8. Percentage Reduction in Fertility Rates by Age, for Two Recent Periods and Distribution of Sterilized Women in 1984, Mexico

| Age Group | $1975-1986^{1}$ | $1980-1990^{2}$ | Distribution of <br> 100 Sterilized <br> Women $^{3}$ |
| :---: | :---: | :---: | :---: |
| $15-19$ | 24 | 20 |  |
| $20-24$ | 28 | 19 | 3.6 |
| $25-29$ | 29 | 18 | 18.1 |
| $30-34$ | 36 | 19 | 28.8 |
| $35-39$ | 44 | 41 |  |
| $40-44$ | 50 | 49 | 58 |
| $45-49$ |  | 59.5 |  |

Sources: ${ }^{1}$ According to the Mexican Fertility Surveys.
${ }^{2}$ From Vital Statistics.
${ }^{3}$ Bronfman, Mario, Elsa Lopez and Rodolfo Tuiran (1989). Pratica Anticonceptiva y Clases Sociales en México: La Experiencia Recente, Politiques de Population, Études et Documents, El Colegio de México, Volume IV, No. 1.
before they have many children. But during the 1982 to 1987 period, the increase in the number of users of contraceptive methods varied with age: $39 \%$ for women 15 to $19,41 \%$ for those 40 to $44,59 \%$ for those 45 to 49 , but only $4 \%$ to $7 \%$ for those in the five-year age groups from 25 to $39,{ }^{23}$ who, it must be noted, were the largest group, percentage-wise, to practice contraception. Moreover, recommendations from the national family planning program suggest sterilization mainly for women who already have at least three children. It is thus easy to see why the downward trend in indices does not correspond exactly to the overall increase in the number of contraception users, since in the population there are a significant number of fertile women who begin using contraception only after high-parity births. In fact, birth rates at all ages declined until 1990 but in varying proportions (Table 8).

We might accordingly summarize the recent reduction in Mexican fertility as an "accelerated march'' version of the reduction which occurred more slowly in industrialized countries in the past by the planned use of modern contraceptive methods. The national plan mainly took the form of a powerful campaign in favour of contraception. This is somewhat of a simplification, and contains a degree of exaggeration, since Mier y Teran and Cecilia Rabel discovered that fertility had begun to decline in the State of Mexico and the northern states among women born in the first quarter of the 20 th century. ${ }^{24}$ Experience elsewhere has in fact shown that in general, the initial approach is definitive contraception (ad vitam) by women who have achieved high parities, leading

[^38]to a decrease in fertility at older ages and consequently a rejuvenation of birth tempo and a reduction in cross-sectional indices. Following this, however, the reduction in fertility normally slows significantly during the period when people's standards on optimum family size are being revised downward.

Clearly stated, prolonging the effects of the programmed, organized contraception of the last 20 years will call for changes in thinking in the direction of a lo wer standard for family size. This would involve far-reaching changes in family living conditions and the status of women. Obviously, progress in communications is speeding up changes which formerly took decades to occur in countries that are now highly developed. In this connection, we note such factors as continuing urbanization, greater access to information and increases in the level of education. Other changes, such as the current later age at marriage, also contribute to the process and will no doubt also assist somewhat in reducing fertility.

If in Mexico definitive contraception was so successful and so quickly resulted in a drop in current indices, this was because the female population was ready to adopt it. Proof of this is the fact that, at the time of the 1976 Mexican Fertility Survey, $52 \%$ of women exposed to the risk of pregnancy replied that they did not want another child and only $29.3 \%$ said they used some form of contraception. ${ }^{25}$

If the future trend in fertility is to continue, the T.F.R. will likely remain below the cumulative fertility of the cohorts involved for a number of years to come. Given the number of women of child-bearing age, the decrease in fertility will no doubt not be clearly apparent in the decrease in the birth rate, which might not decrease as much as hoped. There seems to be some evidence of this. The target birth rate in 1986 was 27 per thousand, while the estimated rate for that year was 30 or 32 per thousand. ${ }^{26}$ It is thus possible that the growth objective forecast for the year 2000 will be hard to attain. And yet, the official 1990 population count, which was lower than anticipated, came as a surprise, opposing surveyors and census-takers. It is unlikely that either of them made a significant error. The cause of the surprise is more likely a considerable upward adjustment in previous censuses (particularly that of 1980), which were recognized to have under-enumerated. Using a base that was over-estimated by the adjustment would thus have resulted in over-estimates for the years prior to the 1990 Census, the quality of which has not yet been officially critiqued by INEGI. ${ }^{27}$ A consensus nevertheless seems to be forming which estimates the population of Mexico at 84.5 million at the time of the census (interim figures proposed by CELADE). ${ }^{28}$

[^39]
## The current situation

The recent monitoring of fertility trends was undertaken only to evaluate the progress in the decline of growth of Mexico's population. If we go back to the time when these analyses were made, i.e. in 1980, the immediate natality future was the 20 years from 1980 to the year 2000. These estimates are facilitated to a certain extent by the fact that the women in child-bearing age during this period are now already born. Obviously, some of them will enter their fertile period while others will leave it.

Carmen Arretz ${ }^{29}$ provides a good discussion, based on a thorough study of the behaviour of birth cohorts in the recent past (1950-1983). She notes that the rate of growth in the number of births increased slightly from 1950 to 1965, declined at the rate of $2.5 \%$ a year during the next five years, and then, beginning in 1970, dropped to almost nil in the years prior to 1980 (from 1980 to 1990 the number of births remained more or less stationary). Since the majority of births ( $64 \%$ to $70 \%$ ) are to women between 15 and 30 , the more their share of the group of women of child-bearing age increases, the more the number of births should increase. However, the proportion of young women increased considerably, from $56 \%$ in 1950 to over $60 \%$ in 1983, while the number of births declined considerably. Cumulative fertility at age 30, which remained constant at about 3.7 children per 1,000 women until around the 1970 s , has dropped steadily and was only about 2.7 around 1983. The relative share of fertility rates of women under 30, which was constant until around 1970 ( $+54 \%$ ), increased to $58.5 \%$ in 1983. The combination of these three phenomena led first to a rapid increase in the number of births to women under 30 until around 1970 and then to a slower rate of increase until 1983.

The stabilization seen in the number of births will have a medium-term effect of reducing the proportion of women aged 15 to 30 in the 15 to 49 age group and, assuming a decrease in their fertility, a reduction in the number of births in the future. This decrease in births combined with the increase in population should bring a substantial reduction in the birth rate. This, generally speaking, is the logic which seems to have guided the formulation of the government's future growth objectives.

Since the first projections by Benitez, ${ }^{30}$ many others have been made by various authors, and we will discuss only a few of these.

Frejka in $1975^{31}$ proposed five scenarios based on the year, a net reproduction rate would reach unity and then remain constant. His Hypothesis III forecast a T.F.R. of 6.00 for the 1970 to 1975 period and a replacement level between 2000 and 2005 which would lead, based on other hypotheses, to a Mexican

[^40]Figure 6A
Age Pyramids of the Canadian Population and the Mexican Population at Different Censuses (in millions)

Mexico: 1970


- 141 -


Figure 6B
Age Pyramids of the Canadian Population for the Year 2001 and the Mexican Population for the Year 2000 (in millions)

population of 108.7 million by the year 2000. This gradual decline in fertility would give a T.F.R. of 4.08 for the period 1985 to 1990. As we saw, however, the measured T.F.R. was 4.38 in 1981. Although we know very little about the other hypotheses, this model appears interesting for the moment, although a linear trend in either the net or crude reproduction rate has never been observed over long periods.

The United Nations, in the 1973 World Population Prospect, proposed hypotheses that used a logistic function to project crude reproduction rates. The results using the lowest hypothesis yielded a crude reproduction rate of 2.2 for the period 1990 to 1995 and a population of 94 million in 1990 . These two figures are much higher than those observed.

But the projections which arouse the most interest are those of CONAPO (the body responsible for planning in the country), since they attempt to mark out the progress towards the growth objective set for the year 2000. Thus they do not formulate a hypothesis on the possible fertility trend, since they deduce it based on a reduction in the rate of growth (tables 9 and 10). However, along

Table 9. Variations in the Annual Growth Rates (in \%) of the Mexican Population According to Three Hypotheses of the National Population Council (1970-2000)

| Year | Hypothesis |  |  |
| :---: | :---: | :---: | :---: |
|  | I | II | III |
| 1970 | 3.5 | 3.5 |  |
| 1975 | 3.3 | 3.3 | 3.5 |
| 1976 | 3.2 | 3.2 | 3.3 |
| 1977 | 3.2 | 3.2 | 3.2 |
| 1978 | 3.0 | 3.0 | 3.2 |
| 1979 | 2.9 | 2.9 | 3.0 |
| 1980 | 2.7 | 2.7 | 2.9 |
| 1981 | 2.6 | 2.6 | 2.7 |
| 1982 | 2.5 | 2.5 | 2.6 |
| 1985 | 2.2 | 2.3 | 2.5 |
| 1990 | 1.7 | 2.0 | 2.4 |
| 1995 | 1.3 | 1.6 | 2.2 |
| 2000 | 1.0 | 1.5 | 2.1 |

Source: Consejo Nacional de Población, 1978, Yearbook of Mexico.

Table 10. Gross Reproduction Rates and Projected Population According to Three Hypothetical Annual Population Growth Rates, Mexico ${ }^{1}$

| Year | Hypothesis |  |  |  |  |  |
| :---: | :---: | ---: | ---: | ---: | :--- | :--- |
|  | I |  | II |  | III |  |
|  | G.R.R. | Population | G.R.R. | Population | G.R.R. | Population |
|  |  |  |  |  |  |  |
| 1970 | 3.21 |  | 3.21 |  | 3.21 |  |
| 1975 | 3.03 |  | 3.03 |  | 3.03 |  |
| 1980 | 2.53 | 69,902 | 2.53 | 69,902 | 2.53 | 69,902 |
| 1985 | 1.94 | 79,242 | 2.00 | 79,265 | 2.05 | 79,358 |
| 1990 | 1.45 | 87,489 | 1.63 | 88,203 | 1.80 | 88,853 |
| 1995 | 1.12 | 94,464 | 1.33 | 96,527 | 1.61 | 98,737 |
| 2000 | 0.87 | 100,249 | 1.18 | 104,397 | 1.53 | 109,184 |

${ }^{1}$ Population in thousands.
Source: Consejo Nacional de Población, Resultados de Las Proyecciones de la Población de México, (no date).
with the 10 per thousand figure set, they also propose 15 and 20 per thousand based on the 1970 figure of 35 per thousand. Taking into account hypotheses on the change in the tempo of fertility, these constraints lead to a crude reproduction rate of either $0.87,1.18$ or 1.53 in 2000 and consequently to a population ranging from 100.25 million to 109.18 million. We can only speculate on the probability of any of these three hypotheses being realized, focusing mainly on the first, since this is the objective of the government. A crude rate of 0.87 means a T.F.R. of about 1.78, or practically the level of fertility in Canada in 1990. The probabilities of observing changes at such a pace are doubtful, since this would be one of the fastest drops in fertility ever seen. Although it is not impossible, ${ }^{32}$ a number of indicators lead us to believe that the probabilities are slight.

It is well known that:

1) The population, despite significant migration, is still mainly rural. Historically, such populations have maintained high fertility rates longer than urban populations (due to tradition, reduced access to contraceptives, social constraints, etc.);
2) As a corollary, the populations most inclined to reduce their fertility are populations with a high level of education. However, despite remarkable progress, Mexico remains a country where the level of education is still low; ${ }^{33}$
3) Observations of annual growth by the difference between birth and death rates lead us to believe that the Mexican population is not changing at a rate which will lead it to the 10 per thousand level forecast for the year 2000, even taking into account the uncertainty regarding the data used.

## Consequences of decreased growth

Much has been said to date about short-term projected fertility and overall population figures. Population projections serve another, equally important purpose, which is to predict changes in population structure, often simply described as aging. Without adopting an economic point of view, the fact remains that the simple dependency ratios calculated by demographers have always corresponded to a certain extent to the comfort status of societies and provided an indication of the difficulties or improvements which could be expected based on projections. It is particularly important not to consider the demographic dependency ratio independently of anticipated levels of well-being and the potential for economic growth which is less and less dependent on them, insofar as the economies of foreign countries interfere with the economy of the country itself. Canada thus had an impressive total dependency ratio of $\mathbf{7 2 \%}$ during the 1960s and 70s, but that was at a time when the country's economy

[^41]Figure 7
Dependancy Ratio for Canada, the United States and Mexico, 1931 to 2030




Source: Table A3.
was extremely prosperous because of Canada's world trade advantages. The Mexican rate is in more or less the same order of magnitude, but the Mexican economy is in a much more precarious situation than that of Canada in the 1960s. The total dependency ratio in Canada by the year 2000 will be little higher than the current figure ( $48 \%$ ), and yet the state of the economy leads many to fear a decline in the standard of living in the coming years (Figure 7). For Mexico, it seems certain that by the year 2000 the total dependency ratio will have decreased significantly (from $\mathbf{7 1 . 6 \%}$ to 62.1\%) (Tables A3 in the Appendix); however, to simplify the situation as much as possible, this implies that, all other things being equal, the number of adults (which is expected to increase by $29 \%$ ) would have a productivity level equal to that of today. There will be 13 million more of them, which will call for a considerable job creation effort given the current situation of the North American or even world economy. The demand created by young people will not grow due to the increase in their numbers (there will be barely 2 million more of them), any more than that created by older workers (not quite 1 million more). The Mexican economy is thus facing a very challenging demographic situation.

This situation is not confined to the future. It already exists and even has a history which partly explains the phenomenon of Mexican emigration which will be discussed later.

## Conclusion

Mexico has been experiencing an irrevocable decline in fertility since the early 1970s. In line with the universal model of demographic transition, this does not mean that growth has started to decline. The momentum created by women of child-bearing age is such that, even with lower fertility, the population will increase. It remains to be determined when the growth of the country will level out. This depends (apart from migratory phenomena) on the speed with which fertility continues to decline. This is an extremely difficult question, since the answer brings into play, strictly within the limits of the field of demography, the decrease in age-specific fertility rates and the relative weight of each in the intensity of total fertility. We may be mislead for many years by changes in tempo, which in the medium and long term result in a smaller reduction in the number of births than predicted by current indices. We may also be concerned about the consequences of a rapid decline in fertility and mortality, which results in a chain of imbalances in the age structure. It will be recalled that it is not so much the changes in structure that have detrimental effects, but how quickly they occur, since the adaptation time is too short.

Canada is beginning to experience some of the consequences of rapid aging, predictions of which went unnoticed by many when after the 1960s, fertility which had risen between 1945 and 1965, again returned to the levels to which it had been heading throughout the century. However, the recent drop in fertility in Canada after the baby boom is vastly smaller than that which will eventually be seen in Mexico, even if the plan objectives were only partially attained, that is, if fertility in the year 2000 were to be at basically the same level as that in Canada in the 1990s. It would appear that, at least as it has been stated, government policy has not been influenced by the calculations made by J.B. Pichat ${ }^{34}$ who in 1970 studied, following the goal expressed by Colonel Draper, the effects of zero growth by the year 2000. These calculations showed the tremendous economic and social difficulties faced by a population in which the numerical relations between age groups tend to fluctuate at a very rapid rate to maintain zero growth.

[^42]
## MORTALITY

No matter how sophisticated the index developed to measure the mortality level of a country, we nevertheless always end up calculating rates. These rates are the ratio between a numerator representing the number of deaths and a denominator representing the population. Given our comments on sources of data, these two figures are often questionable and require adjustments before they can be used to obtain a reliable measurement. For population estimates, smoothing procedures allow us to use imperfect census data to obtain age distributions that are closer to reality than the census results. These distributions are often distorted by those who are unaware of their true age and tend to overstate or understate it by rounding it to the nearest round figure. For deaths, a number of methods may also be used to adjust statistics, for example by using regularity indices, comparison of survey data with vital statistics, checking the existence of epidemics before accepting surprising changes in figures, not to mention methods that are heavily dependent on statistics and thus run the risk of substituting them completely for data actually collected. Once the life table has been calculated using the most plausible rates, it can be compared with a standard table to determine the likelihood of results and assess the validity of variances.

The question of emigration will be dealt with further on, but the reader should bear in mind its effect on the measurement of mortality. Since emigration has been extensive and selective, particularly in recent times, anomalies may appear in measurements and misleadingly indicate intrinsic changes in the intensity of phenomena.

## Trends in mortality

Many authors have proposed tracing trends in mortality by calculating life expectancies for certain years or periods using available material, adjusted by various methods. It will be seen from Table 11 that there is a relatively satisfactory correlation of values obtained by various authors for the recent period, which should inspire confidence in their true levels. Since we do not have all tables, and all series are not available up until 1991, we will mainly use the work of Gomez de Leon, which is the most recent, that of Camposortega which provides detailed tables up to 1980, and figures from CELADE, to make a few approximate comparisons.

The rapid drop in mortality in Mexico (Figure 8) is one of the characteristics of the demographic transition of developing countries, particularly those which embarked upon the process early in this century, and even more so of those where it began after the Second World War. Considerable progress was made at that time in combatting infectious diseases and the effects of poor sanitary conditions and malnutrition. In the 60 years from 1930 to 1990, male life expectancy in Mexico increased by 31.4 years and female life expectancy by 36.1 years, according

Table 11. Life Expectancy at Birth Evaluated by Different Authors and from Different Sources, Mexico, 1930-1990

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males |  |  |  |  |  |  |
| 1930 | 36.08 | 34.93 |  |  |  |  |  |
| 1940 | 40.39 | 40.27 |  | 38.79 | 39.12 | 37.67 | 39.46 |
| 1950 | 48.09 | 48.40 |  | 46.15 | 46.74 | 46.16 | 49.12 |
| 1950-1955 |  |  | 49.20 |  |  |  |  |
| 1955-1960 |  |  | 53.85 |  |  |  |  |
| 1960 | 57.61 | 55.14 |  | 54.92 | 55.99 | 56.38 | 57.08 |
| 1960-1965 |  |  | 57.01 |  |  |  |  |
| 1965-1970 |  |  | 58.51 |  |  |  |  |
| 1970 | 60.05 | 57.87 |  | 57.73 | 59.01 | 58.39 | 59.51 |
| 1970-1975 |  |  | 60.41 |  |  |  |  |
| 1975-1980 |  |  | 62.62 |  |  |  |  |
| 1975 | 62.75 | $\begin{aligned} & 60.27 \\ & 61.91 \end{aligned}$ |  |  |  |  |  |
| $\begin{aligned} & 1980 \\ & 1980-1985 \end{aligned}$ |  |  |  | 61.53 | 63.16 | $64.52^{\text {a }}$ |  |
|  |  |  | 64.24 |  |  |  |  |
| 1990 |  | 66.35 |  |  |  |  |  |
|  | Females |  |  |  |  |  |  |
| 1930 | 37.49 | 37.45 |  |  |  |  |  |
| 1940 | 42.50 | 43.24 |  | 41.22 | 41.65 | 39.84 | 41.46 |
| 1950 | 51.04 | 52.49 |  | 49.83 | 50.68 | 49.00 | 52.07 |
| 1950-1955 |  |  | 52.37 |  |  |  |  |
| 1955-1960 |  | 59.45 | 57.07 |  |  |  |  |
| 1960 | 60.32 |  |  | 58.34 | 59.73 | 56.38 | 57.08 |
| 1960-1965 |  |  | 60.30 |  |  |  |  |
| 1965-1970 |  |  | 62.21 |  |  |  |  |
| 1970 | 63.95 | 63.21 |  | 61.29 | 63.06 | 62.32 | 63.63 |
| 1970-1975 |  |  | 64.94 |  |  |  |  |
| 1975-1980 |  |  | 68.24 |  |  |  |  |
| 1975 | 66.57 | $\begin{aligned} & 66.60 \\ & 69.72 \end{aligned}$ |  |  |  |  |  |
| 1980 |  |  |  | 66.77 | 69.39 | $70.99^{\text {a }}$ |  |
| 1980-1985 |  |  | 70.64 |  |  |  |  |
| 1990 |  | 73.51 |  |  |  |  |  |

${ }^{\text {a }}$ Observed data (INEGI).
Sources: ${ }^{1}$ Benitez, Raùl, Gustavo Cabrera (1973). Tablas Abreviadas de Mortalidad de la Población de México, 1930, 1940, 1950, 1960, El Colegio de México.
${ }^{2}$ Gómez, José, Virgilio Partida (1993). Sesenta Años de Mortalidad en México, Una Reconstrución Demografica, 1930-1990, CEPS.
${ }^{3}$ CELADE (1989). Latin America Life Tables, Volume XXII, No. 44, Santiago de Chile.
${ }^{4}{ }_{80} e_{0}$ according to Camposortega.
${ }^{5}$ Camposortega, Sergio (1992). Analisis Dernografico de la Mortalidad en México, 1940-1980, El Colegio de México.
${ }^{6}$ Arriaga, E. (1968). New Life Tables for Latin American Population in the X1X and XX Century, Berkeley, University of California Press. Rowe (1979). Country Demographic Profiles, Mexico, U.S. Bureau of Census, Washington, D.C.
${ }^{7}$ Corona, R. (1981). La Mortalidad en México, Instituto de Investigaciones Sociales de la Universidad Nacional Autonoma de Mexico.

Figure 8
Life Expectancy at Birth by Sex, Canada and Mexico, 1921 to 1991


Sources: Mexico: From 1930 to 1990: Gómez, José and Virgilio Partida (1993). Sesenta Años de Mortalidad en México: Una Reconstrucción Demográfica 1930-1990. C.E.P.S., p. 43.
Canada: From 1921 to 1981: Nagnur, Dhruva (1986). Longevity and Historical Life Tables (Abridged) 1921-1981, Catalogue No. 89-506; from 1986 to 1991: Author's calculations.
to time series calculated by Jose Luis Gomez (Column 2 of Table 11). ${ }^{35}$ Canadian statistics have not seen such a significant gain since they began in 1921. Gains in the 70 -year period were only 15.1 years for men and a little under 20 years for women. This is because Canada was already in the final phase of its demographic transition, which in any case was of a different type, and mortality had already declined significantly since the 18th century.

[^43]Table 12. Gain in Life Expectancy at Birth by Decade and Gain in Life Expectancy due to Progress Against Infant

Source: Gómez, José, Virgilio Partida (1993). Sesenta Años de Mortalidad en México: Una Reconstrucion Demografica, 1930-1990, CEPS, Mexico.

Based on Table 12, for both men and women, the decade in which the largest gains were made in Mexico was the 1940s ( 8.1 years for men and 9.3 years for women in 10 years), while the least gains were made during the 1960s (2.7 years for men and 3.8 years for women).

The method used by analysts is that described by Pollard, ${ }^{36}$ which provides a measurement of gains in life expectancy over a certain period of time in a given age interval; this shows the extent of gains attributable to efforts to combat infant and child mortality (Table 12).

## Infant mortality

The infant mortality rate is the ratio between the number of deaths among children under a year old and the number of births in their birth cohort. In practice, it must be borne in mind that both categories of events may be affected by under-registration. The fertility surveys mentioned in the previous chapter also give us estimates of infant mortality, since the women interviewed gave information on live births and on the deaths of children before their first birthday. The results obtained from the two sources differ rather significantly, as shown in Table A4 (in Appendix), and it is not easy to determine which is the true case, since each method of calculation has its advantages and disadvantages. With vital statistics, taking omissions into account, we have a total count of the various events. With survey data, although the calculations involve a smaller sample, we may nevertheless assume that the quality of information is better. However, the constant lower rates observed from vital statistics data are certainly due to poor registration of births and deaths. If we rely on estimates made from survey data, we must conclude that deaths among children under a year old are subject to significantly more under-registration than births.

Whatever option we choose, the time series confirm the considerable progress mentioned above, which follows the classic trend for mortality in underdeveloped countries. Comparison with the trend in infant mortality in Canada since 1921 nevertheless shows, by the distance between the curves, how much farther Mexico has to go, although the country may well cover this ground more quickly than Canada has, given the slowly acquired but now available knowledge (Figure 9).

## Child mortality

Child mortality is certainly an area which, historically following post-neonatal infant mortality, has improved the most with progress in hygiene and health conditions, control of infectious diseases and advances in nutrition. In 60 years, Mexico has made quite remarkable progress in this area as well. For both sexes

[^44]Figure 9
Probability of Dying Before Age One, Canada and Mexico, 1921-1990

combined, the probability of dying between ages 1 and 5 dropped from 244 per 1,000 to 7.75 per 1,000 (Table 13). If we consider that around 1930 underregistration of births was no doubt more widespread than nowadays, progress becomes even more impressive. The advance has been so swift that Mexico in the early 1970s had the same rate Canada had had during the 1930s, while in the 1930s Mexico had a level equal to that of Canada in the 18th century. Today, Mexico's level of child mortality compares to that of Canada in much the same way as does mortality in general, that is, the 1990 level is more or less equal to that recorded in Canada in the mid-1950s.

Table 13. Probabilities of Dying for Juveniles (Aged 1-4), Mexico and Canada, 1930-1990 (per 1,000)

| Year | Mexico |  |  | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Fenales | Both Sexes | Males | Fernales |
| 1930 | 236.23 | 252.51 | 244.12 | 26.80 | 23.60 |
| 1931 | 207.28 | 220.25 | 213.55 |  |  |
| 1932 | 181.03 | 191.01 | 185.87 |  |  |
| 1933 | 166.54 | 175.16 | 170.75 |  |  |
| 1934 | 156.32 | 163.76 | 159.97 |  |  |
| 1935 | 151.60 | 157.84 | 154.66 |  |  |
| 1936 | 152.92 | 158.80 | 155.80 |  |  |
| 1937 | 152.80 | 159.90 | 156.28 |  |  |
| 1938 | 148.91 | 157.31 | 153.02 |  |  |
| 1939 | 145.87 | 153.77 | 149.74 |  |  |
| 1940 | 142.47 | 150.36 | 146.33 |  |  |
| 1941 | 144.04 | 152.15 | 148.02 | 17.80 | 15.20 |
| 1942 | 141.94 | 150.22 | 146.00 |  |  |
| 1943 | 138.08 | 146.42 | 142.16 |  |  |
| 1944 | 125.39 | 133.29 | 129.24 |  |  |
| 1945 | 118.07 | 127.01 | 122.40 |  |  |
| 1946 | 104.10 | 112.07 | 107.95 |  |  |
| 1947 | 97.27 | 104.48 | 100.75 |  |  |
| 1948 | 92.63 | 99.54 | 95.97 |  |  |
| 1949 | 94.77 | 101.63 | 98.10 |  |  |
| 1950 | 100.83 | 108.12 | 104.37 |  |  |
| 1951 | 91.06 | 97.57 | 94.23 | 8.30 | 6.80 |
| 1952 | 92.04 | 98.47 | 95.18 |  |  |
| 1953 | 77.22 | 82.65 | 79.87 |  |  |
| 1954 | 76.10 | 81.08 | 78.53 |  |  |
| 1955 | 62.56 | 66.71 | 64.59 |  |  |
| 1956 | 63.04 | 67.33 | 65.13 |  |  |
| 1957 | 57.40 | 61.52 | 59.41 |  |  |
| 1958 | 56.44 | 60.63 | 58.48 |  |  |
| 1959 | 50.98 | 54.69 | 52.79 |  |  |
| 1960 | 46.64 | 49.76 | 48.16 |  |  |
| 1961 | 45.28 | 48.04 | 46.63 | 4.90 | 4.00 |
| 1962 | 43.97 | 46.51 | 45.21 |  |  |
| 1963 | 43.20 | 45.57 | 44.36 |  |  |
| 1964 | 40.07 | 42.35 | 41.18 |  |  |
| 1965 | 37.81 | 40.01 | 38.88 |  |  |
| 1966 | 34.93 | 36.74 | 35.82 |  |  |
| 1967 | 35.23 | 36.85 | 36.02 |  |  |
| 1968 | 34.22 | 35.56 | 34.88 |  |  |
| 1969 | 35.51 | 36.85 | 36.17 |  |  |
| 1970 | 33.47 | 34.51 | 33.98 | 3.80 | 3.00 |
| 1971 | 32.88 | 33.95 | 33.40 |  |  |
| 1972 | 28.43 | 29.26 | 28.83 |  |  |
| 1973 | 24.14 | 24.67 | 24.40 |  |  |
| 1974 | 19.00 | 18.88 | 18.94 |  |  |
| 1975 | 17.60 | 17.14 | 17.38 |  |  |
| 1976 | 17.78 | 16.96 | 17.37 |  |  |
| 1977 | 16.98 | 16.03 | 16.51 |  |  |
| 1978 | 15.50 | 14.32 | 14.92 |  |  |
| 1979 | 13.70 | 12.73 | 13.22 |  |  |
| 1980 | 12.86 | 11.91 | 12.39 | 2.40 | 1.80 |
| 1981 | 11.30 | 10.55 | 10.92 |  |  |
| 1982 | 10.19 | 9.50 | 9.85 |  |  |
| 1983 | 9.49 | 8.86 | 9.18 |  |  |
| 1984 | 9.45 | 8.77 | 9.12 |  |  |
| 1985 | 8.90 | 8.22 | 8.56 |  |  |
| 1986 | 8.55 | 7.90 | 8.23 |  |  |
| 1987 | 7.88 | 7.14 | 7.51 |  |  |
| 1988 | 7.92 | 7.06 | 7.49 |  |  |
| 1989 | 7.96 | 7.07 | 7.52 |  |  |
| 1990 | 8.16 | 7.34 | 7.75 | 1.70 | 1.30 |

Sources: Mexico: Gómez, Jose, Virgilio Partida (1992). Nheles y Tendenclas de la Mortalldad en Las Primeros Años de Vida en Mexko, 1930 1990, CEPS, Mexique.
Canada: Nagnur, Dhruva (1986). Longevity and Abreged LUfe Tables, 191J-1981, Statistics Canada. For 1990, author's calculations.

During each of the decades between 1930 and 1990, reductions in infant and child mortality together have almost always represented half of the total gains in life expectancy at birth. While the overall level of these gains is not surprising, the irregularities observed from decade to decade and between the two sexes question the quality of data.

Mortality before age five, which weighs heavily in the calculation of life expectancy at birth, was still sufficiently high in the early 1990s that it may be expected that reductions in this area will, for many years to come, be responsible for a good part of any improvement in that index.

## Comparison of mortality in Canada and Mexico

The life tables for the most recent period available are those drawn up by CELADE and are thus no doubt slightly different from those calculated by other authors, but not to the point of hindering comparison with Canadian tables. The form of the death probability curve shows that the status of mortality in Mexico in 1990 is quite similar to that of Canada in 1950. There is, however, one difference: adult male excess mortality is much higher in Mexico in 1990 than it was in Canada in 1950. This may be due to the fact that, in the two countries, it was not the same birth cohorts that experienced the great increase in automobile use in recent decades, which is responsible for a great number of fatal accidents.

Whether we look at figures from Gomez and Partida or those calculated by Composortega, we can see that, as in Canada, there is a widening gap between the trend in male and female life expectancies (Table 14).

Table 14. Life Expectancy at Birth at Different Dates According to Two Different Sources, Mexico

| Year | Gómez et Partida |  |  | Camposortega |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Difference | Males | Females | Difference |
| Around 1930 | 35.10 | 37.63 | 2.53 |  |  |  |
| Around 1940 | 40.54 | 43.44 | 2.90 | 39.12 | 41.65 | 2.53 |
| Around 1950 | 47.62 | 51.67 | 4.05 | 46.74 | 50.68 | 3.94 |
| Around 1960 | 55.20 | 59.50 | 4.30 | 55.99 | 59.73 | 3.74 |
| Around 1970 | 58.32 | 63.57 | 5.25 | 59.01 | 63.06 | 4.05 |
| Around 1980 | 61.99 | 69.72 | 7.73 | 63.16 | 69.39 | 6.23 |
| Around 1990 | 66.14 | 73.37 | 7.23 |  |  |  |

Sources: Gómez, J., V. Partida and S. Camposortega, op. cit.

Figure 10
Age-specific Probability of Dying, Mexico (1985-1990) and Canada (1950-1952)


$$
\begin{array}{lll}
\text { Sources: } & \text { Canada: } & \text { Nagnur, Dhruva (1986). Longevity and Historical Life } \\
\text { Tables (Abridged) 1921-1981, Catalogue No. 89-506. } \\
\text { Mexico: } & \text { CELADE (1989). America Latina Tablas de Mortalidad, } \\
& & \text { Boletin Demográfico, No. 44, Chile, p. 230. }
\end{array}
$$

Mortality has not only declined among children. At the other end of life, there have been significant gains. Accordingly to Composortega's tables, between 1930 and 1980, the probability of reaching age 80 for men aged 60 rose from $23 \%$ to $43 \%$, and for women from $26 \%$ to $53 \%$. It is certain that these probabilities have further increased in the past ten years. In Canada, the probability for males is $47 \%$ and for females $68 \%$.

## Level of mortality in Mexico

In the opinion of CELADE demographers, although considerable progress has been made, mortality in Mexico is still quite high in comparison with countries of the same level of development (Cuba, Costa Rica, etc.). It would appear that this is due to infant and child mortality, as well as male excess mortality by accident well above that of the countries under comparison. As well, the national level masks considerable differences between rich and poor regions. ${ }^{37}$

## Cause-specific mortality

Despite the WHO classification rules, cause-specific mortality is rather poorly measured in Mexico. The quality of information often forces researchers to confine themselves to the major headings of the International Classifications of Diseases (ICD 8 and 9), making it possible to give only an outline description which yields no surprises. ${ }^{38}$

Some $\mathbf{7 0 \%}$ of infant mortality is due to perinatal diseases, parasitic and infectious diseases and diseases of the respiratory system. For child mortality, the causes involved are the same, but infectious diseases rank first. For those 15 to 49, first place goes to accidents, with diseases of the digestive and the circulatory system trailing far behind. Breast and cervical cancers are responsible for excess female mortality due to tumours. Recent changes mainly involve a reduction in maternal mortality.

From age 50 to 65 , causes of death are fairly different from those of the previous age group. We see an increase in excess male mortality caused by diseases of the circulatory and digestive systems. For women, cancers and diseases of the circulatory system are the major groups of causes.

In short, the trend in cause-specific mortality in Mexico is only known in broad terms, although there is nothing to indicate that it deviates from the classical lifetime growth pattern of mortality in under developed countries.

## MARRIAGE IN MEXICO

Analysis of the marital status of people counted in a census is certainly not the best way to study the nuptiality of a population. In the first place, with the exception of single status, to which there is no return, all other statuses may occur several times. In the second place, migration may cause the numbers of people in each status to vary over time, as do marriage, divorce and widowhood.

[^45]Seen from a social point of view, the conjugal life of individuals is, as a general rule, always complicated. Standards change: an institution like marriage may go out of style, divorce may become more common, and as adult mortality rates diminish the result is changes in marital status that formerly would have been considered less likely. As time progresses, then, the marital status of individuals at the time of a census is less and less indicative of their history. But demography must often estimate behaviours based on available data, and it is possible, with certain hypotheses, to get an idea of how populations will behave through similarities or differences at a given age. A comparison of the male and female populations of Mexico and Canada in the 1990 Census (1991 for Canada) yields several enlightening observations (tables 15A and 15B).

## Women and marriage

1) Marriages seem to take place earlier in Mexico. At the same age, recent birth cohorts have fewer single people in Mexico than in Canada. Thus in the 25 to 29 age group, only $21 \%$ of Mexican women are single, while in Canada this figure is almost $30 \%$ for the same cohorts. Conversely, there were more single persons at age 50 among the Mexican birth cohorts prior to 1942 than among their Canadian counterparts. This situation seems strange to the point where it leads us to suspect statistical reporting problems.
2) Common-law marriages seem to have been prevalent earlier in Mexico than in Canada. To support this, we have the fact that, in birth cohorts prior to 1952, the proportion of women in common-law relationships is higher than in Canada (see following pages regarding the origin of this form of conjugal life). In more recent cohorts, however, it is in Canada that we find a larger proportion of women in common-law relationships.
3) With respect to the divorced state, there are many more divorced women in Canada than in Mexico in all birth cohorts. We may thus conclude either that divorce is less frequent in Mexico or that divorcees more often remarry. The first hypothesis is in fact more realistic. Couples separate but tend not to divorce.
4) Mexico has a larger proportion of widows. This may be the result of higher male mortality or the fact that widows are less likely to remarry.

## Men and marriage

1) Men also seem to leave the single state more quickly than their Canadian counterparts, but Julieta Quilodran ${ }^{39}$ suspects that many divorced men describe themselves as single in censuses.

[^46]Table 15. Distribution of the Mexican and Canadian Population (in \%) by Age Group and Marital Status

| Age Group | Marital Status |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single | Married | Common Law | Separated | Divorced | Widow(er) | Unspecified |
|  | Males |  |  |  |  |  |  |
| 15-19 | 94.3 | 2.9 | 2.2 | 0.1 | 0.0 | 0.1 | 0.4 |
| 20-24 | 61.1 | 27.9 | 9.0 | 0.4 | 0.2 | 0.1 | 1.3 |
| 25-29 | 29.3 | 57.5 | 11.3 | 0.6 | 0.4 | 0.2 | 0.8 |
| 30-34 | 14.0 | 73.2 | 10.6 | 0.7 | 0.6 | 0.3 | 0.6 |
| 35-39 | 8.6 | 78.5 | 10.3 | 0.8 | 0.7 | 0.5 | 0.6 |
| 40-44 | 6.4 | 80.8 | 9.5 | 0.9 | 0.8 | 0.9 | 0.6 |
| 45-49 | 5.6 | 81.1 | 9.5 | 1.0 | 0.8 | 1.5 | 0.6 |
| 50-54 | 5.3 | 80.3 | 9.2 | 1.2 | 0.8 | 2.5 | 0.7 |
| 55.59 | 4.8 | 79.0 | 8.7 | 1.3 | 0.8 | 3.7 | 0.8 |
| 60-64 | 5.0 | 77.5 | 8.5 | 1.4 | 0.8 | 5.9 | 0.9 |
| $65+$ | 4.9 | 69.5 | 7.0 | 1.5 | 0.8 | 14.8 | 1.4 |
|  | Females |  |  |  |  |  |  |
| 15-19 | 83.9 | 9.8 | 5.4 | 0.5 | 0.1 | 0.1 | 0.3 |
| 20-24 | 45.4 | 40.6 | 10.8 | 1.5 | 0.5 | 0.4 | 0.9 |
| 25-29 | 21.2 | 63.2 | 11.2 | 1.9 | 1.0 | 0.8 | 0.5 |
| 30-34 | 12.1 | 71.6 | 10.3 | 2.3 | 1.6 | 1.6 | 0.5 |
| 35-39 | 9.0 | 73.4 | 9.8 | 2.7 | 1.9 | 2.7 | 0.6 |
| 40-44 | 7.9 | 73.1 | 8.7 | 3.0 | 2.1 | 4.6 | 0.7 |
| 45-49 | 7.1 | 71.7 | 8.2 | 3.1 | 1.9 | 7.2 | 0.8 |
| 50-54 | 7.1 | 68.3 | 7.1 | 3.3 | 1.9 | 11.5 | 0.9 |
| 55.59 | 6.7 | 65.0 | 6.3 | 3.3 | 1.8 | 16.0 | 1.0 |
| 60-64 | 7.2 | 57.5 | 5.6 | 3.1 | 1.7 | 23.8 | 1.2 |
| $65+$ | 7.7 | 40.1 | 4.1 | 2.1 | 1.5 | 42.7 | 1.8 |

Table 15. Distribution of the Mexican and Canadian Population (in \%) by Age Group and Marital Status - Concluded

| Age Group | Marital Status |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single | Married | Common Law | Separated | Divorced | Widow(er) |
|  | Males |  |  |  |  |  |
| 15-19 | 98.7 | 0.5 | 0.7 | 0.1 | 0.0 | 0.0 |
| 20-24 | 81.6 | 8.7 | 9.1 | 0.4 | 0.2 | 0.0 |
| 25-29 | 45.7 | 37.6 | 13.9 | 1.5 | 1.3 | 0.0 |
| 30-34 | 24.2 | 59.5 | 11.3 | 2.4 | 3.1 | 0.1 |
| 35-39 | 14.8 | 68.4 | 8.9 | 2.9 | 4.8 | 0.2 |
| 40-44 | 12.4 | 73.5 | 7.4 | 3.1 | 5.9 | 0.3 |
| 45-49 | 7.6 | 75.9 | 6.5 | 3.0 | 6.4 | 0.6 |
| 50-54 | 6.7 | 78.1 | 5.1 | 2.8 | 6.1 | 1.1 |
| 55-59 | 6.6 | 79.3 | 4.0 | 2.5 | 5.5 | 2.0 |
| 60-64 | 7.0 | 79.3 | 2.9 | 2.4 | 4.7 | 3.7 |
| 65 + | 6.9 | 73.8 | 1.5 | 2.0 | 2.8 | 12.9 |
|  | Females |  |  |  |  |  |
| 15-19 | 95.6 | 1.3 |  | 0.1 | 0.0 | 0.1 |
| 20-24 | 64.6 | 19.4 | 14.2 | 1.2 | 0.5 | 0.1 |
| 25-29 | 29.7 | 50.9 | 14.2 | 2.7 | 2.4 | 0.2 |
| 30-34 | 16.3 | 64.6 | 10.4 | 3.5 | 4.7 | 0.4 |
| 35-39 | 10.7 | 69.5 | 8.0 | 3.8 | 7.2 | 0.7 |
| 40-44 | 7.9 | 71.5 | 6.3 | 3.9 | 9.0 | 1.4 |
| 45-49 | 6.4 | 72.3 | 5.2 | 3.7 | 9.6 | 2.8 |
| 50-54 | 5.6 | 73.2 | 3.7 | 3.3 | 8.8 | 5.5 |
| 55-59 | 5.5 | 71.5 | 2.4 | 2.9 | 7.6 | 10.1 |
| 60-64 | 5.8 | 66.2 | 1.6 | 2.5 | 6.2 | 17.7 |
| $65+$ | 7.7 | 40.3 | 1.4 | 0.9 | 3.0 | 46.7 |

[^47]Table 16. Population Distribution by Marital Status and Five-year Age Groups, Mexico, 1960-1990 (in \%)

| Age | Females |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Population } \\ & 12+ \end{aligned}$ | Single | Married | Married Common Law | Widowed | Divorced | Separated | Unknown Marital Status |
|  | 1960 |  |  |  |  |  |  |  |
| Total | 11,189,934 | 34.30 | 44.42 | 8.68 | 8.96 | 0.72 | .. 1 | 2.91 |
| $<20$ | 3,053,873 | 83.81 | 10.07 | 2.95 | 0.22 | 0.09 | . | 2.86 |
| 20-24 | 1,542,203 | 34.56 | 49.48 | 10.93 | 1.17 | 0.50 | - | 3.36 |
| 25-29 | 1,308,904 | 17.85 | 63.44 | 12.93 | 2.17 | 0.72 | .. | 2.89 |
| 30-34 | 1,042,530 | 12.16 | 67.83 | 12.60 | 3.84 | 0.93 | . | 2.64 |
| 35-39 | 961,540 | 9.64 | 68.05 | 12.84 | 6.01 | 1.07 | . | 2.39 |
| 40-44 | 687,017 | 8.86 | 65.22 | 12.02 | 10.34 | 1.18 | .. | 2.38 |
| 45.49 | 623,126 | 8.30 | 63.43 | 10.59 | 14.21 | 1.19 | - | 2.27 |
| $50+$ <br> Age Unknown | 1,921,862 | 9.04 | 43.94 | 6.99 | 35.66 | 1.21 | - | 3.15 |
|  | 48,879 | 13.64 | 42.64 | 12.28 | 13.53 | 4.46 | . | 13.46 |
|  | 1970 |  |  |  |  |  |  |  |
| Total | 15,071,713 | 36.81 | 45.71 | 8.39 | 6.46 | 0.60 | 2.02 | .2 |
| $<20$ | 4,404,752 | 87.02 | 9.08 | 3.20 | 0.15 | 0.06 | 0.49 | . |
| 20-24 | 2,102,041 | 38.46 | 48.18 | 10.43 | 0.69 | 0.36 | 1.88 | .. |
| 25-29 | 1,685,004 | 17.37 | 66.15 | 12.30 | 1.35 | 0.57 | 2.24 | .. |
| 30-34 | 1,310,802 | 10.40 | 71.70 | 12.08 | 2.44 | 0.82 | 2.56 | .. |
| 35-39 | 1,276,364 | 7.82 | 71.82 | 12.61 | 3.97 | 0.89 | 2.88 | $\cdots$ |
| 40-44 | 973,863 | 7.28 | 70.33 | 11.52 | 6.69 | 1.02 | 3.16 | . |
| 45-49 | 807,299 | 7.07 | 68.32 | 10.45 | 9.80 | 1.07 | 3.29 | .. |
| $50+$ | 2,511,588 | 9.95 | 50.52 | 7.24 | 28.00 | 1.22 | 3.07 | .. |
|  | 1980 |  |  |  |  |  |  |  |
| Total | 22,128,830 | 37.35 | 46.30 | 7.49 | 6.10 | 0.65 | 1.96 | 0.14 |
| $<20$ | 6,591,714 | 86.47 | 8.73 | 3.71 | 0.35 | 0.06 | 0.47 | 0.20 |
| 20-24 | 3,182,353 | 40.01 | 47.33 | 9.71 | 0.65 | 0.46 | 1.74 | 0.10 |
| 25-29 | 2,479,332 | 18.43 | 67.10 | 10.25 | 1.16 | 0.84 | 2.12 | 0.08 |
| 30-34 | 1,952,431 | 11.21 | 73.27 | 9.81 | 2.04 | 1.08 | 2.50 | 0.09 |
| 35-39 | 1,742,361 | 8.46 | 73.68 | 10.34 | 3.48 | 1.11 | 2.83 | 0.09 |
| 40-44 | 1,385,492 | 7.36 | 72.66 | 9.67 | 5.81 | 1.17 | 3.23 | 0.10 |
| 45-49 | 1,180,940 | 6.97 | 70.46 | 9.08 | 8.69 | 1.18 | 3.51 | 0.10 |
| $50+$ | 3,614,207 | 7.90 | 53.85 | 6.55 | 27.50 | 0.94 | 3.08 | 0.18 |
|  | 1990 |  |  |  |  |  |  |  |
| Total | 28,829,665 | 37.94 | 45.45 | 7.51 | 5.62 | 1.03 | 1.79 | 0.66 |
| $<20$ | 8,048,266 | 89.64 | 6.11 | 3.45 | 0.11 | 0.05 | 0.33 | 0.30 |
| 20-24 | 4,091,035 | 45.37 | 40.62 | 10.76 | 0.43 | 0.47 | 1.49 | 0.85 |
| 25.29 | 3,353,917 | 21.19 | 63.21 | 11.23 | 0.85 | 1.04 | 1.94 | 0.54 |
| 30-34 | 2,808,883 | 12.10 | 71.65 | 10.26 | 1.56 | 1.61 | 2.32 | 0.50 |
| 35.39 | 2,368,551 | 9.02 | 73.38 | 9.77 | 2.70 | 1.89 | 2.67 | 0.57 |
| 40.44 | 1,792,757 | 7.93 | 73.05 | 8.65 | 4.63 | 2.08 | 2.96 | 0.70 |
| 45-49 | 1,519,287 | 7.11 | 71.69 | 8.17 | 7.20 | 1.93 | 3.15 | 0.75 |
| $50+$ | 4,846,969 | 7.26 | 55.30 | 5.58 | 26.09 | 1.68 | 2.80 | 1.29 |

See notes at the end of this table.

Table 16. Population Distribution by Marital Status and Five-year Age Groups, Mexico, 1960-1990 (in \%) - Concluded

| Age | Males |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Population } \\ & 12+ \end{aligned}$ | Single | Married | Married Common Law | Widowed | Divorced | Separated | Unknown Marital Status |
|  | 1960 |  |  |  |  |  |  |  |
| Total | 10,852,867 | 40.87 | 44.84 | 8.11 | 2.95 | 0.35 | .. ${ }^{1}$ | 2.87 |
| $<20$ | 3,053,171 | 93.42 | 2.72 | 0.76 | 0.21 | 0.07 | .. | 2.82 |
| 20-24 | 1,404,869 | 57.03 | 30.75 | 7.31 | 0.46 | 0.23 | . | 4.22 |
| 25.29 | 1,195,988 | 27.26 | 56.92 | 11.56 | 0.86 | 0.33 | .. | 3.06 |
| 30.34 | 1,009,105 | 15.00 | 68.34 | 12.38 | 1.34 | 0.40 | .. | 2.55 |
| 35-39 | 959,140 | 10.19 | 72.03 | 13.02 | 2.03 | 0.46 | .. | 2.27 |
| 40-44 | 674,307 | 7.82 | 73.83 | 12.56 | 3.12 | 0.53 | .. | 2.15 |
| 45-49 | 610,482 | 6.58 | 74.50 | 12.18 | 4.22 | 0.59 | . | 1.93 |
| 50+ <br> Age <br> Unknown | 1,881,141 | 5.43 | 69.28 | 10.68 | 11.40 | 0.66 | .. | 2.54 |
|  | 64,664 | 18.22 | 53.37 | 9.91 | 4.93 | 1.39 | . | 12.18 |
|  | 1970 |  |  |  |  |  |  |  |
| Total | 14,625,590 | 44.20 | 45.06 | 7.94 | 1.78 | 0.30 | 0.71 | . 2 |
| $<20$ | 4,408,384 | 96.72 | 2.04 | 0.96 | 0.07 | 0.02 | 0.19 |  |
| 20.24 | 1,930,300 | 61.24 | 30.19 | 7.58 | 0.27 | 0.15 | 0.57 | . |
| 25.29 | 1,575,414 | 27.16 | 60.02 | 11.46 | 0.46 | 0.25 | 0.65 | .. |
| 30-34 | 1,285,461 | 13.79 | 72.23 | 11.98 | 0.80 | 0.40 | 0.79 | .. |
| 35-39 | 1,235,283 | 9.20 | 75.48 | 12.88 | 1.16 | 0.42 | 0.88 | .. |
| 40-44 | 959,477 | 7.40 | 77.16 | 12.26 | 1.73 | 0.49 | 0.96 | .. |
| 45.49 | 829,719 | 6.42 | 77.60 | 12.04 | 2.34 | 0.51 | 1.08 | .. |
| $50+$ | 2,401,552 | 7.29 | 71.91 | 10.92 | 7.70 | 0.73 | 1.45 | . |
|  | 1980 |  |  |  |  |  |  |  |
| Total | 21,218,163 | 43.32 | 46.73 | 7.15 | 1.76 | 0.26 | 0.66 | 0.11 |
| $<20$ | 6,484,408 | 94.70 | 2.73 | 1.89 | 0.25 | 0.02 | 0.19 | 0.22 |
| 20-24 | 2,972,174 | 59.24 | 31.85 | 7.90 | 0.27 | 0.15 | 0.52 | 0.06 |
| 25.29 | 2,325,060 | 25.40 | 63.25 | 9.97 | 0.33 | 0.34 | 0.66 | 0.05 |
| 30-34 | 1,885,628 | 12.10 | 76.32 | 9.91 | 0.48 | 0.43 | 0.71 | 0.05 |
| 35-39 | 1,664,573 | 8.35 | 79.12 | 10.49 | 0.79 | 0.41 | 0.79 | 0.05 |
| 40-44 | 1,359,706 | 6.62 | 80.46 | 10.24 | 1.32 | 0.43 | 0.88 | 0.05 |
| 45.49 | 1,134,889 | 5.80 | 80.48 | 10.21 | 1.96 | 0.44 | 1.04 | 0.06 |
| $50+$ | 3,391,725 | 5.21 | 75.38 | 9.17 | 8.26 | 0.49 | 1.41 | 0.09 |
|  | 1990 |  |  |  |  |  |  |  |
| Total | 27,084,182 | 43.40 | 46.09 | 7.24 | 1.53 | 0.41 | 0.60 | 0.74 |
| $<20$ | 7,919,108 | 96.15 | 1.85 | 1.46 | 0.07 | 0.02 | 0.06 | 0.39 |
| 20.24 | 3,738,128 | 61.10 | 27.91 | 9.03 | 0.13 | 0.15 | 0.38 | 1.30 |
| 25-29 | 3,050,595 | 29.27 | 57.47 | 11.27 | 0.19 | 0.40 | 0.56 | 0.84 |
| 30.34 | 2,578,736 | 13.96 | 73.19 | 10.65 | 0.30 | 0.60 | 0.68 | 0.64 |
| 35-39 | 2,210,565 | 8.64 | 78.46 | 10.28 | 0.51 | 0.72 | 0.80 | 0.60 |
| 40-44 | 1,705,013 | 6.45 | 80.78 | 9.50 | 0.91 | 0.80 | 0.92 | 0.65 |
| 45-49 | 1,452,573 | 5.59 | 81.05 | 9.47 | 1.46 | 0.78 | 1.03 | 0.62 |
| $50+$ | 4,429,464 | 5.01 | 75.91 | 8.16 | 7.73 | 0.80 | 1.38 | 1.01 |

[^48]Sources: Censuses of Mexico 1960, 1970, 1980, 1990.

Table 17. Cumulated Proportion of Mexican Females Married Before Age $\boldsymbol{x}$, for Different Cohorts

| Exact <br> Age $x$ | Age Group at Survey |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $20-24$ <br> $(1952-1956)$ | $25-29$ <br> $(1947-1951)$ | $30-34$ <br> $(1942-1946)$ | $35-39$ <br> $(1937-1941)$ | $40-44$ <br> $(1932-1936)$ | 45.49 <br> $(1927.1931)$ |
| 15 | 7.8 | 11.0 | 11.1 | 11.9 | 11.7 | 12.8 |
| 20 | 50.9 | 53.1 | 56.4 | 58.2 | 59.8 | 54.4 |
| 25 |  | 80.1 | 81.3 | 82.5 | 81.6 | 82.3 |
| 30 |  |  | 89.6 | 90.6 | 90.1 | 90.9 |
| 35 |  |  |  | 94.0 | 92.6 | 93.7 |
| 40 |  |  |  |  | 93.8 | 94.7 |
| 45 |  |  |  |  |  | 95.2 |

Note: The years in parenthesis are the border-years of the cohorts.
Source: Quilodran, Julieta (1991). Niveles de Fecundidad y Patrones de Nupcialidad en México, El Colegio de México, p. 24.
2) In practically all Mexican birth cohorts, there are more men in common-law relationships than in Canadian cohorts. Since this phenomenon has already been observed in the female population, one can conclude that this form of cohabitation is not of the same origin as the non-legalized unions which have only become common in Canada since 1970. The 1930 Mexican Census determined that $23 \%$ of men and women over 15 were in common-law relationships, whereas in Canada this proportion was certainly minute.
3) The proportion of widowers tends to be slightly higher in Mexico than in Canada. Female mortality is higher, marriage more frequent and widowers no doubt less likely to remarry.

But the recent period has seen changes in the marriage habits of individuals throughout the world. In "Marriage and Conjugal Life in Canada''40, there is a detailed description of changes in behaviour. In Mexico, we note a recent change in customs by comparing the marital status of members of different birth cohorts at the same ages in successive ten-year censuses (tables 16A and 16B). It can be seen that in younger cohorts, women and men remain single a little longer than their elders did, with the phenomenon being more pronounced for females than for males. For example, in the 20 to 24 age group in 1970, only $38.5 \%$ of women were single, while in the same age group in 1990, there were still $45.4 \%$. In the 25 to 29 age group, the proportion rose from $17.4 \%$ to $21.2 \%$.

Based on vital statistics records, J. Quilodran observed a concentration of formation of unions in the 20 to 34 age segment, with $46.5 \%$ of marriages in 1975 and $52.5 \%$ in 198941. The 1976 survey confirms the conclusions shown in Table 17.

[^49]Between 1970 and 1990, divorce ${ }^{42}$ apparently rose slightly in Mexico since, among women in the 40 to 44 age group, the proportion of those who were in the status of divorce rose from $1.0 \%$ to $2.1 \%$, and for those in the 45 to 49 age group from $1.1 \%$ to $1.9 \%$. For men, the differences are negligible (rising from $0.5 \%$ to $0.8 \%$ for those 40 to 44 and 45 to 49 years). The possibility of false declarations by divorced men must, however, be borne in mind (see above).

## Marriage tables

The marriage table is certainly the most appropriate instrument for a study of the intensity and tempo of first marriage at a given point in time.

The most recent first-marriage tables (1970, 1980, 1990) established by J. Quilodran for CONAPO (Tables A5 in the Appendix) show trends in how Mexicans leave the single state which may be compared to the those in Canada for the same years.

We see that in Mexico the intensity of first marriage for both sexes has remained close to unity. Over the past 30 years, of the fictitious cohort of the 1,000 men or women who were single at age 12, there were only 50 to 70 nevermarried persons at age 50 . Over the past 20 years, on the other hand, there has been a major change in tempo in the form of an increasingly later age at first marriage, which may be seen in the proportions of single people shown in successive tables. The most significant change has occurred recently (between 1980 and 1990), and it has mainly affected female nuptiality. In the table, the number of women married at age 20 has decreased since 1970 from 418 to 401 to 345 and those of men married at age 25 from 579 to 597 to 561 . There has thus mainly been a reduction in early marriages, which is illustrated by a slight variation in the median age which rose from 21.8 to 22.0 over a 30 -year period. Compared with 30 years before, the additional 73 single 20 -year-old women in the table have certainly had an effect on the decline in fertility (see further on). Male nuptiality, on the other hand, has changed less. Over the same period, the number of men married at age 20 in the table remained the same at 192, and there was even a very slight increase in 1980.

## Common-law marriages

Mexican censuses classify individuals in the following categories: civil marriage, religious marriage, civil and religious marriage, common-law, divorced and separated. Common-law marriage in Mexico is an old form of marriage, dating well back in the country's history and still persisting today. In the distant past, many couples formed stable although unsanctioned relationships. There are still couples in the older generations who, despite the opportunity to do so,

[^50]Table 18. Age at First Union by Type of Union
(Females Aged 35 to 49), Mexico

| Type of <br> First Union | Age at <br> First Union | Percentage |
| :--- | :---: | :---: |
| Civilian | 19.9 | 14.2 |
| Civilian and religious | 20.0 | 60.6 |
| Common Law | 18.8 | 25.2 |
| Total | 19.7 | 100.0 |

Source: Quilodran, Julieta (1991). Niveles de Fecundidad y Patrones de Nupcialidad en México, El Colegio de México, p. 151.
have never married legally. Another result of this tradition is what is actually a form of trial marriage (common-law marriage). In half of all cases, these arrangements are now subsequently converted to legal marriages. Surveys (EMF and EMFES) confirm the large number of Mexicans who live in commonlaw before making their marriage legal, particularly those who begin living together very young (Table 18). In this area, through a mixture of tradition and modernism, Mexico appears to have been ahead of the northern European countries which set the example for western Europe and North America. It should be remembered that married life in Mexico is a field requiring more detailed study, since it differs from that of both the West Indies and the other Latin American countries.

For a long period, the clergy celebrated marriages, and these religious marriages had legal value at the time. At the present time, only civil marriage is recognized in law, and priests in principle celebrate religious marriages only on presentation of a civil marriage certificate.

## Marriage breakdown

Apart from the death of a spouse, marriages end through separation and divorce. Divorce exists in Mexico, but it is costly and so far accessible to only a small proportion of the population. When marriage breaks down, quite often spouses only separate or opt for "'arrangements' outside legal sanctions. Unable to remarry, they live in common-law relationships. These relationships are thus of quite different origin than the common-law relationships discussed above. For women, we may have a partial estimate of the intensity of marriage breakdown by the number of marriages declared by women surveyed. Of the women in the 1927 to 1931 generation, who thus fell into the 45 to 49 age group at the time of the survey, $8.9 \%$ had had two of these relationships (of one type or another) and $2.8 \%$ three or more. ${ }^{43}$

[^51]Table 19. Females for Whom the First Union was Dissolved, by Cause of Rupture and Cohort, Mexico, (in \%)

| Cause of Rupture | Age Group at Survey |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 15-19 \\ (1957 . \\ 1961) \end{gathered}$ | $\begin{gathered} 20-24 \\ (1952 . \\ 1956) \end{gathered}$ | $\begin{gathered} 25-29 \\ (1947 . \\ 1951) \end{gathered}$ | $\begin{gathered} 30-34 \\ (1942- \\ 1946) \end{gathered}$ | $\begin{gathered} 35-39 \\ (1937 . \\ 1941) \end{gathered}$ | $\begin{gathered} 40-44 \\ (1932- \\ 1936) \end{gathered}$ | $\begin{gathered} 45-49 \\ (1927- \\ 1931) \end{gathered}$ | Total |
| Widowed | 0.6 | 1.3 | 1.5 | 4.5 | 8.3 | 9.1 | 13.8 | 5.2 |
| Separation and Divorce | 7.4 | 9.7 | 9.6 | 10.4 | 12.6 | 12.7 | 14.6 | 11.0 |
| Total | 8.0 | 11.0 | 11.1 | 14.9 | 20.9 | 21.8 | 28.4 | 16.2 |

Note: The years in parenthesis are the border-years of the cohorts.
Source: Quilodran, Julieta (1991). Niveles de Fecundldad y Patrones de Nupcialidad en Mérico, El Colegio de México, p. 28.

Although the survey indicates that $28.4 \%$ of women 45 to 49 had their first marriage end in either widowhood or divorce (Table 19), it has been observed that, the more recent the birth cohort, the more likely marriage is to end in divorce rather than widowhood: $12.6 \%$ instead of $8.3 \%$ in the 35 to 39 age group, and $9.7 \%$ instead of $1.3 \%$ in the 20 to 24 age group. These figures are not in themselves a sign of the effect of divorce, since when a marriage ends, the younger the partners are, the more likely it is that the cause will be divorce rather than the death of a spouse. However, the increase in divorce over time can be seen in Table 20, in which the figures only take into account marriage breakdowns before age 25 . The role of mortality has clearly declined, but in lower proportions than the increase in divorce.

Table 20. Females for Whom the First Union was Dissolved Before the Age of $\mathbf{2 5}$ by Cause of Rupture and Cohort, Mexico (in \%)

| Cause of Rupture |  | Age Group at Survey |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $25-29$ <br> $(1947$. <br> $1951)$ | 30.34 <br> $(1942-$ <br> $1946)$ | $35-39$ <br> $(1937-$ <br> $1941)$ | $40-44$ <br> $(1932-$ <br> $1936)$ | 45.49 <br> $(1927-$ <br> $1931)$ | Total |  |  |
|  |  | 1.1 | 2.4 | 2.8 | 2.5 | 2.1 | 1.8 |  |  |
| Separation and Divorce | 9.6 | 7.2 | 5.1 | 6.5 | 4.8 | 4.8 | 6.1 |  |  |
| Total | 10.9 | 8.3 | 7.5 | 9.3 | 7.3 | 6.9 | 7.9 |  |  |

[^52]
## MIGRANTS AT THE NORTHERN BORDER

We are reminded here of the words of the Roman poet Terence, almost universal in scope, "Homo sum: humani nihil a me alienum puto" ${ }^{44}$ which, in the context of this study, might be adapted as "I am Canadian, and nothing that is North American is foreign to me." The demographic relations between Mexico and the United States are an integral part of the development of two countries with which Canada has recently decided to form closer ties and create partnerships. An understanding of migratory movements, their origins and history, and an interest in their future trends is thus not mere idle curiosity. On the contrary, comprehending the mechanisms that govern these forces is essential to the establishment of all kinds of future relationships, even though to date Canadians and Mexicans have not been engaged in significant population exchanges.

Movements of population between the United States and Mexico are as old as the countries themselves. If some of the names found in the southwestern U.S. are not evocative enough of this past, (Los Angeles, San Diego, New Mexico, Santa Fe, etc.), we merely have to recall that several of the larger U.S. states (California, Texas, New Mexico, Arizona, Nevada, Utah and Colorado), were first Spanish-speaking and even Mexican states which, after their separation, became part of the United States in the first part of the 19th Century (Treaty of Guadelupe-Hidalgo in 1848, Texas 1845). Because of its history and geography, there is thus a large area that lends itself to population movements between the two now-separate countries. The Mexicans who settled in the United States after all the wars and treaties inevitably kept close contacts with their former fellow citizens, sharing such elements as culture, language, religion and traditions. Moreover, the different industrial paths followed by each country have resulted in the development of a degree of economic complementarity that has been fostered by similarities of geography and climate.

The early 20th Century saw periods of intense migratory activity. At the end of the Porfiriato period, Mexico experienced a high rate of emigration precisely to those former northern states, which after all had only recently become part of the United States and had only begun developing their infrastructure. This migration flow increased slightly during the revolutionary period. Then, starting in the 1930s, the expansionist policies of successive governments resulted in the "return" of Mexicans who had formerly chosen exile. This return movement was encouraged by strong government incentives in Washington encouraging Mexicans to leave a country suffering from the Depression. The Second World War re-opened the frontier of the Rio Grande to Mexicans, heralding the modern era of migratory relations between the United States and Mexico. Agriculture in the United States was at the time suffering from a shortage of workers in the

[^53]large fruit and vegetable growing sectors, as well as for the cotton harvest, where there was a need for cheap labour. ${ }^{45}$ The "bracero" (labourer) program was approved in August 1942 and while the American government withdrew as a contracting party on December 31, 1947, the embryo form of the program, whereby employers were authorized to recruit Mexican workers, remained in force until 1964. These workers could legalize their situation ${ }^{46}$ once in the United States, although under less advantageous conditions than under the original "bracero" program, and increasingly tended to hold jobs quite different from those stipulated in the original program. Threatened on a number of occasions by expressions of doubt as to the need for it, the "bracero"' program was nevertheless extended several times ${ }^{47}$ through the efforts of lobbies representing major U.S. farm producers. ${ }^{48}$ Although the Mexican government did not formally oppose termination of the program in $1964^{49}$, it nevertheless made a considerable effort to find alternative solutions so that Mexican workers might continue to be admitted into the American economy. The combination of efforts by the two protagonists gave rise to a proliferation of "green cards" that allowed the migration of Mexican workers to continue. The U.S. Immigration and Naturalization Service indicates that, from 1942 to 1964, 4.65 million Mexicans were admitted to the United States. Experience has shown that termination of the 'bracero'"program resulted in an increase in illegal immigration. This was made all the easier since those migrations had become a routine, employers were well-known and many more Mexican host communities had grown up in the United States during the two decades in which the program was in effect.

Although population movements at Mexico's northern border are not a recent phenomenon, it is the current intensity of these movements that is surprising to many. Rather than being a new phenomenon, however, this Mexican emigration is but one episode in a continuing story. If these migrations have been considerably larger over the past twenty years, it is now because they have been exacerbated by more pronounced differences in growth between the Mexican population and its economy, the former growing considerably more rapidly than the latter. In fact, while the considerable increase in the number of births caused by the second phase of the demographic transition took place in a period of economic prosperity, the arrival of these children as adults on the job market has coincided with a decline in the rate of growth of the Mexican economy. From the early 1980s in particular, oil prices dropped sharply and petroleum reserves

[^54]no longer sufficed to support high levels of investment and foreign debt. A reduction in economic growth implies a slowdown in job creation, all the more serious at a time when young people will be entering the labour force by the millions (see chapter on growth). In addition to demographic pressures, the fact that Mexican migrants have been exposed to the American way of life for the past half century has been a major contributing factor in creating a degree of dependence on emigration. Employers in the United States are well aware of this attraction, and this has contributed to making Mexico a major source of emigrants ${ }^{50}$. "Given the low wages or lack of jobs, migration to the United States becomes almost inevitable." ${ }^{51}$

The logical Mexican reaction to the increase in available labour can be seen in the number of emigrants to the United States, which has fuelled a vast number of articles on the 'problem" posed by immigration. However, as we will see further on, a major change in the Mexican philosophy of development since 1988 might have significant, though no doubt long-term, consequences on Mexico's ability to create jobs and thus slow the tendency to emigrate.

## Mexicans in the United States

We should first clarify what we mean by certain concepts. When a country takes a census of its population, it classifies individuals in various ways.

In the United States, among those defined as Hispanic in origin, we find, in addition to Cubans and Porto Ricans, Mexicans. These are people who, whether born in the United States or not, resided there on census day and had a Mexican ancestor. In this category of persons of Mexican origin, the 1990 Census counted $13,495,938$, of whom $45.3 \%$ lived in California, $28.8 \%$ in Texas, $4.6 \%$ in Illinois and $2.4 \%$ in New Mexico.

A second classification takes into consideration the place of birth of those counted. In 1990, there were 4,296,014 persons born in Mexico (basically meaning immigrants, both recent and long-standing), and of these only 969,704, or $\mathbf{2 2 . 6 \%}$, had American citizenship. Of those born in Mexico, $24 \%$ or $1,032,426$ were counted in one of the southern states, including 907,432 in Texas; $66 \%$ or $2,843,154$ in one of the western states, including $2,474,148$ in California, and $7.5 \%$ or 320,892 , in the northeastern states, 281,651 of them in Illinois. The 1991 Census of Canada counted only 19,400 people born in Mexico. This situation is a census day balance of past geographical movements (immigration and return migration) and demographic movements (immigrant mortality).

[^55]Table 21. Number of Mexican Immigrants to the United States by Decade, 1901 to 1990

| Year | Number | Year | Number |
| :---: | ---: | :---: | :---: |
| $1901-1910$ | 49,642 |  |  |
| $1911-1920$ | 219,004 |  |  |
| $1921-1930$ | 459,287 |  |  |
| $1931-1940$ | 22,319 |  |  |
| $1941-1950$ | 60,589 |  |  |
| $1951-1960$ | 299,811 |  |  |
| $1961-1970$ | 453,937 |  |  |
| $1971-1980$ | 640,294 |  |  |
| $1981-1990$ | $1,655,843$ | Including: |  |
|  |  | In 1985 |  |
|  |  | In 1986 | 72,590 |
|  |  | In 1987 | 110,949 |
|  |  | In 1988 | 87,597 |
|  |  | In 1989 | 112,635 |

Source: US Department of Justice (1990). Statistical Yearbook of the Immigration and Naturalization Service, p. 50.

## Recent trends

Between the 1980 and 1990 U.S. censuses, immigrants from Mexico increased from $2,199,000$ to $4,447,000,52$ an increase of $102.2 \%$ in 10 years.

Table 21 provides information on the flow of immigrants admitted under the successive immigration acts. The two phenomena mentioned previously can be observed, i.e. heavy immigration at the beginning of the century, a very low immigration in the Depression years, and a strong growth since 1961, especially during the most recent decade.

With the passage of the Immigration Reform Control Act (IRCA) in 1986, Mexicans living illegally in the United States were able to legalize their status; these were people who had been residents since January 1, 1982 and Special Agricultural Workers (SAW) employed for at least 90 days in the year preceding May 1986. In all, more than 2.2 million applications were received by Immigration and Naturalization Service (I.N.S) ${ }^{53}$. These figures lead us to conclude that the great majority of applications were accepted. The Immigration Reform Control Act had two objectives: first, amnesty for the majority of illegals, and second, a desire to put an end to illegal immigration by imposing sanctions on employers who recruit illegal immigrants and also by strengthening border controls.

[^56]As we have already seen, the discussions that preceded IRCA took place in a historical context in which migratory movements were tacitly considered by both Mexicans and Americans as being part of the overall economic relations between the two countries. The prospect of actually closing the border thus raised concerns among many Mexicans regarding their future.

## Current situation

The brief historical outline presented above has enabled us to step back and view the phenomenon of Mexican immigration to the United States as the ongoing search for a balance between the main interests of each country, experienced on a daily basis by those involved, that is, migrants and the host population. The arrangement brings into play the status of individuals (legal and illegal migrants), and the type of migrants (permanent and temporary) as defined by legal agreements. It can also accommodate existing situations and changes in policy with the short- and long-term social consequences they cause.

At the present time, the most highly regarded studies of current migration issues and trends are signed by such authors as Hinojosa, Robinson, Garcia y Griego, Espenshade, Acevedo, Bustamente, McCleery, Lery, Van Wynbergen, Woolf, Cornelius, Bean, Hayes-Bautista, Keely and Calva. Whatever the sources and models used, the results, despite their variances, tend to show that the emigration to the United States observed during the 1980s is still going on and will probably continue into the 1990s and even beyond. ${ }^{54}$ All are in agreement that their model shows that migratory flows will then decline. But it would be wise to accept with some reservations the long-term projections and models of economists, since the elements of the problem tend to change rapidly.

Of the many studies on this topic, we have chosen that of Manuel Garcia y Griego ${ }^{55}$ to both provide a summary of the situation and indicate the direction development is likely to take. Mr. Garcia y Griego is of Mexican origin, an American citizen, demographer, historian, teaching at the Colegio of Mexico as well as at the University of California at Irvine, and specializes in Mexican international and regional migration studies.

[^57]
## Results of analysis by Garcia y Griego

One of the immediate consequences of IRCA was to reduce the number of illegal immigrants, by legalizing on the spot those who applied. Comparison of the figures, however, shows that: 1 ) all "illegals" were not converted into legal immigrants (since not all applied), and that 2) the entry of illegal immigrants persisted after 1986.

Applying recent immigration rates to the projected population, and similarly calculating immigrant returns and deaths, Garcia y Griego predicted that Mexican-born people living in the United States will increase by about 1,000,000 between 1990 and 1995 and more or less by the same amount during the next five years (Table 22). According to this author the great majority ( $80 \%$ ) of these

Table 22. Projection of Mexico's Population and Migration to and From the United States (in Thousands)

| Category | Mid-year Population |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1985 | 1990 | 1995 | 2000 |
| Total Mexico | 69,655 | 77,429 | 84,973 | -92,775 | 101,050 |
| Mexican-born in the United States | 2,618 | 3,517 | 4,474 | - 5,470 | 6,461 |
| - Legal Residents | 1,411 | 1,590 | $\begin{aligned} & 3,038 \\ & 1,437 \end{aligned}$ | 3 3,147 | 3,253 |
| - Undocumented Residents | 1,208 | 1,927 |  | 7 2,322 | 3,208 |
|  | Components of Change of Mexican-born Residents in the United States |  |  |  |  |
|  | 1980-1985 | 1985- |  | 1990-1995 | 1995-2000 |
| Total Mexican-born |  |  |  |  |  |
| - Deaths | 94.3 |  |  | 121.1 | 142.4 |
| - Return Migration (survivors) | 171.2 |  |  | 289.7 | 343.8 |
| - Immigration (survivors) | 1,164.5 | 1,29 |  | 1,405.9 | 1,477.8 |
| Legal Residents |  |  |  |  |  |
| - Deaths | 75.8 |  |  | 109.4 | 123.4 |
| - Return Migration (survivors) | 77.3 |  |  | 170.8 | 160.8 |
| - Immigration (survivors) | 332.4 | 1,61 |  | 390.0 | 390.0 |
| Undocumented Residents |  |  |  |  |  |
| - Deaths | 19.0 |  |  | 11.7 | 19.0 |
| - Return Migration (survivors) | 93.9 |  |  | 118.9 | 183.0 |
| - Immigration (survivors) | 832.1 | -31 |  | 1,015.9 | 1,087.8 |

[^58]increases will no doubt be made up of illegals. He explains that the smaller increase in legal immigrants after 1990 would be due, if immigration rates are constant, to a higher Mexican resident population which would yield more deaths and more returns. He emphasizes, however, that naturalizing Mexican immigrants would likely increase the number of visas granted under the family reunification program. As well, he thinks that legalization of temporary Special Agricultural Workers would have the same effect after 1990 as IRCA had after 1986; from an accounting standpoint, this results in a transfer from the illegal to the legal column. He notes, however, that we must keep an open mind, since economic conditions in the United States may in the future influence positively the demand for labour and consequently perhaps increase the number of legal immigrants. In this connection, some studies point to the increase in exports of capital goods to Mexico, suggesting that this will create additional demands for labour in both the United States and Canada.

## Labour force

As we saw above, the adult population of Mexico (the 15 to 64 age group) is expected to increase considerably over the next two decades. At the same time, the labour force will quite probably increase from 22 million in 1980 to 40 million by the year 2000 (Table 23). According to Garcia, if immigration rates remain at current levels, Mexicans working in the United States might rise from 2.6 million in 1990 to 4 million by the year 2000 . His calculations show that the annual growth of the Mexican work force in the United States might be in the order of 114,000 to 138,000 workers.

The author has tried to give an approximate measure of the "safety-valve effect'' of emigration by the difference in growth in the Mexican labour force with or without net migration, that is, taking into account returns and mortality. All other things being equal, he estimated it at 108,000 workers per year for the period 1985 to 2000. For the recent past (between 1980 and 1985), without this emigration, the Mexican labour force would have risen by an additional $11 \%$. This U.S.-based work force does not correspond to an equivalent reduction in the "pressure" in Mexico due to the higher participation rate of Mexicans in the United States than in Mexico. This avoided growth, he believes, is essentially due to former illegal migrants. Garcia y Griego concludes that the effects of IRCA to date have thus been the opposite of those feared by Mexicans: illegals were not chased out but simply made legal. If conditions in the future remain the same as they were in the past, Mexicans between ages 30 and 50 , working in the United States, who represented according to Garcia's estimates approximately $7 \%$ of the total Mexican labour force of this age group in 1985, will represent approximately $11 \%$ by the year 2000 . The high proportion of this large age group is mainly due to the fact that the illegal immigrants in the overall group of immigrants working in the United States are on the average much younger and come only temporarily for the purpose of earning money.

Table 23. Projection of Mexico's Labor Force and Mexican-born Work Force in the United States (in Thousands)

| Category | Labour Force in Mid-year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1985 | 1990 |  | 1995 | 2000 |
| Total Mexico | 22,092 | 26,246 | 31,027 |  | 35,719 | 40,072 |
| Mexican-born in the Unted States | 1,426 | 1,994 | 2,640 |  | 3,329 | 3,990 |
| - Legal Residents <br> - Undocumented Residents | $\begin{aligned} & 760 \\ & 666 \end{aligned}$ | 910 1,084 | $\begin{array}{r} 1,903 \\ 737 \end{array}$ |  | $\begin{aligned} & 1,986 \\ & 1,343 \end{aligned}$ | $\begin{aligned} & 2,019 \\ & 1,971 \end{aligned}$ |
|  | Average Annual Growth of Mexican-born Labor Force Residents in Mexico and in the United States (Age 15 and Over) |  |  |  |  |  |
|  | 1980-1985 | 1985-1990 |  | 1990-1995 |  | 1995-2000 |
| Total Mexico | 830.8 | 956.2 |  | 938.4 |  | 870.7 |
| Total Mexican-born | 113.5 | 129.2 |  | 137.9 |  | 132.2 |
| - Legal Residents <br> - Undocumented Residents | 29.2 83.6 | 198.8 |  | $\begin{array}{r} 16.5 \\ 121.4 \end{array}$ |  | $\begin{array}{r} 6.6 \\ 125.5 \end{array}$ |

Note: Numbers are rounded independently. Labour force participation rates were estimated from unpublished tables of the 1980 United States Census of the Mexican-born immigrant population.
Source: Garcia y Griego (1990). Emigration as a Safety Valve for Mexico's Labor Market: A Post-IRCA Approximation, Immigration and International Relations, G. Vernez (Pub.), Rand Corporation/Urban Institute.

## What does the future hold?

If the significant growth in the Mexican labour force in Mexico in the recent past was not greater, this is, at least in part, because of emigration. According to Garcia y Griego, this observation implies that, in future, provided conditions remain the same, this emigration will persist. Mexican emigrants to the United States originate in the northern and western states of Mexico which, in the event of an actual closing of the border, would see their labour force grow not by $2.3 \%$ a year as is now the case, but by $3.2 \%$, which would intensify migration towards the centre of the country, which is already facing problems of demographic saturation. Numerous studies which suggest that current economic reform will result in a mobilization of the labour force in Mexico and a reduction of emigration should reassure those concerned about the continuation of migratory movements. But we must bear in mind that emigration to the United States is only one aspect of a much more basic phenomenon, which is rural migration, whereby many millions of Mexicans will be leaving rural areas in the relatively near future. The farming sector in Mexico is powerless to prevent this largescale migration from continuing. Modernization brings about a surplus of
workers who must find jobs, ${ }^{56}$ while failure to modernize results in increasing poverty which, as is the present case, pushes people to leave the farms (note the new law, passed on January 6, 1992, on price support and the sale of 'common lands' (ejidos)).

The purpose of stressing the main points of this study by Garcia y Griego was to show how already existing migratory movements may gain ground in the absence of very strong national economic growth. In the present state of international relations, these migrations depend on the economic health of the United States to maintain its capacity to absorb migrants, ${ }^{57}$ since the impact of aging of the American population alone on the demand for workers will not be clearly seen for some time. History has shown that, over the long term, increasing productivity results in greater economic activity and an overall increase in the number of jobs. However, some analysts have noted that, from a shorter term perspective, the immediate effect of modern production techniques has been to reduce the demand for labour in certain specific sectors. From this standpoint, the enhanced productivity of modern plants, if not accompanied by an increased market, is unlikely to develop a favourable climate for the creation of large numbers of jobs during the remaining years of the second phase of Mexico's demographic transition. As well, current low female participation rates may well increase with the reduction in fertility, urbanization and women's increased desire for financial independence. The reader will note that the effects of NAFTA have not been specifically mentioned. Although this agreement will certainly have some socio-economic consequences, they will be only one way of managing the potential for transformation inherent in the population through its growing numbers and evolving structure.

## Remittances

It is a well-known fact that emigrants throughout the world, particularly temporary emigrants, put aside part of their earnings to cover the needs of those they have left behind in their home country or to build up capital which one day will be injected into the economy of their country. This is the case of Mexicans in the United States. Determining the amounts of remittances is not easy, and requires laborious calculations that can obviously yield only estimates.

[^59]Table 24. Total Remittances from the United States to Mexico by Sending Mechanism (Intermediate Estimates), 1990 ${ }^{1}$

|  | Millions of Dollars |
| :--- | ---: |
| Sending Mechanism |  |
| - Money Order | 1,554 |
| - Telegraphed Transfer | 523 |
| - Personal Check | 159 |
| - Pocket Transfer ${ }^{2}$ | 915 |
| Total | 3,151 |
| Migrant Type |  |
| - Temporary Migrants ${ }^{3}$ | 1,843 |
| - Permanent Migrants | 1,308 |
| Total | 3,151 |

${ }^{1}$ Calendar year. Without counting the 200 million dollars received by Mexican families as benificiaries of social security.
${ }^{2}$ Cash flow brought back at their return.
${ }^{3}$ United States workers legally residing in Mexico.
Source: Lozano, Fernando (1993). Bringing it Back Home, University of California, San Diego, p. 60 and 62.

The Bank of Mexico estimates remittances at a minimum of \$2 billion for the year 1990. Fernando Lozano ${ }^{58}$ calculated ${ }^{59}$ the total amounts of money transferred from the United States to Mexico by the various types of transactions. The amounts shown in Table 24 are certainly not a major loss for the U.S. economy ( $\$ 3.2$ billion). ${ }^{60}$ But these amounts have more significance for the Mexican economy. By comparison, agricultural exports that year brought in $\$ 2.2$ billion, tourism $\$ 3.4$ billion, and assembly plants (maquiladoras) $\$ 3.6$ billion. This says little about those who receive these remittances. According to Lozano, Taylor, Watts and many others, for a large number of rural families, remittances are considered part of their normal income. Martin ${ }^{61}$ estimates that sending $\$ 300$ a month may quadruple the annual income of a rural family. It should also be noted, in support of these estimates, that the states that provide the largest number of emigrants to the United States are very rural (Michoacan, Jalisco, Guanajuato, Guerrero and Zacatecas). These sources of funds are often major incentives for temporary and repeat emigration, to the point where a culture has developed of which such migration is an essential part.

[^60]In conclusion, movements of population from Mexico to the United States are an old tradition. Current migratory trends originate in a complementarity that has grown up between the U.S.A., which has become accustomed to having access to a pool of Mexican workers and Mexico, which takes advantage of American requirements to provide jobs for a population that is currently too large for its economy. This migration is very well organized, and the network of communications and host communities are an integral part of the economic life of a large Americano-Mexican complex taking in a number of states ranging from California to Zacatecas. The very rapid expansion of the present Mexican population, if not coupled with similar growth in the economy, inevitably will increase the pressure on migration. Although there have already been organized migrations of Mexican workers to Canada, ${ }^{62}$ it is most likely that it will be as an economic spinoff that Canada is affected by the growth of the Mexican population. This does not, however, mean that flows of immigrants will not increase somewhat in the future. In the 1991 Census, only 19,400 people born in Mexico were counted in Canada. Although this figure was low, it nevertheless represented an increase over $1986(13,845)$. While the numbers are small relative to the flows to the U.S., concerns have been expressed that migration to Canada may contribute to a "brain drain"' if this migration should increase significantly.

## INTERNAL MIGRATION

As in all countries, people in Mexico move for many reasons. But unlike industrialized countries, Mexico is still at an important stage in its development; the operating framework of its economy is not yet stabilized, the mechanization of agriculture is not yet highly advanced and consequently rural migration is still going on. This is certainly a major factor determining the great mobility of the population (Table A6 in the Appendix). We see that states in which a major fraction of the population was not born in the state are also those in which recent migration is heaviest. This leads us to think that these states have been highly attractive for some time. For a given state, a significant difference between a large number of people born outside the state and a smaller number of recent immigrants may be cautiously interpreted as an older trend that has recently been winding down.

## Present-day migration

Place of residence five years before the census gives only an approximate idea of flows, since the only people counted are those over age five who survived and did not leave the country. They may also have made several moves which were not recorded. These statistics do, however, enable us to draw up a shortterm balance sheet indicating the states which gained population and those which lost in the bargain.

[^61]Figure 11
Percentages of the Mexican Population by State in 1990 ,
According to the State of Birth and the State of Residence in 1985

Source: Table A6.
Table 25. Net Migration Flows by Mexican State, 1985-1990 (Population Aged 5 and Over at the end of the period)

| State | Winners |  |  | State | Losers |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In | Out | Net Gains |  | In | Out | Net Losses |
| Aguascalientes | 43,979 | 17,452 | 26,527 | Chiapas | 42,322 | 69,824 | -27,502 |
| Baja California | 220,564 | 40,309 | 180,255 | Coahuila De Zaragoza | 69,194 | 80,748 | -11,554 |
| Baja California Sur | 29,460 | 11,735 | 17,725 | Distrito Federal | 298,235 | 1,035,758 | -737,523 |
| Campeche | 34,459 | 24,697 | 9,762 | Durango | 41,148 | 82,359 | -41,211 |
| Chihuahua | 118,079 | 40,146 | 77,933 | Guerrero | 46,617 | 120,236 | -73,619 |
| Colima | 31,103 | 18,356 | 12,747 | Hidalgo | 66,964 | 85,909 | - 18,945 |
| Guanajuato | 98,419 | 94,976 | 3,443 | Michoacán | 105,602 | 121,134 | - 15,532 |
| Jalisco | 178,011 | 138,366 | 39,645 | Nayarit | 35,865 | 38,769 | -2,904 |
| México | 786,367 | 271,421 | 514,946 | Oaxaca | 73,892 | 138,780 | -64,888 |
| Morelos | 91,227 | 39,613 | 51,614 | Puebla | 125,686 | 139,132 | - 13,446 |
| Nuevo León | 113,844 | 66,247 | 47,597 | San Luis Potosí | 64,399 | 77,650 | - 13,251 |
| Querétaro | 67,857 | 29,264 | 38,593 | Sinaloa | 82,811 | 105,330 | -22,519 |
| Quintana Roo | 92,810 | 18,969 | 73,841 | Tabasco | 47,815 | 54,412 | -6,597 |
| Sonora | 72,121 | 53,840 | 18,281 | Veracruz | 163,586 | 236,281 | -72,695 |
| Tamaulipas | 115,296 | 75,599 | 39,697 | Yucatán | 38,364 | 47,384 | -9,020 |
| Tlaxcala | 35,858 | 25,028 | 10,830 | Zacatecas | 36,554 | 68,784 | - 32,230 |
| Total | 2,129,454 | 966,018 | 1,163,436 | Total | 1,339,054 | 2,502,490 | -1,163,436 |

Source: Census of Mexico 1990.

## THE MEXICO CITY METROPOLITAN AREA (ZMCM) ${ }^{\mathbf{1}}$

Despite the recent decline in the annual growth rate, which went from $5 \%$ between 1940 and 1970 to $2 \%$ between 1980 and 1990, despite the doubts expressed about the quality of 1980 Census data, the population of the ZMCM will rise to over 20 million by the turn of the century from its current 17 million, which is equal to the total population of the 25 CMAs in Canada.

It covered $500 \mathrm{~km}^{2}$ in 1940; in 1990, its area was 4,450 . It corresponds more or less to an almost continuous stretch of built-up area forming a square with sides 70 km long, or a circle 240 km in circumference, an area that would take 4 hours to cross at an average speed of $70 \mathrm{~km} / \mathrm{h}$.

After using up almost all the area of the Federal District by 1950, the city spread out to include 27 "municipios" in the state of Mexico. Although it has always been a large city ( 60,000 inhabitants at the time of the Spanish conquest, 350,000 at the turn of the century), its most spectacular development has taken place during the 20th century. In light of the growth of the country's population as a whole, that of Mexico City is extraordinary since, as in all developing countries, the main city (usually the capital) and a few other cities not only have natural growth rates identical to that of the country itself, but also benefit from significant positive internal migration in addition to annexing surrounding areas. The result in the case of Mexico is that it accounted for $8.4 \%$ of the country's population in $1940,14.7 \%$ in 1960 and $18.6 \%$ in 1990.

As in the case of all large cities, the central area, through a complex but nevertheless well recognized process, tends to lose population to the peripheral areas.

## The future

The 1980 overestimate of the population (by about 1 million) has sparked considerable controversy regarding population projections. However, with weak hypotheses on fertility and migration, Mexico City will have a population of 19 million in 2000 and 25 million in 2020. Stronger hypotheses on fertility and migration would give it 21 million in the year 2000.

Mexico City has always been the centre of economic activity, not only of the region but of the entire country. Half of the products manufactured in Mexico are produced in Mexico City. With a work force of 5.1 million, it is one of the largest labour markets in the world. The work force of Canada as a whole is barely over 12 million.

The inevitable aging of the population, which has already begun, will initially bring a major increase in the potential labour force of the ZMCM. Persons aged 15 to 64 should represent $70 \%$ of the 25 million population expected by the year 2020, a total of 17.5 million people.

The manufacturing sector is declining in the city (accounting for only $1.1 \%$ of the labour force in 1990), as is the marketing sector ( $33.3 \%$ ), while the service sector is growing ( $65.6 \%$ ). A current census of jobs ranked the various categories, in descending order of importance, as follows: industrial ( $\mathbf{2 9 . 4 \%}$ ), public service and clerical ( $19.7 \%$ ), sales and itinerant vendors ( $15.3 \%$ ), and professional and technical ( $14.2 \%$ ). Despite reassuring official statistics, which show unemployment at $3 \%$, underemployment is on the rise and jobs in the "informal" sector increased (from $34 \%$ in 1981 to $40 \%$ in 1987).

According to the 1989 National Survey on Urban Employment, 20\% of the working population failed to earn the minimum wage, $54 \%$ earned somewhere between the minimum wage and twice that figure, and only $6 \%$ earned over five times the minimum wage.

The fact that many elements give the population of Mexico City a favoured status compared to that of the rest of the country does not mean that its standard of living is high. By international standards, it is one of the lowest of all major cities worldwide.

[^62]For a population of 70.5 million aged five and over at the end of the period, this figure ( 3.5 million people), which considerably under-estimates the number of movements, results in a ratio of $5 \%$. This figure is impressive since in Canada, a country known for the high mobility of its population, similar calculations for the same period yield a ratio of $4 \%$.

It is not within the scope of demography to describe the reasons why some states gain and others lose, and these reasons vary too widely to be easily summarized. We will thus confine ourselves to noting the gains made by the State of Mexico and losses by the Federal District which, as we will see, are closely linked, and the significant gains by the State of Baja California, which appears to be expanding.

It is more interesting to look at the origin/destination matrix of places of residence at the time of the 1990 Census and that of five years earlier. This matrix enables us to identify migratory flows and determine their size. Thirty-two states produced 992 flows ( $32 \times 32-32$ ), 77 of them involving more 10,000 people (Tables 25 and A, B and C in the Appendix).

Among those states in which remarkable changes in population were noted, we should mention the Federal District, which lost 31 cases out of 32 in the exchange, but experienced the greatest losses with the state of Mexico (see Insert No. 2). This is in fact a consequence of growth in Mexico City. Not only does the city grow beyond the limits of the state in which it is located, it also moves population from the centre (in the Federal District) to the periphery (an example would be the State of Mexico). The State of Mexico does, however, gain in half of its exchanges (17/32). The state of Baja California gained in the main movements of population, most of which affected the Pacific Coast. The states where the two other metropolises are located (Jalisco for Guadalajara and Nuevo Leon for Monterrey) gained in major exchanges with neighbouring states.

## Urban population, rural population

Movements of population are, for the most part, due to rural migration and thus do not show up as part of movements between states. A more detailed analysis is thus needed.

In 1960, Mexico had 256 communities of over 10,000 inhabitants which were home to over 12 million people out of a total population of nearly 35 million (Table 26). The Mexico of 1990 had 613 cities with a population of over 10,000 , containing 49 million people, and the total population of the country was 81 million. It is thus clear that cities and the urban population increased more rapidly than the total population. Looking at the other side, in 1990, 23 million Mexicans were considered rural, that is, living in communities of less than 2,500 inhabitants (an average of 151 per community), whereas in 1960 half of the total of 35 million lived in 88,000 villages of under 2,500 residents (average population of 198).
Table 26. Population Distribution by Size of Agglomeration, Mexico, 1960-1990

|  | Locality (in numbers) |  |  |  | Locality (in percent) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1980 | 1990 | 1960 | 1970 | 1980 | 1990 |
| Total | 89,612 | 97,580 | 125,300 | 156,602 | 100.00 | 100.00 | 100.00 | 100.00 |
| 1-99 | 51,555 | 55,650 | 78,806 | 108,307 | 57.53 | 57.03 | 62.89 | 69.16 |
| 100-499 | 27,098 | 28,055 | 31,054 | 32,244 | 30.24 | 28.75 | 24.78 | 20.59 |
| 500-999 | 6,156 | 7,473 | 8,473 | 8,515 | 6.87 | 7.66 | 6.76 | 5.44 |
| 1,000-2,499 | 3,342 | 4,232 | 4,836 | 4,950 | 3.73 | 4.34 | 3.86 | 3.16 |
| 2,500-4,999 | 865 | 1,201 | 1,147 | 1,364 | 0.97 | 1.23 | 0.92 | 0.87 |
| 5,000-9,999 | 340 | 539 | 513 | 609 | 0.38 | 0.55 | 0.41 | 0.39 |
| 10,000-14,999 | 72 | 103 | 171 | 197 | 0.08 | 0.11 | 0.14 | 0.13 |
| 15,000-19,999 | 74 | 145 | 77 | 96 | 0.08 | 0.15 | 0.06 | 0.06 |
| 20,000-49,999 | 69 | 114 | 119 | 167 | 0.08 | 0.12 | 0.09 | 0.11 |
| 50,000-99,999 | 24 | 34 | 33 | 55 | 0.03 | 0.03 | 0.03 | 0.04 |
| 100,000-499,999 | 14 | 30 | 52 | 77 | 0.02 | 0.03 | 0.04 | 0.05 |
| 500,000 and over | 3 | 4 | 19 | 21 | 0.00 | 0.00 | 0.02 | 0.01 |
|  | Population (in numbers) |  |  |  | Percentage (by category) |  |  |  |
| Total | 34,923,129 | 48,225,238 | 66,846,833 | 81,249,645 | 100.00 | 100.00 | 100.00 | 100.00 |
| 1-99 | 1,558,268 | 1,471,154 | 1,888,882 | 2,190,339 | 4.46 | 3.05 | 2.83 | 2.70 |
| 100-499 | 6,410,224 | 6,889,077 | 7,544,871 | 7,760,320 | 18.36 | 14.29 | 11.29 | 9.55 |
| 500-999 | 4,253,855 | 5,190,166 | 5,886,009 | 5,922,495 | 12.18 | 10.76 | 8.81 | 7.29 |
| 1,000-2,499 | 4,995,664 | 6,366,285 | 7,227,342 | 7,416,770 | 14.30 | 13.20 | 10.81 | 9.13 |
| 2,500-4,999 | 2,959,460 | 4,129,872 | 4,092,168 | 4,647,566 | 8.47 | 8.56 | 6.12 | 5.72 |
| 5,000-9,999 | 2,366,431 | 3,764,208 | 3,527,104 | 4,226,294 | 6.78 | 7.81 | 5.28 | 5.20 |
| 10,000-14,999 | 881,000 | 1,324,000 | 2,075,770 | 2,410,451 | 2.32 | 2.75 | 3.11 | 2.97 |
| 15,000-19,999 | 1,146,511 | 2,085,846 | 1,331,710 | 1,675,566 | 3.28 | 4.33 | 1.99 | 2.06 |
| 20,000-49,999 | 2,108,551 | 3,405,818 | 3,596,371 | 5,075,188 | 6.04 | 7.06 | 5.38 | 6.25 |
| 50,000-99,999 | 1,730,933 | 2,356,569 | 2,337,699 | 3,854,850 | 4.96 | 4.89 | 3.50 | 4.74 |
| 100,000-499,999 | 2,346,360 | 5,707,130 | 11,352,926 | 18,233,313 | 6.72 | 11.83 | 16.98 | 22.44 |
| 500,000 and over | 4,165,872 | 5,535,113 | 15,985,981 | 17,836,493 | 11.93 | 11.48 | 23.91 | 21.95 |

Sources: Censuses of Mexico, 1960, 1970, 1980, 1990.

Table 27. Changes in Urban and Non-urban Population, Mexico, 1960-1990

| Year | Population |  |  |  | Percentage |  | Growth (per 1,000) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Town <br> larger <br> than <br> 15,000 | Town <br> smaller <br> than <br> 15,000 | Town <br> larger <br> than <br> 15,000 | Town <br> smaller <br> than <br> 15,000 | Total | Town <br> larger <br> than <br> 15,000 | Town <br> smaller <br> than <br> 15,000 |  |
|  | $34,923,129$ | $11,568,227$ | $23,354,902$ | 33.12 | 66.88 | $\ldots$ | $\ldots$ | $\ldots$ |  |
| 1970 | $48,225,238$ | $19,090,476$ | $29,134,762$ | 39.59 | 60.41 | 38.09 | 65.03 | 24.75 |  |
| 1980 | $66,846,833$ | $34,604,687$ | $32,242,146$ | 51.77 | 48.23 | 38.61 | 81.27 | 10.67 |  |
| 1990 | $81,249,645$ | $46,675,410$ | $34,574,235$ | 57.45 | 42.55 | 21.55 | 34.88 | 7.23 |  |

Sources: Censuses of Mexico 1960, 1970, 1980 and 1990.

During this time, the number of cities with population over 1 million rose from 1 to 4 and cities of over 100,000 inhabitants, from 17 to 98, while the population of cities of over 100,000 habitants rose from $18.7 \%$ to $44.4 \%$ of the total.

If the urban population is restricted to that living in communities of over 15,000 inhabitants, the increase in the urban population, which was $65 \%$ between 1960 and 1970, speeded up from 1970 to $1980(81 \%)$ but slowed down considerably during the 1980s ( $35 \%$ ) (Table 27).

The rural population not only remained large, it was also unequally distributed (see Table 28). The Gulf and South Pacific regions have remained quite rural ( $45 \%$ and $56 \%$ ), while the centre and northeast have been highly urbanized. However, these very rural regions form a rather small proportion of the national total ( $9.5 \%$ and $10.9 \%$ respectively).

Table 28. Percentage of Rural Population (Living in Agglomerations Smaller than 2,500 inhabitants), by Region, Mexico, 1990

| Region | \% of Rural <br> Population | Weight of the Region <br> in the Country |
| :--- | :---: | :---: |
| Mexico | 28.7 | 100.0 |
| North-East | 14.5 | 6.6 |
| Center | 19.9 | 33.3 |
| North-West | 24.3 | 2.9 |
| South-East | 25.0 | 8.4 |
| Occidental Region | 28.8 | 17.2 |
| North | 33.1 | 11.1 |
| Golf Region | 45.1 | 9.5 |
| South Pacific | 56.4 | 10.9 |

Source: Author's calculations, based on Census of Mexico 1990.

Table 29. Urban Population (in Thousands) by Size of City, Percentage of the Urban Population and Growth, Mexico, 1960-1990 ${ }^{1}$

| Year | Urban Total | $\begin{gathered} 15,000 \\ \text { to } \\ 19,999 \end{gathered}$ | $\begin{gathered} 20,000 \\ \text { to } \\ 49,999 \end{gathered}$ | $\begin{gathered} 50,000 \\ \text { to } \\ 99,999 \end{gathered}$ | $\begin{gathered} 100,000 \\ \text { to } \\ 499,999 \end{gathered}$ | $\begin{gathered} 500,000 \\ \text { to } \\ 999,999 \end{gathered}$ | $\begin{aligned} & 1,000,000 \\ & \text { and over } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1960: |  |  |  |  |  |  |  |
| Population | 14,382 | 559 | 1,271 | 1,956 | 3,591 | 1,596 | 5,409 |
| Percentage | 100.0 | 3.9 | 8.8 | 13.6 | 25.0 | 11.1 | 37.6 |
| Cities | 119 | 32 | 41 | 26 | 17 | 2 | 1 |
| Urban Population (\%) | 41.2 |  |  |  |  |  |  |
| 1970: |  |  |  |  |  |  |  |
| Population | 23,828 | 707 | 1,950 | 1,510 | 7,284 | 732 | 11,645 |
| Percentage | 100.0 | 3.0 | 8.2 | 6.3 | 30.5 | 3.1 | 48.9 |
| Cities | 166 | 41 | 65 | 21 | 35 | 1 | 3 |
| Urban Population (\%) | 49.4 |  |  |  |  |  |  |
| 1980: |  |  |  |  |  |  |  |
| Population | 37,584 | 1,010 | 2,876 | 1,633 | 10,230 | 2,553 | 19,282 |
| Percentage | 100.0 | 2.7 | 7.7 | 4.3 | 27.2 | 6.8 | 51.3 |
| Cities | 229 | 59 | 94 | 24 | 44 | 4 | 4 |
| Urban Population (\%) | 56.2 |  |  |  |  |  |  |
| 1990: |  |  |  |  |  |  |  |
| Population | 49,391 | 1,378 | 4,073 | 2,769 | 11,765 | 7,521 | 21,885 |
| Percentage | 100.0 | 2.8 | 8.3 | 5.6 | 23.8 | 15.2 | 44.3 |
| Cities | 315 | 79 | 134 | 39 | 48 | 11 | 4 |

${ }^{1}$ Localities of 15,000 and over.
Source: Garza, Gustavo (1992). Crisis Económica y Desarrollo Urbano, Demos, Mexico, p. 15.

The most striking fact is the coexistence of a still fairly large rural Mexico and an urban Mexico concentrated in a few very large cities. Fifteen cities of over 500,000 account for 29.41 million people, or $35 \%$ of the country's population, with Mexico City alone accounting for approximately 15 million. This macrocephalic configuration of the urban network is considered detrimental to the development of a country which needs more cities of intermediate size, which are now fortunately beginning to develop. It was as if Mexico, like many developing countries, had skipped some stages in the urbanization process. Briefly but simply, we might say that settlement of population in industrialized countries has become contracted over time by the slow, concomitant effect of technical development, into cities that are ranked by their size and their commercial, administrative and industrial capabilities. They are organized in networks and linked to one another by dependent relations. These networks have only slowly become simplified and with this trend, as is becoming increasingly clear, they form urban zones which concentrate the great majority
of the country's population and marginal areas that are inevitably deserted. In Mexico the population changed abruptly from basically rural to high concentration in a few huge cities with an under-representation of large- and medium-sized cities.

Table 29 from Gustavo Garza ${ }^{63}$ gives an excellent summary of the recent trend towards urbanization, and shows how, following strong concentration, there is now a return to a more balanced urban network for the level of development of the country. In 1990 the population in the various categories of cities was more regular than in previous years. In 1980, four cities of over 1 million inhabitants shared $51 \%$ of the urban population, while in 1990 they had only $44 \%$. At this time as well, four cities with populations of 500,000 to 1 million had a combined population of 2.55 million while in 1990,11 cities of this size contained 7.52 million people.

National Population Council geographers and demographers have developed highly elaborate models ${ }^{64}$ to assess the potential for regional development to allocate resources in an attempt to harmonize demographic and economic development at the local level and distribute rural emigration more rationally. But it is probable that these models will be implemented slowly and that the problems of huge cities like Mexico City will take some time to subside.

## POPULATION AND WORKFORCE

The workforce is directly related to demographic changes. It is normally studied by economists. Since their analyses and projections are most often considered from the standpoint of job supply and less often from that of demand, the connection with demography is even closer. In this brief overview, we shall look only at recent changes in participation rates.

It might be useful to reiterate here the caution expressed earlier concerning the quality of data sources. For the purposes of the Mexican census, the labour force is held to be made up of people 12 years old and over who are in the job market, both working and non-working. Working individuals were those who, during the qualifying week, performed some economic activity in exchange for wages or another type of remuneration, whether in money or in kind, and non-working people were those who did not have work but were actively seeking work. In all countries, surveys on employment and the labour force yield figures that often differ from those obtained by census. Due to the specific nature of each of these sources, there may be differences between the two series of data;

[^63]however, in Canada, these differences are not as significant as in Mexico. We must therefore be cautious in drawing conclusions, and in particular avoid making overly detailed comparisons between Canada and Mexico.

## Male labour force

Mexicans start working early in life, and the minimum age for entering the labour force has been set at 12. In the 1990 Census, $11.1 \%$ of boys 12 to 14 were in the labour force (in the essentially rural states of Chiapas and Michoacan, the figures were $22 \%$ and $17.4 \%$, respectively) (Figure 12). At the other end of the life cycle, men remain in the labour force until relatively advanced ages. In the same 1990 Census, the participation rate in the 65 and over age group was $45.9 \%$ ( $61.6 \%$ in Chiapas and Quintana Roo). In the 1970 Census, the figures were higher in both cases. It is worth noting that, in 1960, children of 8 were part of the labour force. This change over time in the ages at which people enter and leave the labour force is classic, and exists or has existed in all countries. It corresponds in part to the rising level of education, which keeps young people out of the labour force until increasingly later ages, and to social progress which brings an improvement in the standard of living and allows people to retire increasingly early.

A comparison with Canada confirms the validity of this pattern. Since Canada is much more developed, people begin working later and leave the work force earlier (Table E in Appendix). Participation rates for adults are slightly higher in Canada than in Mexico.

Variations between the different regions of Mexico are not significant, although they are much greater than in Canada (Table A7 in the Appendix). At most, the farming regions (Southeast and Gulf regions) stand out with slightly higher participation rates, due to the fact that people tend to work longer in agriculture, where wage-earners represent only a minute fraction of the work force. Between 1970 and 1990, however, the trend described above was already observable.

## Female labour force

Female participation rates are low in Mexico compared with those in Canada (Figure 12), but they too are changing with time. Rates for adults have increased, while those for young people and the elderly are clearly lower. The probable causes are no doubt the same as those advanced for the male rates; however, the fact remains that the increases in adult participation rates have been much greater than the decreases for younger and older workers, resulting in a high female participation rate for all ages combined.
Figure 12
Participation Rates by Age Group and Sex, Mexico for 1970 and 1990 and Canada for 1971 and 1991


Table 30. Main Characteristics of the Active Population of Mexico, 1970-1990

| Year | Female Activity Rate |  |  |  | Male Activity Rate (Aged 12 and Over) | Percentage of Workers Not Remunerated ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aged 12 and Over | 15.19 | 20.24 | 25-34 |  |  |
| 1970 | 17.6 | 23.1 | 25.0 | 17.8 | 70.1 | 31.6 |
| 1979 | 21.5 | .. | 33.4 | 27.3 | 71.3 | 33.7 |
| 1982 | 25.2 | . | .. | .. | 71.9 | 30.6 |
| 1987 | 31.1 | 24.4 | 42.3 | 41.5 | 73.5 | 33.2 |
| 1988 | 32.3 | 29.7 | 42.8 | 42.8 | 75.3 | 36.8 |
| 1989 | 27.0 | . | .. | .. | 72.8 | 30.0 |
| 1990 | 19.6 | 18.0 | 29.1 | 27.7 | 68.0 | 25.9 |

${ }^{1}$ Under the heading of unpaid workers are independant workers and families without income. In the case of the 1982 National Demographic Survey, this heading also includes the employers.
Source: Garcia, Brigida (1992). La feminización en la Actividad Económica, Demos, Mexico, p. 24.

Regional distributions reveal an interesting phenomenon. Whereas in 1970 only the central region showed an increase due to the highly developed service industry in Mexico City, in 1990 comparable rates were observed in the northwest and northeast regions. It is difficult not to link these high rates to the recent proliferation, at the United States border, of assembly plants, or "maquiladoras."

It is highly likely that, in the near future, female participation in the work force will increase for at least two types of reasons. The first is strictly demographic: later marriage and reduced fertility due to contraception. The second is linked to the economy: development of services and reduction of time worked by individuals through fragmentation of jobs (into a broader range of low-paid part-time work), not to mention the increase in education levels.

To what extent do employment or unemployment rates based on census data reflect the true situation? Obviously, no country can guarantee that the image thus obtained is completely accurate, but there are several good reasons for caution with respect to Mexico. Since social programs are relatively undeveloped and unemployment insurance is a rare phenomenon, a considerable segment of economic activity goes unaccounted for. These many temporary and precarious activities form what is known as the "informal" economy, which is not fully reflected in census data. Such activity is especially prevalent among women: not only do they often work only part time or occasionally, but they are more easily hired to work on a temporary basis. ${ }^{65}$ In Mexico, the results of surveys do not correspond to data obtained by census and in fact show much larger upward trends ${ }^{66}$ (Table 30). It is thus possible that information obtained in survey interviews is more accurate than that obtained by census.

[^64]
## INDIGENOUS POPULATIONS

No data exist to enable the indigenous populations of Canada and those of Mexico to be compared. While indigenous populations per se have a legal existence in Canada, those of Mexico do not. And in Mexico, ethnicity apparently has been deemed too complex a criterion to yield a census definition that would result in an accurate count and language is the only basis for an analysis.

In neither country (Canada or Mexico) are native languages an indication of common cultural background. In the case of Mexico, certain languages are the remnants of civilizations that had attained high levels of demographic, administrative and social development and have left impressive architectural vestiges. Others, both in Mexico and in Canada, failed to achieve greatness for various reasons such as, problems linked to geography, climate, internal forces, marginalization. Whatever the case, the indigenous peoples of Mexico, which were at one point in history quite numerous, were subjected to both internal strife and the Spanish conquest, and thus were weakened, dispersed, culturally depleted and mingled with the conquerors throughout the area of present day Mexico. For the moment, it seems that the only way to evaluate the number of Mexicans of Amerindian origin is to count those who know a native language.

In Canada, settlement of the land by the French and English led to a large number of treaties and agreements in which were stipulated the land concessions granted to the first peoples, who negotiated the rights and privileges retained. This is not the case in Mexico, where intermarriage has always been encouraged and there is only one kind of citizen: Mexican.

The short description of the indigenous population which follows will thus be based on the knowledge of an indigenous language.

The 1990 Census of Mexico counted 5.28 million people over age five who spoke an indigenous language, to which might be added 1.13 million children under five living in households where the head of the household spoke an indigenous language. Together they represent $7.9 \%$ of the Mexican population (Table 31). ${ }^{67}$ In Canada, the number of people who are identified as aboriginal has varied over time, depending both on statistical and legislative considerations. According to the 1991 postcensal survey, the number of persons who consider themselves to be aboriginal is approximately half a million $(625,710)$ or $2.2 \%$ of the Canadian population. Over one million Canadians ( $3.6 \%$ of the total population) report at least some aboriginal ancestry. Neither of these figures can be compared directly with the Mexican figures since they do not cover the same situation.

[^65]Table 31. Main Native Languages Spoken in Mexico, 1990 (more than 200,000 people) ${ }^{1}$

| Language | Number | $\%$ | Cumulated <br> $\%$ | Speaking <br> Spanish | $\%$ of the <br> Language |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Nahuatl | $1,197,328$ | 22.67 | 22.67 | 967,910 | 80.84 |
| Maya | 73,520 | 13.51 | 36.17 | 647,453 | 90.74 |
| Mixteco | 383,544 | 7.26 | 43.44 | 286,009 | 74.57 |
| Zapoteco | 380,690 | 7.21 | 50.64 | 331,578 | 87.10 |
| Otomi | 280,238 | 5.31 | 55.95 | 251,522 | 89.75 |
| Tzeltal | 261,084 | 4.94 | 60.89 | 157,552 | 60.35 |
| Tzotzil | 292,203 | 4.34 | 65.23 | 137,175 | 59.85 |
| Totonaca | 207,876 | 3.94 | 69.16 | 159,001 | 76.49 |
| Partial Total | $3,653,483$ | 69.16 | 69.16 | $2,938,200$ | 80.42 |
| Others | $1,403,004$ | 26.56 | 95.72 | $1,105,400$ | 78.79 |
| Not Specified | 225,860 | 4.28 | 100.00 | 194,352 | 86.05 |
| Total | $5,282,347$ | 100.00 | 100.00 | $4,237,952$ | 80.22 |

${ }^{1}$ Aged 5 and Over.
Source: Census of Mexico 1990.

Table 32. Population Aged 5 and Over, Speaking a Native Language by Type of Language and Knowledge of an Official Language,

Canada, 1990

| Language | Speaking <br> a Native <br> Language | Knowledge of <br> an Official <br> Language | Percentage |
| :--- | ---: | ---: | ---: |
| Total Canada | 100,560 | 85,200 | 84.73 |
| Algonquian Languages n.i.e. | 3,915 | 3,250 | 83.01 |
| Amerindian Languages n.i.e. | 570 | 515 | 90.35 |
| Athapaskan Languages n.i.e. | 4,505 | 3,930 | 87.24 |
| Blackfoot | 1,650 | 1,610 | 97.58 |
| Carrier | 720 | 680 | 94.44 |
| Chilcotin | 515 | 495 | 96.12 |
| Chipewyan | 860 | 765 | 88.95 |
| Cree | 2,545 | 39,325 | 90.31 |
| Dakota | 1,415 | 2,050 | 95.57 |
| Dogrib | 16,815 | 1,150 | 81.27 |
| Inuktitut | 3,840 | 1,395 | 73.77 |
| Micmac | 5,985 | 5,240 | 36733 |
| Montagnais-Naskapi | 10,885 | 9,515 | 87.55 |
| Ojibway | 495 | 885 | 87.41 |
| Salish Languages | 1,860 | 1,585 | 9798 |
| South Slave | 595 | 85.22 |  |
| Wakashan Languages | 245 | 225 | 97.48 |
| Other Native Languages |  |  | 91.84 |

Source: Census of Canada 1991, unpublished data.

Table 33. Percentage of Population Speaking a Native Language and Percentage of the Native Population Who Do Not Speak Spanish, Population Aged 5 and Over, Selected Mexican States, 1990

| State | Population <br> Speaking <br> a Native <br> Language | Native <br> Population <br> Who Do <br> Not Speak <br> Spanish | Prevailing Native Languages <br> (in number) |  |  |  |
| :--- | :---: | :---: | :--- | :--- | :--- | :--- |
|  |  | First |  | Second |  |  |
|  |  |  |  |  |  |  |
| Yucatán | 44.2 | 3.5 | Maya | 512,518 | Mixteco | 237,474 |
| Oaxaca | 39.1 | 7.4 | Zapoteco | 319,000 |  |  |
| Quitana Roo | 32.2 | 2.7 | Maya | 120,846 |  |  |
| Chiapas | 26.4 | 8.0 | Tzeltal | 258,153 | Tzotzil | 226,681 |
| Hidalgo | 19.5 | 3.3 | Nahuatl | 188,530 | Otomi | 117,393 |
| Campeche | 19.0 | 1.2 | Maya | 70,247 |  |  |
| Puebla | 14.1 | 2.1 | Nahuatl | 362,966 |  |  |
| Guerrero | 13.4 | 3.9 | Nahuatl | 116,131 | Mixteco | 80,691 |
| San Luis Potosí | 11.9 | 1.2 | Nahuatl | 122,664 |  |  |
| Veracruz | 10.7 | 1.4 | Nahuatl | 294,711 | Totonaca | 111,305 |

Source: Census of Mexico 1990.

Mexican populations 'speaking an indigenous language'" are mainly located in the southern and central areas of the country. It is in this part of Mexico that the great civilizations of the past flourished, and where the highest density of pre-colonial Central American populations have always been concentrated.

If we use the definition of the term 'language' given by linguists, there are 68 aboriginal languages spoken in Mexico in addition to dialects (compared to a little over 25 aboriginal linguistic groups or languages in Canada).

Nevertheless, $70 \%$ of the population aged five and over speaking an indigenous language speak one of the eight major languages ( $50 \%$ for the first four). The majority of those who speak an indigenous language also speak Spanish ( $80.2 \%$ ).

The states where more than one indigenous language is spoken, as a percentage of the population, are listed in Table 33.

Nahuatl is spoken mainly on the Atlantic coast and in the central region of Mexico, Maya in the south, and Mixteco in the two Baja Californias, Guerrero and the southwest.

Table 34. Distribution of Population Speaking a Native Language (in \%), by Age Group, Mexico, 1990

| Age Group | Percentage |
| :---: | :---: |
| 5.9 | 14.0 |
| $10-14$ | 13.3 |
| $15-19$ | 11.2 |
| $20-24$ | 9.5 |
| $25-29$ | 8.7 |
| $30-34$ | 7.4 |
| $35-39$ | 7.4 |
| $40-44$ | 5.7 |
| $45-49$ | 5.4 |
| $50+$ | 17.5 |

Source: Census of Mexico 1990.

Based on published census data, knowledge of an indigenous language decreases with age at least up to age 50 (Table 34). (A detailed table by language, not published here, shows that there is little difference between the various languages.) But this statistic alone is not enough for us to draw a conclusion regarding the viability of these languages, since the answers to census and survey questions on language knowledge may be unreliable. People who speak an indigenous language are often discredited and will thus not give this information to an interviewer.

If we admit that a language already spoken may be lost, we may then conclude that progress in education, urbanization and the increase in participation rates are responsible for the declining knowledge of indigenous languages as age increases. If not, since we are looking at the percentage of an age class, this might also mean that knowledge of an indigenous language increases with time: as the fraction of a group speaking an indigenous language is higher in the more recent cohort groups. Table 35 indicates a regression of indigenous languages. There is no mortality and/or differential migration which might justify such differences in reductions in total population and that speaking an indigenous language. One must thus conclude that the ability to speak an indigenous language is lost with age - a conclusion somewhat surprising.

## Geography of indigenous languages

A recent study by the Center of Studies in Population and Health (CEPS) based on census data focuses on "ethnic group" based on knowledge of an indigenous language. ${ }^{68}$

After reviewing all the "municipios" of the country, the study observes that, in 542 out of 2,402 , over $40 \%$ of the population speaks one of the indigenous languages. These 542 'municipios" form a universe of 5.34 million people of whom 4 million, or $75.5 \%$, speak an indigenous language. In this universe, the languages most commonly spoken are not the same as those in the census universe. In descending order of importance, they are Natuatl, Maya, Tzeltal, Mixteco, Zapoteco, Totzil, Mazateco, Totonaca and Otomi.

[^66]Table 35. Changes in Total Population and in Population Speaking a Native Language Between 1980 and 1990,

|  | 1980 |  | 1990 |  | Loss in \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age Group | Population | Age Group | Population |  |
| Total <br> Speaking a Native Language | 5-9 | $\begin{array}{r} 10,283,955 \\ 694,564 \end{array}$ | 15-19 | $\begin{array}{r} 9,664,403 \\ 589,431 \end{array}$ | $\begin{array}{r} -6.0 \\ -15.1 \end{array}$ |
| Total Speaking a Native Language | 10-14 | $\begin{array}{r} 9,094,351 \\ 644,198 \end{array}$ | 20-24 | $\begin{array}{r} 7,829,163 \\ 503,288 \end{array}$ | $\begin{aligned} & -13.9 \\ & -21.8 \end{aligned}$ |
| Total Speaking a Native Language | 15-19 | $\begin{array}{r} 7,656,539 \\ 584,461 \end{array}$ | 25-29 | $\begin{array}{r} 6,404,512 \\ 457,149 \end{array}$ | $\begin{aligned} & -16.4 \\ & -21.8 \end{aligned}$ |
| Total Speaking a Native Language | 20-24 | $\begin{array}{r} 6,154,527 \\ 527,910 \end{array}$ | 30-34 | $\begin{array}{r} 5,387,619 \\ 390,824 \end{array}$ | $\begin{aligned} & -12.5 \\ & -26.0 \end{aligned}$ |
| Total ${ }_{\text {Speaking a Native Language }}$ | 25-29 | $\begin{array}{r} 4,804,392 \\ 484,776 \end{array}$ | 35-39 | $\begin{array}{r} 4,579,116 \\ 389,157 \end{array}$ | $\begin{array}{r} -4.7 \\ -19.7 \end{array}$ |
| Total ${ }^{\text {Speaking a Native Language }}$ | 30-34 | $\begin{array}{r} 3,838,059 \\ 392,838 \end{array}$ | 40-44 | $\begin{array}{r} 3,497,770 \\ 300,568 \end{array}$ | $\begin{array}{r} -8.9 \\ -23.5 \end{array}$ |
| Total ${ }^{\text {Speaking a Native Language }}$ | 35-39 | $\begin{array}{r} 3,406,934 \\ 391,982 \end{array}$ | 45-49 | $\begin{array}{r} 2,971,800 \\ 287,254 \end{array}$ | $\begin{aligned} & -12.8 \\ & -26.7 \end{aligned}$ |

Sources: Census of Mexico 1980 and 1990.

Table 36. Distribution by State of Municipalities Where at Least $40 \%$ of the Population Speaks a Native Language, Mexico

| State | Number of <br> Municipalities | Total <br> Population of <br> Municipalities | Population <br> Speaking a <br> Native Language |
| :--- | :---: | :---: | :---: |
| Campeche | 3 | 93,286 | 63,049 |
| Chiapas | 37 | 913,812 | 747,799 |
| Chihuahua | 3 | 58,839 | 31,964 |
| Durango | 1 | 23,663 | 15,989 |
| Guerrero | 17 | 304,586 | 238,530 |
| Hidalgo | 19 | 463,659 | 312,340 |
| Jalisco | 1 | 14,037 | 8,031 |
| México | 1 | 49,288 | 25,283 |
| Michoacán | 4 | 85,743 | 39,902 |
| Nayarit | 1 | 20,909 | 16,619 |
| Oaxaca | 262 | $1,179,275$ | 965,174 |
| Puebla | 52 | 494,449 | 375,594 |
| Quintana Roo | 3 | 88,173 | 69,829 |
| San Luis Potosí | 13 | 338,847 | 215,788 |
| Veracruz | 38 | 554,044 | 428,173 |
| Yucatán | 87 | 661,030 | 480,962 |
| Total | 542 | $5,343,640$ | $4,035,026$ |

Source: De La Vega, Sergio (1992). Diversidad Etnica y Lenguas Indigenas Predominantemente Habladas en México, CEPS, Mexico, p. 5.

Ethnic pockets are concentrated in Oaxaca ( 262 municipios), Yucatan (87), Puebla (52), Veracruz (38), Chiapas (37) (Table 36). It was not possible, however, to establish a correlation between socioeconomic indicators and ethnic criteria of the geographical entities chosen. Another analysis in the same study ${ }^{69}$ concludes, on the other hand, that there is a parallel with illiteracy, lack of schooling, poor housing and basic sanitary conditions, high fertility and high infant mortality.

## In conclusion

Clearly we are only beginning to understand the socioeconomic development of ethnic minorities in Mexico (to the extent that these may be determined by knowledge of an indigenous language). Migratory movements, differential natality and mortality, assimilation, etc., must all be investigated before subscribing to simplistic and possibly erroneous conclusions on the social demography of ethnic minorities.

[^67]
## CONCLUSION

Mexico's roots reach far back into the past. It has seen many civilizations rise and fall. Over the centuries, its population has experienced the gradual and sometimes erratic growth common to countries into which the advances of sciences have penetrated only slowly. It then made a rapid demographic transition and found itself propelled overnight into the modern world, with a population of 85 million and a potential for growth, it is only beginning to learn how to master. Even though the French economist Montchrétien's statement that 'the only real power is people" is no longer accepted without reservations, the fact remains that history abounds in examples of peoples which have experienced periods of great prosperity due to rapid demographic expansion. The most reliable projections indicate that the Mexican population will continue to rise for some years to come, and that there will be corresponding growth in its labour force, which will become increasingly better qualified as development progresses.

This growth will no doubt not be confined to that country alone, but will take place at the very least within a North American context. The whole history of the human race - and North America is a striking example of this - has been marked by innumerable movements and exchanges of population, and the recent period has seen an acceleration of these age-old trends throughout the world. It is thus realistic to assume that the already significant exchanges of population between Mexico and the remainder of the continent will continue, at least in the short term. The Mexican population will generate a considerable demand for employment during the next decade or so, and many analysts question whether this demand can be satisfied. If the jobs currently being created are highproductivity jobs and if markets do open for their production, then Mexico could become a leading economic power with a high standard of living. If, on the other hand, jobs are not created, Mexican workers will be forced to attempt to negotiate their existence with the rest of North America to an even greater extent than one of the present. The current situation, with its changing relationships, can be viewed simply as one of the most constructive forms of NorthSouth dialogue, forced into existence under the increasing pressure of demographic phenomena. The challenge will be to raise the standard of living of a growing population without reducing that of neighbouring populations so as to maintain harmony in that part of the world.

This situation is characteristic of both the short and medium terms, since very large birth cohorts will continue to be produced in Mexico for some time. But the demographic process is ineluctable, and even before growth in Mexico has culminated, the aging of its population is beginning to be a source of concern for demographers and sociologists alike. When the last large female birth cohorts have given birth to all their children, the birth cohorts that follow, smaller and with lower fertility rates, will quickly reduce the number of births from one year to another. The country will then enter an aging process characterized by an
amplitude and speed commensurate with the success of its actual birth control policy, raising problems that may be even more difficult to resolve than those posed by its current rapid growth. Although far from being an area of concern today, this process has nevertheless begun with the drastic decline in fertility. Aging, in all probability, will in any case be greater, from a strictly mathematical standpoint, than a first glance would indicate. While the very large birth cohorts are alive, scientific progress will advance and ensure a greater number of years of life, thus increasing the weight of an aging population in a social fabric which will contain increasingly fewer young people.

Mexico is thus destined to be an increasingly present element in the lives of Americans and Canadians. Although further along the development path, Canada and the U.S. will nevertheless share in Mexico's progress and benefit from its achievements. Communications of all types will inevitably increase, bringing greater opportunities for population exchanges and enriching all the cultures involved.

## Appendices

Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990

| States (Capitals) | Population |  |  |  | Distribution in \% |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1980 | 1990 | 1960 | 1970 | 1980 | 1990 |
| United States of Mexico ${ }^{\text {a }}$ | 34,923,129 | 48,225,238 | 66,846,833 | 81,249,645 | 100.00 | 100.00 | 100.00 | 100.00 |
| North-Eastern Region | 2,103,030 | 3,151,547 | 4,437,528 | 5,348,317 | 6.02 | 6.54 | 6.64 | 6.58 |
| Nuevo León (Monterrey) | 1,078,848 | 1,694,689 | 2,513,044 | 3,098,736 | 3.09 | 3.51 | 3.76 | 3.81 |
| Tamaulipas (Ciudad Victoria) | 1,024,182 | 1,456,858 | 1,924,484 | 2,249,581 | 2.93 | 3.02 | 2.88 | 2.77 |
| Central Region | 10,825,170 | 15,931,701 | 23,533,883 | 27,073,577 | 31.00 | 33.04 | 35.21 | 33.32 |
| Distrito Federala | 4,870,876 | 6,874,165 | 8,831,079 | 8,235,744 | 13.95 | 14.25 | 13.21 | 10.14 |
| Hidalgo (Pachuca) | 994,598 | 1,193,845 | 1,547,493 | 1,888,366 | 2.85 | 2.48 | 2.31 | 2.32 |
| México (Toluca) | 1,897,851 | 3,833,185 | 7,564,335 | 9,815,795 | 5.43 | 7.95 | 11.32 | 12.08 |
| Morelos (Cuernavaca) | 386,264 | 616,119 | 947,089 | 1,195,059 | 1.11 | 1.28 | 1.42 | 1.47 |
| Puebla (Puebla) | 1,973,837 | 2,508,226 | 3,347,685 | 4,126,101 | 5.65 | 5.20 | 5.01 | 5.08 |
| Querétaro (Querétaro) | 355,045 | 485,523 | 739,605 | 1,051,235 | 1.02 | 1.01 | 1.11 | 1.29 |
| Tlaxcala (Tlaxcala) | 346,699 | 420,638 | 556,597 | 761,277 | 0.99 | 0.87 | 0.83 | 0.94 |
| South Pacific Region | 4,124,852 | 5,181,837 | 6,563,306 | 8,850,693 | 11.81 | 10.75 | 9.82 | 10.89 |
| Chiapas (Tuxtla Gutiérrez) | 1,210,870 | 1,569,053 | 2,084,717 | 3,210,496 | 3.47 | 3.25 | 3.12 | 3.95 |
| Guerrero (Chilpancingo) | 1,186,716 | 1,597,360 | 2,109,513 | 2,620,637 | 3.40 | 3.31 | 3.16 | 3.23 |
| Oaxaca (Oaxaca) | 1,727,266 | 2,015,424 | 2,369,076 | 3,019,560 | 4.95 | 4.18 | 3.54 | 3.72 |
| Gulf Region | 3,224,239 | 4,583,749 | 6,450,641 | 7,729,983 | 9.23 | 9.50 | 9.65 | 9.51 |
| Tabasco (Villahermosa) | 496,340 | 768,327 | 1,062,961 | 1,501,744 | 1.42 | 1.59 | 1.59 | 1.85 |
| Veracruz (Xalapa) | 2,727,899 | 3,815,422 | 5,387,680 | 6,228,239 | 7.81 | 7.91 | 8.06 | 7.67 |

[^68]Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 - Continued

| States (Capitals) | Population |  |  |  |  | Distribution in \% |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 1960 | 1970 | 1980 | 1990 | 1960 | 1970 | 1980 | 1990 |
| North-Western Region | $2,613,470$ | $3,907,719$ | $5,482,755$ | $6,830,922$ | 7.48 | 8.10 | 8.20 | 8.41 |
| Baja California (Mexicali) | 520,165 | 870,421 | $1,177,886$ | $1,660,855$ | 1.49 | 1.80 | 1.76 | 2.04 |
| Baja California Sur (La Paz) | 81,594 | 128,019 | 215,139 | 317,764 | 0.23 | 0.27 | 0.32 | 0.39 |
| Nayarit (Tepic) | 389,929 | 544,031 | 726,120 | 824,643 | 1.12 | 1.13 | 1.09 | 1.01 |
| Sinaloa (Culiacán) | 838,404 | $1,266,528$ | $1,849,879$ | $2,204,054$ | 2.40 | 2.63 | 2.77 | 2.71 |
| Sonora (Hermosillo) | 783,378 | $1,098,720$ | $1,513,731$ | $1,823,606$ | 2.24 | 2.28 | 2.26 | 2.24 |
| Western Region | $6,438,440$ | $8,470,477$ | $11,112,664$ | $13,981,650$ | 18.44 | 17.56 | 16.62 | 17.21 |
| Aguascalientes (Aguascalientes) | 243,363 | 338,142 | 519,439 | 719,659 | 0.70 | 0.70 | 0.78 | 0.89 |
| Colima (Colima) | 164,450 | 241,153 | 346,293 | 428,510 | 0.47 | 0.50 | 0.52 | 0.53 |
| Guanajuato (Guanajuato) | $1,735,490$ | $2,270,370$ | $3,006,110$ | $3,982,593$ | 4.97 | 4.71 | 4.50 | 4.90 |
| Jalisco (Guadalajara) | $2,443,261$ | $3,296,586$ | $4,371,998$ | $5,302,689$ | 7.00 | 6.84 | 6.54 | 6.53 |
| Michoacán (Morelia) | $1,851,876$ | $2,324,226$ | $2,868,824$ | $3,548,199$ | 5.30 | 4.82 | 4.29 | 4.37 |
| Northern Region | $4,761,491$ | $5,900,147$ | $7,555,785$ | $9,043,101$ | 13.63 | 12.23 | 11.30 | 11.13 |
| Chihuahua (Chihuahua) | $1,226,793$ | $1,612,525$ | $2,005,477$ | $2,441,873$ | 3.51 | 3.34 | 3.00 | 3.01 |
| Coahuila de Zaragoza (Saltillo) | 907,734 | $1,114,956$ | $1,557,265$ | $1,972,340$ | 2.60 | 2.31 | 2.33 | 2.43 |
| Durango (Durango) | 760,836 | 939,208 | $1,182,320$ | $1,349,378$ | 2.18 | 1.95 | 1.77 | 1.66 |
| San Luis Potosi (San Luis Potosí) | $1,048,297$ | $1,281,996$ | $1,673,893$ | $2,003,187$ | 3.00 | 2.66 | 2.50 | 2.47 |
| Zacatecas (Zacatecas) | 817,831 | 951,462 | $1,136,830$ | $1,276,323$ | 2.34 | 1.97 | 1.70 | 1.57 |
| South-Eastern Region | 832,437 | $1,098,061$ | $1,710,271$ | $2,391,402$ | 2.38 | 2.28 | 2.56 | 2.94 |
| Campeche (Campeche) | 168,219 | 251,556 | 420,553 | 535,185 | 0.48 | 0.52 | 0.63 | 0.66 |
| Quintana Roo (Ciudad Chetumal) | 50,169 | 88,150 | 225,985 | 493,277 | 0.14 | 0.18 | 0.34 | 0.61 |
| Yucatán (Mérida) | 614,049 | 758,355 | $1,063,733$ | $1,362,940$ | 1.76 | 1.57 | 1.59 | 1.68 |

[^69]Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 - Continued

| States (Capitals) | Distribution by Region |  |  |  | Average Annual Growth in \% |  |  |  | $\begin{gathered} \text { Density } \\ \mathrm{km}^{2} \\ 1990 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1980 | 1990 | 1960 | 1970 | 1980 | 1990 |  |
| United States of Mexico ${ }^{\text {a }}$ |  |  |  |  | 3.23 | 3.27 | 1.95 | 2.81 |  |
| North-Eastern Region | 100.00 | 100.00 | 100.00 | 100.00 | 4.05 | 3.42 | 1.87 | 3.11 | 37.04 |
| Nuevo León (Monterrey) | 51.30 | 53.77 | 56.63 | 57.94 | 4.52 | 3.94 | 2.09 | 3.52 |  |
| Tamaulipas (Ciudad Victoria) | 48.70 | 46.23 | 43.37 | 42.06 | 3.52 | 2.78 | 1.56 | 2.62 |  |
| Central Region | 100.00 | 100.00 | 100.00 | 100.00 | 3.86 | 3.90 | 1.40 | 3.06 | 274.90 |
| Distrito Federal ${ }^{\text {a }}$ | 45.00 | 43.15 | 37.52 | 30.42 | 3.44 | 2.51 | -0.70 | 1.75 |  |
| Hidalgo (Pachuca) | 9.19 | 7.49 | 6.58 | 6.97 | 1.83 | 2.59 | 1.99 | 2.14 |  |
| México (Toluca) | 17.53 | 24.06 | 32.14 | 36.26 | 7.03 | 6.80 | 2.61 | 5.48 |  |
| Morelos (Cuernavaca) | 3.57 | 3.87 | 4.02 | 4.41 | 4.67 | 4.30 | 2.33 | 3.76 |  |
| Puebla (Puebla) | 18.23 | 15.74 | 14.22 | 15.24 | 2.40 | 2.89 | 2.09 | 2.46 |  |
| Querétaro (Querétaro) | 3.28 | 3.05 | 3.14 | 3.88 | 3.13 | 4.21 | 3.52 | 3.62 |  |
| Tlaxcala (Tlaxcala) | 3.20 | 2.64 | 2.37 | 2.81 | 1.93 | 2.80 | 3.13 | 2.62 |  |
| South Pacific Region | 100.00 | 100.00 | 100.00 | 100.00 | 2.28 | 2.36 | 2.99 | 2.54 | 37.90 |
| Chiapas (Tuxtla Gutiérrez) | 29.36 | 30.28 | 31.76 | 36.27 | 2.59 | 2.84 | 4.32 | 3.25 |  |
| Guerrero (Chilpancingo) | 28.77 | 30.83 | 32.14 | 29.61 | 2.97 | 2.78 | 2.17 | 2.64 |  |
| Oaxaca (Oaxaca) | 41.87 | 38.89 | 36.10 | 34.12 | 1.54 | 1.62 | 2.43 | 1.86 |  |
| Gulf Region | 100.00 | 100.00 | 100.00 | 100.00 | 3.52 | 3.42 | 1.81 | 2.91 | 79.30 |
| Tabasco (Villahermosa) | 15.39 | 16.76 | 16.48 | 19.43 | 4.37 | 3.25 | 3.46 | 3.69 |  |
| Veracruz (Xalapa) | 84.61 | 83.24 | 83.52 | 80.57 | 3.36 | 3.45 | 1.45 | 2.75 |  |

[^70]Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 - Concluded

| States (Capitals) | Distribution by Region |  |  |  | Average Annual Growth in \% |  |  |  | $\begin{gathered} \text { Density } \\ \mathrm{km}^{2} \\ 1990 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1980 | 1990 | 1960 | 1970 | 1980 | 1990 |  |
| North-Western Region | 100.00 | 100.00 | 100.00 | 100.00 | 4.02 | 3.39 | 2.20 | 3.20 | 16.48 |
| Baja California (Mexicali) | 19.90 | 22.27 | 21.48 | 24.31 | 5.15 | 3.02 | 3.44 | 3.87 |  |
| Baja California Sur (La Paz) | 3.12 | 3.28 | 3.92 | 4.65 | 4.50 | 5.19 | 3.90 | 4.53 |  |
| Nayarit (Tepic) | 14.92 | 13.92 | 13.24 | 12.07 | 3.33 | 2.89 | 1.27 | 2.50 |  |
| Sinaloa (Culiacán) | 32.08 | 32.41 | 33.74 | 32.27 | 4.13 | 3.79 | 1.75 | 3.22 |  |
| Sonora (Hermosillo) | 29.97 | 28.12 | 27.61 | 26.70 | 3.38 | 3.20 | 1.86 | 2.82 |  |
| Western Region | 100.00 | 100.00 | 100.00 | 100.00 | 2.74 | 2.71 | 2.30 | 2.58 | 78.00 |
| Aguascalientes (Aguascalientes) | 3.78 | 3.99 | 4.67 | 5.15 | 3.29 | 4.29 | 3.26 | 3.61 |  |
| Colima (Colima) | 2.55 | 2.85 | 3.12 | 3.06 | 3.83 | 3.62 | 2.13 | 3.19 |  |
| Guanajuato (Guanajuato) | 26.96 | 26.80 | 27.05 | 28.48 | 2.69 | 2.81 | 2.81 | 2.77 |  |
| Jalisco (Guadalajara) | 37.95 | 38.92 | 39.34 | 37.93 | 3.00 | 2.82 | 1.93 | 2.58 |  |
| Michoacán (Morelia) | 28.76 | 27.44 | 25.82 | 25.38 | 2.27 | 2.11 | 2.13 | 2.17 |  |
| Northern Region | 100.00 | 100.00 | 100.00 | 100.00 | 2.14 | 2.47 | 1.80 | 2.14 | 13.80 |
| Chihuahua (Chihuahua) | 25.76 | 27.33 | 26.54 | 27.00 | 2.73 | 2.18 | 1.97 | 2.29 |  |
| Coahuila de Zaragoza (Saltillo) | 19.06 | 18.90 | 20.61 | 21.81 | 2.06 | 3.34 | 2.36 | 2.59 |  |
| Durango (Durango) | 15.98 | 15.92 | 15.65 | 14.92 | 2.11 | 2.30 | 1.32 | 1.91 |  |
| San Luis Potosí (San Luis Potosi) | 22.02 | 21.73 | 22.15 | 22.15 | 2.01 | 2.67 | 1.80 | 2.16 |  |
| Zacatecas (Zacatecas) | 17.18 | 16.13 | 15.05 | 14.11 | 1.51 | 1.78 | 1.16 | 1.48 |  |
| South-Eastern Region | 100.00 | 100.00 | 100.00 | 100.00 | 2.77 | 4.43 | 3.35 | 3.52 | 16.90 |
| Campeche (Campeche) | 20.21 | 22.91 | 24.59 | 22.38 | 4.02 | 5.14 | 2.41 | 3.86 |  |
| Quintana Roo (Ciudad Chetumal) | 6.03 | 8.03 | 13.21 | 20.63 | 5.64 | 9.41 | 7.81 | 7.62 |  |
| Yucatán (Mérida) | 73.77 | 69.06 | 62.20 | 56.99 | 2.11 | 3.38 | 2.48 | 2.66 |  |

Sources: Censuses of Mexico 1960, 1970, 1980, 1990. Statistical Yearbook of Mexico, 1992.

Table A2. Birth and Mortality Rates, Canada and Mexico,
1886-2024 (per 1,000 )

| Period | Mexico |  | Canada |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Birth <br> Rate | Mortality <br> Rate | Birth <br> Rate | Mortality <br> Rate |
| $1886-1896$ |  |  | 35.7 |  |
| $1895-1899$ | 47.3 | 34.4 |  |  |
| $1900-1904$ | 46.5 | 33.4 | 36.0 |  |
| $1905-1909$ | 46.0 | 32.9 | 34.4 |  |
| $1910-1914$ | 43.2 | 46.6 | 30.5 |  |
| $1915-1919$ | 40.6 | 48.3 | 28.3 | 11.6 |
| $1920-1924$ | 45.3 | 28.4 | 24.3 | 11.0 |
| $1925-1929$ | 44.3 | 26.7 | 22.5 | 10.0 |
| $1930-1934$ | 44.6 | 25.6 | 20.1 | 10.4 |
| $1935-1939$ | 43.5 | 23.3 | 23.5 | 9.8 |
| $1940-1944$ | 44.6 | 22.0 | 28.9 | 9.4 |
| $1945-1949$ | 45.0 | 17.0 | 27.9 | 8.7 |
| $1950-1954$ | 45.1 | 15.1 | 28.2 | 8.2 |
| $1955-1959$ | 44.9 | 12.2 | 25.3 | 7.7 |
| $1960-1964$ | 44.4 | 10.4 | 18.2 | 7.4 |
| $1965-1969$ | 44.3 | 9.8 | 15.9 | 7.4 |
| $1970-1974$ | 43.7 | 8.6 | 15.7 | 7.2 |
| $1975-1979$ | 36.1 | 7.8 | 15.1 | 7.1 |
| $1980-1984$ | 32.6 | 6.5 | 14.4 | 7.2 |
| $1985-1989$ | 30.3 | 6.0 | 15.0 | 7.1 |
| $1990-1994$ | 27.9 | 5.5 | 13.7 | 7.2 |
| $1995-1999$ | 25.2 | 5.3 | 12.1 | 7.5 |
| $2000-2004$ | 22.4 | 5.1 | 11.8 | 7.7 |
| $2005-2009$ | 20.6 | 5.3 | 8.1 .7 |  |
| $2010-2014$ | 18.7 | 5.4 | 11.7 | 8.7 |
| $2015-2019$ | 17.4 | 5.8 | 11.7 | 8.7 |
| $2020-2024$ | 16.1 | 6.2 | 11.4 |  |

Sources: Mexico: From 1895 to 1929: Collver, Andrew (1965). Birth Rates in Latin America: New Estimates of Historical Trends and Fluctuations. From 1930 to 1970: CEED (1970). Dinamica de la Población de México, Direction General de Estadistica, El Colegio de México. SIC: Anuarios Estadisticos, different years. For 1970-1974: Secretaria de Programacion y Presupuesto, Agenda estadistica 1978. From 1975 to 1979, birth rates: Segundo Informe de Gobierno de Miguel de la Madrid Hurtado, Sector Salud y Seguridad Social, Informacion Estadistica, p. 291; mortality rates: United Nations, Demographic Yearbook, annual publication. From 1980-2025: Miguel, Jose (1992). Indicadorres Demograficos para 75 anos, Demos, p. 5.
Canada: Birth rates from 1895 to 1920: Henripin, J. (1968). Tendencies and Fertility Factors in Canada, p. 370; for birth and mortality rates from 1921 to 1991: Canadian Centre for Health Information, Births and Deaths, annual. From 1992 to 2025: Statistics Canada, Demography Division, Demographic Projections 1990-2011 based on recent changes in levels of fertility and revised quotas of immigration, December 1991.
Table A3. Age Dependency Ratio for Canada, the United States and Mexico, 1931 to 2030

| Year | Canada |  |  | United States |  |  | Mexico ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Young (Y/A) | Elderly (E/A) | Total $((Y+E) / A)$ | Young (Y/A) | Elderly (E/A) | Total $((Y+E) / A)$ | Young (Y/A) | Elderly (E/A) | $\begin{gathered} \text { Total } \\ ((\mathrm{Y}+\mathrm{E}) / \mathrm{A}) \end{gathered}$ |
| 1931 | 50.3 | 8.8 | $59.2{ }^{1}$ | 45.1 | 8.3 | $53.3{ }^{1}$ | 68.9 | 6.0 | 74.94 |
| 1941 | 42.4 | 10.2 | $52.6{ }^{1}$ | ... | ... | ... | 77.1 | 5.6 | $82.6{ }^{4}$ |
| 1951 | 49.0 | 12.5 | $61.5{ }^{1}$ | 41.4 | 12.5 | $53.8{ }^{1}$ | 79.5 | 6.2 | 85.74 |
| 1961 | 58.1 | 13.1 | $71.2^{1}$ | 64.9 | 16.8 | $81.6^{3}$ | 85.7 | 6.9 | $92.6{ }^{4}$ |
| 1971 | 57.9 | 13.9 | $71.8^{2}$ | 60.6 | 17.5 | $78.0^{3}$ | 92.0 | 7.4 | $99.4{ }^{4}$ |
| 1981 | 45.2 | 15.6 | $60.8^{3}$ | 46.5 | 18.6 | $65.1{ }^{3}$ | 71.7 | 6.1 | 77.85 |
| 1990 | 39.4 | 18.1 | $57.5^{3}$ | 41.8 | 20.4 | $62.2^{3}$ | 65.2 | 6.4 | $71.6{ }^{6}$ |
| 2000 | 38.1 | 20.3 | 58.3 | 41.8 | 20.6 | $62.4{ }^{3}$ | 54.8 | 7.3 | $62.1{ }^{7}$ |
| 2010 | 34.3 | 22.2 | 56.6 | 38.7 | 21.3 | $60.0^{3}$ | 43.8 | 8.4 | $52.2{ }^{7}$ |
| 2020 | 33.8 | 29.7 | 63.5 | 39.6 | 27.8 | $67.4{ }^{3}$ | .. | .. | .. |
| 2025 | .. | .. | .. | .. | .. | .. | 34.0 | 12.0 | 46.0 |
| 2030 | 35.0 | 37.7 | 72.7 | 42.3 | 36.1 | $78.4{ }^{3}$ | .. | .. | .. |

[^71]Sources: Canada: Census of Canada and population projections, Demography Division;
United States: United States Census and projections from the U.S. Census Bureau;
Mexico: See footnotes 4, 5 and 6 and CELADE projections.

Table A4. Infant Mortality Rates (Observed and Estimated), Mexico, 1930-1990 (per 1,000)

| Year | Observed Rates |  |  | Estimated Rates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Both Sexes | Males | Females | Both Sexes |
| 1930 | 157.56 | 143.23 | 150.62 | 171.64 | 154.24 | 163.15 |
| 1931 | 146.59 | 130.43 | 138.74 | 170.05 | 152.74 | 161.61 |
| 1932 | 144.91 | 128.99 | 137.16 | 168.50 | 151.25 | 160.09 |
| 1933 | 145.04 | 130.23 | 137.83 | 166.97 | 149.76 | 158.57 |
| 1934 | 142.36 | 128.39 | 135.57 | 165.42 | 148.27 | 157.05 |
| 1935 | 140.32 | 125.83 | 133.29 | 163.82 | 146.78 | 155.51 |
| 1936 | 139.57 | 124.76 | 132.38 | 162.16 | 145.29 | 153.93 |
| 1937 | 137.91 | 124.04 | 131.17 | 160.40 | 143.80 | 152.30 |
| 1938 | 134.96 | 121.81 | 128.56 | 158.52 | 142.31 | 150.61 |
| 1939 | 133.10 | 119.44 | 126.46 | 156.48 | 140.76 | 148.81 |
| 1940 | 131.82 | 117.42 | 124.83 | 154.25 | 139.03 | 146.83 |
| 1941 | 130.45 | 116.51 | 123.69 | 151.80 | 137.03 | 144.60 |
| 1942 | 127.23 | 114.33 | 121.00 | 149.09 | 134.64 | 142.04 |
| 1943 | 123.12 | 111.82 | 117.69 | 146.08 | 131.77 | 139.10 |
| 1944 | 119.12 | 108.04 | 113.81 | 142.83 | 128.48 | 135.83 |
| 1945 | 116.27 | 105.78 | 111.24 | 139.48 | 124.97 | 132.40 |
| 1946 | 111.93 | 100.64 | 106.50 | 136.19 | 121.47 | 129.01 |
| 1947 | 109.69 | 97.85 | 103.98 | 133.12 | 118.19 | 125.84 |
| 1948 | 109.60 | 96.43 | 103.23 | 130.45 | 115.32 | 123.07 |
| 1949 | 108.99 | 95.77 | 102.58 | 128.14 | 112.88 | 120.70 |
| 1950 | 107.85 | 94.79 | 101.52 | 126.02 | 110.71 | 118.55 |
| 1951 | 102.09 | 89.07 | 95.78 | 123.89 | 108.63 | 116.45 |
| 1952 | 101.61 | 88.84 | 95.43 | 121.55 | 106.49 | 114.20 |
| 1953 | 95.50 | 83.35 | 89.61 | 118.81 | 104.12 | 111.64 |
| 1954 | 92.85 | 81.72 | 87.46 | 115.67 | 101.49 | 108.75 |
| 1955 | 84.20 | 73.92 | 79.22 | 112.33 | 98.70 | 105.68 |
| 1956 | 83.71 | 73.84 | 78.93 | 108.98 | 95.88 | 102.59 |
| 1957 | 82.23 | 72.59 | 77.56 | 105.82 | 93.14 | 99.64 |
| 1958 | 83.75 | 73.97 | 79.00 | 102.49 | 90.13 | 96.46 |
| 1959 | 81.94 | 71.40 | 76.81 | 99.86 | 87.60 | 93.88 |
| 1960 | 79.04 | 68.45 | 73.88 | 97.98 | 85.65 | 91.96 |
| 1961 | 77.02 | 66.64 | 71.97 | 96.65 | 84.13 | 90.54 |
| 1962 | 75.08 | 64.98 | 70.18 | 95.65 | 82.88 | 89.42 |
| 1963 | 73.14 | 63.17 | 68.31 | 94.74 | 81.72 | 88.39 |
| 1964 | 70.00 | 59.83 | 65.06 | 93.71 | 80.48 | 87.26 |
| 1965 | 68.22 | 57.97 | 63.23 | 92.39 | 79.01 | 85.86 |
| 1966 | 67.59 | 57.34 | 62.59 | 90.75 | 77.28 | 84.18 |
| 1967 | 69.02 | 58.40 | 63.84 | 88.80 | 75.31 | 82.22 |
| 1968 | 70.32 | 59.51 | 65.05 | 86.57 | 73.10 | 80.00 |
| 1969 | 72.41 | 61.08 | 66.88 | 84.13 | 70.71 | 77.58 |
| 1970 | 72.26 | 60.58 | 66.56 | 81.76 | 68.39 | 75.24 |
| 1971 | 70.47 | 58.77 | 64.75 | 79.81 | 66.44 | 73.28 |
| 1972 | 64.81 | 53.61 | 59.33 | 78.61 | 65.11 | 72.02 |
| 1973 | 58.49 | 48.26 | 53.46 | 78.12 | 64.37 | 71.41 |
| 1974 | 54.20 | 44.40 | 49.37 | 77.91 | 63.86 | 71.06 |
| 1975 | 54.04 | 43.99 | 49.09 | 77.52 | 63.22 | 70.55 |
| 1976 | 55.23 | 44.78 | 50.09 | 76.56 | 62.15 | 69.53 |
| 1977 | 52.39 | 42.44 | 47.50 | 74.91 | 60.58 | 67.92 |
| 1978 | 48.18 | 38.76 | 43.55 | 72.54 | 58.49 | 65.69 |
| 1979 | 44.74 | 35.96 | 40.42 | 69.43 | 55.86 | 62.81 |
| 1980 | 43.16 | 34.35 | 38.82 | 65.61 | 52.71 | 59.32 |
| 1981 | 40.84 | 32.63 | 36.80 | 61.36 | 49.23 | 55.44 |
| 1982 | 37.68 | 29.93 | 33.86 | 57.00 | 45.68 | 51.48 |
| 1983 | 35.45 | 28.47 | 32.00 | 52.85 | 42.31 | 47.71 |
| 1984 | 32.42 | 26.17 | 29.33 | 49.23 | 39.35 | 44.41 |
| 1985 | 29.56 | 24.10 | 26.86 | 46.21 | 36.88 | 41.66 |
| 1986 | 26.92 | 21.82 | 24.40 | 43.42 | 34.59 | 39.11 |
| 1987 | 26.03 | 20.81 | 23.45 | 41.26 | 32.80 | 37.13 |
| 1988 | 26.88 | 21.22 | 24.09 | 39.56 | 31.39 | 35.58 |
| 1989 | 27.41 | 21.55 | 24.52 | 39.17 | 31.03 | 35.20 |
| 1990 | 28.01 | 22.09 | 25.09 | 38.78 | 30.67 | 34.82 |

Source: Gómez, José, Virgilio Partida (1992). Niveles y Tendencias de la Mortalidad en Los Primeros Años de Vida en Mérico, 1930-1990, CEPS, p. 26.
Table A5a. Nuptiality Tables for Single, Males, Mexico, 1970, 1980, 1990

| \% |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
| \% |  |  |
|  |  |  |
|  |  |  |
| \% |  |  |
|  |  |  |
|  |  |  |
|  | H |  |

Table A5b. Nuptiality Tables for Single, Females, Mexico, 1970, 1980, 1990 - Concluded

\begin{tabular}{|c|c|c|}
\hline \multirow{3}{*}{\%} \&  \&  <br>
\hline \&  \&  <br>
\hline \&  \&  <br>
\hline \multirow{3}{*}{茴} \&  \&  <br>
\hline \&  \&  <br>
\hline \&  \&  <br>
\hline \multirow{3}{*}{$\stackrel{8}{\square}$} \&  \&  <br>
\hline \&  \&  <br>
\hline \&  \&  <br>
\hline \& 4
$=$

4 \&  <br>
\hline
\end{tabular}

Table A6. Mexican Population in 1990 by State, by Place of Birth and Place of Residence $\mathbf{5}$ Years Earlier

| State | Populationin 1990 | Population Born in Another State |  | Population Aged 5 and Over | Living in Another State in 1985 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |  | Number | Percentage |
| Aguascalientes | 719,659 | 138,380 | 19.2 | 619,401 | 44,012 | 7.1 |
| Baja California | 1,660,855 | 747,730 | 45.0 | 1,425,801 | 220,848 | 15.5 |
| Baja California Sur | 317,764 | 96,857 | 30.5 | 275,985 | 29,539 | 10.7 |
| Campeche | 535,185 | 115,483 | 21.6 | 456,452 | 34,500 | 7.6 |
| Coahuila De Zaragoza | 1,972,340 | 284,522 | 14.4 | 1,730,829 | 69,278 | 4.0 |
| Colima | 428,510 | 115,085 | 26.9 | 371,876 | 31,123 | 8.4 |
| Chiapas | 3,210,496 | 107,030 | 3.3 | 2,710,283 | 43,947 | 1.6 |
| Chihuahua | 2,441,873 | 348,686 | 14.3 | 2,118,557 | 118,343 | 5.6 |
| Distrito Federal | 8,235,744 | 1,990,652 | 24.2 | 7,373,239 | 299,285 | 4.1 |
| Durango | 1,349,378 | 146,822 | 10.9 | 1,169,332 | 41,301 | 3.5 |
| Guanajuato | 3,982,593 | 302,141 | 7.6 | 3,396,283 | 98,926 | 2.9 |
| Guerrero | 2,620,637 | 128,359 | 4.9 | 2,228,077 | 46,959 | 2.1 |
| Hidalgo | 1,888,366 | 184,613 | 9.8 | 1,628,542 | 67,114 | 4.1 |
| Jalisco | 5,302,689 | 709,202 | 13.4 | 4,584,728 | 178,259 | 3.9 |
| México | 9,815,795 | 3,804,249 | 39.6 | 8,563,538 | 787,020 | 9.2 |
| Michoacán | 3,548,199 | 269,392 | 7.6 | 3,037,340 | 106,146 | 3.5 |
| Morelos | 1,195,059 | 339,297 | 28.4 | 1,048,065 | 91,322 | 8.7 |
| Nayarit | 824,643 | 122,312 | 14.8 | 711,691 | 35,934 | 5.0 |
| Nuevo León | 3,098,736 | 707,462 | 22.8 | 2,750,624 | 114,049 | 4.1 |
| Oaxaca | 3,019,560 | 168,049 | 5.6 | 2,602,479 | 74,083 | 2.8 |
| Puebla | 4,126,101 | 350,504 | 8.5 | 3,565,924 | 126,056 | 3.5 |
| Querétaro | 1,051,235 | 179,214 | 17.0 | 898,199 | 67,976 | 7.6 |
| Quintana Roo | 493,277 | 273,611 | 55.5 | 412,868 | 92,895 | 22.5 |
| San Luis Potosí | 2,003,187 | 186,262 | 9.3 | 1,723,605 | 64,531 | 3.7 |
| Sinaloa | 2,204,054 | 267,124 | 12.1 | 1,923,515 | 83,139 | 4.3 |
| Sonora | 1,823,606 | 296,657 | 16.3 | 1,596,063 | 72,307 | 4.5 |
| Tabasco | 1,501,744 | 143,088 | 9.5 | 1,288,222 | 47,965 | 3.7 |
| Tamaulipas | 2,249,581 | 521,399 | 23.2 | 1,974,755 | 115.424 | 5.8 |
| Tlaxcala | 761,277 | 93,595 | 12.3 | 662,426 | 35,906 | 5.4 |
| Veracruz | 6,228,239 | 583,665 | 9.4 | 5,424,172 | 163,924 | 3.0 |
| Yucatán | 1,362,940 | 74,617 | 5.5 | 1,188,433 | 38,395 | 3.2 |
| Zacatecas | 1,276,323 | 100,117 | 7.8 | 1,100,898 | 36,731 | 3.3 |

Table A7. Labour Force by Region and Sex, Mexico, 1970 and 1990

| Region | Population |  |  | Participation Rate (\%) <br> (4) $=$ <br> (2)/(1) | Employment Rate (\%) $(5)=$ <br> (3)/(I) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aged 12 and Over (I) | In Labour Force (2) | Occupied <br> (3) |  |  |
|  | 1970 |  |  |  |  |
| Males | 14,625,590 | 10,255,248 | 9,968,315 | 70.12 | 68.16 |
| North-Eastern Region | 972,573 | 687,855 | 668,155 | 70.73 | 68.70 |
| Central Region | 4,840,081 | 3,409,774 | 3,290,564 | 70.45 | 67.99 |
| South Pacific Region | 1,560,049 | 1,083,082 | 1,069,457 | 69.43 | 68.55 |
| Golf Region | 1,399,186 | 1,018,457 | 1,000,988 | 72.79 | 71.54 |
| North-Western Region | 1,202,777 | 828,916 | 799,115 | 68.92 | 66.44 |
| Occidental Region | 2,518,611 | 1,745,789 | 1,701,774 | 69.32 | 67.57 |
| Northern Region | 1,780,243 | 1,222,666 | 1,182,825 | 68.68 | 66.44 |
| South-Eastern Region | 352,070 | 258,709 | 255,437 | 73.48 | 72.55 |
| Females | 15,071,713 | 2,654,292 | 2,456,038 | 17.61 | 16.30 |
| North-Eastern Region | 991,018 | 178,794 | 167,070 | 18.04 | 16.86 |
| Central Region | 5,154,669 | 1,127,874 | 1,042,905 | 21.88 | 20.23 |
| South Pacific Region | 1,596,155 | 230,824 | 213,351 | 14.46 | 13.37 |
| Golf Region | 1,410,394 | 186,584 | 171,668 | 13.23 | 12.17 |
| North-Western Region | 1,183,286 | 205,815 | 188,410 | 17.39 | 15.92 |
| Occidental Region | 2,609,113 | 418,685 | 391,527 | 16.05 | 15.01 |
| Northern Region | 1,777,595 | 259,944 | 239,589 | 14.62 | 13.48 |
| South-Eastern Region | 349,483 | 45,772 | 41,518 | 13.10 | 11.88 |
|  | 1990 |  |  |  |  |
| Males | 27,084,182 | 18,418,695 | 17,882,142 | 68.01 | 66.02 |
| North-Eastern Region | 1,901,913 | 1,293,543 | 1,251,903 | 68.01 | 65.82 |
| Central Region | 9,138,005 | 6,141,354 | 5,960,043 | 67.21 | 65.22 |
| South Pacific Region | 2,778,014 | 1,910,286 | 1,853,045 | 68.76 | 66.70 |
| Golf Region | 2,584,976 | 1,814,335 | 1,761,610 | 70.19 | 68.15 |
| North-Western Region | 2,378,386 | 1,640,274 | 1,602,114 | 68.97 | 67.36 |
| Occidental Region | 4,451,174 | 3,011,395 | 2,922,934 | 67.65 | 65.67 |
| Northern Region | 3,040,156 | 2,027,503 | 1,959,636 | 66.69 | 64.46 |
| South-Eastern Region | 811,558 | 580,005 | 570,857 | 71.47 | 70.34 |
| Females | 28,829,665 | 5,644,588 | 5,521,271 | 19.58 | 19.15 |
| North-Eastern Region | 1,964,978 | 453,274 | 442,231 | 23.07 | 22.51 |
| Central Region | 9,919,742 | 2,249,058 | 2,197,331 | 22.67 | 22.15 |
| South Pacific Region | 2,930,673 | 376,763 | 367,174 | 12.86 | 12.53 |
| Golf Region | 2,689,601 | 384,033 | 373,953 | 14.28 | 13.90 |
| North-Western Region | 2,393,474 | 532,816 | 522,411 | 22.26 | 21.83 |
| Occidental Region | 4,930,593 | 913,295 | 898,140 | 18.52 | 18.22 |
| Northern Region | 3,183,501 | 583,435 | 570,378 | 18.33 | 17.92 |
| South-Eastern Region | 817,103 | 151,914 | 149,653 | 18.59 | 18.32 |

Sources: Census of Mexico 1970 and 1990.
Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990

| State of Residencein 1985 | State of Residence in 1990 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aguascalientes | Baja California | Baja California Sur | Campeche | Coahuila de Zaragoza | Colima | Chiapas | Chihuahua |
| Aguascalientes | - | 1,304 | 80 | 16 | 421 | 89 | 69 | 1,368 |
| Baja California | 434 | - | 2,385 | 105 | 587 | 628 | 179 | 1,421 |
| Baja California Sur | 70 | 3,049 | 2,385 | 39 | 218 | 133 | 44 | 381 |
| Campeche | 33 | 275 | 88 | - | 103 | 71 | 1,237 | 123 |
| Coahuila De Zaragoza | 615 | 2,047 | 453 | 93 | 5 | 169 | 213 | 24,308 |
| Colima | 93 | 2,739 | 237 | 81 | 205 |  | 257 | 246 |
| Chiapas | 188 | 1,317 | 177 | 4,717 | 366 | 387 | , | 664 |
| Chihuahua | 798 | 2,886 | 456 | 2,88 | 4,339 | 163 | 224 | - |
| Distrito Federal | 14,642 | 25,696 | 4,079 | 2,574 | 7.915 | 3,211 | 10,000 | 11,599 |
| Durango | 620 | 7,935 | 1,163 | 155 | 12,729 | 186 | 117 | 32,270 |
| Guanajuato | 1,818 | 11,603 | 1,352 | 204 | 1,954 | 834 | 251 | 2,511 |
| Guerrero | 198 | 5,313 | 2,587 | 304 | 586 | 2,334 | 1,034 | 1,105 |
| Hidalgo | 387 | 2,041 | 206 | 112 | 652 | 203 | 281 | 921 |
| Jalisco | 6,678 | 25,749 | 1,960 | 234 | 1,960 | 11,135 | 955 | 3,187 |
| México | 3,879 | 8,344 | 1,370 | 772 | 2,400 | 1,122 | 2,925 | 3,942 |
| Michoacan | 690 | 15,874 | 1,288 | 534 | 1,094 | 5,484 | 536 | 1,382 |
| Morelos | 299 | 2,993 | 177 | 126 | 476 | 132 | 323 | 595 |
| Nayarit | 203 | 11,433 | 690 | 51 | 244 | 462 | 91 | 554 |
| Nuevo León | 806 | 1,211 | 183 | 185 | 13,039 | 217 550 | ${ }_{4} 363$ | 3,177 |
| Oaxaca | 174 | 8,744 | 1,644 | 836 | 563 | 550 | 4,261 | . 710 |
| Puebla | 416 | 5,692 | 452 | 620 | 712 | 326 | 1,829 | 1,509 |
| Querétaro | 383 | 1,149 | 144 | 80 | 538 | 184 | 145 | 578 |
| Quintana Roo San Luis Potosi | 31 1.552 | ${ }^{222}$ | 78 | 1,549 | 191 | 75 | 555 | 165 |
| San Luis Potosi Sinaloa | 1,552 | 1,294 | 203 | 80 | 3,074 | 217 | 159 | 1,324 |
| Sinaloa | 401 | 39,867 | 4,805 | 166 | 936 | 637 | 297 | 4,418 |
| Sonora Tabasco | 280 | 21,097 | 1,712 | 99 | 788 | 376 | 194 | 4,220 |
| Tabasco Tamaulipas | 88 537 | 381 1,078 | 100 185 | 9.191 | 312 4,199 | 91 325 | 7,569 | 308 |
| Tlaxcala | 57 | 846 | 70 | 95 | 4,19 110 | 68 | 460 | 1,422 258 |
| Veracruz | 606 | 4,852 | 783 | 7,376 | 1,842 | 913 | 7,102 | 2,497 |
| Yucatán | 87 | 186 | 54 | 2,722 | 103 | 55 | +192 | 2,45 |
| Zacatecas | 6,916 | 3,347 | 299 | 545 | 6,538 | 326 | 72 | 10,741 |
| Total In-migration | 43,979 | 220,564 | 29,460 | 34,459 | 69,194 | 31,103 | 42,322 | 118,079 |
| Total Out-migration | 17,452 | 40,309 | 11,735 | 24,697 | 80,748 | 18,356 | 69,824 | 40,146 |
| Net Migration | 26,527 | 180,255 | 17,725 | 9,762 | -11,554 | 12,747 | -27,502 | 77,933 |

Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 - Continued

| State of Residence in 1985 | State of Residence in 1990 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distrito Federal | Durango | Guanajuato | Guerrero | Hidalgo | Jalisco | México | Michoacán |
| Aguascalientes | 1,149 | 327 | 1,197 | 89 | 96 | 3,534 | 990 | 344 |
| Baja California | 2,681 | 1,006 | 1,560 | 453 | 211 | 6,537 | 2,089 | 1,990 |
| Baja California Sur | 767 | 431 | 328 | 243 | 54 | 1,085 | 544 | 295 |
| Campeche | 929 | 181 | 187 | 123 | 54 | 316 | 601 | 323 |
| Coahuila De Zaragoza | 1,978 | 12,399 | 1,419 | 172 | 269 | 1.959 | 2,088 | 824 |
| Colima | 785 | 96 | 455 | 525 | 118 | 6,406 | 699 | 1,556 |
| Chiapas | 7.018 | 355 | 524 | 621 | 381 | 2,222 | 6,294 | 1,094 |
| Chihuahua | 1,936 | 3,989 | 874 | 198 | 209 | 1,930 | 1,559 | 594 |
| Distrito Federal | 1.936 | 4,243 | 35,766 | 15,765 | 28,686 | 37,330 | 548,974 | 35,528 |
| Durango | 1,240 | - | 661 | 168 | 148 | 2.194 | 1,380 | 472 |
| Guanajuato | 9,070 | 551 | - | 546 | 906 | 9,178 | 12,781 | 7,833 |
| Guerrero | 16,649 | 306 | 1,080 | - | 769 | 7.085 | 17.606 | 11,401 |
| Hidalgo | 22,947 | 253 | 1,612 | 631 | - | 2.183 | 29,191 | . 954 |
| Jalisco | 8,818 | 1,479 | 8,596 | 1,125 | 784 | , | 7,515 | 11,998 |
| México | 80,905 | 1,705 | 15,227 | 7,489 | 16,336 | 11,242 | 20,546 | 15,762 |
| Michoacán | 14,926 | 576 | 8,482 | 3,659 | 900 | 22,075 | 20,546 | - 159 |
| Morelos | 7,802 | 158 | 842 | 4,311 | 556 | 1,485 | 8,413 | 1,159 |
| Nayarit | 789 | 394 | 463 | 207 | 109 | 11,966 | 809 | 973 |
| Nuevo León | 3,169 | 1,654 | 1,750 | 299 | 354 | 2,589 | 2,622 | 731 |
| Oaxaca | 25,696 | 265 | 529 | 3,825 | 850 | 2,308 | 26,573 | 1,132 |
| Puebla | 31,200 | 298 | 1,263 | 1,495 | 4,125 | 2,647 | 34,199 | 1,239 |
| Querétaro | 4,568 | 268 | 3,899 | 261 | 1,006 | 1,712 | 5,345 | 1,049 |
| Quintana Roo | 1,493 | 130 | 166 | 356 | 92 | 557 | 886 | 321 |
| San Luis Potosí | 3,908 | 505 | 2,541 | 221 | 1,136 | 3,435 | 4,722 | 808 |
| Sinaloa | 2,743 | 2,783 | 1,057 | 388 | 290 | 9,057 | 1,750 | 1,279 |
| Sonora | 2,017 | 825 | 954 | 307 | 169 | 4,018 | 1,388 | 879 |
| Tabasco | 2,786 | 113 | 362 | 240 | 345 | 1,006 | 1,978 | 461 |
| Tamaulipas | 3,450 | 832 | 2.515 | 475 | 882 | 2,678 | 2,917 | 885 |
| Tlaxcala | 5,376 | 60 | 251 | 123 | 1,063 | 355 | 5,836 | 265 |
| Veracruz | 28,355 | 1,074 | 2,610 | 2,026 | 5,812 | 5,835 | 32,795 | 2,724 |
| Yucatán | 1,584 | 49 | 222 | 153 | 76 | 537 | 1,160 | 202 |
| Zacatecas | 1,501 | 3,843 | 1,027 | 123 | 178 | 12,550 | 2,117 | 527 |
| Total In-migration | 298,235 | 41,148 | 98,419 | 46,617 | 66,964 | 178,011 | 786,367 | 105,602 |
| Total Out-migration | 1,035,758 | 82,359 | 94,976 | 120,236 | 85,909 | 138,366 | 271,421 | 121,134 |
| Net Migration | -737,523 | -41,211 | 3,443 | -73,619 | -18,945 | 39,645 | \$14,946 | -15,532 |

See notes at the end of this table.
Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 - Continued

| State of Residence in 1985 | State of Residence in 1990 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mordos | Nayarit | Nuevo Leom | Oaxaca | Pucbla | Querétaro | Quintana Roo | San Luis Potosí |
| Aguascalientes | 130 | 168 | 618 | 57 | 218 | 246 | 68 | 953 |
| Baja California | 450 | 1,738 | 888 | 966 | 566 | 318 | 205 | 351 |
| Baja California Sur | 87 | 267 | 219 | 303 | 149 | 92 | 62 | 111 |
| Campeche | 98 | 53 | 246 | 399 | 361 | 62 | 6,289 | 68 |
| Coahuila De Zaragoza | 328 | 158 | 16,075 | 257 | 646 | 611 | 235 | 1,938 |
| Colima | 118 | 512 | 289 | 188 | 170 | 161 | 115 | 139 |
| Chiapas | 720 | 740 | 1,268 | 5,577 | 3,497 | 490 | 7.122 | 346 |
| Chihuahua | 279 | 248 | 2,166 | 198 | 638 | 473 | 191 | 581 |
| Distrito Federal | 32.463 | 2.738 | 10,921 | 20,393 | 38,213 | 27,553 | 11,100 | 16,092 |
| Durango | 193 | 770 | 3,065 | 144 | 235 | 353 | 244 | 560 |
| Guanajuato | 976 | 1.102 | 2,521 | 363 | 1,059 | 10,708 | 352 | 4,307 |
| Guerrero | 21,892 | 1,883 | 820 | 3,655 | 2,688 | 796 | 3,642 | 462 |
| Hidalgo | 1,057 | 267 | 984 | 515 | 4,331 | 3,151 | 421 | 2,263 |
| Jalisco | 1,015 | 11,543 | 3,001 | 875 | 1,681 | 1,505 | 961 | 2,820 |
| México | 14,648 | 1,142 | 3,384 | 9,863 | 17,505 | 9,733 | 2,282 | 5,661 |
| Michoacan | 2,060 | 2,224 | 1,534 | 869 | 1,379 | 2,445 | 558 | 1,246 |
| Morelos | - | 292 | 502 | 767 | 3,043 | 610 | 703 | 354 |
| Nayarit | 152 | - | 284 | 157 | 118 | 142 | 101 | 129 |
| Nuevo León | 373 | 213 | - | 400 | 842 | 682 | 448 | 6,502 |
| Oaxaca | 2,367 | 384 | 977 | - | 8,476 | 663 | 1,754 | 452 |
| Puebla | 5,680 | 351 | 1,176 | 4,386 | 8, | 1,030 | 1,653 | 724 |
| Querétaro | 434 | 315 | 1,358 | 170 | 533 | - | 214 | 1,831 |
| Quintana Roo | 239 | 115 | 252 | 351 | 473. | 174 |  | 120 |
| San Luis Potosi | 392 | 290 | 19,791 | 393 | $629{ }^{\circ}$ | 1,559 | 165 | - |
| Sinaloa | 276 | 3,956 | 1,519 | 960 | 598 | 345 | 344 | 449 |
| Sonora | 219 | 1,261 | 1,502 | 395 | 543 | 299 | 137 | 670 |
| Tabasco | 379 | 443 | 945 | 1,254 | 2,046 | 212 | 6,606 | 394 |
| Tamaulipas | 448 | 345 | 23,994 | 659 | 1,099 | 981 | 410 | 8,210 |
| Tlaxcala | 422 | 42 | 169 | 299 | 6,544 | 221 | 238 | 167 |
| Veracruz | 3,004 | 1,063 | 6,390 | 18,649 | 26,776 | 1,847 | 11,017 | 3,857 |
| Yucatán | 154 | 53 | 365 | 365 | 354 | 104 | 35,108 | 102 |
| Zacatecas | 174 | 1,189 | 6,621 | 65 | 276 | 291 | 65 | 2,540 |
| Total In-migration | 91,227 | 35,865 | 113,844 | 73,892 | 125,686 | 67,857 | 92,810 | 64,399 |
| Total Out-migration | 39,613 | 38,769 | 66,247 | 138,780 | 139,132 | 29,264 | 18,969 | 77,650 |
| Net Migration | \$1,614 | -2,904 | 47,597 | -64,888 | -13,446 | 38,593 | 73,841 | -13,251 |

[^72]Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 - Concluded

| $\begin{aligned} & \text { State of Residence } \\ & \text { in } 1985 \end{aligned}$ | State of Residence in 1990 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sinaloa | Sonora | Tabasco | Tamaulipas | Tlaxcala | Veracruz | Yucatán | Zacatecas | Total Outmigration |
| Aguascalientes | 242 | 240 | 44 | 428 | 44 | 219 | 46 | 2,658 | 17,452 |
| Baja California | 3,586 | 6,756 | 98 | 422 | 140 | 697 | 180 | 682 | 40,309 |
| Baja California Sur | 1,148 | 890 | 27 | 138 | 21 | 316 | 60 | 164 | 11,735 |
| Campeche | 194 | 164 | 3,641 | 457 | 40 | 2,331 | 5,622 | 28 | 24,697 |
| Coahuila De Zaragoza | 883 | 1,125 | 258 | 5,690 | 97 | 854 | 137 | 2,450 | 80,748 |
| Colima | 477 | 433 | 86 | 281 | 55 | 584 | 73 | 177 | 18,356 |
| Chiapas | 532 5950 | 480 | 10,309 | 935 | 280 | 9.653 | 1,431 | 119 | 69,824 |
| Chihuahua | 5,250 | 6,337 | 113 | 1,104 | 76 | 543 | 153 | 1,553 | 40,146 |
| Distrito Federal | 5,139 | 6,026 | 5,368 | 10,203 | 12,462 | 34,876 | 9,865 | 6,338 | 1,035,758 |
| Durango | 8,969 | 1,991 | 64 | 1,491 | 48 | 470 | 90 | 2,234 | 82,359 |
| Guanajuato | 2,447 | 2,060 | 271 | 4,203 | 222 | 1.693 | 282 | 1,018 | 94,976 |
| Guerrero | 9,383 | 1,292 | 468 | 1,106 | 323 | 2.966 | 294 | 209 | 120,236 |
| Hidalgo | 371 | 387 | 230 | 2,028 | 1,785 | 5,064 | 144 | 337 | 85,909 |
| Jalisco | 4,888 | 5,333 | 533 | 1,996 | 317 | 2,199 | 449 | 7,077 | 138,366 |
| México | 1,610 | 1,675 | 1,467 | 3,653 | 6,160 | 13,988 | 1,989 | 3,241 | 271,421 |
| Michoacán | 2,446 | 2,594 | 438 | 1,700 | 349 | 2,447 | 270 | 529 | 121,134 |
| Morelos | 315 | 337 | 302 | 457 | 296 | 1,475 | 208 | 105 | 39,613 |
| Nayarit | 4,328 | 2,643 | 75 | 229 | 28 | 358 | 58 | 529 | 38,769 |
| Nuevo León | 729 | 1,111 | 430 | 17,625 | 101 | 2,072 | 367 | 2,003 | 66,247 |
| Oaxaca | 13,393 | 1,334 | 1,794 | 969 | 512 | 25,962 | 879 | 204 | 138,780 |
| Puebla | 1,136 | 921 | 1,791 | 1,423 | 9,121 | 20,759 | 692 | 267 | 139,132 |
| Querétaro | 231 | 256 | 49 | 1,305 | 191 | 778 | 114 | 176 | 29,264 |
| Quintana Roo | 95 | 89 | 720 | 226 | 70 | 1,692 | 7,422 | 64 | 18,969 |
| San Luis Potosi | 507 | 858 | 295 | 21,885 | 110 | 3,326 | 177 | 2,094 | 77,650 |
| Sinaloa | - | 23,432 | 200 | 622 | 89 | 874 | 175 | 617 | 105,330 |
| Sonora | 7,261 | - | 155 | 615 | 198 | 703 | 142 | 417 | 53,840 |
| Tabasco | 319 | 156 | - ${ }^{-}$ | 1,016 | 145 | 11,544 | 3,509 | 113 | 54,412 |
| Tamaulipas | 489 | 644 | 1,428 | 125 | 152 | 12,295 | 282 | 612 | 75,599 |
| Tlaxcala | 105 | 128 | 111 | 125 | - | 1,333 | 92 | 39 | 25,028 |
| Veracruz | 1,817 | 1,580 | 15,714 | 31,464 | 2,317 | 1, | 3,120 | 464 | 236,281 |
| Yucatán | 116 | 91 | 1,272 | 207 | 41 | 1,232 | - | 36 | 47,384 |
| Zacatecas | 4,405 | 758 | 64 | 1,293 | 68 | 283 | 42 | - | 68,784 |
| Total In-migration | 82,811 | 72,121 | 47,815 | 115,296 | 35,858 | 163,586 | 38,364 | 36,554 | 3,468,508 |
| Total Out-migration | 105,330 | 53,840 | 54,412 | 75,599 | 25,028 | 236,281 | 47,384 | 68,784 | 3,468,508 |
| Net Migration | -22,519 | 18,281 | -6,597 | 39,697 | 10,830 | -72,695 | -9,020 | -32,230 | - |

Source: Instituto Nacional De Estadistica Geografia E Informatica, Estados Unidos Mexicanos, Resumen General, XI Censo General de Poblacion Y Vivienda, 1990.

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## Glossary ${ }^{1}$

Census year: A neologism patterned after "fiscal year". In Canada, it refers to the 12 -month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period. For example, there are birth cohorts and marriage cohorts.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Depopulation: The decline in the population of an area through an excess of deaths over births (not to be confused with the depletion of an area through emigration).

Endogamy: Marriage within a specific group.
Endogenous: Influences from inside the system.
Excess mortality: In differential mortality, the excess of one group's mortality rate over another's (see Sex ratio).

Exogamy: Marriage outside of a specific group.
Exogenons: Influences from outside the system.

[^73]Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Fertility, completed: The cumulative fertility of a cohort when all its members have reached the end of their reproductive period.

Fertility, cumulative: Total live births from the beginning of the childbearing period until a later date.

Frequency: Frequency of occurrence within a cohort of the events characterizing a particular phenomenon.

Frequency, cumulative: Total frequency from the start of the period of exposure to risk of event up to a later date.

Infant mortality: Mortality of children less than a year old.
Intercensal: The period between two censuses.
Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Migration: Geographic mobility between one locale and another.
Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Nulliparous: Pertaining to a woman or a marriage of zero parity (has not produced a child).

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of persons with a certain characteristic in a given group of persons.

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- The bistory of recent coborts shoits that throse born between 1956 and 1960 bate been bit particularly bard by atremployment. An arexage of 1 man in 10 , and 1 n ith 12. could base beell consframby unemployed from 1975 to 1992.
- The 1980s bare beell cbaracterized by oure of the best fenfecer gatiss in tuate life expectracy since 1921, but one of the most mediacte for wommen.
- Whell compared with I990, the total number of marriages in 1991 dropped by more than Sha. this dcellime is momparalled in calladiant bistory:
- Mevico's pa pmlation grene at ant emmeral prato of 2.58 betaceen 1980 and 1990, allwomgb the gotervmert still hats if grouth rate of $1.0 \%$ it its sights for the year 2000. Will the chatienge be met?
- Mexicos life expectancy inceressed by il wars for ment and 36 years for woment between 1930 and 1990. Tery fear countries of this sise hate realized such petpid progress.
 cowntry: and a labour force with many years left to grous, Mexicos economic portential is strong
 to it mears were in the labow force, and $45 \%$ of thase aged 65 years and over nere still in the work force.


[^0]:    ${ }^{1}$ These accounts and their analyses are not comparable with those of previous years (see following chapter on the autonomy of estimates).

[^1]:    ${ }^{1}$ Based on Employment and 1 mmigration Canada data. ${ }^{2}$ Estimates based on Family Allowance and Income Tax files. ${ }^{3}$ Difference bet ween immigrants and emigrants. The difference is statistical because landed immigrants from one year could have been in the country since the previous year or before and they were then counted as non-permanent residents. ${ }^{4}$ The residual is made up of the distribution on five years of the error at the end of the census period. This error is equal to the difference between the expected number at the census by the components method and Census adjusted for net undercoverage. This error encompasses the errors on the components and on the Census adjusted for net undercoverage. ${ }^{5}$ Before 1991 only the net migration can be estimated. ${ }^{6}$ Returning Canadians for five months only (January to May); data not available for 1992. 7 The real increase is underestimated because the 1992 data for Returning Canadians are not available. (PR): Updated postcensal estimates, based on 1991, as of October 13, 1993. Note: All other data are based on final intercensal estimates. Births and deaths were extracted from Vital Statistics publications. Calculations based on unrounded data. Source: Statistics Canada, Demography Division.

[^2]:    Note: E.F.T.A.: Economic Free Trade Association. E.E.A.: European Economic Area. E.E.C.: European Economic Community.

[^3]:    ${ }^{1}$ The people are 5 years older than in 1971.
    ${ }^{2}$ The people are 10 years older than in 1971, etc.

[^4]:    ${ }^{3} 1991$ Report and Marriage and Conjugal Life in Canada.

[^5]:    ${ }^{4}$ Figures have not been adjusted for net under-enumeration. Consequently, marriage rates may well be slightly over-estimated, particularly for the 20 year-olds; resulting in an under-estimate of never-married persons.

[^6]:    ${ }^{1}$ First-marriage tables cannot be calculated for Yukon and the Northwest Territories due to small number of marriages. Tables for Newfoundland and Prince Edward Island should be interpretated with care for the same reason.

[^7]:    ${ }^{5}$ Gestation time is nothing more than a statistical measurement based on rather vague information.

[^8]:    ${ }^{6}$ Silins, J. et W. Zayachkowski. Canadian abridged life table, 1961-1963, Health and Welfare Technical Report No. 1. Statistics Canada, Vital Statistics Section, 1966.

[^9]:    ${ }^{1}$ Rate per 100,000 , standardized using the 1976 Canadian population age structure.
    ${ }^{2}$ Causes 390-459, 9th Revision of the ICD.
    ${ }^{3}$ Causes 410-414, 9th Revision of the ICD.
    ${ }^{4}$ Causes 430-438, 9th Revision of the ICD.
    ${ }^{5}$ Causes 140-239, 9th Revision of the ICD.

[^10]:    Sources: Data from Canadian Centre for Health Information, Catalogue Nos. 82-003 and 84-203 and calculations made by the Demography Division.

[^11]:    ${ }^{1}$ Includes Latvia, Estonia, Lithuania, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine and Uzbekistan.
    2 Includes Croatia, Slovenia and Bosnia-Hercegovina.

[^12]:    ${ }^{1}$ Preliminary data as of August 31, 1992.

[^13]:    Source: Employment and Immigration Canada, Immigration Statistics, annual publication.

[^14]:    ${ }^{1}$ Preliminary as of August 31, 1993.
    Source: Employment and Immigration Canada, Immigration Statisticcs, annual publication.

[^15]:    Source: Employment and Immigration Canada, Business Immigration: Immigrant Investor Program, Statistical Highlights, 1989 to 1992, April 1, 1993.

[^16]:    ${ }^{7}$ Continuous Reporting System on Migration.

[^17]:    Note: The Census Metropolitan Areas are distributed geographically from east to west.

[^18]:    ${ }^{8}$ These are always balances.

[^19]:    ${ }^{9}$ Not to be confused with external migrants shown in Table 1.
    101990 Census Special tabulation.

[^20]:    ${ }^{11}$ Because of the use of cohort averages, there is no exact correspondence between the years during which there was a recession and those when the "average" (of employment or unemployment rates) shows this. The 1982 recession is thus recorded in average behaviours in 1983. It is likely that with technical progress there will be less and less correspondence between the observation of a recession from production indicators and unemployment.

[^21]:    Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.
    Source: Data from the Labour Force Survey.

[^22]:    ${ }^{1}$ Immigration: Based on Employment and Immigration data. Emigration: Based on Family Allowances and Income Tax files. Net: Difference between immigrants and emigrants. ${ }^{2}$ The residual is made up of the distribution on five years of the closure aror. This error is equal to the difference between the number expected in the census by the components method and correaed enumeration of net undercoverage. This "error" encompasses the errors on the components and on the net undercount of the censuses. ${ }^{3}$ January to May 1991. ${ }^{4}$ Takes into account Non-permanent Residents, Returning Canadians and residual. ${ }^{5}$ Returning Canadians for 1991 are only available from January to May and data are not available for 1992.
    PR: Revised postcensal data, based on 1991 Census, dated October 13, 1993.
    Note: All other data consist of final intercensal estimates. Births and deaths are provided by Vital Statistics publications.
    Source: Statistics Canada, Demography Division.

[^23]:    ${ }^{\text {a }}$ Number of children per woman.
    Sources: Statistics Canada, Vital Statistics, Births and Deaths, Catalogue No. 84-204 annual, 1978-1986: Canadian Centre for Health Information, Health Reports, Births, Całalogue No. 82-003 annual. 1987-1991.

[^24]:    ${ }^{1}$ International Planned Parenthood Federation.
    Note: In bold: key dates of demographic events.

[^25]:    ${ }^{1}$ The 1980 Census count was $81,249,645$.

[^26]:    ${ }^{2}$ Translation of "municipio."
    ${ }^{3}$ Mexico has traditionally considered it highly important to know as much as possible about its population. After several attempts to collect statistical information on the population, the National Bureau of Statistics was founded in 1882 and the National Institute for Geography and Statistics (in 1850), which has since become the Mexican Society for Geography and Statistics.

[^27]:    ${ }^{1}$ Including Upper Canada (Ontario) and Lower Canada (Quebec). Nova Scotia and New Brunswick were enumerated separately.
    ${ }^{2}$ The Canadian Census was instituted in 1867 in accordance with the British North America Act; includes the first four provinces in the first official census of Canada: Quebec, Ontario, Nova Scotia and New Brunswick. Manitoba and British Columbia were enumerated separately even if they had joined the

    Confederation.
    4 Inclusion of the Territories (Alberta, Assiniboia East and West, Saskatchewan and the unorganised territories) in Canadian censuses.
    ${ }^{5}$ Inclusion of Alberta and Saskatchewan as provinces; Yukon and the Northwest Territories as territories.
    ${ }^{6}$ The prairy provinces had censuses from 1906 to 1946; after 1956, the quinquennial Canadian census was extended to all the provinces and territories.
    Sources: Census publications.

[^28]:    ${ }^{4}$ Marta Mier y Teran - "Évolution de la population mexicaine à partir des données des rencensements de 1895 à $1970 .{ }^{\prime \prime}$ Ph.D. thesis, Faculty of Graduate Studies, University of Montreal, August 1982.
    ${ }^{5}$ According to the National Institute of Statistics, Geography and Informatics (INEGI), the 1950 and 1960 censuses underestimated the population by $5.94 \%$ and the 1970 census by $4.63 \%$.
    ${ }^{6}$ Prior to this, the only documents in existence were handwritten "notes" certifying that the event had taken place.
    ${ }^{7}$ Canada has not yet achieved standardization in this area. Since collection of vital statistics data is under provincial jurisdiction, birth, death and marriage certificates may bear different information depending on the province in which the event was registered.

[^29]:    ${ }^{8}$ Sergio Camposortega Cruz. Analysis demografico de la mortalitad en Mexico, 1940-1980. College of Mexico, 1992, p. 29 ff.
    ${ }^{9}$ INEGI, Cuaderno de poblacion, No. 3, 1992.

[^30]:    ${ }^{10}$ The 1990 Census counted $81,249,645$.
    ${ }^{11}$ If Canada's population had increased by 6.2 , it would now stand at 33.3 million.

[^31]:    12 David Rinfeldt and Monica Ortiz de Oppermann: Mexican Immigration, U.S. Investment, and U.S.-Mexican Relations. The Rand Corporation, November 1990, JR1-08, The Urban Institute UI Report 91-4.

[^32]:    Source: Author's calculations.

[^33]:    ${ }^{13}$ Benitez Zenteno, Raul and Cabrera Acevedo, Gustavo, "Projections de la population de Mexico, 1960-1980', Banco de Mexico S.A. 1966.

[^34]:    ${ }^{14}$ Unless growth is due to heavy immigration by males or the elderly!

[^35]:    ${ }^{15}$ In La Fecondidad en Mexico, camblos y perspectivas, Beatriz Figueroa Campos (ed.), El Colegio de Mexico, 1989.

[^36]:    ${ }^{16}$ Starting in 1972, public-health institutes launched contraception programs, and the new health code passed in February 1973 authorized the promotion and sale of contraceptives, which until then had been prohibited.
    ${ }^{17}$ Segundo Informe de Gobierno de Miquel de la Madrid Hurtado, Sector Salud y Seguridad Social, Informacion Estadistica, p. 291. Quoted by M. Cosio in Politiques de Population au Mexique, Politiques de population, études and documents, Vol. IV, No. I, June 1989.

[^37]:    ${ }^{18}$ CONAPO. Programa Nacional de planification familiar 1983-1988.
    ${ }^{19}$ Maria Cosio. Politiques de population au Mexique. Op. cit. p. 47.
    ${ }^{20}$ ENFES. Figures quoted by Yolanda Palma Cabrera and Javier Suarez Morales, Family Planning Branch: El Descenso de la Fecundidad en Mexico, op. cit.
    ${ }^{21}$ Crude birth rates, according to CONAPO estimates, went from 30.8 per thousand to 25.1 per thousand.
    ${ }^{22}$ Pill, sterilization, hormone injections, IUD, etc. The percentages are official figures from the ENFES.

[^38]:    ${ }^{23}$ Secretariat of Health, Family Planning Branch (ENFS, 1987).
    ${ }^{24}$ Personal communication, forthcoming publication.

[^39]:    ${ }^{25}$ According to Yolanda Palma Cabrera and Javier Suarez Morales, Family Planning Branch EMF 1976. in Demographic and Health Surveys World Conference, 1991, Washington, D.C. (tables 10 and II).
    ${ }^{26}$ See projections of births and fertility further on.
    ${ }^{27}$ It should be noted that the birth rates that use estimated populations as a denominator are probably too low, which would further augment the lack of correspondence between indicators.
    ${ }^{28}$ The World Bank proposed 86.3 millions for 1990 . This value is considered too large by mexican demographers.

[^40]:    ${ }^{29}$ Carmen Arretz. "La fécondité au Mexique", in La fecundidad en Mexico, op. cit.
    ${ }^{30}$ Benitez Benteno, Cabrera Aceredo, G., op. cit.
    ${ }^{31}$ Mexico (perspectivas por paises). The Population Council 1975, pp. 11-15.

[^41]:    ${ }^{32}$ Guadeloupe reduced its fertility between 1965 and 1980 at a rate that almost all specialists judged impossible when it was proposed as a hypothesis.
    ${ }^{33}$ Large disparities exist bet ween the different segments of population. An important part of the population only has rudimentary education.

[^42]:    ${ }^{34}$ J. Bourgeois Pichat and Taleb Sid Ahmed, "Un taux d'accroissement nul pour les pays en voie de développement en l'an 2000. Rêve ou réalité'', Population 1970, No. 5.

[^43]:    ${ }^{35}$ This is also one of the most striking increases recorded anywhere in the world.

[^44]:    ${ }^{36}$ Pollard, J.H. The expectation of life and its relationship to mortality, Journal of the Institute of Actuaries, 1982, No. 109, p. 225-240.

[^45]:    ${ }^{37}$ Unfortunately, given the severe defects in data, it is not possible to use vital statistics figures in support of this argument (see chapter on sources of data).
    ${ }^{38}$ J. Gomez de Leon and Jaime Sepuvelda Amor - Tendencias recientes de la mortalitad por causas en Mexico - CEPS 1993.

[^46]:    39 Julieta Quilodran, Niveles de fecundidad y patrones de nupcialitad en Mexico, El Colegio de Mexico, Centro de estudios demograficos y de desarrollo urbano, 1991.

[^47]:    Sources: Census of Canada 1991 and Mexico 1990.

[^48]:    ${ }_{2}^{1}$ Probably enumerated in another marital status.
    2 This category was redistributed.

[^49]:    ${ }^{40}$ Statistics Canada. Current Economic Analysis, Catalogue No. 91-534E.
    ${ }^{41}$ J. Quilodran. La nuptialitad, Les cambios mas relevantes - Demos 1992, p. 13.

[^50]:    42 We are speaking here of divorce as a legal procedure terminating a marriage and not simply separation, which, although it does not allow remarriage, is much more common.

[^51]:    ${ }^{43}$ J. Quilodran. Niveles de fecondidad y patrones de nupcialitad en Mexico, El Colegio de Mexico, 1991, p. 31.

[^52]:    Note: The years in parenthesis are the border-years of the cohorts.
    Source: Quilodran, Julieta (1991). Niveles de Fecundldad y Patrones de Nupcialldad en Mérico, El Colegio de México, p. 29.

[^53]:    ${ }^{44} \mathrm{I}$ am human, and nothing that is human is foreign to me.

[^54]:    ${ }^{45}$ P.L. Martin, Trade and Migration: NAFTA and Agriculture. Institute for International Economics, Washington, D.C., 1993, p. 59.
    ${ }^{46}$ These illegal immigrants were legalized by a process known, even in official U.S. government publications, as "drying out the wetbacks," an allusion to the fact that they swam across the Rio Grande. Source: Presidential Committee on Migrant Workers, 1951.
    47 "Legalization of illegal workers in the United States should be discontinued and prohibited" states the report of the Presidential Committee, 1951. These recommendations were not followed.
    ${ }^{48}$ In 1960, President Kennedy was convinced that the "bracero" program had a detrimental effect on the wages and working conditions of American workers. He nevertheless reluctantly approved a two-year extension to the program (Craig 1971, quoted by P. Martin 1993).
    ${ }^{49}$ Termination of the program was passed by only one vote in the Senate, that of the Speaker.

[^55]:    ${ }^{50}$ See P.L. Martin: "Trade and Migration: NAFTA and Agriculture." Institute for International Economics, Washington, D.C. 1993, p. 109 ff.
    51 Proceedings of the closing session of the seminar on international migration and the economic development of Mexico, Zacatecas, 1991, CONAPO 1991.

[^56]:    52 Being born in Mexico should not be confused with being an immigrant from Mexico.
    ${ }^{53}$ Statistical Yearbook, 1990. p. 91.

[^57]:    54 Lic. Miguel Limon Rojas, Under-Secretary for Population and Migration with the Secretary of State, in his remarks at the closing session of the seminar on international migration and economic development in Zacatecas in 1990, stated, "According to reports by specialists, illegal migration of Mexican's into the U.S.A. has increased in recent years, and all indications are that this trend will not diminish. If we take into account projections of the demand for workers in that country and the sustained increase in the labour force in Mexico, we may expect an increase in these migratory flows." (our translation).
    ${ }^{5 s}$ Garcia y Griego (1990). Emigration as a safety valve for Mexico's Labor Market: A Post-IRCA Approximation.

[^58]:    Note: Numbers were rounded independently. Revised upward by Warren and Passel (1987) by adding 40,000 males aged $30-64$ missed in the United States census and 47,000 net increase estimated during April, May and June 1980.
    Source: Garcia y Griego (1990). Emigration as a Safety Valve for Mexico's Labor Market: A Post-IRCA Approximation, Immigration and International Relations, G. Vernez (Pub.), Rand Corporation/Urban Institute.

[^59]:    ${ }^{56}$ Luis Tellez, under-secretary, Planning Branch, Department of Agricultural and Hydraulic Resources, estimated that exports of farm products could reach $\$ 1.3$ billion in 1998, an increase of $\$ 400$ million over 1993 exports, which could result in the creation of some 150,000 jobs. According to Cornelius (1992), he estimates that the agricultural labour force will drop from $25 \%$ of total labour force in 1992 to $16 \%$ in 2002.
    ${ }^{57}$ Mexicans are not the only ones wishing to work in the U.S. Other strong challengers are West Indians and South Americans.

[^60]:    58 Fernando Lozano Ascencio, "Bringing it back home," published by the Center of U.S.-Mexican Studies, USCD. University of California, San Diego, 1993.
    59 He considers his estimate a minimum since he takes into account only transfers of funds and not of property, and only by known legal and illegal emigrants. He leaves out of the calculation transfers by businesses, Mexican residents and emigrants returning to the country. Funds sent by groups are also excluded.
    ${ }^{60}$ According to Lozano (1993), remittances in 1990 were also $\$ 3.2$ billion, or $1.5 \%$ of the G.N.P.
    ${ }^{61}$ Op. cit., p. 13.

[^61]:    62 Augustin E. Ibarra. "Programa de trabajadores agricolas temporales mexicanos in Canada" in Migracion internacional en las fronteras norte y sur de Mexico, CONAPO, 1992.

[^62]:    ${ }^{1}$ Based on Camposortega-Cruz, in "La zona metropolitana de la ciudad de Mexico", CONAPO, December 1992.

[^63]:    ${ }^{63}$ Gustavo Garza. Crisis economica y desarrollo urbano, DEMOS. 1992. ISSN 0187-7550.
    ${ }^{64}$ Augustin E. Ibarra. "Programa de trabajadores agricolas temporales mexicanos al Canada," in Migracion internacional en las fronteras norte y sur de Mexico, CONAPO 1992.

[^64]:    ${ }^{65}$ Brigida Garcia. Fuerza de trabajo: Aumenta el trabajo de actividades economicas de pequena escala, Demos, 1988, and José Luis Lezama. La economia subterranea y el trabajo: Novedades del desarrollo actual del capitalismo, Demos, 1990.
    ${ }^{66}$ Brigida Garcia. La feminization en la actividad economica. Demos 1992.

[^65]:    ${ }^{67}$ Table 39 gives some figures for Canada which allow us to make superficial comparisons.

[^66]:    ${ }^{68}$ Diversidad ethnica y languas indigenas predominante hablada en Mexico. Working Paper. Centro de estudios en Poblacion y salud. Mexico 1992.

[^67]:    69 Elementos para una caracterization socioeconomica de la poblacion indigena en Mexico. Working Paper. CEPS 1992.

[^68]:    See notes at the end of this table.

[^69]:    See notes at the end of this table.

[^70]:    See notes at the end of this table.

[^71]:    $\mathrm{Y}=$ Young, $\mathrm{E}=$ Elderly and $\mathrm{A}=$ Adults.
    Aged 0-14, 15-64 and 65 and over.
    ${ }_{3}^{2}$ Aged 0-16, 17-64 and 65 and over.
    ${ }_{4}$ Aged 0-17, 18-64 and 65 and over.
    ${ }_{5}$ According to Marta Mier Y Teran.
    ${ }^{\text {Census of Mexico } 1980 .}$
    ${ }_{7}^{6}$ Census of Mexico 1990.

[^72]:    See notes at the end of this table.

[^73]:    ${ }^{1}$ For further information consult the following: International Union for the Scientific Study of Population, Multilingual Demographic Dictionary, Ordina Editions, Liège, 1980; van de Walle, Étienne. The Dictiongry of Demography, ed. Christopher Wilson. Oxford, England: New York, NY, USA.

