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# **International Population Dynamics 1950-79**

**Demographic Estimates for  
Countries with a Population  
of 5 Million or More**

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U.S. Department of Commerce  
BUREAU OF THE CENSUS

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Issued May 1980



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**Meyer Zitter, Assistant Director**  
for International Programs

**INTERNATIONAL DEMOGRAPHIC  
DATA CENTER**  
**Samuel Baum, Chief**

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# Introduction

This report contains selected demographic information for the countries of the world with an estimated population of at least 5 million inhabitants in 1979. These 87 countries account for over 95 percent of the total world population. Seven items of "benchmark data" are shown for the latest year for which reliable estimates are available for each country: both the enumerated and the adjusted population according to the most recent census, the crude birth rate, the crude death rate, the population growth rate, the life expectancy at birth, and the infant mortality rate. These benchmark data represent the most recent national data (from population censuses, surveys, and vital registration systems) upon which reliable demographic estimates can be based.

In addition, the data for each country include a "projected estimate" of the crude birth rate, death rate, and growth rate for 1978. Projected estimates represent projections of total population and vital rates for years since the reference date of the most recent benchmark data; they are shown in italics.

A time series of total population estimates is given for 1950, 1955, and for each year from 1960 to 1979. Average annual population growth rates are shown for 5-year intervals during the 1950-79 period. A list of population censuses used in constructing the population time series is also shown. If there has been only one suitable census in the country, the list is omitted since that census will already be shown as item 1 of the benchmark data. This is the case in 70 of the 87 countries included in this report. In addition, there were three countries where no population census was taken during this period.

For the first time in this report series, a table is being presented of benchmark vital rates for all available years since 1950. This includes crude birth and death rates, growth rates, and total fertility rates. As the amount and quality of available data vary considerably from one country to another, these data are presented for as many or as few years as they are available for each country. For 18 countries, the historical vital rates table is omitted, either because the latest benchmark data (items 3 to 5) are the only benchmarks that exist, or because there are no benchmark data at all.

At the other extreme, particularly among the more developed regions where reliable vital registration systems are in effect, benchmark vital rates are available for every year for some countries. As a simple space-saving device, such data are shown here for only each fifth year from 1950 to 1975, and for each available year thereafter.

Finally, a bibliography of "major sources" is presented. Although many sources are reviewed in preparing the estimates for each country, generally only those sources actually used are listed in the bibliography. Some readily available, standard sources are referenced in the notes but not listed under "major sources" including **PVSR** and **UNDY** (see Abbreviations Used in This Report). For many official government publications, the agency name is shown as the author; it is preceded by the name of the country only in ambiguous cases, that is, where an agency of one country publishes data relating to another country.

## Relation to Other Reports

Regular users of the international demographic reports of the U.S. Bureau of the Census will recognize the similarity of much of the data in the present document to the data usually found in the *World Population* series. This report is intended as a preliminary version of a larger report<sup>1</sup> that will include selected demographic data for all the countries of the world. The intention is to republish the present data, except for the table on historical benchmark estimates, along with similar data for the remaining 113 countries with populations under 5 million. For a few of the countries in the present report, revisions to the data presented here may be incorporated into the final report if significant new information becomes available in the interim. The complete report will include aggregations of the projected estimates of total population and vital rates to subregions, regions, and world totals.

In addition to the *World Population* series, the International Demographic Data Center has recently issued a report<sup>2</sup> which presents a comprehensive compilation of age-specific and total fertility rates for developing countries. These rates were compiled from all available primary and secondary sources, with annotations on quality and method of derivation whenever possible, but usually without selection of rates to be designated as of benchmark quality. (The total fertility rates selected for inclusion in the present report *do* represent benchmark rates.)

Other reports of interest are the *Country Demographic Profiles*, which bring together in a single report a variety of demographic data for selected countries. Each report presents an evaluated age-sex distribution for the latest census year and projected to a current year, as well as various estimates of fertility, mortality, and migration. Selected tables of social and economic data are also given. To date, profiles have been published or are in preparation for 22 countries, of which 3 are in Africa, 10 are in Asia, and 9 are in Latin America.

## Further Information

Requests for further information on these reports, as well as specific comments and questions regarding the data in the present report, are invited. They may be directed to the Chief, International Demographic Data Center, U.S. Bureau of the Census, Washington, D.C. 20233.

<sup>1</sup> U.S. Bureau of the Census. *World Population 1979—Recent Demographic Estimates for the Countries and Regions of the World*, forthcoming.

<sup>2</sup> U.S. Bureau of the Census. *A Compilation of Age-Specific Fertility Rates for Developing Countries*. International Research Document No. 7. Washington, D.C. 1979.

## Abbreviations

Acronyms and abbreviated forms as used for some source references in this report are shown below. Abbreviations used on the data sheets of a single country are explained in the major sources for that country and are not repeated here. Also see the separate glossary for definitions of technical terms.

**CELADE:** United Nations. Centro Latinoamericano de Demografía. Santiago and San José.

**CICRED:** Committee for International Coordination of National Research in Demography. Paris.

**CMEA:** Council of Mutual Economic Aid. Moscow.

**ECA:** United Nations. Economic Commission for Africa. Addis Ababa.

**ECWA:** United Nations. Economic Commission for Western Asia. Beirut.

**ESCAP:** United Nations. Economic and Social Commission for Asia and the Pacific. Bangkok.

**FDAD:** U.S. Bureau of the Census. Foreign Demographic Analysis Division. Washington.

**INSEE:** Institut National de la Statistique et des Etudes Economiques. Paris.

**IUSSP:** International Union for the Scientific Study of Population. Liège.

**NA:** Data not available.

**OECD:** Organization for Economic Cooperation and Development. Paris.

**PVSR:** United Nations. Statistical Office. *Population and Vital Statistics Report*. Statistical Papers. Series A. Various issues. New York.

**U.N.:** United Nations.

**UNDY:** United Nations. Statistical Office. *Demographic Yearbook*. Various issues. New York.

## Glossary

Definitions in this glossary refer to terms as they are used in the present publication. Terms that are in **bold type** within a definition are also defined elsewhere in the glossary. For more technical definitions of these and other terms, see United Nations, *Multilingual Demographic Dictionary, English Section*. New York, 1958. A new version of the demographic dictionary is currently being prepared by the International Union for the Scientific Study of Population.

A number of the estimation techniques defined below (e.g., child survivorship, logit, stable and quasi-stable population) generate multiple estimates. In such cases specific information concerning the basis of the estimate(s) reported in this publication may be obtained by writing the Chief, International Demographic Data Center, Bureau of the Census, Washington, D.C. 20233.

**Age-sex-specific mortality rate.** The number of deaths during 1 year to a given sex in a given age group per 1,000 persons in the same sex and age group (based on midyear population).

**Age-specific fertility rate.** The number of births during 1 year to women in a given 5-year age group per 1,000 women in the same age group (based on midyear population).

**Age-specific marital fertility rate.** The number of births during 1 year to married women in a given age group per 1,000 married women in the same age group (based on midyear population).

**Arretx fertility technique.** A method of estimating **age-specific fertility rates** for an intercensal period based on the observed change in the number of children ever born to each 5-year age cohort of women during the period. See Carmen Arretx, *Fertility Estimates Derived from Information on Children Ever Born Using Data from Successive Censuses*, Laboratories for Population Statistics, Reprint Series, No. 16, Chapel Hill, 1975.

**Arriaga fertility technique.** A method of estimating **age-specific**

## Glossary (Continued)

- fertility rates** based on the observed change in the number of **children ever born** by age of mother, pertaining to two or more dates. See Eduardo E. Arriaga and Patricia Anderson, "An Approach for Estimating Fertility from Census and/or Survey Information on Children Ever Born by Age of Mother," revised version of an unpublished paper presented at the annual meeting of the Population Association of America, Montreal, 1976.
- Benchmark data.** A term used to describe those reported and estimated figures which are based on reliable population censuses, vital registration systems, and/or sample surveys.
- Birth rate.** The number of births during 1 year per 1,000 persons (based on midyear population).
- Brass fertility technique.** A method of adjusting age-specific fertility rates based on an assumed relationship between the number of children born during a recent specified period (usually 1 year) and the average number of **children ever born** per woman in 5-year age groups. See William Brass, *Methods of Estimating Fertility and Mortality from Limited and Defective Data*, Laboratories for Population Statistics, Occasional Publication, Chapel Hill, 1975.
- Brass mortality technique.** A method of estimating the level of **infant and child mortality** based on information provided by women in 5-year age groups, and on an assumed relationship between certain **life table** values and proportion of **children ever born** who are still surviving. See William Brass, *Methods of Estimating Fertility and Mortality from Limited and Defective Data*, Laboratories for Population Statistics, Occasional Publication, Chapel Hill, 1975.
- Chandrasekaran-Deming technique.** A statistical procedure used to estimate the number of **vital events** missed by the two independent data gathering operations of a **dual record system**. See U.S. Bureau of the Census, *The Methods and Materials of Demography*, by Henry S. Shryock, Jacob S. Siegel, and Associates, Washington, D.C., 1971, pp. 834-836.
- Child (hood) mortality.** Mortality during the early childhood years, sometimes up to age 10 or 15.
- Child survivorship techniques.** Various techniques used to estimate the level of **infant and child mortality** based on data on **children ever born** and **children surviving**. See Brass, Feeney, Sullivan, and Trussell mortality techniques.
- Children ever born.** The number of live births a woman has had, regardless of whether the children are now living or dead, or living with or away from the mother. At times data may be collected or reported only for women of a specific group, e.g., ever-married women.
- Children surviving.** The number of children a woman has who are still alive at the time of the inquiry, regardless of whether the children are now living with or away from the mother. At times data may be collected or reported only for women of a specific group, e.g., ever-married women.
- Coale-Demeny regional model life tables.** See **model life table**.
- Coale-Trussell model fertility schedules.** A set of model age-specific fertility schedules that can be used to estimate patterns of fertility. See Ansley J. Coale and T. James Trussell, "Model Fertility Schedules: Variations in the Age Structure of Childbearing in Human Populations," *Population Index*, Vol. 40, No. 2, 1974, pp. 185-258.
- Cohort.** A group of individuals who experience the same event in the same time period, such as birth or marriage in the same year.
- Component method.** A method of projecting a population by age and sex, in which separate assumptions are made, by age and sex, concerning the future fertility, mortality, and migration components of the population. Sometimes called the "cohort component method."
- Coverage error.** A measure of the extent to which a census or survey fails to enumerate persons who properly fall within its scope, expressed as a percentage of the adjusted population. See **overenumeration** and **underenumeration**.
- Death rate.** The number of deaths during 1 year per 1,000 persons (based on midyear population).
- De facto population.** A concept under which individuals are attributed to the geographic area where they were actually located at the time of the enumeration.
- De jure population.** A concept under which individuals are attributed to a geographic area by virtue of their usual place of residence, whether or not they were actually located in that area at the time of the enumeration.
- Dual record system.** A method of obtaining estimates of vital statistics which employs the simultaneous collection of reports of **vital events** by two independent data gathering operations. See **matched and unmatched events**.
- Empirical life table.** A **life table** derived from the observed frequency of death in an actual population.
- Feeney mortality technique.** A method of estimating the trend in **infant mortality** based on information provided by women in 5-year age groups, and on assumed relationships between certain **life table** values and the proportion of **children ever born** who are still surviving without specific knowledge of the rate of change in **infant mortality** during the period. See Griffith Feeney, "Estimating Infant Mortality Trends from Child Survivorship Data," *Population Studies*, forthcoming, 1980.

## Glossary (Continued)

- Growth rate.** The average annual percent change in the population, resulting from a surplus (or deficit) of births over deaths and the balance of migrants entering and leaving the country.
- Incomplete registration.** A term used to indicate that registered data represent less than 90 percent coverage of all vital events.
- Infant mortality rate.** A measure of the frequency of death between birth and age 1 during a specified period of time. Usually calculated as the number of deaths to infants under 1 year of age per 1,000 live births occurring in the same calendar year.
- Life expectancy at birth.** The average number of years to be lived by a birth cohort, if mortality at each age remains constant in the future.
- Life table.** A statistical table representing the life history of a hypothetical cohort exposed to a constant pattern of mortality by age.
- Life table central death rates.** The annual number of deaths occurring between age  $x$  and  $x+n$  per 1,000 persons living between age  $x$  and  $x+n$  in a life table population.
- Logit mortality technique.** A method of adjusting a specific function in an empirical life table based on an assumed relationship with the same function in a standard (model) life table. See William Brass, *Methods of Estimating Fertility and Mortality from Limited and Defective Data*, Laboratories for Population Statistics, Occasional Publication, Chapel Hill, 1975.
- Longitudinal survey.** A survey which follows the same group of individuals (or households) over time by means of repeated visits.
- Matched and unmatched events.** The total number of vital events recorded in a dual record system derived as the sum of events recorded by both systems (matched events) plus events recorded only by the first system and those recorded only by the second system (unmatched events).
- Model life table.** A life table not derived from the observed mortality of an actual population. Well known sets of model life tables include United Nations model life tables and Coale-Demeny regional model life tables.
- Mortara fertility technique.** A method of estimating age-specific fertility rates based on the difference between the average number of children ever born per woman at each consecutive age. See Giorgio Mortara, *Methods of Using Census Statistics*, Population Studies, No. 7, U.N., Department of Social Affairs, New York, 1949.
- Net emigration rate.** See net migration rate.
- Net immigration rate.** See net migration rate.
- Net migration rate.** The balance between the number of persons entering and leaving a country during 1 year per 1,000 persons (based on midyear population). An excess of persons entering the country is referred to as net immigration; an excess of persons leaving the country as net emigration.
- Orphanhood technique.** A method of estimating the level of adult mortality based on the proportion of persons at each age whose mothers or fathers are no longer living at the time of the census or survey. See William Brass, *Methods for Estimating Fertility and Mortality from Limited and Defective Data*, Laboratories for Population Statistics, Occasional Publication, Chapel Hill, 1975.
- Overenumeration.** An enumeration of the population which erroneously counts more persons than actually belong to it.
- Own-children method.** A reverse survival technique for estimating age-specific fertility rates based on a procedure for matching or allocating children under certain ages to their respective mothers. See Lee-Jay Cho and Griffith Feeney, *Fertility by the Own-Children Method: A Methodological Elaboration*, Laboratories for Population Statistics, Reprint Series No. 20, Chapel Hill, 1978.
- Possible combinations of vital rates.** A range of growth rates which allows for all combinations among given birth, death, and net migration rates.
- Post enumeration survey.** A survey used for checking the coverage and accuracy of a population census by independently re-enumerating a sample of the population after the census.
- Projected estimates.** A term used to describe projections of total population and vital rates for years since the date of availability of the latest reliable population census figures, complete vital registration data, or sample survey data. In instances where benchmark data on vital rates for 1978 are shown in this report, the benchmark data are repeated under the heading of "Projected Estimates."
- Quasi-stable population analysis.** A method of demographic analysis based on a model population which has not been subjected to migration, where fertility has remained constant over a long period of time, and where mortality has been declining.
- Rate of natural increase.** The average annual percent change in the population during a specified period of time resulting from a surplus (or deficit) of births over deaths. The natural increase of the population does not include an allowance for net migration. (See growth rate.)
- Registration.** A method of continuously recording information on vital events as they occur, through either a civil or a special recording system.

## Glossary (Continued)

**Retrospective question.** A question asked in a census or survey which attempts to obtain information about past actions or events rather than about the present status of the respondent or his/her family.

**Reverse survival technique.** A backward projection (sometimes called "rejuvenation") of the population by age and sex in order to estimate the size and distribution of the population  $n$  years ago, using age-sex-specific **survival ratios** for the projection period. Reverse survival may also be used to estimate the number of births in the past.

**Selected combinations of vital rates.** A range of growth rates which allows for only selected combinations among given sets of **birth, death, and net migration rates**. This range is generally narrower than the range allowing for all **possible combinations of vital rates**.

**Sex ratio at birth.** The number of male births for each female birth during a specified period of time.

**Stable population analysis.** A method of demographic analysis based on a model population which has not been subject to migration, and where fertility and mortality have remained constant over a long period of time.

**Sullivan mortality technique.** A modification of the **Brass mortality technique** to incorporate results from a regression analysis of empirically based fertility and mortality schedules into the procedure of converting to precise life table measures the proportion of **children ever born** who are still surviving per woman in given 5-year age groups. See Jeremiah M. Sullivan, "Models for the Estimation of the Probability of Dying

between Birth and Exact Ages of Early Childhood," *Population Studies*, Vol. 26, No. 1, 1972, pp. 79-97.

**Survival ratios.** The proportion of persons in a given age group who will be alive  $n$  years later.

**Total fertility rate.** The average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children according to a given set of **age-specific fertility rates**.

**Trussell mortality technique.** A refinement of the **Brass and Sullivan mortality techniques** to include additional independent variables in the regression analysis and to substitute **Coale-Trussell model fertility schedules** in place of empirical fertility schedules. See T. James Trussell, "A Re-estimation of the Multiplying Factors for the Brass Technique for Determining Childhood Survivorship Rates," *Population Studies*, Vol. 29, No. 1, 1975, pp. 97-107.

**Underenumeration.** An enumeration of the population which erroneously counts fewer persons than actually belong to it.

**Underregistration.** The failure to record all **vital events** which occur during a specified time period in a given population.

**Vital event.** A general term referring to birth and death.

**Widowhood technique.** A method of estimating the level of adult mortality based on the proportion widowed at each age at the time of the census or survey. See Kenneth Hill, "Estimating Adult Mortality Levels from Information on Widowhood," *Population Studies*, Vol. 31, No. 1, 1977, pp. 75-84.

## Trends in Population Growth: 1950 to 1979

Ninety-seven percent of the world's population lives in the 87 countries with a population of 5 million or more. The combined population of these countries is 4.28 billion, out of an estimated total of 4.41 billion for the world in mid 1979. The individual countries are ranked by population size in table 1, with Mainland China and India heading the list, followed by the Soviet Union and the United States.

Demographic trends as estimated for the 87 largest countries as a group may appropriately be taken to represent world trends, although the impact of Mainland China<sup>1</sup> on the world picture is significant enough to merit separate consideration. As shown in table 2, the trend in the global population growth rate has been generally downward in recent years, the growth rate having declined from about 2.1 percent in 1965-70 to 1.7 percent in 1975-79, or from 1.9 percent to 1.8 percent during the same period for the world excluding China. Likewise the population growth rate in each of the continents has declined at least slightly, except for Africa, where the growth rate shows a rising rather than slackening trend.

In spite of generally similar trends among the regions, the most recent population growth rates, as well as birth and death

rates, continue to vary considerably by region. Based on aggregated data for the countries with a population over 5 million, table 3 shows the population represented by these countries within each world region. Although 97 percent of the world's population lives in these largest countries, by region the proportion varies from 90 to 100 percent (except for Oceania, where Australia accounts for only 64 percent of the continent's population), and the representativeness of the combined vital rates may be judged accordingly.

Worldwide, the estimated rate of growth for 1978 was between 1.6 and 1.8 percent; a range instead of a single figure is given due to the lack of precision in the data for many countries. The corresponding world birth and death rates, based on estimates for the 87 countries, were 27-29 per 1,000 and 11-12 per 1,000, respectively. The birth rate in Africa is still very high, 45-47 per 1,000, while that for Latin America is slightly above the world average, 32-33 per 1,000 population. Asia's birth rate approximates the world average, while those in the more developed regions of Northern America, Europe and Oceania are at a level of about half the combined rate for the world as a whole.

Except for Latin America, the pattern of mortality among the regions follows the fertility pattern rather closely. That is, the death rate in Africa is still high, Asia's death rate is about average, and those in the developed regions are somewhat lower than the world average. The crude death rate in Latin America, however, approximates those in the more developed regions, due to a combination of improved health conditions and a young age structure.

<sup>1</sup> The impact of Mainland China is significant both because of its population size, an estimated one billion inhabitants in 1979, and because of the particular uncertainty of the data. Although very recently some official demographic data have been released from Mainland China, this new information is not always internally consistent and has not yet been fully reconciled with previous estimates.

**Table 1. Countries Ranked by Population Size: 1979**  
(Population in thousands)

1. China, <i>Mainland</i>	1,012,197	44. Afghanistan	14,699
2. India	667,326	45. Nepal	14,608
3. Soviet Union	263,400	46. Sri Lanka	14,594
4. United States	220,584	47. Venezuela	14,539
5. Indonesia	148,085	48. Australia	14,417
6. Brazil	119,175	49. Netherlands	14,029
7. Japan	115,880	50. Malaysia	13,674
8. Bangladesh	88,092	51. Uganda	13,225
9. Pakistan	84,075	52. Iraq	12,908
10. Nigeria	74,595	53. Ghana	11,742
11. Mexico	65,770	54. Chile	10,848
12. Germany, Federal Republic of	61,302	55. Hungary	10,710
13. Italy	56,877	56. Mozambique	10,030
14. United Kingdom	55,901	57. Belgium	9,849
15. France	53,478	58. Portugal	9,843
16. Vietnam	52,127	59. Cuba	9,824
17. Philippines	47,678	60. Greece	9,444
18. Thailand	46,687	61. Saudi Arabia	9,292
19. Turkey	44,561	62. Bulgaria	8,827
20. Egypt	40,993	63. Syria	8,506
21. Korea, Republic of	39,140	64. Madagascar	8,349
22. Iran	37,430	65. Cameroon	8,323
23. Spain	37,077	66. Sweden	8,296
24. Poland	35,227	67. Ecuador	7,763
25. Burma	33,590	68. Ivory Coast	7,761
26. Ethiopia	31,780	69. Austria	7,506
27. Zaire	28,090	70. Zimbabwe	7,254
28. South Africa	27,799	71. Guatemala	6,849
29. Argentina	27,210	72. Upper Volta	6,661
30. Colombia	26,205	73. Angola	6,543
31. Canada	23,688	74. Mali	6,464
32. Yugoslavia	22,174	75. Switzerland	6,343
33. Romania	22,057	76. Tunisia	6,312
34. Morocco	20,368	77. Malawi	5,862
35. Korea, Democratic Republic of	18,717	78. Kampuchea	5,767
36. Sudan	18,167	79. Haiti	5,670
37. Algeria	18,145	80. Zambia	5,649
38. China, <i>Taiwan</i>	17,456	81. Dominican Republic	5,551
39. Tanzania	17,364	82. Senegal	5,532
40. Peru	17,164	83. Niger	5,346
41. German Democratic Republic	16,758	84. Guinea	5,275
42. Kenya	15,778	85. Bolivia	5,213
43. Czechoslovakia	15,239	86. Yemen (Sana)	5,126
		87. Denmark	5,118

Table 2. Average Annual Rate of Growth by Continent, Based on Data for the 87 Largest Countries: 1950 to 1979

Region	Average annual rate of growth (percent)					
	1950-55	1955-60	1960-65	1965-70	1970-75	1975-79
World . . . . .	1.9	2.0	1.8	2.1	1.9	1.7
Excluding China . . . . .	1.7	1.9	1.9	1.9	1.8	1.8
More developed . . . . .	1.3	1.3	1.2	0.9	0.8	0.7
Less developed . . . . .	2.1	2.3	2.1	2.6	2.4	2.1
Excluding China . . . . .	2.1	2.3	2.4	2.5	2.4	2.4
Africa . . . . .	2.2	2.3	2.5	2.7	2.8	2.9
Asia . . . . .	2.0	2.1	1.9	2.5	2.2	1.9
Excluding China . . . . .	1.9	2.1	2.2	2.2	2.2	2.1
Latin America . . . . .	2.7	2.8	2.8	2.7	2.5	2.4
Northern America . . . . .	1.8	1.8	1.5	1.1	0.9	0.8
Europe and Soviet Union . . . . .	1.1	1.1	1.1	0.8	0.7	0.6
Oceania (Australia only) . . . . .	2.3	2.2	2.0	2.0	1.7	1.1

Note: Overall, the 87 largest countries comprise about 97 percent of the world's population. However, this proportion varies by region. See table 3 for the estimated proportion of each region's population represented by the 87 countries.

Table 3. Population and Vital Rates by Continent, Based on Data for the 87 Largest Countries

Region	Aggregated population, July 1, 1979 (millions)	Estimated proportion of region's population (percent)	Vital rates, 1978		
			Births per 1,000 population	Deaths per 1,000 population	Rate of growth (percent)
World . . . . .	4,276	97	27-29	11-12	1.6-1.8
(Excluding China) . . . . .	(3,263)	(96)	(29-30)	(12-13)	(1.7-1.8)
More developed . . . . .	1,104	98	15	10	0.7
Less developed . . . . .	3,172	97	31-34	12-13	2.0-2.2
(Excluding China) . . . . .	(2,159)	(95)	(36-38)	(14)	(2.3-2.4)
Africa . . . . .	413	90	45-47	16-18	2.8-3.1
Asia . . . . .	2,552	99	28-31	11-12	1.8-2.0
(Excluding China) . . . . .	(1,540)	(98)	(33-35)	(13-14)	(2.0-2.1)
Latin America . . . . .	322	91	32-33	9	2.3-2.4
Northern America . . . . .	244	100	15	9	0.8
Europe and Soviet Union . . . . .	729	98	15	10	0.6
Oceania (Australia only) . . . . .	14	64	16	8	1.2

Note: Overall, the 87 largest countries comprise about 97 percent of the world's population. However, this proportion varies by region depending upon the number of smaller countries each region contains. Oceania, in particular, is comprised of a large number of small islands, and is represented here only by Australia, the only country in Oceania with a population over 5 million.

**BENCHMARK DATA**

1. Enumerated population, census of February 12, 1977.....	16,260,491
2. Adjusted population, census of February 12, 1977.....	16,830,638
3. Births per 1,000 population, 1977.....	46
4. Deaths per 1,000 population, 1977.....	14
5. Annual rate of growth, 1977 (percent).....	3.2
6. Life expectancy at birth, 1977.....	55
7. Infant deaths per 1,000 live births, 1977.....	127

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	18,145,000
9. Births per 1,000 population, 1978.....	46
10. Deaths per 1,000 population, 1978.....	14
11. Annual rate of growth, 1978 (percent).....	3.2

**NOTES:**

1. Preliminary census figure as reported by Direction des Statistiques et de la Comptabilité Nationale (DSCN), 1979, p. 6.
2. Preliminary census figure officially adjusted for 3.4 percent net underenumeration based on a post enumeration survey (DSCN, 1979, p. 6).
- 3-4. Based on registered births adjusted for 7.2 percent underregistration and registered deaths adjusted for 36.2 percent underregistration (Mokaddem, 1979, pp. 2-3; and DSCN, 1979, pp. 13, 15, 19, and 24).
5. Difference between crude birth and death rates. Official arrival and departure data (DSCN, 1977, no. 4, p. 8) suggest that net migration was negligible.
- 6-7. Official estimates based on adjusted registered deaths by age and sex and taking into consideration Coale-Demeny south region model life tables (DSCN, 1979, pp. 15-24).
8. See notes for Midyear Population Estimates.
- 9-10. Projected assuming no significant change in fertility or mortality since 1977.
11. Projected assuming no significant change in the 1977 growth rate.

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	9,063	1970	13,832	1950-55	1.9
1955	9,958	1971	14,233	1955-60	1.9
1960	10,945	1972	14,657	1960-65	1.7
1961	11,139	1973	15,092	1965-70	2.9
1962	11,032	1974	15,546	1970-75	2.9
1963	11,321	1975	16,030	1975-79	3.1
1964	11,624	1976	16,521		
1965	11,942	1977	17,036		
1966	12,277				
1967	12,667				
		<b>PROJECTED ESTIMATES</b>			
1968	13,052	1978	17,582		
1969	13,431	1979	18,145		

**NOTES:** 1950-65—Based on the inflated censuses of 1948, 1954, and 1960, the adjusted 1966 census, and assumed trends in fertility, mortality, and migration since 1950.

1966-77—Based on the adjusted censuses of 1966 and 1977, estimated declines in fertility and mortality (Mokaddem, 1979, pp. 2-3; and DSCN, 1979, pp. 13, 15, 19, 24, and 40), estimated net migration which considers reported data on Algerians abroad in 1966 and 1977, and net migration to France and other countries (Institut National d'Etudes Démographiques, 1976, table 10; 1977, table 8; 1978, table 8; DSCN, 1977, nos. 2-4; 1979, p. 41; and Mokaddem, 1979, p. 2).

1978-79—Projected assuming a continuation of the 1977 calendar-year growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
October 31, 1948	8,524,100	8,788,000	Enumerated populations for 1948, 1954, 1960, and 1966 as reported in <i>UNDY 1970</i> , table 7; and for 1977 in DSCN, 1979, p. 6.
October 31, 1954	9,529,726	9,824,000	
February 1- September 15, 1960	10,784,309	11,118,000	
April 4, 1966	11,821,679	12,187,000	The enumerated population for 1977 was adjusted for 3.4 percent net under-enumeration based on a post enumeration survey as reported by DSCN, 1979, p. 6. The 1966 adjusted population figure is implied by the adjusted mid-year population data for 1977 and growth rates for 1966 to 1977 based on adjusted registered births and deaths (Mokaddem, 1979, pp. 2-3; and DSCN, 1979, pp. 13, 15, 19, 24, and 40) and estimated net migration during the period (Institut National d'Etudes Démographiques, 1976, table 10; 1977, table 8; 1978, table 8; DSCN, 1977, p. 8; 1979, p. 41; and Mokaddem, 1979, p. 2). The 1948, 1954, and 1960 enumerated populations were inflated for the same percent underenumeration (3.0 percent) as implied for the 1966 census.
February 12, 1977	16,260,491	16,830,638	

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1970	50	16		
1975	46	16	2.9	7.86
1976	45	16	3.1	
1977	46	14	3.0	
			3.2	7.36

**NOTES:** The crude birth and death rates for 1970 are derived from registered births and deaths adjusted on the basis of the 1969-71 sample survey of Northern Algeria (Mokaddem, 1979, p. 3; and DSCN, 1979, pp. 6, 14, and 15). Northern Algeria encompassed 94 percent of the total population in 1968. The crude birth and death rates for 1975 to 1977 are based on officially adjusted registered births and deaths (DSCN, 1979, pp. 14-24; and Mokaddem, 1979, pp. 2-3).

The growth rate for 1970 is based on the difference between the unrounded crude birth and death rates and an estimated net emigration rate of 4.7 per 1,000 population. The growth rates for 1975, 1976, and 1977 are based on the difference between the unrounded crude birth and death rates. Available data on migration (Institut National d'Etudes Démographiques, 1977, table 8; and DSCN, 1977) suggest that net migration was negligible in these years.

The total fertility rate for 1970 is based on official data from the 1969-71 sample survey of Northern Algeria (DSCN, 1979, pp. 13-14; and Mokaddem, 1979, p. 3). The total fertility rate for 1977 is based on officially adjusted registered births by age of mother, and the officially adjusted 1977 census age distribution moved to midyear (DSCN, 1979, pp. 6-14; and Mokaddem, 1979, p. 3).

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**BENCHMARK DATA**

1. Enumerated population, census of December 15, 1970.....	5,646,166
2. Adjusted population.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth, 1960-70 (percent).....	1.5
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	6,543,000
9. Births per 1,000 population, 1978.....	46-48
10. Deaths per 1,000 population, 1978.....	23
11. Annual rate of growth, 1978 (percent).....	1.2-1.4

**NOTES:**

1. Provisional census figures as reported in *PVSR October 1979*.
2. The 1970 census has not been evaluated for possible coverage error.
- 3-4. Data not available.
5. Intercensal growth rate based on 1960 and 1970 census populations.
- 6-7. Data not available.
8. See notes for Midyear Population Estimates.
- 9-10. Derived by interpolation of 1975-80 and 1980-85 projected rates from U.N. high, medium, and low variant projections (U.N., 1979, tables 7 and 9). Deaths per 1,000 population round to the same number for all three variants.
11. Range of variation given selected combinations of unrounded crude birth, death, and net migration rates (46.0, 23.1, and 10.5 per 1,000 population; and 47.6, 22.7, and 10.5 per 1,000 population, respectively).

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	4,118	1970	5,573	1950-55	1.4
1955	4,423	<b>PROJECTED ESTIMATES</b>		1955-60	1.6
1960	4,797			1960-65	1.3
1961	4,752	1971	5,732	1965-70	1.7
1962	4,824	1972	5,890	1970-75	1.3
1963	4,915	1973	6,042	1975-79	2.4
1964	5,019	1974	6,023		
1965	5,125	1975	5,950		
1966	5,188	1976	6,037		
1967	5,232	1977	6,264		
1968	5,332	1978	6,470		
1969	5,450	1979	6,543		

**NOTES:** 1950-69—Based on the 1950, 1960, and 1970 censuses, an assumed trend in the rate of natural increase, and an estimated trend in net migration. Estimated net migration was based on Portuguese intercensal immigration (based on growth of the white population between the censuses as reported in *UNDY 1956*, table 7; *Repartição de Estatística Geral*, 1964, p. 16; and Paxton, 1977, p. 757), and an estimated refugee movement of Angolans to Zaire (U.N., General Assembly, various issues, 1962 to 1971).

1970-79—Based on the 1970 census, an assumed trend in the rate of natural increase (which takes into consideration U.N. estimates), and an estimated trend in net migration. Annual estimates of net migration take into account the size of the Portuguese and Cape Verdean populations before and after independence in 1975 (Paxton, 1977, p. 757; and U.S. Department of State, 1976, p. 3) and trends in refugee movements, primarily Angolan refugees into Zaire, Zambia, and Botswana between 1970 and 1979 and Zairian refugees into Angola between 1977 and 1979 (U.N., General Assembly, various issues, 1971 to 1978; and U.N., High Commissioner for Refugees, various sources).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 30, 1950	4,145,266		The 1950, 1960, and 1970 enumerated populations as reported in <i>UNDY 1970</i> , table 7; <i>Repartição de Estatística Geral</i> , 1964, p. 10; and <i>PVSR April 1979</i> , respectively.
December 30, 1960	4,840,719		
December 15, 1970	5,646,166		

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**BENCHMARK DATA**

1. Enumerated population, census of April 9, 1976.....	7,131,833
2. Adjusted population, census of April 9, 1976.....	7,663,246
3. Births per 1,000 population, 1976.....	45
4. Deaths per 1,000 population, 1976.....	20
5. Annual rate of growth, 1976 (percent).....	2.5
6. Life expectancy at birth, 1976.....	44
7. Infant deaths per 1,000 live births, 1976.....	157

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	8,323,000
9. Births per 1,000 population, 1978.....	45-46
10. Deaths per 1,000 population, 1978.....	20
11. Annual rate of growth, 1978 (percent).....	2.5-2.6

**NOTES:**

- Final census figure as reported in Bureau Central du Recensement, 1979, p. 7.
- Official adjustment for 6.9 percent net underenumeration (Bureau Central du Recensement, 1979, p. 7).
5. Official estimates based on a stable population analysis of the 1976 census data as reported in Bureau Central du Recensement, 1979, p. 88.
7. Official estimates based on the application of the Courbage-Fargues mortality technique to data from the 1976 census (Bureau Central du Recensement, 1979, pp. 83 and 85).
- See notes for Midyear Population Estimates.
10. Projected based on assumed trends in fertility and mortality since 1976 taking into consideration results from the 1960-65 subregional surveys and the 1976 census.
- Range of variation given selected combinations of unrounded crude birth and death rates (45.3 and 20.0 per 1,000 population and 45.5 and 19.8 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	4,888	1970	6,727	1950-55	1.3
1955	5,211	1971	6,870	1955-60	1.5
1960	5,609	1972	7,021	1960-65	1.7
1961	5,699	1973	7,179	1965-70	1.9
1962	5,794	1974	7,346	1970-75	2.2
1963	5,892	1975	7,522	1975-79	2.5
1964	5,966	<b>PROJECTED ESTIMATES</b>			
1965	6,104	1976	7,706		
1966	6,217	1977	7,901		
1967	6,336				
1968	6,460	1978	8,106		
1969	6,590	1979	8,323		

**NOTES:** 1950-76—Based on the 1976 adjusted census population and assumed trends in fertility and mortality. Fertility and mortality trends are based on estimates of crude birth and death rates for 1960-65 and 1976 based on results from the 1960-65 subregional surveys (SSG and France, 1968a, table II-233; 1968b, p. 90; 1969, p. 249; and Page and Coale, 1972, table 9.1(b) and the 1976 census (Bureau Central du Recensement, 1979, p. 88).

1977-79—Based on the 1976 adjusted census population and projected trends in fertility and mortality based on past trends.

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## BENCHMARK DATA

1. Enumerated population, census of November 22, 1976.....	38,228,180
2. Adjusted population, census of November 22, 1976.....	NA
3. Births per 1,000 population, 1978.....	39
4. Deaths per 1,000 population, 1978.....	11
5. Annual rate of growth, 1978 (percent).....	2.7
6. Life expectancy at birth, 1965-67.....	53
7. Infant deaths per 1,000 live births, 1975.....	90

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	40,993,000
9. Births per 1,000 population, 1978.....	39
10. Deaths per 1,000 population, 1978.....	11
11. Annual rate of growth, 1978 (percent).....	2.7

## NOTES:

1. Preliminary de jure census figure as reported in Central Agency for Public Mobilisation and Statistics, no date, table 10.
2. The 1976 census has not been evaluated for possible coverage error.
3. Based on registered births (*PVSR October 1979*) adjusted at the U.S. Bureau of the Census for 3 percent underregistration and estimated midyear population. Underregistration was estimated by extrapolating to 1978 levels of underregistration derived by Valaoras (1972) for 1956-60, Hollingsworth (1972) for 1960, Acsadi and Issa (1975) for 1966-70, and CAPMAS (1979) for 1974-75.
4. Based on registered deaths (*PVSR October 1979*) adjusted at the U.S. Bureau of the Census for 8 percent underregistration and estimated midyear population. The adjustment of deaths was based on a trend derived from estimates of underregistration by El-Badry (1965), Valaoras (1972), and Hollingsworth (1972) for the late 1950's and CAPMAS (1979) for the 1974-75 period, extrapolated to 1978.
5. Difference between unrounded crude birth and death rates.
6. Estimated by Acsadi and Issa (1975, tables 15 and 16) based on registered deaths by age and sex.
7. Based on registered infant deaths and births as reported in *PVSR October 1979*. Registered births and deaths were adjusted at the U.S. Bureau of the Census for 4 and 10 percent underregistration, respectively. Estimated underregistration was based on estimates derived by Valaoras (1972) for 1956-60, Hollingsworth (1972) for 1960 and Issa (1972) for 1969, extrapolated to 1978.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	20,480	1970	33,011	1950-55	2.3
1955	23,033	1971	33,703	1955-60	2.4
1960	25,944	1972	34,411	1960-65	2.5
1961	26,587	1973	35,149	1965-70	2.3
1962	27,252	1974	35,966	1970-75	2.2
1963	27,939	1975	36,861	1975-79	2.7
1964	28,649	1976	37,835		
1965	29,384	1977	38,838		
1966	30,130	1978	39,889		
1967	30,897				
		<b>PROJECTED ESTIMATES</b>			
1968	31,622	1979	40,993		
1969	32,325				

**NOTES:** 1950-65—Estimated at the U.S. Bureau of the Census based on the 1947, 1960, and 1966 censuses and assumed trends in fertility and mortality.

1966-78—Estimated based on the 1966 and 1976 censuses and adjusted registered births and deaths.

1979—Projected assuming a continuation of the 1978 growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
March 26, 1947	18,966,767		The 1947 enumerated population as reported in <i>UNDY 1970</i> , table 7. The 1960, 1966, and 1976 enumerated populations as reported in CAPMAS, no date, table 2. The 1976 population is de jure.
September 20, 1960	26,085,326		
May 30, 1966	30,075,858		
November 22, 1976	38,228,180		

## EGYPT

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960	46	20	2.6	
1965	44	16	2.8	
1966	43	18	2.5	
1970	37	17	2.0	
1975	40	14	2.6	
1976	39	13	2.6	
1977	39	13	2.6	
1978	39	11	2.7	

**NOTES:** Crude birth and death rates for all years are based on registered data (CAPMAS, no date; *UNDY 1974*, table 24; 1975, table 20; 1977, table 18; *PVSR January 1978; October 1978*; and *October 1979*), adjusted at the U.S. Bureau of the Census for underregistration, and estimated midyear population. Underregistration was estimated based on trends in estimates made by Valaoras (1972), Hollingsworth (1972), CAPMAS (1979), and Acsadi and Issa (1975) for births, and estimates made by El-Badry (1965), Valaoras (1972), Hollingsworth (1972) and CAPMAS (1979) for deaths.

Growth rates were calculated from unrounded crude birth and death rates.

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**BENCHMARK DATA**

1. Enumerated population.....	NA
2. Adjusted population.....	NA
3. Births per 1,000 population, 1964-70.....	43-52
4. Deaths per 1,000 population, 1964-70.....	20-26
5. Annual rate of growth, 1964-70 (percent).....	2.2-2.6
6. Life expectancy at birth, 1964-70.....	36-44
7. Infant deaths per 1,000 live births, 1964-70.....	155-200

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	31,780,000
9. Births per 1,000 population, 1978.....	43-52
10. Deaths per 1,000 population, 1978.....	20-26
11. Annual rate of growth, 1978 (percent).....	2.2-2.6

**NOTES:**

1. No census has been taken in Ethiopia. An official estimate for January 1, 1970, of 24,068,800 persons was reported in Central Statistical Office, 1974, p. 1. The estimate is based primarily on the second round of the National Sample Survey (NSS), 1968-71, and supplemented by the first round of the NSS for areas not covered in the second round and by the 1956 population head count by the Ministry of Interior for areas not covered in either round of the survey.
2. The population data from the second round of the National Sample Survey have not been evaluated for possible coverage error.
3. The lower bound of the range is an adjusted rate derived by applying the Brass fertility technique to data from the second round (1968-71) of the National Sample Survey (Central Statistical Office, 1974, p. 67). The upper bound is an adjusted rate derived using stable population analysis and data from the first round (1964-67) of the National Sample Survey (U.N., ECA, 1972, table 2C).
4. The lower bound of the range is an adjusted rate derived by applying the Brass mortality technique and stable population analysis to data from the second round of the NSS (Central Statistical Office, 1974, p. 71). The upper bound is an adjusted rate derived using stable population analysis and data from the first round (1964-67) of the National Sample Survey (U.N., ECA, 1973, table II).
5. Difference between selected combinations of unrounded crude birth and death rates which fall within the ranges given in items 3 and 4 (i.e., 44.0 and 22.0 per 1,000 population and 50.0 and 24.5 per 1,000 population, respectively).
6. The lower and upper bounds of the range are from official life tables based on results from the second and first rounds, respectively, of the National Sample Survey (Central Statistical Office, 1974, pp. 95-97; and U.N., ESOB and WHO, 1972, p. 5). These life tables were derived using adjusted infant and childhood mortality rates and stable population analysis.
7. The lower and upper bounds of the range are adjusted rates from the second and first rounds, respectively, of the National Sample Survey (U.N., ECA, 1973, table II). Both rates were derived using the Brass mortality technique.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation assuming no significant change in fertility or mortality since 1964-70.
11. Projected assuming no significant change in the 1964-70 growth rate.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	16,251	1970	25,450	1950-55	2.1	
1955	18,009	<b>PROJECTED ESTIMATES</b>			1955-60	2.2
1960	20,093	1971	26,078	1960-65	2.3	
1961	20,552	1972	26,725	1965-70	2.4	
1962	21,025	1973	27,387	1970-75	2.5	
1963	21,516	1974	28,069	1975-79	2.5	
1964	22,025	1975	28,770			
1965	22,550	1976	29,490			
1966	23,096	1977	30,230			
1967	23,660					
1968	24,239	1978	30,992			
1969	24,836	1979	31,780			

**NOTES:** 1950-70—Based on U.N. (1979) estimates for 1950, 1955, 1960, 1965, and 1970 and assumed trends in annual growth rates. The U.N. estimates are consistent with a January 1970 official population estimate of 25,046,000 (reported to the U.N. Statistical Office in 1978).  
1971-79—Based on U.N. (1979) estimates and projections for 1970, 1975, and 1980 (medium variant) and assumed trends in annual growth rates.

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**BENCHMARK DATA**

1. Enumerated population, census of March 1, 1970.....	8,559,313
2. Adjusted population, census of March 1, 1970.....	8,697,000
3. Births per 1,000 population, 1970.....	48
4. Deaths per 1,000 population, 1970.....	17
5. Annual rate of growth, 1970 (percent).....	1.8
6. Life expectancy at birth, 1970.....	49
7. Infant deaths per 1,000 live births, 1970.....	115

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	11,742,000
9. Births per 1,000 population, 1978.....	44-48
10. Deaths per 1,000 population, 1978.....	13-14
11. Annual rate of growth, 1978 (percent).....	3.1-3.4

**NOTES:**

1. Final census figure as reported in Census Office, 1975c.
2. Census population adjusted for 1.6 percent net underenumeration (U.S. Bureau of the Census, 1977).
3. Based on 1970 estimated age-specific fertility rates and adjusted population, by age and sex (U.S. Bureau of the Census, 1977).
4. Based on 1970 estimated age-specific central death rates and adjusted population, by age and sex (U.S. Bureau of the Census, 1977).
5. Difference between unrounded crude birth and death rates and a net emigration rate of 13.9 per 1,000 population (see notes for Midyear Population Estimates).
- 6-7. Derived from 1970 estimated life tables (U.S. Bureau of the Census, 1977).
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1970.
11. Range of variation given selected combinations of unrounded crude birth and death rates (44.5 and 13.4 per 1,000 population; and 47.8 and 13.7 per 1,000 population, respectively).



**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960	50	22	2.8	7.20
1970	48	17	1.8	7.14

**NOTES:** Crude birth rates for 1960 and 1970 were calculated using estimated age-specific fertility rates (U.S. Bureau of the Census, 1977) and adjusted 1960 and 1970 census age distributions advanced to July 1. Age-specific fertility rates for the 1967-69 period, based on data from the 1968-69 National Demographic Sample Survey, were assumed to remain constant to 1970.

Crude death rates for 1960 and 1970 were calculated using the midyear population distributions and age-specific death rates from life tables for 1960 and 1970 calculated at the U.S. Bureau of the Census (1977).

The growth rate for 1960 was based on the difference between unrounded crude birth and death rates. The growth rate for 1970 was based on the difference between unrounded crude birth and death rates and a net emigration rate of 13.9 per 1,000 population.

The total fertility rate for 1960 was based on age-specific fertility rates for 1960 which were estimated by Gaisie (1969, pp. 21-26) using data from the 1960 post enumeration survey. The 1970 total fertility rate was derived at the U.S. Bureau of the Census (1977, table 7) from 1967-69 age-specific fertility rates based on data from the National Demographic Sample Survey of 1968-69 (Gaisie, 1970).

**MAJOR SOURCES**

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## BENCHMARK DATA

1. Enumerated population.....	NA
2. Adjusted population.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	5,275,000
9. Births per 1,000 population, 1978.....	43-60
10. Deaths per 1,000 population, 1978.....	21-30
11. Annual rate of growth, 1978 (percent).....	2.2-3.0

## NOTES:

- No census has been taken in Guinea. An estimated population of 2,570,000 persons is reported from the October 1954-April 1955 survey (France, 1959, p. 1).
- Data not available.
- 3-7. Data not available. Applying various techniques to the 1954-55 survey data results in a wide range in estimated crude birth and death rates, life expectancy at birth, and infant mortality rates. Estimates of the crude birth rate are 62 per 1,000 population, based on reported births during the 12 months preceding the survey (France, 1959, p. 39); 52 per 1,000 population as derived by Adegbola (1977, p. 482) based on a stable population technique using the Trussell mortality estimate of  $\mathcal{L}_2$  and the proportion of population under age 15 from the survey; and 45 per 1,000 population derived at the U.S. Bureau of the Census by applying the Brass fertility technique ( $P_2/F_2$  ratio) to the survey data. The estimates of the crude death rate vary from a high of 40 per 1,000 population based on deaths in the 12 months preceding the survey (op. cit., p. 55) to a low of 31 per 1,000 population derived at the U.S. Bureau of the Census based on the application of stable population analysis, the Brass mortality technique, and Coale-Demeny south region model life tables (by matching  $\mathcal{L}_2$  and  $q_2$  values). Estimated life expectancy at birth varies from 32 years, derived at the U.S. Bureau of the Census by applying the Brass mortality technique ( $\mathcal{L}_2$ ) to the survey data, to 27 years reported in an empirical life table based on deaths in the 12 months preceding the survey (France, p. 55). Estimates of infant mortality vary from a reported 216 infant deaths per 1,000 live births based on births and deaths in the 12 months preceding the survey (France, table 33, p. 52), to 224 infant deaths per 1,000 live births derived at the U.S. Bureau of the Census by applying the Brass mortality technique ( $\mathcal{L}_2$ ) to the survey data. A growth rate of 2.2 percent can be estimated based on births and deaths in the 12 months preceding the survey.
- See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality, which take into consideration various results from the 1954-55 survey, and U.N. medium variant projections (U.N., 1979).
- Range of variation given selected combinations of crude birth and death rates.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
<b>PROJECTED ESTIMATES</b>		1968	3,831	1950-55	2.1
1950	2,466	1969	3,947	1955-60	2.3
1955	2,734	1970	4,069	1960-65	2.7
1960	3,067	1971	4,195	1965-70	3.0
1961	3,148	1972	4,322	1970-75	2.9
1962	3,230	1973	4,451	1975-79	2.8
1963	3,319	1974	4,582		
1964	3,413	1975	4,714		
1965	3,510	1976	4,850		
		1977	4,988		
1966	3,613	1978	5,130		
1967	3,720	1979	5,275		

**NOTES:** 1950-79—Projected based on assumed trends in fertility and mortality since the 1954-55 survey which take into consideration alternative U.N. projections (U.N., 1979) and projections made by Condé (1976, p. 125). The 1954-55 stated population figure was not used because it is considered to be underestimated.

**MAJOR SOURCES**

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**BENCHMARK DATA**

1. Enumerated population, census of April 14-May 15, 1975.....	6,709,600
2. Adjusted population.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	7,761,000
9. Births per 1,000 population, 1978.....	46-48
10. Deaths per 1,000 population, 1978.....	18
11. Annual rate of growth, 1978 (percent).....	3.3-3.5

**NOTES:**

1. Final census figure (*PVSR October 1979*).
2. The 1975 census has not been evaluated for possible coverage error.
3. Data not available. Six rural areas surveyed in 1957-58 are reported in *Ministère du Plan* (1967, p. 129) to have crude birth rates in the range of 45 to 52 per 1,000. Four urban areas surveyed in 1962-63 are reported in the same source to have crude birth rates in the range of 47 to 58 per 1,000.
4. Data not available. Five areas surveyed in 1958 are reported in *Ministère du Plan* (1967, p. 137) to have crude death rates in the range of 26 to 35 per 1,000. A crude death rate for all Ivory Coast of about 29 per 1,000 is estimated for 1962-64 in the same source.
5. Data not available.
6. Data not available. Considering the results of the 1958 survey, a life expectancy at birth of about 33 years was reported in *Ministère du Plan* (1967, p. 137); a life expectancy at birth for all Ivory Coast between 35 and 40 years for 1962-64 was estimated in the same publication.
7. Data not available. Five areas surveyed in 1958 are reported in *Ministère du Plan* (1967, p. 137) to have infant mortality rates in the range of 109 to 210 infant deaths per 1,000 live births.
8. See notes for Midyear Population Estimates.
- 9-11. Based on the 1975-80 projected rates from the U.N. high, medium, and low variant projections and assumed trends in fertility, mortality and migration (U.N., 1979). Death rate figures round to the same number for all three variants.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,860	1970	5,424	1950-55	2.0
1955	3,164	1971	5,697	1955-60	2.4
1960	3,564	1972	5,971	1960-65	3.7
1961	3,684	1973	6,240	1965-70	4.7
1962	3,811	1974	6,497	1970-75	4.4
1963	3,959	<b>PROJECTED ESTIMATES</b>		1975-79	3.5
1964	4,116				
1965	4,288	1975	6,754		
1966	4,481	1976	7,008		
1967	4,692	1977	7,258		
1968	4,923	1978	7,509		
1969	5,165	1979	7,761		

**NOTES:** 1950-79—Estimated and projected based on the 1975 census and assumed trends in fertility, mortality and migration, which take into consideration results from the 1955-58 survey, and alternative U.N. projections.

**MAJOR SOURCES**

Ministère du Plan. 1967. *Côte d'Ivoire 1965, Population: Etudes Régionales 1962-1965, Synthèse*. Abidjan.

United Nations. 1979. *World Population Trends and Prospects by Country, 1950-2000: Summary Report of the 1978 Assessment*. ST/ESA/SER.R/33. New York.

**BENCHMARK DATA**

1. Enumerated population, census of August 1979.....	15,322,000
2. Adjusted population, census of August 1979.....	NA
3. Births per 1,000 population, 1977.....	54
4. Deaths per 1,000 population, 1977.....	14
5. Annual rate of growth, 1977 (percent).....	4.0
6. Life expectancy at birth, 1977.....	53
7. Infant deaths per 1,000 live births, 1977.....	83

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	15,778,000
9. Births per 1,000 population, 1978.....	53-54
10. Deaths per 1,000 population, 1978.....	14
11. Annual rate of growth, 1978 (percent).....	4.0

**NOTES:**

1. Preliminary census figure as reported in the *Nairobi Daily Nation*, Nov. 27, 1979.
2. The 1979 census has not been evaluated for possible coverage error.
3. Based on 1977 age-specific fertility rates (average of ASFR's from the 1977 National Demographic Survey (NDS) and the 1977-78 Kenya Fertility Survey (KFS) as reported in Central Bureau of Statistics (1979) and estimated midyear population, by age and sex.
4. Based on 1977 empirical age-sex-specific life table central death rates (Blacker, et al., 1979b) and estimated midyear population, by age and sex.
5. Difference between crude birth and death rates.
- 6-7. Derived from 1977 empirical life tables based on data from the 1977 National Demographic Survey (Blacker, et al., 1979b). Infant and childhood mortality estimates were based on an application of the Brass mortality technique. Adult mortality estimates for males were based on widowhood data, and for females on orphanhood data.
8. See notes for Midyear Population Estimates.
9. Projected range of variation based on assumed trend of fertility since 1977.
10. Projected assuming no significant change in mortality since 1977.
11. Projected assuming no significant change in the 1977 growth rate.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	6,121	1970	11,256	1950-55	2.8
1955	7,034	1971	11,649	1955-60	3.0
1960	8,157	1972	12,068	1960-65	3.2
1961	8,412	1973	12,513	1965-70	3.3
1962	8,679	1974	12,983	1970-75	3.6
1963	8,957	1975	13,481	1975-79	3.9
1964	9,248	1976	14,008		
1965	9,549	1977	14,568		
1966	9,864				
1967	10,192				
<b>PROJECTED ESTIMATES</b>					
1968	10,532	1978	15,158		
1969	10,888	1979	15,778		

**NOTES:** 1950-69—Based on the reported 1969 census figure and estimated growth rates considering the 1948-62 and 1962-69 intercensal growth rates (*INDY 1970*, table 7) and estimated fertility and mortality trends from 1950 to 1969.

1970-77—Estimated by the component method based on the 1969 census and estimated fertility and mortality trends from 1969 to 1977. Fertility and mortality levels and trends were based on data from the 1969 census (U.S. Bureau of the Census, 1978), the 1977 National Demographic Survey (Blacker, et al., 1979L), and the 1977-78 Kenya Fertility Survey (Central Bureau of Statistics, 1979).

1978-79—Projected by the component method on the basis of assumed trends in fertility and mortality. The base of the projections was the 1977 midyear population, by age and sex.

The following census was used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
August 24-25, 1969	NA	10,942,705	Census figure as reported in Ministry of Finance and Economic Planning, 1970, table 1, including an official adjustment for net underenumeration (Mwaniki, 1977).

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1969	50	16	3.3	7.60
1977	54	14	4.0	8.05

**NOTES:** The 1969 and 1977 crude birth rates were estimated on the basis of the total adjusted midyear population, adjusted female population by age, and estimated age-specific fertility rates.

The crude death rates for 1969 and 1977 were estimated on the basis of the adjusted midyear population by age and sex, and age-sex-specific life table central death rates (Ministry of Finance and Economic Planning, 1971b, p. 6; and Blacker, et al., 1979b).

The 1969 and 1977 growth rates were calculated from unrounded crude birth and death rates.

The 1969 total fertility rate was estimated by J. G. C. Blacker based on his analysis of fertility data (births occurring during the 12 months prior to the census, and number of children ever born) from the 1969 census (Ominde, 1975, p. 31). The 1977 total fertility rate was estimated by the U.S. Bureau of the Census by averaging 1977 adjusted age-specific fertility rates from the 1977 National Demographic Survey (NDS) and 1977 age-specific fertility rates from the 1977-78 Kenya Fertility Survey (KFS). The adjusted rates from the 1977 NDS were estimated using a relational Gompertz model, data on births occurring in 1976 and 1977, and data on children ever born from the survey. The fertility rates from the 1977-78 KFS were based on an average of births occurring during the 3 years prior to the survey.

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## BENCHMARK DATA

1. Enumerated population, census of January–August 1975.....	7,568,577
2. Adjusted population, census of January–August 1975.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	8,349,000
9. Births per 1,000 population, 1978.....	47–48
10. Deaths per 1,000 population, 1978.....	22
11. Annual rate of growth, 1978 (percent).....	2.5–2.6

## NOTES:

- Provisional census figure (Direction du Recensement, 1978).
- The 1975 census has not been evaluated for possible coverage error.
- 3–7. Data not available. Applying various techniques to data from the 1966 Demographic Survey results in a wide range in estimated crude birth and death rates, life expectancies at birth, and infant mortality rates. The estimates for the crude birth rate vary from a low of 45 per 1,000 population, based on reported births during the 12 months preceding the survey (INSRE, 1967, p. 78), to a high of 55 per 1,000 population, estimated at the U.S. Bureau of the Census based on stable population analysis using south region model life tables (north region model life tables result in a crude birth rate of 50 per 1,000 population). The estimates for the crude death rate vary from a low of 25 per 1,000 population, based on deaths during the 12 months preceding the survey (INSRE, 1967, p. 70), to a high of 34 per 1,000 population, estimated at the U.S. Bureau of the Census based on stable population analysis using south region model life tables (north region model life tables result in a crude death rate of 29 per 1,000 population). Estimated life expectancy at birth varies from 32 years, a U.S. Bureau of the Census estimate based on stable population analysis using south region model life tables (north region model life tables result in a life expectancy at birth of 35 years), to 38 years, derived from official life tables based on deaths during the 12 months preceding the survey (INSRE, 1967, p. 72). The estimates of the infant mortality rate vary from a low of 102 infant deaths per 1,000 live births, based on births and infant deaths during the 12 months preceding the survey (INSRE, 1967, p. 72), to a high of 228 infant deaths per 1,000 live births, estimated at the U.S. Bureau of the Census based on stable population analysis using south region model life tables (north region model life tables result in an infant mortality rate of 194 per 1,000 live births). A growth rate of 2.3 percent can be estimated based on the 1966 Demographic Survey population and the 1975 provisional census population.
8. See notes for Midyear Population Estimates.
- 9–11. Projected range of variation based on assumed trends in fertility and mortality, which incorporate assumptions from the official population projection series (INSRE, 1967, p. 128).

## MADAGASCAR

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	4,620	1968	6,470	1950-55	1.6
1955	5,003	1969	6,611	1955-60	1.8
1960	5,482	1970	6,759	1960-65	2.0
1961	5,590	1971	6,912	1965-70	2.2
1962	5,703	1972	7,072	1970-75	2.3
1963	5,821	1973	7,238	1975-79	2.4
1964	5,944	1974	7,409		
1965	6,070	1975	7,587		
1966	6,200	1976	7,771		
		1977	7,947		
<b>PROJECTED ESTIMATES</b>					
		1978	8,145		
1967	6,333	1979	8,349		

**NOTES:** 1950-66—Based on the 1966 Demographic Survey, official population estimates for 1951, 1956, and 1961 (INSRE, 1967, p. 125), and estimated growth rates based on official population estimates.

1967-79—Projected at the U.S. Bureau of the Census by the component method based on the 1966 Demographic Survey, incorporating official fertility and mortality assumptions (INSRE, 1967, p. 128), and emigration in 1977 of 15,000 people (U.N., 1977, p. 3). The projections are consistent with the provisional results from the 1975 census.

The following survey was used in deriving the population time series:

Survey date	Estimated population	Adjusted population	Source
May 9–November 11, 1966	6,200,000		Survey population as reported in INSRE, 1967, p. 22.

**MAJOR SOURCES**

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**BENCHMARK DATA**

1. Enumerated population, census of September 20-October 10, 1977.....	5,561,821
2. Adjusted population, census of September 20-October 10, 1977.....	NA
3. Births per 1,000 population, 1971-72.....	51-54
4. Deaths per 1,000 population, 1971-72.....	27-28
5. Annual rate of growth, 1966-77 (percent).....	2.9
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	5,862,000
9. Births per 1,000 population, 1978.....	51-54
10. Deaths per 1,000 population, 1978.....	25-26
11. Annual rate of growth, 1978 (percent).....	2.6-3.0

**NOTES:**

1. Preliminary census figure as reported by National Statistical Office, 1978.
2. The 1977 census has not been evaluated for possible coverage error.
- 3-4. The lower bounds of the ranges are reported rates from the 1971-72 round of the 1970-72 Population Change Survey. The upper bounds of the ranges are based on the reported survey data adjusted by the Chandrasekaran-Deming technique. See National Statistical Office, 1973, pp. 20 and 29.
5. Intercensal growth rate based on the 1966 final and 1977 preliminary census figures.
6. Data not available. Using unadjusted age-specific death rates from the 1970-72 Population Change Survey, 1971-72 life tables were derived showing a life expectancy at birth of 42 for both sexes (National Statistical Office, 1973, p. 41). This estimate may be too high to the extent that deaths, particularly infant deaths, were underreported.
7. Data not available. An unadjusted infant mortality rate of 142 per 1,000 live births for 1971-72 was obtained from the 1970-72 Population Change Survey data (National Statistical Office, 1973, p. 30). According to the survey report, this rate "appears low and it is likely that the actual infant mortality rate is higher than this."
8. See notes for Midyear Population Estimates.
9. Projected range of variation assuming no significant change in fertility since 1971-72.
10. Projected range of variation assuming a moderate to slight decline in mortality since 1971-72.
11. Range of variation given selected combinations of unrounded crude birth and death rates (50.5 and 25.5 per 1,000 population and 54.0 and 25.4 per 1,000 population) and an assumed net immigration rate of 1 per 1,000 population. The 1978 calendar-year growth rate implied by the estimated midyear populations for 1977, 1978, and 1979 is 2.95 percent. The average annual growth rate (3.2 percent) for the 1975-79 period is much higher than the 1978 calendar year rate due to the heavy influx of labor migrants returning home in 1975 and 1976.

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,817	1970	4,450	1950-55	1.8
1955	3,088	1971	4,556	1955-60	2.2
1960	3,450	1972	4,669	1960-65	2.5
1961	3,532	1973	4,789	1965-70	2.6
1962	3,629	1974	4,938	1970-75	2.9
1963	3,726	1975	5,156	1975-79	3.2
1964	3,816	1976	5,344		
1965	3,914	1977	5,526		
1966	4,023				
1967	4,138				
		<b>PROJECTED ESTIMATES</b>			
1968	4,245	1978	5,690		
1969	4,350	1979	5,862		

**NOTES:** 1950-65—Based on the 1966 official population estimate and assumed fertility, mortality, and migration trends since 1950. Migration trends were based on reported movements of labor migrants between Malawi and Southern Rhodesia and South Africa (Wilson, 1976, table 3; and Southern Rhodesia, 1976, table 4).

1966—Official estimate based on the 1966 census (Carter, 1977).

1967-76—Based on the 1976 and 1977 official population estimates and assumed fertility, mortality, and migration trends during the period. Fertility and mortality were estimated considering the 1971-72 adjusted vital rates from the 1970-72 Population Change Survey. Migration trends were based on reported movements of labor migrants between Malawi and Southern Rhodesia and South Africa (Wilson, 1976, table 3; and Southern Rhodesia, 1976, table 4). During the period 1974 to 1976 there was a heavy influx of labor migrants returning to Malawi.

1977-79—Based on the 1977 official population estimate (*PVSR January 1979*) and assumed fertility, mortality, and migration trends since 1977.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
August 9, 1966	4,039,583		Enumerated populations as reported in National Statistical Office, 1969 and 1978.
September 20- October 10, 1977	5,561,821		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1966-77			2.9	
1971-72	51-54	27-28	2.2-2.4	6.70-7.40

**NOTES:** The 1966-77 growth rate was based on the 1966 final and 1977 preliminary census figures.

The lower bounds of the 1971-72 crude birth rate, crude death rate, and total fertility rate ranges are reported rates from the 1971-72 round of the 1970-72 Population Change Survey. The upper bounds of these ranges are based on the reported survey data adjusted by the Chandrasekaran-Deming technique (National Statistical Office, 1973, pp. 20-22 and 29).

The 1971-72 growth rate range is based on the 1971-72 range in the rate of natural increase (2.4-2.6 percent), and a net emigration rate of 1.7 per 1,000 population derived from the 1971-72 round of the 1970-72 Population Change Survey.

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## BENCHMARK DATA

1. Enumerated population, census of December 1976.....	6,035,272
2. Adjusted population, census of December 1976.....	NA
3. Births per 1,000 population, 1960-61.....	49-55
4. Deaths per 1,000 population, 1960-61.....	29-30
5. Annual rate of growth, 1960-61 (percent).....	2.0-2.5
6. Life expectancy at birth, 1960-61.....	35
7. Infant deaths per 1,000 live births, 1960-61.....	210

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	6,464,000
9. Births per 1,000 population, 1978.....	49-55
10. Deaths per 1,000 population, 1978.....	23-24
11. Annual rate of growth, 1978 (percent).....	2.6-3.1

## NOTES:

1. Provisional census figure (Bureau Central de Recensement, 1977).
2. The 1976 census has not been evaluated for possible coverage error.
3. Lower bound of range was derived at the U.S. Bureau of the Census from age-specific fertility rates obtained by applying the Brass fertility technique ( $P_2/P_2$  ratio) to 1960-61 survey data (Mali and France, no date, p. 107 and table 52) and the survey population adjusted for age misstatement. Upper bound is an estimate from the survey report based on a graphical adjustment of data on children ever born and births in the 12 months preceding the survey (Mali and France, no date, pp. 107-109).
4. Lower bound of range estimated at the U.S. Bureau of the Census based on results of analysis of reported infant and childhood mortality for 1960-61 using Brass techniques and stable population analysis (Mali and France, no date, table 65). Upper bound is an estimated rate for 1960-61 shown in the survey report based on adjusted data on children surviving (Mali and France, no date, p. 123).
5. Range of variation given selected combinations of crude birth and death rates (49.0 and 29.0 per 1,000 and 55.0 and 30.0 per 1,000 population, respectively).
6. From life table from 1960-61 survey report based on deaths by age and sex as reported for the 12 months preceding the survey (Mali and France, no date, p. 137).
7. Calculated at the U.S. Bureau of the Census based on the application of Brass mortality techniques to results of the 1960-61 survey.
8. See notes for Midyear Population Estimates.
9. Projected range of variation assuming no significant change in fertility since 1960-61.
10. Projected range of variation based on an assumed decline in mortality, which takes into consideration alternative U.N. projections.
11. Projected range of variation given selected combinations of crude birth and death rates (49.0 and 23.0 per 1,000 and 55.0 and 24.0 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,277	1970	5,143	1950-55	2.0
1955	3,622	1971	5,266	1955-60	2.2
1960	4,050	1972	5,393	1960-65	2.4
1961	4,146	1973	5,525	1965-70	2.4
1962	4,248	1974	5,662	1970-75	2.4
1963	4,353	1975	5,807	1975-79	2.7
1964	4,460	1976	5,963		
1965	4,571	<b>PROJECTED ESTIMATES</b>			
1966	4,683	1977	6,123		
1967	4,796	1978	6,290		
1968	4,910	1979	6,464		
1969	5,026				

**NOTES:** 1950-76—Based on U.N. estimates for 1950, 1955, 1960, 1965, 1970, and 1975 (U.N., 1979), the 1976 census and assumed trends in growth rates.

1977-79—Projected based on the 1976 census and assumed trends in fertility and mortality, which take into consideration alternative U.N. estimates.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960-61	49-55	29-30	2.0-2.5	6.59-7.44

**NOTES:** The lower bound of the crude birth rate range was derived at the U.S. Bureau of the Census from age-specific fertility rates obtained by applying the Brass fertility technique ( $P_2/F_2$  ratio) to 1960-61 survey data (Mali and France, no date, p. 107 and table 52) and the survey population adjusted for age misstatement. Upper bound is an estimate from the survey report based on a graphical adjustment of data on children ever born and births in the 12 months preceding the survey (Mali and France, no date, pp. 107-109). The lower bound of the crude death rate range was estimated at the U.S. Bureau of the Census based on an analysis of reported infant and childhood mortality for 1960-61 using Brass techniques and stable population analysis (Mali and France, no date, table 65). Upper bound is an estimated rate for 1960-61 shown in the survey report based on an adjustment to data on children surviving (Mali and France, no date, p. 123).

The growth rate is the same as the rate of natural increase, calculated from crude birth and death rates, indicating that net international migration was nil.

The lower bound of the total fertility rate range was derived at the U.S. Bureau of the Census by applying the Brass fertility technique ( $P_2/F_2$  ratio) to data from the 1960-61 survey (Mali and France, no date, pp. 107-109). Upper bound is an unadjusted rate based on age-specific fertility rates reported in the 1960-61 survey (Mali and France, no date, p. 301).

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## BENCHMARK DATA

1. Enumerated population, census of July 20, 1971.....	15,379,259
2. Adjusted population, census of July 20, 1971.....	16,335,000
3. Births per 1,000 population, 1972.....	44
4. Deaths per 1,000 population, 1972.....	15
5. Annual rate of growth, 1972 (percent).....	2.7
6. Life expectancy at birth, 1972.....	51
7. Infant deaths per 1,000 live births, 1972.....	162

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	20,368,000
9. Births per 1,000 population, 1978.....	42-44
10. Deaths per 1,000 population, 1978.....	13-14
11. Annual rate of growth, 1978 (percent).....	2.8-3.0

## NOTES:

- Final census figure (Direction des Statistiques, 1971, p. XII). Population is de jure.
- Census population adjusted for 5.9 percent net underenumeration (U.S. Bureau of the Census, 1980).
- Estimated at the U.S. Bureau of the Census (1980) based on urban and rural age-specific fertility rates from the 1972-73 Dual Record Experimental Study adjusted to the level of matched plus unmatched births (CERED, 1974a, selected tables) and weighted to the national level based on 1971 census data.
- Estimated at the U.S. Bureau of the Census (1980) based on 1972 estimated life table central death rates and adjusted 1971 census population, by age and sex, projected to midyear 1972.
- Difference between unrounded crude birth and death rates and a net emigration rate of 2 per 1,000 population. Net emigration was based on workers and family members entering France (France, INSEE, 1973; and *UNDY 1977*); Moroccans counted in the Netherlands in 1968 and 1973 (Netherlands, 1973, p. 22); Moroccan workers in the Federal Republic of Germany (Federal Republic of Germany, 1975); and census counts of Moroccans in Belgium in 1961 and 1970 (Belgium, 1976, p. 42).
- 6-7. Calculated from 1972 life tables, by sex, derived at the U.S. Bureau of the Census (1980).
- See notes for Midyear Population Estimates.
- 9-10. Projected range of variation derived at the U.S. Bureau of the Census based on assumed trends in fertility and mortality since 1972 which take into consideration past trends and the official projection assumptions made by the Centre de Recherche et d'Etudes Démographiques (1975).
11. Projected range of variation given selected combinations of unrounded crude birth and death rates and net emigration rates (42.3, 13.3, and 1.2 per 1,000 population and 44.5, 13.5, and 1.1 per 1,000 population, respectively).

## MOROCCO

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	9,343	1970	15,909	1950-55	2.9	
1955	10,782	1971	16,313	1955-60	2.8	
1960	12,423	<b>PROJECTED ESTIMATES</b>			1960-65	2.5
1961	12,736	1972	16,752	1965-70	2.5	
1962	13,057	1973	17,207	1970-75	2.7	
1963	13,385	1974	17,682	1975-79	2.8	
1964	13,722	1975	18,177			
1965	14,066	1976	18,692			
1966	14,415	1977	19,229			
1967	14,770					
1968	15,137	1978	19,787			
1969	15,517	1979	20,368			

**NOTES:** 1950-71—Based on the 1960 and 1971 adjusted censuses and estimated fertility, mortality, and migration trends from 1950 to 1971. For a further discussion, see U.S. Bureau of Census (1980).

1972-79—Projected at the U.S. Bureau of the Census (1980) by the component method based on the 1971 adjusted midyear population, by age and sex, assuming continued declines in fertility and mortality and an assumed decline in net emigration.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 18, 1960	11,626,470	12,415,000	Enumerated populations as reported in Direction des Statistiques, 1971, p. XII.
July 20, 1971	15,379,259	16,335,000	

The 1960 and 1971 enumerated populations were adjusted at the U.S. Bureau of the Census (1980) for 6.0 percent and 5.9 percent net underenumeration, respectively. The 1960 census figures were also adjusted to include the population of Ifni.

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1972	44	15	2.7	6.88

**NOTES:** The crude birth rate for 1972 was estimated at the U.S. Bureau of the Census (1980) based on age-specific fertility rates and 1972 midyear population, by age and sex, derived from the adjusted 1971 census.

The crude death rate for 1972 was estimated at the U.S. Bureau of the Census (1980) based on the projected 1972 population, by age and sex, and age-sex-specific life table central death rates.

The growth rate for 1972 was calculated from unrounded crude birth and death rates and a net emigration rate of 2.2 per 1,000 population. Net emigration was based on data on workers and family members entering France (France, INSEE, 1973; and *UNDY 1977*); Moroccans counted in the Netherlands in 1968 and 1973 (Netherlands, 1973, p. 22); Moroccan workers in the Federal Republic of Germany (Federal Republic of Germany, 1975); and census counts of Moroccans in Belgium in 1961 and 1970 (Belgium, 1976, p. 42).

The 1972 total fertility rate was derived at the U.S. Bureau of the Census (1980) based on urban and rural age-specific fertility rates from the 1972-73 Dual Record Experimental Study adjusted to the level of matched plus unmatched births (CERED, 1974a, selected tables), and weighted to the national level based on the 1971 census.

### MAJOR SOURCES

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## BENCHMARK DATA

1. Enumerated population, census of September 15, 1970.....	8,168,933
2. Adjusted population, census of September 15, 1970.....	NA
3. Births per 1,000 population, 1970.....	42-48
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth, 1960-70 (percent).....	2.1
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	10,030,000
9. Births per 1,000 population, 1978.....	41-47
10. Deaths per 1,000 population, 1978.....	18-19
11. Annual rate of growth, 1978 (percent).....	2.7-3.4

## NOTES:

1. Final census figure (Instituto Nacional de Estatística, 1974, p. 2). Population is de jure. The de facto population on the census date was 8,190,356 persons.
2. The 1970 census has not been evaluated for possible coverage error.
3. Range of variation based on application of the Brass fertility technique to 1970 census data as reported in Instituto Nacional de Estatística, 1974, tables 13 and 18.
4. Data not available.
5. Intercensal growth rate based on the 1960 and 1970 censuses.
- 6-7. Data not available. Using childhood mortality estimates ( $L_2$ ) derived from the Brass mortality technique applied to 1970 census data (Instituto Nacional de Estatística, 1974, tables 13 and 14), and Coale-Demeny south region model life tables, a life expectancy at birth of 46 years and an infant mortality rate of 148 per 1,000 live births can be estimated.
8. See notes for Midyear Population Estimates.
9. Projected range of variation based on assumed trends in fertility since 1970, which take into consideration alternative U.N. projections.
10. Projected range of variation based on assumed trends in mortality, which take into consideration alternative U.N. projections.
11. Range of variation given selected combinations of unrounded crude birth and death rates and net immigration rate (41.1, 18.8, and 4.9 per 1,000 population and 47.1, 18.1, and 4.9 per 1,000 population, respectively). The net immigration rate is based on estimated refugee movements (U.N., 1979, p. 3), labor migration (South Africa, 1978, pp. 7.8-7.9), and assumed trends in the exodus of Portuguese migrants (Kaplan, et al., 1977, p. 74).

**Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	5,726	1970	8,133	1950-55	1.2	
1955	6,069	<b>PROJECTED ESTIMATES</b>			1955-60	1.6
1960	6,577	1971	8,330	1960-65	2.1	
1961	6,706	1972	8,555	1965-70	2.2	
1962	6,844	1973	8,786	1970-75	2.3	
1963	6,991	1974	8,988	1975-79	2.4	
1964	7,139	1975	9,108			
1965	7,289	1976	9,284			
1966	7,449	1977	9,504			
1967	7,615					
1968	7,788	1978	9,753			
1969	7,962	1979	10,030			

**NOTES:** 1950-70—Based on the 1950, 1960, and 1970 censuses; intercensal growth rates; estimated fertility and mortality (which take into consideration U.N. estimates and results from the 1970 census); and migration (based on refugee movements as reported in U.N., various issues, 1965 to 1971).

1971-79—Projected based on the 1970 census; assumed trends in fertility and mortality which take into consideration U.N. projections; and estimated migration. Migration is based on trends in refugee movements (U.N., various issues, 1965 to 1979); labor migration (Wilson, 1976, table 3; and South Africa, 1978, pp. 7.8-7.9); and the arrival and exodus of Portuguese migrants (Instituto Nacional de Estatística, 1974, p. xxx; and Kaplan, et al., 1977, p. 74).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
September 21, 1950	5,738,911		Enumerated populations for 1950 and 1960 as reported in <i>UNDY 1970</i> , table 7; and for 1970 as reported in Instituto Nacional de Estatística, 1974, p. xxiv.
September 15, 1960	6,603,653		
September 15, 1970	8,168,933		

## MOZAMBIQUE

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1970	42-48			
1960-70			2.1	5.78-6.60

**NOTES:** The lower and upper bounds of the 1970 range for the crude birth rate are based on age-specific fertility rates calculated from 1970 census data (Instituto Nacional de Estatística, 1974, table 18), adjusted by the Brass fertility technique ( $P_3/F_3$  and  $P_2/F_2$  ratios, respectively), and the 1970 census population, by age and sex.

The lower and upper bounds of the 1970 range for the total fertility rate are based on age-specific fertility rates calculated from 1970 census data adjusted by the Brass  $P_3/F_3$  and  $P_2/F_2$  ratios, respectively.

The growth rate is the intercensal rate based on the 1960 and 1970 censuses.

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- \_\_\_\_\_. High Commissioner for Refugees. 1979. *UNHCR*, Spring. New York.
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**BENCHMARK DATA**

1. Enumerated population, census of October-December 1977.....	5,098,427
2. Adjusted population, census of October-December 1977.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	5,346,000
9. Births per 1,000 population, 1978.....	51
10. Deaths per 1,000 population, 1978.....	22-23
11. Annual rate of growth, 1978 (percent).....	2.8-3.0

**NOTES:**

1. Preliminary census figure (UNFPA, 1979). The nomadic population in northern areas was enumerated in May-July 1977 (Maitra, 1979). Population is de jure.
2. The 1977 census has not been evaluated for possible coverage error.
- 3-7. Data not available. Applying various techniques to the 1959-60 Demographic Survey data (Mission Démographique du Niger, 1962) results in a wide range in estimated crude birth and death rates, life expectancy at birth, and infant mortality rates. The estimates for the crude birth rate vary from a low of 46 per 1,000 population, estimated at the U.S. Bureau of the Census based on the Brass fertility technique and the  $P_3/F_3$  ratio ( $P_2/F_2$  ratio implies a crude birth rate of 53 per 1,000), to a high of 60 per 1,000 based on unadjusted data on births during the 12 months preceding the survey (Mission Démographique du Niger, 1962, p. 46). The estimates for the crude death rate vary from a low of 25 per 1,000 population, based on survivorship from birth to two years of age ( $l_2$ ) and west region model life tables, to a high of 32 per 1,000, based on stable population analysis (Dankoussou et al., 1975, p. 686). Estimated life expectancy at birth varies from 35 years, based on stable population analysis (Weisler, 1973), to 39 years estimated at the U.S. Bureau of the Census based on the Sullivan mortality technique ( $l_2$ ) and the south region model. The estimates of the infant mortality rate vary from 194 per 1,000 live births, estimated at the U.S. Bureau of the Census based on the Trussell mortality technique ( $l_2$ ) and the south region model, to a high of 240 per 1,000 based on surviving children (Mission Démographique du Niger, 1962, p. 48). A growth rate of 3.2 percent can be estimated based on the 1959-60 survey and the 1977 preliminary census populations. Both populations are de jure.
8. See notes for Midyear Population Estimates.
- 9-11. Derived by interpolation of 1975-80 and 1980-85 projected rates from the U.N. high, medium, and low variant projections (U.N., 1979, tables 2-A, 7, and 9). Birth rate figures round to the same number for all three variants.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,291	1970	4,128	1950-55	2.3
1955	2,572	1971	4,246	1955-60	2.5
1960	2,913	1972	4,368	1960-65	4.1
1961	3,030	1973	4,494	1965-70	2.9
1962	3,162	1974	4,626	1970-75	2.9
1963	3,303	1975	4,761	1975-79	2.9
1964	3,443	1976	4,901		
1965	3,574	1977	5,045		
1966	3,694				
1967	3,804				
		<b>PROJECTED ESTIMATES</b>			
1968	3,910	1978	5,193		
1969	4,017	1979	5,346		

**NOTES:** 1950-77—Based on the 1977 census and assumed growth rates which take into consideration U.N. estimates.

1978-79—Projected based on the 1977 census and assumed trends in fertility and mortality.

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**BENCHMARK DATA**

1. Enumerated population.....	NA
2. Adjusted population.....	NA
3. Births per 1,000 population, 1970-73.....	49-52
4. Deaths per 1,000 population, 1970-73.....	21
5. Annual rate of growth, 1970-73 (percent).....	2.9-3.1
6. Life expectancy at birth, 1970-73.....	41
7. Infant deaths per 1,000 live births, 1965-66.....	178

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	74,595,000
9. Births per 1,000 population, 1978.....	49-51
10. Deaths per 1,000 population, 1978.....	17-20
11. Annual rate of growth, 1978 (percent).....	2.9-3.4

**NOTES:**

- 1-2. Data not available. Population censuses were taken in 1952-53, 1962, 1963, and 1973, but none of these are deemed adequate for making an accurate population estimate.
3. Lower bound of range is based on births during the 12 months preceding the 1971-73 National Fertility, Family and Family Planning (KAP) Survey, adjusted for coding errors, as reported by Ekanem (no date, p. 131). The upper bound is based on unadjusted data from the 1971-73 survey as reported by Ojelade (no date, table 3a).
4. Estimate based on deaths during the 12 months preceding the 1971-73 KAP Survey as reported by Ekanem, no date, p. 178, and Ojelade, no date, table 4a. Both estimates round to the same number.
5. Range of variation based on selected combinations of unrounded crude birth and death rates (49.2 and 20.6 per 1,000 and 52.1 and 21.1 per 1,000, respectively).
6. Estimate based on an empirical life table derived by Ekanem (no date, p. 196) from 1971-73 survey data. A life expectancy at birth of 37 years estimated from an empirical life table for rural areas only is reported in the 1965-66 rural demographic survey report (Federal Office of Statistics, 1968, p. 29).
7. Estimate derived from an empirical life table for rural areas only, reported in the 1965-66 rural demographic survey (Federal Office of Statistics, 1968, p. 29). Using data from the 1971-73 survey, Ekanem (no date, p. 196) derived empirical life tables which indicate an infant mortality rate of 109 per 1,000 live births. The source states that infant deaths appear to be underestimated in the 1971-73 survey.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1970-73 which take into consideration alternative U.N. projections.
11. Projected range of variation given possible combinations of crude birth and death rates.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
<b>PROJECTED ESTIMATES</b>		1968	53,100	1950-55	2.3
1950	33,230	1969	54,692	1955-60	2.6
1955	37,255	1970	56,346	1960-65	2.8
1960	42,367	1971	58,065	1965-70	2.9
1961	43,529	1972	59,853	1970-75	3.1
1962	44,740	1973	61,713	1975-79	3.2
1963	46,000	1974	63,648		
1964	47,312	1975	65,663		
1965	48,676	1976	67,760		
1966	50,094	1977	69,942		
1967	51,568	1978	72,217		
		1979	74,595		

**NOTES:** 1950-79—Based on the U.N. (1979) population estimates and growth rates.

#### MAJOR SOURCES

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- Federal Office of Statistics. 1968. *Rural Demographic Sample Survey 1965-66*. Lagos.
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**BENCHMARK DATA**

1. Enumerated population, census of April 16, 1976.....	5,085,388
2. Adjusted population, census of April 16, 1976.....	NA
3. Births per 1,000 population, 1970-71.....	46-48
4. Deaths per 1,000 population, 1970-71.....	20-22
5. Annual rate of growth, 1970-71 (percent).....	2.6
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	5,532,000
9. Births per 1,000 population, 1978.....	46-48
10. Deaths per 1,000 population, 1978.....	19-20
11. Annual rate of growth, 1978 (percent).....	2.6-2.8

**NOTES:**

1. Provisional census figure as reported in Direction de la Statistique (no date, p. 4). Population is de jure.
2. The 1976 census has not been evaluated for possible coverage error.
3. The lower bound of the range is based on provisional data on births during the 12 months preceding the second round of the 1970-71 multiround survey as reported by Direction de la Statistique, 1973, p. 6. Upper bound of the range is based on the 1970-71 survey as reported by Director of Statistics, 1977.
4. The lower bound of the range is based on provisional data on deaths during the 12 months preceding the second round of the 1970-71 multiround survey as reported by Direction de la Statistique, 1973, p. 6. Upper bound of range is based on the 1970-71 survey as reported by Director of Statistics, 1977.
5. Difference between unrounded crude birth and death rates (45.9 and 20.3 per 1,000 population, and 48.0 and 22.0 per 1,000 population). Both sets of rates round to the same figure.
- 6-7. Data not available. Applying stable population analysis to the results of the 1970-71 survey and Coale-Demeny south region model life tables, a life expectancy of 43-45 years and an infant mortality rate of 155-164 per 1,000 live births can be estimated for 1970-71.
8. See notes for Midyear Population Estimates.
9. Projected range of variation assuming no significant change in fertility since 1970-71.
10. Projected range of variation based on assumed declines in mortality since 1970-71 which take into consideration alternative U.N. estimates.
11. Range of variation given selected combinations of unrounded crude birth and death rates (45.9 per 1,000 and 19.4 per 1,000 population and 48.0 per 1,000 and 19.8 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,751	1970	4,385	1950-55	2.2
1955	3,065	1971	4,498	1955-60	2.3
1960	3,435	1972	4,615	1960-65	2.4
1961	3,519	1973	4,735	1965-70	2.5
1962	3,604	1974	4,857	1970-75	2.6
1963	3,692	1975	4,983	1975-79	2.6
1964	3,781	<b>PROJECTED ESTIMATES</b>			
1965	3,873	1976	5,113		
1966	3,967	1977	5,245		
1967	4,068				
1968	4,171	1978	5,387		
1969	4,276	1979	5,532		

**NOTES:** 1950-79—Based on the 1976 provisional census figure and assumed trends in fertility and mortality since 1950, which take into consideration alternative U.N. estimates.

**MAJOR SOURCES**

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## BENCHMARK DATA

1. Enumerated population, census of May 6, 1970.....	21,794,328
2. Adjusted population, census of May 6, 1970.....	22,376,000
3. Births per 1,000 population, 1970.....	39
4. Deaths per 1,000 population, 1970.....	13
5. Annual rate of growth, 1970 (percent).....	2.6
6. Life expectancy at birth, 1965-70.....	57
7. Infant deaths per 1,000 live births, 1970.....	93-101

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	27,799,000
9. Births per 1,000 population, 1978.....	35-37
10. Deaths per 1,000 population, 1978.....	12-13
11. Annual rate of growth, 1978 (percent).....	2.1

## NOTES:

- Final census figure as reported in Department of Statistics, 1978, p. 1.14.
- Adjusted 1970 census figure implied by official midyear population estimates. A net underenumeration of 2.6 percent is implied.
- 3-4. Calculated at the U.S. Bureau of the Census using official crude birth and death rates based on registered data for whites, coloureds, and Asians (Department of Statistics, 1978, pp. 3.4-3.6) and official estimates of the crude birth and death rates for Bantus (Department of Information, 1974, p. 71).
- Difference between crude birth and death rates.
6. Calculated at the U.S. Bureau of the Census based on official estimates of life expectancy at birth for whites, coloureds, and Asians for 1960-61 and 1970-71 (Department of Statistics, 1978, p. 3.18) and for Bantus in 1965-70 (Department of Information, 1974, p. 70).
7. Calculated at the U.S. Bureau of the Census using registered births and infant deaths for whites, coloureds, and Asians (Department of Statistics, 1978, pp. 3.4-3.6) and official estimates of the crude birth rate and infant mortality rates for Bantus (Department of Information, 1974, p. 71).
8. See notes for Midyear Population Estimates.
- 9-10. Projected based on official crude birth and death rates for whites, coloureds, and Asians for 1976 (Department of Statistics, 1978, pp. 3.4-3.6) with an assumption of a continued moderate decline in the crude birth rate for whites and an assumption of constant or slightly declining crude birth and death rates for Bantus since 1970 (Department of Information, 1974, p. 71).
11. Projected assuming a continuation of the growth rates implied in the official time series for 1976-77 for all population groups except whites and a component estimate of the white growth rate to 1978. The difference between this growth rate and the unrounded crude birth and death rates implies a net emigration rate of 2 to 4 per 1,000 population.

## SOUTH AFRICA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	13,573	1970	22,465	1950-55	2.3	
1955	15,210	1971	23,022	1955-60	2.4	
1960	17,122	1972	23,655	1960-65	2.7	
1961	17,577	1973	24,295	1965-70	2.7	
1962	18,048	1974	24,915	1970-75	2.5	
1963	18,547	1975	25,466	1975-79	2.2	
1964	19,076	1976	26,099			
1965	19,607	<b>PROJECTED ESTIMATES</b>				
1966	20,162	1977	26,650			
1967	20,725	1978	27,217			
1968	21,292	1979	27,799			
1969	21,881					

**NOTES:** 1950-76—Based on official midyear population estimates, 1950-76, for coloureds and Asians (Department of Statistics, 1972b, p. A-10; and 1978, p. 1.4); official midyear population estimates, 1960-76 (Department of Statistics, 1978, p. 1.4), and reported natural increase and net migration, 1950-60 (Department of Statistics, 1978, p. 3.4; and 1972b, p. 1) for whites; and official midyear Bantu population estimates, 1960-76 (based on earlier population series for 1950-60 reported in Department of Statistics, 1972b, p. A-10). These estimates are based on official adjusted population censuses for 1960 and 1970.

1977-79—Projected assuming a continuation of recent trends in the growth rates of the four population groups.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
May 8, 1951	12,671,452	13,835,000	Enumerated populations for 1951, 1960, and 1970 as reported in Department of Statistics, 1972b, p. A-3; and 1978, p. 1.14.
September 6, 1960	15,994,181	17,206,000	
May 6, 1970	21,794,328	22,376,000	

The 1951 enumerated population was adjusted based on 1950-51 midyear estimates derived at the U.S. Bureau of the Census. The 1960 and 1970 populations are those implied by the official midyear population estimates for 1960 and 1961 and for 1969 and 1970, respectively, as reported in Department of Statistics, 1978, p. 1.4. The net underenumeration implied by the above adjustments is 9.2 percent, 7.6 percent, and 2.7 percent for the censuses of 1951, 1960, and 1970, respectively.

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**MAJOR SOURCES**

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- Department of Information. 1974. *South Africa 1974: Official Yearbook of the Republic of South Africa*. Pretoria.
- Department of Statistics. 1972a. *Migration Statistics: Immigrants and Emigrants 1966 to 1969*. Report No. 19-01-01. Pretoria.
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## BENCHMARK DATA

1. Enumerated population, census of April 3, 1973.....	14,113,590
2. Adjusted population, census of April 3, 1973.....	14,819,270
3. Births per 1,000 population, 1973.....	49-50
4. Deaths per 1,000 population, 1973.....	19
5. Annual rate of growth, 1973 (percent).....	3.6-3.7
6. Life expectancy at birth, 1968-73.....	45
7. Infant deaths per 1,000 live births, 1968-73.....	141

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	18,167,000
9. Births per 1,000 population, 1978.....	48-49
10. Deaths per 1,000 population, 1978.....	17-18
11. Annual rate of growth, 1978 (percent).....	3.6-3.8

## NOTES:

- Final census figure as reported in Department of Statistics, 1977, tables 9 and 19.
- Census population officially adjusted for 4.8 percent net underenumeration as reported in Department of Statistics, 1977, table 9.
- Based on weighted averages of crude birth rates estimated separately for the settled and nonsettled populations. A single estimated rate for the settled population, which comprises 83.7 percent of the total population, was derived at the U.S. Bureau of the Census by application of the Brass fertility technique (average of  $P_2/F_2$ ,  $P_3/F_3$ , and  $P_4/F_4$  ratios) to data for the settled population from the 1973 census. An estimated crude birth rate range of 40-45 per 1,000 for the nomadic population (Department of Statistics et al., 1979, p. 6) was used for all of the nonsettled population.
- Based on the assumption that the 1968-73 life table central death rates for the settled population (see note 6-7), apply to the total census population, by age and sex.
- Range of variation given selected combinations of unrounded crude birth and death rates (49.1 and 19.0 per 1,000 population, and 49.9 and 19.0 per 1,000 population, respectively) and an estimated net immigration rate of 6.3 per 1,000 population. Estimated net immigration is based on refugee movements for 1972 and 1973 (World Bank, 1979, table 12), and estimated emigration of Sudanese to the Persian Gulf countries.
- 6-7. Estimates refer to the settled population only, calculated from 1968-73 life tables derived by Sinada (1977-78, p. 37) based on various child survivorship techniques, orphanhood and widowhood techniques, and the logit technique using the Brass African standard life table.
- See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1973 which take into consideration estimates of the Department of Statistics, et al. (1979, pp. 27-36).
11. Range of variation given possible combinations of unrounded crude birth and death rates, and an estimated net immigration rate of 5.7 per 1,000 population based on refugee data as reported in U.N. High Commissioner for Refugees, 1979.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	8,063	1970	13,575	1950-55	2.5
1955	9,147	1971	13,993	1955-60	2.6
1960	10,397	1972	14,435	1960-65	2.6
1961	10,674			1965-70	2.7
1962	10,960			1970-75	3.2
		<b>PROJECTED ESTIMATES</b>		1975-79	3.3
1963	11,256	1973	14,946		
1964	11,555	1974	15,456		
1965	11,837	1975	15,926		
1966	12,130	1976	16,424		
1967	12,473	1977	16,949		
1968	12,818	1978	17,550		
1969	13,171	1979	18,167		

**NOTES:** 1950-73—Based on the adjusted 1973 census, assumed trends in fertility and mortality, and estimated net migration. Net migration was estimated considering the reported foreign-born population in 1956 (*UNDY 1963*, table 7) and 1973 (Department of Statistics, 1977, tables 22a and 23a), estimates of refugees for each year 1964 to 1973 (U.N., General Assembly, various issues 1965 to 1974; World Bank, 1979, table 12; and Mills, 1977, p. 6), and net emigration of Sudanese to Persian Gulf countries (Department of Statistics, et al., 1979, p. 13).

1974-79—Projected based on the adjusted 1973 census population, assumed trends in fertility and mortality, and estimated net migration. Estimated net migration takes into consideration estimates of refugees for each year 1973 to 1978 (U.N., General Assembly, various issues 1974 to 1978, and U.N. High Commissioner for Refugees, 1979), and net migration of Sudanese to Persian Gulf countries (Department of Statistics, et al., 1979, p. 13).

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1973	49-50	19	3.6-3.7	6.46-6.57

**NOTES:** Based on weighted averages of crude birth rates estimated separately for the settled and nonsettled populations. A single estimated rate for the settled population, which comprises 83.7 percent of the total population, was derived at the U.S. Bureau of the Census by application of the Brass fertility technique (average of  $P_2/F_2$ ,  $P_3/F_3$ , and  $P_4/F_4$  ratios) to data for the settled population from the 1973 census. An estimated crude birth rate range of 40-45 per 1,000 for the nomadic population (Department of Statistics et al., 1979, p. 6) was used for all of the nonsettled population.

The crude death rate is based on the application of the 1968-73 life table central death rates for the settled population derived by Sinada (1977-78, p. 37), to the total population, by age and sex.

Range of variation in the growth rate given possible combinations of unrounded crude birth and death rates (49.1 and 19.0, and 49.9 and 19.0 per 1,000, respectively) and an estimated net immigration rate of 6.3 per 1,000 population. Estimated net immigration is based on refugee movements for 1972 and 1973 (World Bank, 1979, table 12), and estimated emigration of Sudanese to the Persian Gulf countries.

The range of variation in the total fertility rate was derived at the U.S. Bureau of the Census based on an application of the Brass fertility technique (average of  $P_2/F_2$ ,  $P_3/F_3$ , and  $P_4/F_4$  ratios) to data for the settled population from the 1973 census. The lower bound was estimated by distributing the total number of births implied by the lower bound of an estimated crude birth rate for the nonsettled population by the pattern of fertility implied for the settled population. The upper bound was estimated by distributing the total number of births implied by the upper bound of an estimated crude birth rate for the nonsettled population by the pattern of fertility implied for the settled population.

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**BENCHMARK DATA**

1. Enumerated population, census of August 26, 1967.....	12,313,469
2. Adjusted population, census of August 26, 1967.....	NA
3. Births per 1,000 population, 1973.....	45-49
4. Deaths per 1,000 population, 1973.....	16-18
5. Annual rate of growth, 1973 (percent).....	2.7-3.0
6. Life expectancy at birth, 1973.....	45-49
7. Infant deaths per 1,000 live births, 1973.....	120-130

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	17,364,000
9. Births per 1,000 population, 1978.....	45-49
10. Deaths per 1,000 population, 1978.....	16-18
11. Annual rate of growth, 1978 (percent).....	2.7-3.0

**NOTES:**

1. Final census figure as reported in *PVSR October 1979*. Results of the census taken August 26-27, 1978, are not yet available.
2. The 1967 census has not been evaluated for possible coverage error.
- 3-4. Estimated ranges based on analysis of the 1973 National Demographic Survey data (Bureau of Statistics and University of Dar es Salaam, no date a and no late c) using Brass fertility and mortality (childhood and adult) techniques and stable population analysis. Data from the 1967 census were also considered in the analysis.
5. Difference between selected combinations of unrounded crude birth and death rates which fall within the ranges given in items 3 and 4 (i.e., 45.0 and 18.0 per 1,000 population and 47.0 and 16.8 per 1,000 population, respectively).
- 6-7. Estimated ranges based on analysis of the 1973 National Demographic Survey data (Bureau of Statistics and University of Dar es Salaam, no date a and no date c) using Brass mortality (childhood and adult) techniques and stable population analysis. Data from the 1967 census were also considered in the analysis.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation assuming no significant change in fertility or mortality since 1973.
11. Projected assuming no significant change in the 1973 growth rate.

## TANZANIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	8,313	1969	12,927	1950-55	2.1
1955	9,212	1970	13,286	1955-60	2.3
1960	10,328	1971	13,667	1960-65	2.4
1961	10,579	1972	14,066	1965-70	2.6
1962	10,839	1973	14,483	1970-75	2.9
1963	11,109	1974	14,920	1975-79	3.0
1964	11,387	1975	15,374		
1965	11,673	1976	15,845		
1966	11,965	1977	16,334		
1967	12,267	1978	16,840		
<b>PROJECTED ESTIMATES</b>					
1968	12,588	1979	17,364		

**NOTES:** 1950-67—Based on 1950, 1955, 1960, and 1965 official midyear population estimates (Central Statistical Bureau, 1968, p. 17) and the 1967 census.

1968-79—Based on the 1967 census for the total country and an official projection to midyear 1975 for Tanganyika (Bureau of Statistics and University of Dar es Salaam, no date c).

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1967	46-48			6.60
1973	45-49	16-18	2.7-3.0	6.30

**NOTES:** The 1967 and 1973 crude birth rate ranges were estimated by various investigators (see Major Sources) based on analysis of the 1967 census and 1973 National Demographic Survey data, respectively, using stable population analysis and Brass fertility techniques.

The 1973 crude death rate range was estimated by various investigators using data from the 1973 National Demographic Survey (Bureau of Statistics and University of Dar es Salaam, no date a).

The 1973 growth rate is the difference between selected combinations of unrounded crude birth and death rates which fall within the ranges given in items 3 and 4 (i.e., 45.0 and 18.0 per 1,000 population, and 47.0 and 16.8 per 1,000 population, respectively).

The 1967 total fertility rate was estimated by Egero and Henin (see Ominde, 1975, p. 19) based on an analysis of 1967 census data using stable population analysis and Brass fertility techniques.

The 1973 total fertility rate was given by Ewbanks (see Central Bureau of Statistics and University of Dar es Salaam, no date a, p. 92) as the best estimate based on analysis of the 1973 National Demographic Survey data using stable population analysis and Brass fertility techniques.

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**BENCHMARK DATA**

1. Enumerated population, census of May 8, 1975.....	5,572,193
2. Adjusted population, census of May 8, 1975.....	NA
3. Births per 1,000 population, 1978.....	33
4. Deaths per 1,000 population, 1978.....	8
5. Annual rate of growth, 1978 (percent).....	2.5
6. Life expectancy at birth, 1968-69.....	53
7. Infant deaths per 1,000 live births, 1968-69.....	135

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	6,312,000
9. Births per 1,000 population, 1978.....	33
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	2.5

**NOTES:**

1. Preliminary census figure as reported in Institut National de la Statistique, no date, vol. III, table 1.
2. The 1975 census has not been evaluated for possible coverage error. However, recent official data imply a net underenumeration of about 1.6 percent.
- 3-4. Based on provisional registered births, provisional registered deaths adjusted for underregistration by the Institut National de la Statistique (Tarifa, 1979), and estimated midyear population.
5. Based on the difference between unrounded crude birth and death rates (33.3 and 7.9 per 1,000 population, respectively), and an estimated net emigration rate of 0.4 per 1,000 population. Estimated net emigration is based on official provisional arrival and departure data for 1978 (Tarifa, 1979).
- 6-7. From National Demographic Survey data as adjusted by Vallin (1975, pp. 1165-1166).
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,517	1970	5,085	1950-55	1.8
1955	3,846	1971	5,184	1955-60	1.5
1960	4,149	1972	5,290	1960-65	1.9
1961	4,216	1973	5,413	1965-70	2.2
1962	4,287	1974	5,543	1970-75	2.3
1963	4,374	1975	5,691	1975-79	2.6
1964	4,468	1976	5,854		
1965	4,566	1977	6,009		
1966	4,681	1978	6,156		
1967	4,773				
1968	4,881	<b>PROJECTED ESTIMATES</b>			
1969	4,983	1979	6,312		

**NOTES:** 1950-66—Based on the inflated census of 1956 and adjusted census of 1966, and estimated trends in fertility, mortality, and migration.

1967-78—Based on the adjusted censuses of 1966 and 1975, adjusted registered births and deaths, and reported net migration data (Tarifa, 1979).

1979—Projected assuming a continuation of the 1978 calendar-year growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
February 1, 1956	3,783,169	3,886,000	Enumerated populations as reported in Institut National de la Statistique, no date b, vol. III, pp. 36 and 57.
May 3, 1966	4,533,351	4,657,000	
May 8, 1975	5,572,193	5,660,000	

The 1966 enumerated population was adjusted for 2.7 percent net underenumeration at the U.S. Bureau of the Census (1971). The 1956 enumerated population was inflated at the U.S. Bureau of the Census for the same percent net underenumeration as found for the 1966 census. The 1975 adjusted population figure is implied by the adjusted midyear population data for 1966 and growth rates for 1966 to 1975 based on adjusted registered births and deaths, and reported net migration during the period (Tarifa, 1979).

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1966	44	15	2.5	7.25
1970	38	13	2.2	
1975	36	10	2.7	
1976	36	9	2.9	
1977	36	8	2.3	
1978	33	8	2.5	

**NOTES:** Crude birth and death rates are based on registered births and deaths as officially adjusted (Tarifa, 1979) and total midyear populations estimated at the U.S. Bureau of the Census. Registered births for 1966, 1970, and 1975 were adjusted by approximately 2, 4, and 2 percent, respectively, and registered deaths for these years were adjusted by approximately 31, 29, and 26 percent, respectively. Registered births for 1976, 1977, and 1978 appear not to have been adjusted. Registered deaths were adjusted by approximately 26 percent for 1976 and by unspecified proportions for 1977 and 1978. Registered births and deaths for 1978 are based on provisional data.

Growth rates for all years are based on the difference between rounded crude birth and death rates, and estimated net migration rates per 1,000 population, as follows:

Year	1966	1970	1975	1976	1977	1978
Net migration rate	-4.1	-3.9	+1.1	+2.2	-4.6	-0.4

The total fertility rate for 1966 was derived at the U.S. Bureau of the Census based on registered births by age of mother (*UNDY 1975*, table 23) as adjusted, and the age composition of the female population reported by the 1966 census as smoothed for age misreporting and adjusted for underenumeration (U.S. Bureau of the Census, 1971), and moved to midyear 1966. Births to mothers of unknown age were distributed among females 15 to 49 years in proportion to the distribution of reported births by age of mother.

#### MAJOR SOURCES

- Institut National de la Statistique. 1956. *Annuaire Statistique de la Tunisie 1956*. Tunis.
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## BENCHMARK DATA

1. Enumerated population, census of August 18, 1969.....	9,548,847
2. Adjusted population, census of August 18, 1969.....	NA
3. Births per 1,000 population, 1969.....	46-50
4. Deaths per 1,000 population, 1969.....	17-19
5. Annual rate of growth, 1969 (percent).....	3.0-3.2
6. Life expectancy at birth, 1969.....	46
7. Infant deaths per 1,000 live births, 1969.....	120

## PROJECTED ESTIMATES\*

8. Population, July 1, 1979.....	13,225,000
9. Births per 1,000 population, 1978.....	46-50
10. Deaths per 1,000 population, 1978.....	15-18
11. Annual rate of growth, 1978 (percent).....	3.0-3.4

## NOTES:

1. Final census figure as reported in *PVSR April 1979*.
2. The 1969 census has not been evaluated for possible coverage error.
- 3-4. Estimated range of variation based on analysis of 1969 census data by various investigators (see Major Sources).
5. Range of variation considering selected combinations of crude birth and death rates which fall within the ranges given in items 3 and 4 (i.e., 48 and 18 per 1,000 population, and 50 and 18 per 1,000 population, respectively) and the 1969-70 growth rate (3.1 percent) accepted by the Ministry of Finance, Planning and Economic Development (1979, table 5.8).
- 6-7. Derived from official life tables (Ministry of Finance, Planning and Economic Development, 1979, table 5.5) based on 1969 census data on children ever born and children surviving, by age of mother, and on survival of parents, by age of respondent.
8. See notes for Midyear Population Estimates.
9. Projected range of variation assuming no significant change in fertility since 1969.
10. Projected range of variation based on assumed trend of mortality since 1969.
11. Projected range of variation considering the 1969 estimated growth rate and the growth rate implied by official population projections.

\*Projected estimates do not take into consideration any demographic consequences of irregular events which have occurred in Uganda since 1971.

## UGANDA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	5,522			1950-55	2.7
1955	6,328	<b>PROJECTED ESTIMATES *</b>		1955-60	2.8
1960	7,286	1970	9,806	1960-65	2.9
1961	7,499	1971	10,127	1965-70	3.0
1962	7,720	1972	10,462	1970-75	3.3
1963	7,949	1973	10,810	1975-79	3.4
1964	8,186	1974	11,172		
1965	8,432	1975	11,549		
1966	8,687	1976	11,943		
1967	8,951	1977	12,353		
1968	9,226	1978	12,780		
1969	9,510	1979	13,225		

**NOTES:** 1950-69—Based on the 1969 census and assumed population growth rates, considering U.N. estimates for 1950 to 1970.

1970-79—Official projected estimates based on the 1969 census, as reported in Ministry of Finance, Planning and Economic Development, 1979, table 5.8.

\*Projected estimates do not take into consideration any demographic consequences of irregular events which have occurred in Uganda since 1971.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1969	46-50	17-19	3.0-3.2	6.93-7.70

**NOTES:** The 1969 crude birth and death rate ranges are based on analysis of 1969 census data by various investigators (see Major Sources) including the U.S. Bureau of the Census. Techniques used include stable population analysis, the Brass, Sullivan, and orphanhood techniques, and consideration of the 1959-69 intercensal growth rate.

The growth rate range was estimated considering selected combinations of crude birth and death rates which fall within the ranges shown (i.e., 48 and 18 per 1,000 population and 50 and 18 per 1,000 population, respectively) and the 1969-70 growth rate accepted by the Ministry of Finance, Planning and Economic Development (1979, table 5.8).

The 1969 total fertility rate range of variation is based on age-specific fertility rates (total fertility rate of 5.40) derived from data on births during the 12 months preceding the 1969 census, adjusted by the Brass fertility technique. The upper bound is adjusted by the  $P_2/F_2$  ratio and the lower bound by the  $P_3/F_3$  ratio. An official total fertility rate of 7.10 (Ministry of Finance, Planning and Economic Development, 1979, p. 15), based on analysis of 1969 census data, falls within the range shown.

**MAJOR SOURCES**

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## BENCHMARK DATA

1. Enumerated population, census of December 1-7, 1975.....	6,144,013
2. Adjusted population, census of December 1-7, 1975.....	NA
3. Births per 1,000 population, 1960-61.....	50
4. Deaths per 1,000 population, 1960-61.....	32-34
5. Annual rate of growth, 1960-61 (percent).....	1.6-1.8
6. Life expectancy at birth, 1960-61.....	32
7. Infant deaths per 1,000 live births, 1960-61.....	190-243

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	6,661,000
9. Births per 1,000 population, 1978.....	50
10. Deaths per 1,000 population, 1978.....	27
11. Annual rate of growth, 1978 (percent).....	2.3

## NOTES:

1. Provisional census figure as reported in *PVSR October 1979*.
2. The 1975 census has not been evaluated for possible coverage error.
3. Estimated rate for survey area excluding the cities of Ouagadougou and Bobo-Dioulasso (Upper Volta and France, 1970b, p. 220 and table 229).
4. Lower bound of range based on adjusted number of deaths in the 12 months preceding the survey (Upper Volta and France, 1970b, p. 244). Upper bound of range based on adjustment of deaths by month during the 12 months of the survey period (Upper Volta and France, 1970b, p. 248). Rates refer to survey area.
5. Range of variation given possible combinations of unrounded crude birth and death rates.
6. Estimate as reported in Upper Volta and France, table 215. Refers to survey area.
7. Adjusted estimates as reported in Upper Volta and France, 1970b, p. 260 and table 223. Refers to survey area.
8. See notes for Midyear Population Estimates.
- 9-10. Projected following fertility and mortality assumptions between the 1960 and 1990 period made by the Direction de la Statistique as reported in Courel and Pool, 1975, pp. 751-754.
11. Difference between crude birth and death rates.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,756	1970	5,465	1950-55	1.8
1955	4,110	1971	5,581	1955-60	1.8
1960	4,497	1972	5,702	1960-65	1.9
1961	4,580	1973	5,826	1965-70	2.0
1962	4,666	1974	5,954	1970-75	2.2
1963	4,754	1975	6,087	1975-79	2.3
1964	4,846	<b>PROJECTED ESTIMATES</b>			
1965	4,941	1976	6,223		
1966	5,039	1977	6,364		
1967	5,140				
1968	5,245	1978	6,510		
1969	5,353	1979	6,661		

**NOTES:** 1950-75—Based on 1975 provisional census population and assumed trends in fertility and mortality since 1960 as estimated by the Direction de la Statistique (Courel and Pool, 1975, pp. 751-754). The 1960-61 survey estimate of the growth rate was assumed to have remained constant for the period 1950-59.

1976-79—Projected assuming a continuation of the trends in fertility and mortality as estimated by the Direction de la Statistique.

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960-61	50	32-34	1.6-1.8	6.12

**NOTES:** The crude birth rate is an estimated rate for the survey area excluding the cities of Ouagadougou and Bobo-Dioulasso (Upper Volta and France, 1970b, p. 220 and table 229).

The lower bound of the crude death rate is based on the adjusted number of deaths in the 12 months preceding the survey (Upper Volta and France, 1970b, p. 244). Upper bound of range is based on adjustment of deaths by month during the 12 months of the survey period (Upper Volta and France, 1970b, p. 248). Rates refer to survey area.

The growth rates were calculated as the difference between crude birth and death rates.

The total fertility rate was calculated at the U.S. Bureau of the Census based on the Brass fertility technique ( $P_2/F_2$  ratio) applied to 1960-61 survey data.

#### MAJOR SOURCES

Courel, André and D. Ian Pool. 1975. "Upper Volta." *Population Growth and Socioeconomic Change in West Africa*, ed. John C. Caldwell. Columbia University Press. New York.

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**BENCHMARK DATA**

1. Enumerated population, administrative census of July 1, 1974.....	24,327,147
2. Adjusted population, administrative census of July 1, 1974.....	NA
3. Births per 1,000 population, 1955-58.....	43-48
4. Deaths per 1,000 population, 1955-58.....	25-26
5. Annual rate of growth, 1970-74 (percent).....	2.9
6. Life expectancy at birth, 1955-58.....	37-40
7. Infant deaths per 1,000 live births, 1955-58.....	165-177

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	28,090,000
9. Births per 1,000 population, 1978.....	43-48
10. Deaths per 1,000 population, 1978.....	17-19
11. Annual rate of growth, 1978 (percent).....	3.1-3.9

**NOTES:**

1. Final administrative census figure as reported in U.S. Joint Publications Research Service, 1976, p. 70.
2. The 1974 administrative census has not been evaluated for possible coverage error.
3. Lower bound of range based on unadjusted rate from the 1955-58 Demographic Inquiry as reported by Romaniuk, 1968, table 6.38. Upper bound of range estimated by the U.S. Bureau of the Census based on a stable population analysis of data from the 1955-58 Demographic Inquiry.
4. Range based on an analysis of 1955-58 survey data by Romaniuk (1968, pp. 335-336).
5. Intercensal growth rate based on the 1970 and 1974 administrative censuses.
- 6-7. Range based on an analysis of 1955-58 survey data by Romaniuk, 1968, table 6.36 and p. 336.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation assuming no significant change in fertility and based on assumed trends in mortality since 1955-58, which take into consideration official projections (Bureau du Président, 1972; and Département du Plan, 1978), results from the 1975-77 Demographic Survey of West Zaire (Tabutin, 1979), and alternative U.N. projections.
11. Range of variation given possible combinations of unrounded crude birth and death rates, and an estimated net immigration rate of 7.4 per 1,000 population. Net migration is estimated from data on refugee movements (U.N., High Commissioner for Refugees, 1979, pp. 2-3).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	13,055	1970	21,638	1950-55	2.1	
1955	14,468	1971	22,283	1955-60	2.2	
1960	16,151	1972	22,938	1960-65	2.0	
1961	16,585	1973	23,627	1965-70	3.0	
1962	17,056	1974	24,327	1970-75	2.9	
1963	17,562	<b>PROJECTED ESTIMATES</b>			1975-79	2.9
1964	18,095	1975	25,009			
1965	18,651	1976	25,741			
1966	19,229	1977	26,297			
1967	19,830					
1968	20,441	1978	27,152			
1969	21,047	1979	28,090			

**NOTES:** 1950-74—Based on the 1970 and 1974 administrative censuses and assumed growth rates which take into consideration U.N. estimates and official population projections (Bureau du Président, 1972).

1975-79—Projected based on the 1974 administrative census, assumed growth rates which take into consideration official population projections (Bureau du Président, 1972), and estimated net international migration based on refugee movements (U.N., General Assembly, various issues, 1975 to 1978; and U.N., High Commissioner for Refugees, 1979).

The following administrative censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
July 1, 1970	21,637,876		Administrative census populations for 1970 and 1974 as reported in Bureau du Président, 1972, pp. 3 and 27; and U.S. Joint Publications Research Service, 1976, p. 70, respectively.
July 1, 1974	24,327,147		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1955-58	43-48	25-26	1.7-2.3	
1970-74			2.9	

**NOTES:** The lower bound of the 1955-58 crude birth rate range is based on an unadjusted rate from the 1955-58 Demographic Inquiry as reported by Romaniuk, 1968, table 6.38. The upper bound of the range is based on a stable population analysis by the U.S. Bureau of the Census of data from the 1955-58 Demographic Inquiry.

The range for the 1955-58 crude death rate is based on an analysis of data from the Demographic Inquiry by Romaniuk, 1968, pp. 335-336.

The 1955-58 growth rate range is based on possible combinations of unrounded crude birth and death rates. The 1970-74 intercensal growth rate is based on the 1970 and 1974 administrative censuses.

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**BENCHMARK DATA**

1. Enumerated population, census of August 26 to September 7, 1974.....	4,695,000
2. Adjusted population, census of August 26 to September 7, 1974.....	4,854,000
3. Births per 1,000 population, 1969.....	48-50
4. Deaths per 1,000 population, 1969.....	18-21
5. Annual rate of growth, 1969-74 (percent).....	3.2
6. Life expectancy at birth, 1969.....	43-47
7. Infant deaths per 1,000 live births, 1969.....	127-160

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	5,649,000
9. Births per 1,000 population, 1978.....	47-50
10. Deaths per 1,000 population, 1978.....	16-18
11. Annual rate of growth, 1978 (percent).....	3.1-3.2

**NOTES:**

1. Preliminary sample census figure (Central Statistical Office, 1975c, p. 4).
2. Adjusted census figure implied by official midyear population estimates. The net under-enumeration is 3.3 percent.
- 3-4. Estimated ranges based on an analysis of the 1969 census data using stable population analysis and Brass techniques (Central Statistical Office, 1975b, pp. 2-5 and Ohadike and Tesfaghiorghis, 1975, p. 37).
5. Growth rate based on official adjusted midyear population estimates for the census years 1969 and 1974.
- 6-7. Estimated range based on an analysis of 1969 census data using stable population analysis and Brass techniques (Central Statistical Office, 1970, p. A2; 1975a, p. 2; and Ohadike and Tesfaghiorghis, 1975, p. 37).
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1969.
11. Difference between selected combinations of crude birth and death rates (49.7 and 18.4 per 1,000 population and 47.7 and 16.1 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,553	1970	4,251	1950-55	2.3
1955	2,869	1971	4,386	1955-60	2.5
1960	3,254	1972	4,527	1960-65	2.5
1961	3,337	1973	4,675	1965-70	2.8
1962	3,421	1974	4,829	1970-75	3.2
1963	3,508	<b>PROJECTED ESTIMATES</b>		1975-79	3.2
1964	3,599	1975	4,981		
1965	3,694	1976	5,138		
1966	3,794	1977	5,302		
1967	3,900				
1968	4,009	1978	5,472		
1969	4,123	1979	5,649		

**NOTES:** 1950-68—Based on the adjusted 1969 census and considering the growth rate for midyear 1969 to 1970 and U.N. growth rates for 1950 to 1970 derived from midyear population estimates.

1969-78—Estimates made by the Central Statistical Office based on the 1969 and 1974 adjusted censuses (Central Statistical Office, 1975, p. 25; various issues of *PVSR*; and unpublished data at the U.N. Statistical Office).

1979—Projected by the U.S. Bureau of the Census assuming a continuation of the trend of growth rates estimated by the Central Statistical Office.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
August 22-30, 1969	4,056,995	4,144,000	Enumerated populations as reported in Central Statistical Office, 1973, table 1; and 1975c, p. 4. The 1974 figure is preliminary and refers to a sample census.
August 26 to September 7, 1974	4,695,000	4,854,000	

The adjusted population for 1969 was derived at the U.S. Bureau of the Census, accepting the 2.1 per cent net underenumeration as estimated by the Central Statistical Office (1975b, p. 1). The adjusted population for 1974 is implied by the official population estimates for midyear 1974 and 1975 estimated by the Central Statistical Office.

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1969	48-50	18-21	2.8-3.0	6.94
1969-74			3.2	
1974				6.65-7.26

**NOTES:** The 1969 crude birth and death rates are estimated ranges based on an analysis of the 1969 census data using stable population and Brass techniques (Central Statistical Office, 1975b, pp. 2-5; and Ohadike and Tesfaghiorghis, 1975, p. 37).

The 1969 growth rate was calculated from selected combinations of unrounded crude birth and death rates (47.7 and 19.7 per 1,000 population and 48.0 and 18.0 per 1,000 population, respectively). The 1969-74 growth rate is based on official adjusted midyear population estimates for the census years 1969 and 1974.

The 1969 total fertility rate was derived at the U.S. Bureau of the Census from age-specific fertility rates obtained by applying the Brass fertility technique to 1969 census data.

The lower bound of the 1974 total fertility rate range is based on births during the 12 months preceding the sample census, and the sample census population, by age and sex (Central Statistical Office, 1975a, p. 17). The upper bound of the range is based on pregnancy history data obtained in a survey conducted November 23-30, 1974, among a small subsample of women from the 1974 sample census (Central Statistical Office, 1975a, p. 17).

#### MAJOR SOURCES

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- United Nations. Economic Commission for Africa. 1972. *Levels and Trends of Fertility in the Countries of Africa*. E/CN.14/POP/75. New York.

## BENCHMARK DATA

1. Enumerated population, census of April 21-May 11, 1969.....	5,099,344
2. Adjusted population, census of April 21-May 11, 1969.....	5,325,000
3. Births per 1,000 population, 1969.....	47-50
4. Deaths per 1,000 population, 1969.....	16
5. Annual rate of growth, 1969 (percent).....	3.5
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	7,254,000
9. Births per 1,000 population, 1978.....	47-50
10. Deaths per 1,000 population, 1978.....	15-16
11. Annual rate of growth, 1978 (percent).....	2.2

## NOTES:

- Final census figure as reported in *PVSR October 1979*. Includes non-African population of 252,414 from the March 20, 1969 census.
- Census population adjusted at the U.S. Bureau of the Census for 4.2 percent net underenumeration.
- Upper bound of range based on registered data for Europeans, Asians, and coloureds and an official crude birth rate estimate for Africans (based on 1969 census data) as reported by the Central Statistical Office (1977, table 3; and no date, p. 12); lower bound is an estimate reported by Hooker (1971) based on 1969 census data. Stable population analysis of the 1969 census (U.N., 1971, table 20) gives a crude birth rate of 48.
- Derived from registered data for Europeans and Asians, and an official crude death rate estimate (based on 1969 census data) for Africans, as reported by the Central Statistical Office (1977, table 3; and no date, p. 13).
- Derived from official December 31 population estimates for 1968 and 1969 (Central Statistical Office, 1977, table 1). The difference between the rate of natural increase range, based on possible combinations of crude birth and death rates, and the growth rate implies a net immigration rate of 1 to 4 per 1,000 population.
- 6-7. Data not available. Using stable population analysis and Coale-Demeny south region model life tables, a life expectancy at birth of 51 years and an infant mortality rate of 129 can be estimated for 1969.
8. See notes for Midyear Population Estimates.
9. Projected range of variation assuming no significant change in fertility since 1969.
10. Projected range of variation based on assumed trends of change in 1977 registered crude death rates for Europeans and Asians and in the 1969 estimated crude death rate for Africans (Central Statistical Office, 1978, tables 1 and 3).
11. Derived by taking into consideration the growth rate for 1977-78 from the official population series (3.3 percent; see Central Statistical Office, 1978, table 1) and the number of refugees leaving the country during 1977 and 1978. The difference between the rate of natural increase range, calculated from unrounded crude birth and death rates, and the estimated growth rate implies a net emigration rate in the range of 8.6 to 13.2 per 1,000 population. The Central Statistical Office (1979) reports a substantial net emigration of Europeans in 1976 and 1977 (7,072 and 10,908, respectively), which was incorporated into the official population time series. Net migration data for Europeans for 1978 were not available. The United Nations High Commissioner for Refugees (no date) reports that at the end of 1977, 76,000 refugees from Southern Rhodesia were living in Mozambique, Botswana, and Zambia. By the end of 1978 there were 163,000 refugees from Southern Rhodesia in these countries.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,853	<b>PROJECTED ESTIMATES</b>		1950-55	3.6
1955	3,409			1955-60	3.3
1960	4,011			1960-65	3.1
1961	4,140			1965-70	3.4
1962	4,278			1970-75	3.4
1963	4,412	1973	6,115	1975-79	2.5
1964	4,537	1974	6,347		
1965	4,685	1975	6,562		
1966	4,836	1976	6,749		
1967	4,995	1977	6,938		
1968	5,172	1978	7,110		
1969	5,358	1979	7,254		

**NOTES:** 1950-78—Estimates and projections based on the adjusted 1969 census and growth rates for 1950 to 1978 derived from official midyear population estimates for these years (Central Statistical Office, 1978, table 1). The projected estimates for 1975 to 1978 also take account of refugees leaving Southern Rhodesia and entering Mozambique, Botswana, and Zambia.

1979—Based on the 1978 population estimate and a growth rate derived by considering the mid-year 1977-78 official growth rate and the number of refugees who left Southern Rhodesia during calendar-year 1978.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1969	47-50	16	3.5	6.95-7.80

**NOTES:** The upper bound of the crude birth rate range was based on registered data for Europeans, Asians, and coloureds and an official crude birth rate (CBR) estimate for Africans as reported by the Central Statistical Office (1978, tables 1 and 3; and no date, p. 12). The CBR for Africans was based on age-specific fertility rates consistent with the upper-bound total fertility rate. The lower bound of the range is an estimate reported by Hooker (1971) based on 1969 census data.

The crude death rate was derived from registered data for Europeans and Asians, and an official crude death rate estimate (based on 1969 census data) for Africans, as reported by the Central Statistical Office (1978, tables 1 and 3; and no date, p. 13).

The growth rate was derived from official December 31 population estimates for 1968 and 1969 (Central Statistical Office, 1978, table 1). The difference between the rate of natural increase range, based on possible combinations of crude birth and death rates, and the growth rate implies a net immigration rate of 1 to 4 per 1,000 population.

The upper bound of the total fertility rate range is an official estimate for the African population based on births in the last 8 months and children-ever-born data from the 1969 census. The lower bound of the range is an estimate for the African population derived by the U.S. Bureau of the Census using the Mortara fertility technique and children-ever-born data from the 1969 census.

**MAJOR SOURCES**

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United Nations. Economic Commission for Africa. 1971. *Demographic Handbook for Africa*. Addis Ababa.

## BENCHMARK DATA\*

1. Enumerated population, census of June 15-July 5, 1979.....	15,540,000
2. Adjusted population, census of June 15-July 5, 1979.....	NA
3. Births per 1,000 population, 1972-73.....	50-53
4. Deaths per 1,000 population, 1972-73.....	28-32
5. Annual rate of growth, 1972-73 (percent).....	1.8-2.5
6. Life expectancy at birth, 1972-73.....	35-39
7. Infant deaths per 1,000 live births, 1972-73.....	217-235

## PROJECTED ESTIMATES\*

8. Population, July 1, 1979.....	14,699,000
9. Births per 1,000 population, 1978.....	50-53
10. Deaths per 1,000 population, 1978.....	28-32
11. Annual rate of growth, 1978 (percent).....	1.8-2.5

*CAUTION: A random sampling procedure was not used in the National Demographic and Family Guidance Survey; rather the statistical approach was based on the viewpoint that finite population sampling problems could be formulated as problems of statistical prediction. The sampling bias of this procedure is not reflected in the reported or adjusted rates.*

## NOTES:

1. Preliminary census figure reported by the Kabul Domestic Service as cited in Foreign Broadcast Information Service, 1979, p. S-2.
2. The 1979 census has not been evaluated for possible coverage error.
3. Estimated at the U.S. Bureau of the Census (1978, p. 11) by applying two patterns of age-specific fertility rates derived from the National Demographic and Family Guidance Survey (NDFGS) to the adjusted age-sex distribution from the survey.
4. Range of variation estimated at the U.S. Bureau of the Census (1978, p. 11) by applying two sets of life table age-sex-specific death rates to the 1972-73 adjusted age-sex distribution.
5. Range of variation given possible combinations of crude birth and death rates.
- 6-7. Taken from two sets of life tables derived by applying the logit mortality technique to data from the NDFGS using Coale-Demeny east region model life tables as standards.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation assuming no significant change in fertility or mortality since 1972-73.
11. Range of variation given possible combinations of crude birth and death rates.

\*All estimates, other than population figures, refer to the settled population only.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	7,766	1970	12,059	1950-55	2.2	
1955	8,669	1971	12,327	1955-60	2.2	
1960	9,677	1972	12,601	1960-65	2.2	
1961	9,893	1973	12,882	1965-70	2.2	
1962	10,113	<b>PROJECTED ESTIMATES</b>			1970-75	2.2
1963	10,338	1974	13,168	1975-79	2.2	
1964	10,568	1975	13,461			
1965	10,803	1976	13,760			
1966	11,043	1977	14,067			
1967	11,289					
1968	11,540	1978	14,379			
1969	11,796	1979	14,699			

**NOTES:** 1950-73—Based on a 1973 population estimate derived from the 1972-73 and 1974 National Demographic and Family Guidance Survey for settled and nomadic populations, respectively, and a constant annual growth rate of 2.2 percent. The 1972-73 estimated growth rate, obtained as an average of the estimated range from the 1972-73 survey, was assumed to apply to each year 1950 to 1973.

1974-79—Projected based on the adjusted 1972-73 and 1974 survey populations as noted above, and assuming a constant growth rate since 1973.

The following surveys were used in deriving the population time series:

Survey date	Estimated population	Adjusted population	Source
Settled population: 1972-73	10,020,099	11,521,000	Survey totals for the settled and nomadic populations were reported in Chu, et al., 1975, table II.A and U.S. Embassy/Afghanistan, 1976, respectively. The nomadic population figure is preliminary. The settled population was adjusted at the U.S. Bureau of the Census (1978) for 13.0 percent net underestimation and the nomadic population was inflated assuming the same percent underestimation.
Nomadic population: August- September 1974	1,158,000	1,331,000	

## AFGHANISTAN

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1972-73	50-53	28-32	1.8-2.5	7.74

**NOTES:** Estimates refer to the settled population only.

The 1972-73 crude birth rates were estimated at the U.S. Bureau of the Census (1978, p. 11) by applying two patterns of age-specific fertility rates to the adjusted age-sex distribution from the survey of the settled population.

Crude death rates were based on the same survey population as above and two sets of life table age-sex-specific death rates. Life tables were derived at the U.S. Bureau of the Census (1978) by fitting a logit transformation of Coale-Demeny east region model life tables to mortality data from the National Demographic and Family Guidance Survey.

Growth rates were calculated given possible combinations of crude birth and death rates.

The total fertility rate was based on the application of a curve fitting technique to children-ever-born data from the National Demographic and Family Guidance Survey (U.S. Bureau of the Census, 1978).

## MAJOR SOURCES

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- Foreign Broadcast Information Service. 1979. *Daily Report for Asia and the Pacific*, vol. 4, no. 195, Oct. 5. Washington, D.C.
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- U.S. Bureau of the Census. 1978. *Afghanistan: A Demographic Uncertainty*, by James F. Spitler and Nancy B. Frank. International Research Document No. 6. Washington, D.C.
- U.S. Embassy/Afghanistan. 1976. Personal communication.

**BENCHMARK DATA**

1. Enumerated population, census of March 1, 1974.....	71,479,071
2. Adjusted population, census of March 1, 1974.....	76,398,000
3. Births per 1,000 population, 1974.....	44-48
4. Deaths per 1,000 population, 1974.....	20
5. Annual rate of growth, 1974 (percent).....	2.3-2.9
6. Life expectancy at birth, 1969-74.....	46
7. Infant deaths per 1,000 live births, 1969-74.....	153

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	88,092,000
9. Births per 1,000 population, 1978.....	44-48
10. Deaths per 1,000 population, 1978.....	17-20
11. Annual rate of growth, 1978 (percent).....	2.5-3.0

**NOTES:**

1. Final census figure (Bureau of Statistics, 1977, table 1).
2. Census population adjusted for 6.4 percent net underenumeration based on a Post-Enumeration Check (Bureau of Statistics, 1977, p. v).
3. Lower bound of range was derived at the U.S. Bureau of the Census by applying age-specific fertility rates based on pregnancy histories from the 1975-76 Bangladesh Fertility Survey (Ahmed, 1979, p. 7) to an adjusted age-sex distribution from the 1974 census (Bangladesh and United Kingdom, 1977, p. 88). Upper bound of range is based on the same age-sex distribution and the age-specific fertility rates from the 1974 Bangladesh Retrospective Survey of Fertility and Mortality (BRSFM) as reported in Bangladesh and United Kingdom, 1977, p. 77. Fertility rates from the BRSFM were adjusted using a modification of the Brass fertility technique.
4. Adjusted estimate from the 1974 BRSFM (Bangladesh and United Kingdom, 1977, p. 88) based on age-sex-specific death rates from a 1969-74 life table and the adjusted 1974 age-sex distribution.
5. Range of variation given possible combinations of crude birth and death rates and a net emigration rate ranging from zero to 2 per 1,000 population (Khan, 1973, p. 194).
- 6-7. Derived from an empirical life table based on the application of the Brass mortality technique, the orphanhood technique, and the widowhood technique to data as reported in the 1974 BRSFM (Bangladesh and United Kingdom, 1977, p. 88).
8. See notes for Midyear Population Estimates.
9. Projected range of variation assuming no significant change in fertility since 1974.
10. Projected range of variation based on assumed trend of mortality since 1974.
11. Range of variation given selected combinations of unrounded crude birth and death rates (44.1 and 16.8 per 1,000 population and 47.5 and 17.3 per 1,000 population) and estimated net emigration rates of zero to 2 per 1,000 population.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	42,635	1970	69,727	1950-55	2.3
1955	47,741	1971	71,556	1955-60	2.3
1960	53,645	1972	73,075	1960-65	2.6
1961	54,992	1973	75,052	1965-70	2.7
1962	56,401	1974	77,083	1970-75	2.5
1963	57,869	<b>PROJECTED ESTIMATES</b>		1975-79	2.7
1964	59,393	1975	79,169		
1965	60,976	1976	81,311		
1966	62,620	1977	83,511		
1967	64,321				
1968	66,074	1978	85,771		
1969	67,876	1979	88,092		

**NOTES:** 1950-74—Based on the adjusted 1974 census. Growth rates for 1950-61 are based on Pakistan Planning Commission population estimates for East and West Pakistan as reported in *UNDP 1970*, table 4; those for 1962-74 are based on results of the Population Growth Estimation Experiment (1962-65) and the 1974 Bangladesh Retrospective Survey of Fertility and Mortality. Population estimates for 1971 and 1972 take into account natural disasters and the war for independence.

1975-79—Based on the adjusted 1974 census and assumed fertility, mortality, and migration trends since 1975.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1963-65	44-51	16-20	2.5-3.1	6.29-7.40
1973-76				6.34-7.08
1974	44-48	20	2.3-2.9	

**NOTES:** Crude birth and death rates and total fertility rates (TFR) for 1963-65 are from the Population Growth Estimation (PGE) Experiment (Pakistan Institute of Development Economics, 1971, table IV.3 and appendix tables 1, 3, and 6 to ch. IV). The lower bound of the range was derived from longitudinal registration data, the upper bound was adjusted by the Chandrasekaran-Deming technique. Growth rates were derived from selected combinations of unrounded crude birth and death rates (43.6 and 16.3 per 1,000 population and 51.2 and 19.9 per 1,000 population, respectively) and estimated net emigration rates of zero to 2 per 1,000 population (Khan, 1973, p. 194).

The lower bound of the 1973-76 TFR range is from the 1975-76 Bangladesh Fertility Survey (Ahmed, 1979, p. 7) and the upper bound is from the 1974 Bangladesh Retrospective Survey of Fertility and Mortality as reported in Bangladesh and United Kingdom, 1977, p. 77. Rates are based on births in the 12 months preceding each survey. Fertility rates from the BRSFM were adjusted using a modification of the Brass fertility technique.

The lower bound of the 1974 crude birth rate range was derived at the U.S. Bureau of the Census by applying age-specific fertility rates from the 1975-76 Bangladesh Fertility Survey to an adjusted age-sex distribution from the 1974 census (Bangladesh and United Kingdom, 1977, p. 88). The upper bound of the range is based on the same age-sex distribution and the age-specific fertility rates from the 1974 BRSFM.

The crude death rate for 1974 was derived using an empirical life table for 1969-74 which was based on the application of the Brass mortality technique, the orphanhood technique and the widowhood technique to data as reported in the 1974 BRSFM (Bangladesh and United Kingdom, 1977, p. 88). The age-sex-specific death rates from the life table were applied to the adjusted age-sex distribution from the 1974 census.

Growth rates for 1974 are based on possible combinations of the crude birth and death rates and a net emigration rate ranging from zero to 2 per 1,000 population (Khan, 1973, p. 194).

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Pakistan Institute of Development Economics. 1971. *Final Report of the Population Growth Estimation Experiment, 1962-65*. eds. M. Naseem Iqbal Farooqui and Ghazi Mumtaz Farooq.

**BENCHMARK DATA**

1. Enumerated population, census of March 31, 1973.....	28,885,867
2. Adjusted population, census of March 31, 1973.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	33,590,000
9. Births per 1,000 population, 1978.....	38-39
10. Deaths per 1,000 population, 1978.....	14
11. Annual rate of growth, 1978 (percent).....	2.3-2.5

**NOTES:**

1. Provisional census figure as reported in *PVSR January 1979*. Figure includes estimates of approximately 800,000 persons residing in six townships which were not enumerated, and 1,600 residents who were absent at the time of the census. Population is de jure.
2. The 1973 census has not been evaluated for possible coverage error.
- 3-7. Data not available.
8. See notes for Midyear Population Estimates.
- 9-11. Projected range of variation based on 1975-80 and 1980-85 projected rates from the U.N. high, medium, and low variant projections (U.N., 1979, tables 2-A, 7, and 9). The death rate rounds to the same number for all variants.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	17,927	1970	27,078	1950-55	1.9
1955	19,682	1971	27,718	1955-60	2.0
1960	21,726	1972	28,378	1960-65	2.1
1961	22,180			1965-70	2.3
1962	22,650			1970-75	2.4
		<b>PROJECTED ESTIMATES</b>		1975-79	2.4
1963	23,138	1973	29,059		
1964	23,643	1974	29,760		
1965	24,167	1975	30,482		
1966	24,710	1976	31,226		
1967	25,272	1977	31,992		
1968	25,856	1978	32,782		
1969	26,458	1979	33,590		

**NOTES:** 1950-79—Based on the 1973 unadjusted census population, and growth rates derived from U.N. medium variant projection series (U.N., 1979, table 1-A; and unpublished computer printout).

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United Nations. 1979. *World Population Trends and Prospects by Country, 1950-2000: Summary Report of the 1978 Assessment*. ST/ESA/SER.R/33. New York.

**BENCHMARK DATA**

1. Enumerated population, census of June 30, 1953.....	582,603,417
2. Adjusted population, census of June 30, 1953.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	1,012,197,000
9. Births per 1,000 population, 1978.....	21-26
10. Deaths per 1,000 population, 1978.....	7-9
11. Annual rate of growth, 1978 (percent).....	1.4-1.7

**NOTES:**

- Final census figure as reported by State Statistical Bureau (1954). Excludes a reported 7,591,298 population residing in Taiwan and 11,743,320 Chinese residing overseas. The Chinese took a census in 1964 which disclosed a population of 691,220,000 on the mainland as of midyear (published by Ditu Chuban She, 1972). In conjunction with the official population totals for the 1950's, this figure implies a major population loss in the early 1960's and is therefore not used as a benchmark figure.
- The 1953 census has not been evaluated for possible coverage error.
- 3-5. Data not available. An official Chinese source (State Statistical Bureau, 1979) reports a 1977 birth rate of 19.03, death rate of 6.91, and natural increase rate of 12.12; the corresponding figures for 1978 are 18.30, 6.30, and 12.00. Another source (Xinhua, 1980) gives the 1979 natural increase rate as 11.7 per 1,000 population.
- 6-7. Data not available. A life expectancy at birth of 68 years for 1978 was reported by Yu Zhenpeng (1980).
8. Based on FDAD intermediate model population estimates and projections (U.S. Bureau of the Census, 1980). The corresponding low model figure is 964,365,000 and the high model figure is 1,060,029,000.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1953 as derived from FDAD component projections (U.S. Bureau of the Census, 1980). The intermediate model crude birth and death rates are 23 and 8 per 1,000 population, respectively.
11. Range of variation from FDAD component projections (U.S. Bureau of the Census, 1980). The intermediate model growth rate is 1.5 percent.

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	547,364	1968	802,821	1950-55	2.2
<b>PROJECTED ESTIMATES</b>		1969	825,032	1955-60	2.2
1955	611,585	1970	848,348	1960-65	1.5
1960	681,559	1971	870,699	1965-70	2.8
1961	681,652	1972	891,601	1970-75	2.3
1962	681,716	1973	911,544	1975-79	1.6
1963	692,126	1974	931,042		
1964	712,449	1975	949,711		
1965	736,054	1976	966,710		
1966	758,512	1977	982,185		
1967	780,176	1978	997,225		
		1979	1,012,197		

**NOTES:** 1950-79—Reported and estimated data provided by FDAD. For further information on sources and methods used in estimation, write the Chief, Foreign Demographic Analysis Division, Bureau of the Census, Washington, D.C. 20230. Official Chinese sources have reported end-of-year population totals of 803,350,000 for 1969 (Xinhua, 1980); 919,700,000 for 1975, 932,670,000 for 1976, 945,230,000 for 1977, 958,070,000 for 1978 (Song and Li, 1980); and 970,920,000 for 1979 (Xinhua, 1980). These figures are based on compilations of totals reported by the provinces. However, the implied rates of growth during 1978 and 1979 are not consistent with the corresponding official natural increase rates, and there are questions about the statistical origins of all of these figures; hence they are not incorporated as controls in the series given above.

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**BENCHMARK DATA**

1. Enumerated population, census of December 16, 1975.....	16,206,183
2. Adjusted population, census of December 16, 1975.....	16,260,000
3. Births per 1,000 population, 1978.....	25
4. Deaths per 1,000 population, 1978.....	5
5. Annual rate of growth, 1978 (percent).....	2.0
6. Life expectancy at birth, 1977.....	70
7. Infant deaths per 1,000 live births, 1977.....	25

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	17,456
9. Births per 1,000 population, 1978.....	25
10. Deaths per 1,000 population, 1978.....	5
11. Annual rate of growth, 1978 (percent).....	2.0

**NOTES:**

1. Final census figure. Excludes a reported population of 73,173 for the Fukien Area (Population Census Office of the Executive Yuan, 1976, table 1).
2. Census population adjusted for 0.3 percent net underenumeration (U.S. Bureau of the Census, 1978).
- 3-4. Estimated at the U.S. Bureau of the Census based on registered data and the estimated midyear population. Births and deaths were adjusted for 2 and 4 percent underregistration, respectively.
5. Difference between crude birth and death rates.
- 6-7. Calculated from official 1977 life tables (Ministry of the Interior, 1978, table 88) based on registered deaths, by age and sex.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	7,981	1970	14,598	1950-55	3.5
1955	9,486	1971	14,918	1955-60	3.3
1960	11,209	1972	15,226	1960-65	2.9
1961	11,563	1973	15,526	1965-70	2.4
1962	11,919	1974	15,824	1970-75	2.0
1963	12,277	1975	16,122	1975-79	2.0
1964	12,631	1976	16,450		
1965	12,978	1977	16,788		
1966	13,321	1978	17,118		
1967	13,649				
1968	13,962	<b>PROJECTED ESTIMATES</b>			
1969	14,282	1979	17,456		

**NOTES:** 1950-78—Based on the 1966, 1970, and 1975 adjusted censuses and adjusted registered births and deaths (U.S. Bureau of the Census, 1978).

1979—Projected at the U.S. Bureau of the Census based on the 1978 midyear population. Adjusted registered births and deaths for 1978 were used to estimate the population at the end of the 1978 calendar year. The end year estimate for 1978 was projected to midyear 1979 assuming a continuation of the 1977-78 growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 16, 1966	13,348,096	13,487,000	Enumerated populations for 1966, 1970, and 1975 as reported in Census Office of Taiwan, no date, table 9; Census Office of the Executive Yuan, 1977, table 7; and Population Census Office of the Executive Yuan, 1976, table 1, respectively.
December 16, 1970	14,693,013	14,749,000	
December 16, 1975	16,206,183	16,260,000	

The 1966, 1970, and 1975 enumerated populations were adjusted at the U.S. Bureau of the Census (1978) for 1.0, 0.4, and 0.3 percent net underenumeration, respectively.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1956	44	8	3.5	6.68
1966	32	6	2.6	4.92
1970	28	5	2.3	4.06
1975	23	5	1.8	2.87
1976	26	5	2.1	3.14
1977	24	5	1.9	2.76
1978	25	5	2.0	

**NOTES:** Crude birth rates for 1956, 1966, 1970, and 1975 were estimated at the U.S. Bureau of the Census (1978) based on adjusted censuses moved to midyear, and registered births adjusted for 3 percent underregistration in 1956 and 2 percent underregistration in 1966, 1970, and 1975. The crude birth rates for 1976, 1977, and 1978 were based on registered births adjusted for 2 percent underregistration, and the estimated midyear populations.

Crude death rates for 1956, 1966, 1970, and 1975 were estimated at the U.S. Bureau of the Census (1978) based on adjusted censuses moved to midyear and official life tables for each census year. These life tables imply underregistration of deaths of 9 percent in 1956, 13 percent in 1966, 4 percent in 1970, and 5 percent in 1975. The crude death rates for 1976, 1977, and 1978 were based on the estimated midyear populations and registered deaths, adjusted for underregistration by assuming the same underregistration (4 percent) as was estimated for the period 1970 to 1975.

Growth rates are the same as rates of natural increase, calculated from unrounded crude birth and death rates, indicating that net international migration was not significant for these years.

The total fertility rates for 1956 through 1977 are based on registered births adjusted for underregistration, the pattern of fertility from the registered data, and the adjusted midyear populations, by age and sex. Using 1978 registered births adjusted for underregistration, the pattern of fertility from the 1977 registered fertility rates, and the estimated 1978 midyear population, by age and sex, a total fertility rate of 2.74 can be calculated for 1978.

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## BENCHMARK DATA

1. Enumerated population, census of April 1, 1971.....	548,159,652
2. Adjusted population, census of April 1, 1971.....	563,214,000
3. Births per 1,000 population, 1977.....	35
4. Deaths per 1,000 population, 1971.....	17
5. Annual rate of growth, 1971 (percent).....	2.2
6. Life expectancy at birth, 1969.....	47
7. Infant deaths per 1,000 live births, 1969.....	134

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	667,326,000
9. Births per 1,000 population, 1978.....	33-84
10. Deaths per 1,000 population, 1978.....	15
11. Annual rate of growth, 1978 (percent).....	1.9

## NOTES:

- Final census figure including the Indian held part of Jammu and Kashmir (4,616,632) and Sikkim (209,843) as reported in Registrar General and Census Commissioner, 1975, table A-1.
- Census population adjusted for 2.7 percent net underenumeration (U.S. Bureau of the Census, 1978).
- Derived at the U.S. Bureau of the Census by inflating, by 5 percent, the reported crude birth rate from the India Sample Registration System (Registrar General, 1979).
- Calculated at the U.S. Bureau of the Census by applying central death rates from an estimated 1971 life table to the 1971 census population adjusted by age and sex, and moved to midyear (U.S. Bureau of the Census, 1978).
- Difference between unrounded crude birth and death rates for 1971 (38.7 per 1,000 and 16.7 per 1,000 population, respectively). Adjusted crude birth rate based on rate from Sample Registration System as reported in Registrar General, 1978, p. 2.
- Derived from estimated life tables prepared at the U.S. Bureau of the Census (1978).
- See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trend of fertility since 1977 and of mortality since 1971.
- Projected rate based on selected combinations of unrounded crude birth and death rates (33.1 and 14.6 per 1,000 population and 33.8 and 14.7 per 1,000 population, respectively). The growth rate rounds to the same number for both series.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	369,880	1970	553,619	1950-55	1.8
1955	404,478			1955-60	1.9
1960	445,857	<b>PROJECTED ESTIMATES</b>		1960-65	2.1
1961	454,946	1971	566,180	1965-70	2.2
1962	464,230	1972	578,712	1970-75	2.2
1963	473,850	1973	591,328	1975-79	2.0
1964	484,027	1974	603,797		
1965	494,882	1975	616,551		
1966	506,005	1976	629,760		
1967	517,457	1977	642,552		
1968	529,200	1978	654,895		
1969	541,296	1979	667,326		

**NOTES:** 1950-71—Based on the adjusted 1961 and 1971 censuses and estimated trends in fertility and mortality since 1950. Data include all areas of present-day India.

1972-77—Projected by the component method based on the 1971 adjusted midyear population, adjusted crude birth rates for each year 1971-77, and an assumed trend in mortality.

1978-79—Projected by the component method based on the 1977 projected midyear population and assumed trends in fertility and mortality.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
March 1, 1961	439,234,771	451,885,000	Enumerated populations as reported in Registrar General and Census Commissioner, 1975, table A-II.
April 1, 1971	548,159,652	563,214,000	
			The 1961 and 1971 enumerated populations were adjusted at the U.S. Bureau of the Census (1978) for 2.8 percent and 2.7 percent net underenumeration, respectively.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1951-61	42-45	23-26	1.9	
1961-71	40-43	18-21	2.2	
1971	39	17	2.2	5.67
1972	38			
1973	36			
1974	36			
1975	37			
1976	36			
1977	35			

**NOTES:** The upper bounds for the 1951-61 range of crude birth and death rates are estimates as reported by Visaria, 1969, p. 111; the lower bounds are official estimates as reported in Office of the Registrar General, no date, p. i. Both sets of estimates are based on a quasi-stable population analysis of census data (see U.S. Bureau of the Census, 1978).

The range of crude birth and death rates for 1961-71 is based on the 1961 census and the preliminary 1971 1-percent census tabulations, and encompasses the ranges of variation established by Mukherjee (1976, p. 240) based on a quasi-stable population analysis of census data, and by Adlakha and Kirk (1974, p. 393) based on reverse and forward survival methods applied to the same data. For further details, see U.S. Bureau of the Census (1978).

The 1971-77 crude birth rates were derived at the U.S. Bureau of the Census by inflating, by 5 percent, the reported crude birth rates from the Sample Registration System (Registrar General, 1978, p. 2; and 1979). The 1973 and 1974 results from the Sample Registration System may have been affected by the postponement of the second half-yearly survey of 1973 to the first half-yearly survey of 1974, and the suspension of supervisory work during this time period (Registrar General, 1978).

The 1971 crude death rate was calculated by applying central death rates from an estimated 1971 life table to the 1971 census population adjusted by age and sex, and moved to midyear (U.S. Bureau of the Census, 1978).

The total fertility rate for 1971 was estimated at the U.S. Bureau of the Census (1978) based on the inflated 1971 crude birth rate, and 1969 age-specific fertility rates by urban and rural residence, from the Sample Registration System as reported in Office of the Registrar General, 1972, tables 7 and 28.

The 1951-61 and 1961-71 growth rates are based on the difference between selected combinations of crude birth and death rates (42 and 23 per 1,000 population and 45 and 26 per 1,000 population, respectively for 1951-61; and 40 and 18 per 1,000 population and 43 and 21 per 1,000 population, respectively, for 1961-71. The 1971 growth rate is the difference between crude birth and death rates for 1971.

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## BENCHMARK DATA

1. Enumerated population, census of September 24, 1971.....	119,232,499
2. Adjusted population, census of September 24, 1971.....	126,014,000
3. Births per 1,000 population, 1975.....	36-38
4. Deaths per 1,000 population, 1975.....	16
5. Annual rate of growth, 1975 (percent).....	2.0-2.1
6. Life expectancy at birth, 1975.....	46
7. Infant deaths per 1,000 live births, 1975.....	114

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	148,085,000
9. Births per 1,000 population, 1978.....	34-36
10. Deaths per 1,000 population, 1978.....	15
11. Annual rate of growth, 1978 (percent).....	2.0-2.1

## NOTES:

1. Census population as reported in Central Bureau of Statistics, 1975, p. xxx, including an estimated population of 772,654 for rural West Irian. Excludes a provisional figure of 610,500 from the December 15, 1970 census of East Timor (*PVSR January 1978*) which was annexed by Indonesia in July 1976.
2. Census population adjusted for 4.9 percent net underenumeration by the U.S. Bureau of the Census. Includes an inflated 1970 census figure of 642,000 for East Timor (derived by assuming the same percent net underenumeration for East Timor as for the remainder of Indonesia) projected to 1971.
- 3-4. Range of variation implied by alternate component population estimates based on the 1971 adjusted census population, by age and sex; on two estimates of fertility trends; and on one estimate of the trend of mortality.
5. Range of variation given selected combinations of unrounded crude birth and death rates (37.9 and 16.5 per 1,000 population and 36.3 and 16.4 per 1,000 population, respectively).
6. Calculated at the U.S. Bureau of the Census (1979) based on levels of life expectancy at birth for Java and Outside Java used by the Central Bureau of Statistics (1978) in making their official population projections, and consideration of past trends of mortality.
7. Estimated by Hull (1978a) using data on date of last birth and number of last births still living from Phase II of the 1976 Intercensal Population Survey.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1975.
11. Range of variation given selected combinations of unrounded crude birth and death rates (36.1 and 14.8 per 1,000 population and 34.3 and 14.6 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	83,414	1970	122,671	1950-55	1.7
1955	90,727	1971	125,353	1955-60	2.1
1960	100,655	1972	128,175	1960-65	2.2
1961	102,900	1973	131,020	1965-70	1.8
1962	105,242	1974	133,824	1970-75	2.1
1963	107,627	1975	136,578	1975-79	2.0
1964	110,055	<b>PROJECTED ESTIMATES</b>			
1965	112,269	1976	139,349		
1966	114,176	1977	142,187		
1967	116,115				
1968	118,123	1978	145,095		
1969	120,286	1979	148,085		

**NOTES:** 1950-75—Based on the adjusted 1961 and 1971 censuses of Indonesia excluding East Timor, the inflated 1960 and 1970 censuses of East Timor, and estimated fertility and mortality trends during the period. East Timor was annexed by Indonesia in July 1976.

1976-79—Population of Indonesia including East Timor was projected by the component method based on the midyear 1975 population (U.S. Bureau of the Census, 1979, table 1).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
Indonesia, excluding East Timor:			Indonesia, excluding East Timor—Enumerated populations for 1961 and 1971 are from Central Bureau of Statistics, 1963, table 1; and 1975, table xxx, respectively. They include an estimated population for West Irian of 700,000 in 1961; and for rural West Irian of 772,654 in 1971.
October 31, 1961	97,018,829	102,880,000	
September 24, 1971	119,232,499	125,362,000	
East Timor:			Adjusted figures were estimated at the U.S. Bureau of the Census (1979).
December 15, 1960	517,079	548,000	
December 15, 1970	610,500	642,000	

Adjusted figures were estimated at the U.S. Bureau of the Census (1979).

East Timor—Enumerated populations for 1960 and 1970 are from *UNDY 1970*, table 7; and *PVSR January 1978*, respectively.

Adjusted figures were estimated at the U.S. Bureau of the Census (1979), assuming the same percent net underenumeration as estimated for the remainder of Indonesia in 1961 and 1971, respectively.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1961	46	24	2.2	5.68
1967-70				5.60
1971	42	19	2.3	5.54
1975	36-38	16	2.0-2.1	4.75-4.97

**NOTES:** 1961 and 1971—Crude birth rates were estimated at the U.S. Bureau of the Census based on adjusted census populations, by age and sex, moved to midyear and estimated age-specific fertility rates.

Crude death rates were estimated at the U.S. Bureau of the Census based on midyear population, by age and sex, and age-sex-specific life table death rates. The life tables were derived at the U.S. Bureau of the Census (1975 and 1979).

Growth rates are the same as rates of natural increase, calculated from unrounded crude birth and death rates, indicating that net international migration was not significant for these years.

Total fertility rates were estimated at the U.S. Bureau of the Census (1979) by considering the trend of decline implied by a 1961-66 total fertility rate of 5.66 (average of 1961-63 and 1964-66 fertility rates derived by applying the own-children method to data from the 1971 census—Central Bureau of Statistics, 1976) and the 1967-70 total fertility rate of 5.60.

1967-70—The total fertility rate was derived by applying the own-children method to data from the 1971 census (Central Bureau of Statistics, 1976).

1975—The estimated range in vital rates is implied by alternate component population projections based on the 1971 adjusted midyear population, by age and sex; on two estimates of fertility trends; and on one estimate of the trend of mortality. The upper-bound series is consistent with a TFR of 4.97 in 1975. The lower-bound series was based on a TFR of 4.75 in 1975.

The upper-bound total fertility rate was estimated by Hull (1978b) based on date of last birth data and female population, by age, from Phase II of the 1976 Intercensal Population Survey.

The lower-bound total fertility rate was estimated by the U.S. Bureau of the Census. It is consistent with the 1971 total fertility rate of 5.54 and a total fertility rate of 5.20 for 1971-75 derived by applying the own-children method to data from Phase I of the 1976 Intercensal Population Survey (Suharto and Cho, 1978).

Growth rates are the same as the rates of natural increase, calculated from selected combinations of unrounded crude birth and death rates, indicating that net international migration was not significant.

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## BENCHMARK DATA

1. Enumerated population, census of October 30–November 19, 1976.....	33,662,176
2. Adjusted population, census of October 30–November 19, 1976.....	34,703,000
3. Births per 1,000 population, 1973–76.....	42
4. Deaths per 1,000 population, 1973–76.....	12
5. Annual rate of growth, 1973–76 (percent).....	3.0
6. Life expectancy at birth, 1973–76.....	57
7. Infant deaths per 1,000 live births, 1973–76.....	112

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	37,430,000
9. Births per 1,000 population, 1978.....	41
10. Deaths per 1,000 population, 1978.....	11
11. Annual rate of growth, 1978 (percent).....	2.8

## NOTES:

1. Preliminary census figure based on daily reports of enumerators (Statistical Centre of Iran, 1978b, table 1).
2. Preliminary census figure adjusted at the U.S. Bureau of the Census for a reported 3.0 percent net underenumeration based on preliminary results from the post enumeration survey (Eory, 1978, p. 3).
- 3-4. Adjusted rates as reported by the 1973–76 Population Growth Survey (Statistical Centre of Iran, 1978a, table 20). Adjusted births and deaths were derived through completeness checks, matching of control questionnaires to regular survey questionnaires for the same household, and an application of the Chandrasekaran–Deming technique.
5. Based on the difference between unrounded crude birth and death rates and an estimated net emigration rate of 0.5 per 1,000 population for Iranian nationals (Statistical Centre of Iran, 1978a, table 20).
6. Calculated from a 1973–76 life table derived at the U.S. Bureau of the Census from death rates, by age and sex, as reported by the 1973–76 Population Growth Survey (Statistical Centre of Iran, 1978a, tables 39–40 and pp. 91–97).
7. Official estimate derived from an analysis of data collected in the second and third survey years of the 1973–76 Population Growth Survey (Statistical Centre of Iran, 1978a, pp. 91–97).
8. See notes for Midyear Population Estimates.
9. Projected based on assumed trends in fertility since 1973–76 which take into consideration the annual trend as estimated by the 1973–76 Population Growth Survey (Statistical Centre of Iran, 1978a, table 20).
10. Projected based on assumed trends in mortality since 1973–76 which take into consideration the annual trend as estimated by the 1973–76 Population Growth Survey (Statistical Centre of Iran, 1978a, table 20), and estimated excess mortality due to the 1978 earthquake (*The Washington Post*, Sept. 19 and 20, 1978).
11. Projected based on the difference between unrounded crude birth and death rates and an estimated net emigration rate of 2 per 1,000 population. Net emigration is based on estimated departures of Iranian nationals and foreign-born persons (*The Washington Post*, Dec. 9 and 11, 1978).

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	16,357	1970	28,906	1950-55	2.7
1955	18,728	1971	29,729	1955-60	2.8
1960	21,573	1972	30,573	1960-65	2.9
1961	22,210	1973	31,443	1965-70	2.9
1962	22,870	1974	32,360	1970-75	2.8
1963	23,552	1975	33,332	1975-79	2.9
1964	24,262	1976	34,329		
1965	24,997	<b>PROJECTED ESTIMATES</b>			
1966	25,767	1977	35,372		
1967	26,530	1978	36,447		
1968	27,307	1979	37,430		
1969	28,098				

**NOTES:** 1950-76—Based on the 1956, 1966, and 1976 adjusted census populations, assumed trends in fertility and mortality, and estimated net migration. Estimated net migration is based on reported data on the foreign-born population in 1956, 1966, and 1976 (Statistical Centre of Iran, 1968, pp. 59 and 60; and 1978b, table 2), emigration to the Persian Gulf States (Bahrier, 1971) and the United States (U.S. Bureau of the Census, 1978, table 123), and emigration of Iranian nationals during the period 1973-76 (Statistical Centre of Iran, 1978a, table 44).

1977-79—Projected based on the 1976 adjusted census population, assumed trends in fertility and mortality since 1973-76, which take into consideration the annual trends in fertility and mortality as estimated by the 1973-76 Population Growth Survey (Statistical Centre of Iran, 1978a, table 20), estimated excess mortality due to the 1978 earthquake (*The Washington Post*, Sept. 19 and 20, 1978), and estimated net emigration based on departures of Iranian nationals and foreign-born populations (*The Washington Post*, Dec. 9 and 11, 1978).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
November 1-15, 1956	18,954,704	19,441,189	Enumerated populations for 1956, 1966, and 1976 as reported in Statistical Centre of Iran, 1968, p. 42; 1970, table 1; and 1978b, table 1, respectively.
November 1-20, 1966	25,788,722	26,047,000	
October 30- November 19, 1976	33,662,176	34,703,000	

The 1956 census was adjusted by Maroufi-Bozorgi (1967), for 2.5 percent net underenumeration; the 1966 census was adjusted by the Statistical Centre of Iran (1971), for 1.0 percent net underenumeration; and the 1976 census was adjusted by the U.S. Bureau of the Census for 3.0 percent net underenumeration based on the results of the post enumeration survey.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1966-76			2.9	
1973-76	42	12	3.0	6.26

**NOTES:** The crude birth and death rates for 1973-76 are based on adjusted births and deaths reported by the 1973-76 Population Growth Survey (Statistical Centre of Iran, 1978a, tables 20 and 28). Adjusted births and deaths were derived through completeness checks, matching of control questionnaires to regular survey questionnaires for the same household, and an application of the Chandrasekaran-Deming technique.

The 1966-76 growth rate was derived at the U.S. Bureau of the Census based on the adjusted 1966 and 1976 census populations. The growth rate for 1973-76 is based on the unrounded crude birth and death rates and an estimated annual net emigration rate for Iranian nationals of 0.5 per 1,000 population (Statistical Centre of Iran, 1978a, tables 20 and 44).

The total fertility rate for 1973-76 was based on adjusted births by age of mother from the 1973-76 Population Growth Survey and estimated female population by age (Statistical Centre of Iran, 1978a, table 28).

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**BENCHMARK DATA**

1. Enumerated population, census of October 17, 1977.....	12,171,480
2. Adjusted population, census of October 17, 1977.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth, 1965-77 (percent).....	3.4
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	12,908,000
9. Births per 1,000 population, 1978.....	46-48
10. Deaths per 1,000 population, 1978.....	12-14
11. Annual rate of growth, 1978 (percent).....	3.3-3.4

**NOTES:**

1. Provisional census figure as reported in *PVSR October 1979*.
2. The 1977 census has not been evaluated for possible coverage error.
- 3-4. Data not available. Registration of vital rates is incomplete. On the basis of the first year (1973-74) and the combined first and second year (1973-75) results of the Iraq multi-round vital events survey, the Central Statistical Organization (no date a, table 2/14; and no date b, table 2/10) reported crude birth rates of 43.6 per 1,000 population and 42.6 per 1,000 population and crude death rates of 11.1 per 1,000 population and 10.6 per 1,000 population.
5. Intercensal growth rate based on 1965 and 1977 censuses.
- 6-7. Data not available. On the basis of the first year (1973-74) and the combined first and second year (1973-75) results of the Iraq multi-round vital events survey, the Central Statistical Organization (no date a, table 2/14; and no date b, table 2/10) reported 91.8 and 88.7 deaths per 1,000 live births, respectively. There is no evidence that these results have been adjusted for underregistration of infant deaths.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on vital rates from the first year and from the combined first and second year results of the Iraq multi-round vital events survey (see note 3-4), adjusted at the U.S. Bureau of the Census assuming the same levels of underreporting as was found in the first year and combined first and second years of the Iran multi-round population growth survey (Iran, 1976, p. 21; and 1977, p. 21).
11. Range of variation given selected combinations of unrounded crude birth and death rates (45.7 and 12.2 per 1,000 population, and 48.0 and 13.7 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	5,163	1970	9,466	1950-55	2.7
1955	5,903	1971	9,798	1955-60	2.9
1960	6,822	1972	10,141	1960-65	3.1
1961	7,026	1973	10,497	1965-70	3.4
1962	7,240	1974	10,865	1970-75	3.4
1963	7,468	1975	11,246	1975-79	3.4
1964	7,711	1976	11,640		
1965	7,970	1977	12,048		
1966	8,247				
1967	8,536				
		<b>PROJECTED ESTIMATES</b>			
1968	8,836	1978	12,470		
1969	9,145	1979	12,908		

**NOTES:** 1950-77—Based on the 1947, 1957, 1965, and 1977 censuses, and assumed trends in fertility and mortality during the intercensal periods.

1978-79—Projected assuming a continuation of the 1965-77 intercensal growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
October 19, 1947	4,816,185		Enumerated populations for 1947, 1957, and 1965 as reported in Central Statistical Organization, no date a, table 2/11. Enumerated population for 1977 as reported in <i>PVSR October 1979</i> .
October 12, 1957	6,298,976		
October 14, 1965	8,047,415		
October 17, 1977	12,171,480		

#### MAJOR SOURCES

Iran. Statistical Centre of Iran. 1976. *Population Growth of Iran*. Tehran.

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Iraq. Central Statistical Organization. no date a. *Annual Abstract of Statistics 1975*. Baghdad.

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**BENCHMARK DATA**

1. Enumerated population, census of October 1, 1975.....	111,939,643
2. Adjusted population, census of October 1, 1975.....	NA
3. Births per 1,000 population, 1978.....	15
4. Deaths per 1,000 population, 1978.....	6
5. Annual rate of growth, 1978 (percent).....	0.9
6. Life expectancy at birth, 1977.....	76
7. Infant deaths per 1,000 live births, 1977.....	9

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	115,880,000
9. Births per 1,000 population, 1978.....	15
10. Deaths per 1,000 population, 1978.....	6
11. Annual rate of growth, 1978 (percent).....	0.9

**NOTES:**

1. Final census figure as reported in Statistics Bureau, 1979a, table 9.
2. The 1975 census has not been evaluated for possible coverage error.
- 3-4. Calculated from registered vital data and midyear population estimate for 1978 as reported in Statistics Bureau, 1979b, p. 4.
5. Calculated from official January 1 estimates for 1978 and 1979 as reported in Statistics Bureau, 1979b, p. 4.
6. Calculated from life expectancy by sex as reported in Statistics Bureau, 1979a, table 25.
7. Reported rate from Statistics Bureau, 1979a, table 24.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	83,805	1969	103,172	1950-55	1.4
1955	89,815	1970	104,345	1955-60	0.9
1960	94,092	1971	105,697	1960-65	1.0
1961	94,943	1972	107,188	1965-70	1.1
1962	95,832	1973	108,707	1970-75	1.3
1963	96,812	1974	110,162	1975-79	0.9
1964	97,826	1975	111,573		
1965	98,883	1976	112,771		
1966	99,790	1977	113,863		
1967	100,825	1978	114,898		
1968	101,961	1979	115,880		

**NOTES:** 1950-65—Estimates prepared by FDAD based on official estimates for 1950 as reported in *UNDY 1970*, table 4; and for 1951-65 as reported in Bureau of Statistics, 1967, tables 1-3. The reported figures were adjusted by adding estimates for the Ryukyu Islands (which became part of Japan in 1972) as reported in *UNDY 1966*, table 4; and in U.N., 1971, table 1. The estimate for 1950 also includes an adjustment for the addition of the Amami Islands and the Tokara Archipelago which were added to Japan in 1953 and 1951, respectively.

1966-70—Reported in U.N., 1979, table 1.C; and in *UNDY 1977*, table 3.

1971-79—Reported in Bureau of Statistics, 1978a, table 2; 1978b, p. 4; Statistics Bureau, 1979b, p. 4; and 1979c, p. 4. The 1979 estimate is provisional.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
October 1, 1950	84,114,574		Final census figures as reported in Statistics Bureau, 1979a, table 9. Figures for all years include the population of Okinawa, the Amami Islands, and the Tokara Archipelago.
October 1, 1955	90,076,594		
October 1, 1960	94,301,623		
October 1, 1965	99,209,137		
October 1, 1970	104,665,171		
October 1, 1975	111,939,643		

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	28	11	1.7	3.65
1955	19	8	1.2	2.37
1960	17	8	0.8	2.00
1965	19	7	1.1	2.14
1970	19	7	1.2	2.13
1975	17	6	1.2	1.91
1976	16	6	1.0	1.85
1977	16	6	0.9	1.80
1978	15	6	0.9	

**NOTES:** Birth rates, death rates, and growth rates for 1950 to 1977 are based on January 1 populations, births, deaths, and midyear populations as reported in OECD, 1963, p. 134 for 1950 and 1955; OECD, 1972, p. 78 for 1960; OECD, 1978, p. 86 for 1965; and OECE, 1979, pp. 84-85 for 1970-77. The rates for 1978 are based on births and deaths by months and estimated population figures as reported in Statistics Bureau, 1979b, p. 4.

Net migration implied by differences between natural increase, statistical adjustments, and growth rates are as follows:

Year	1950	1960	1965	1970	1975	1976	1977	1978
Net migration rate	+0.4	-0.3		-0.1		-0.1	-0.1	-0.2
Statistical adjustment	-0.9	-0.8	-0.2	-0.3	+1.0			

Total fertility rates for 1950-76 were reported in Institute of Population Problems, 1978, p.66; and for 1977 in Statistics Bureau 1979a, table 22. Rates are for Japanese nationals only.

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Bureau of Statistics. 1967. *Monthly Report on Current Population Estimates (Special Report on Revised Figures)*, *Monthly Estimates of All Japan Population November 1950 to September 1965*, Oct. Tokyo.

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## BENCHMARK DATA

1. Enumerated population, census of April 17, 1962.....	5,728,771
2. Adjusted population, census of April 17, 1962.....	NA
3. Births per 1,000 population, 1961-62.....	47
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	5,767,000
9. Births per 1,000 population, 1978.....	NA
10. Deaths per 1,000 population, 1978.....	NA
11. Annual rate of growth, 1978 (percent).....	NA

## NOTES:

1. Final census figure as reported in *PSVR October 1979*.
2. The 1962 census has not been evaluated for possible coverage error.
3. Estimated by Siampos (1970, p. 336) based on census data on children ever born and births during the 12 months preceding the 1962 census. An official estimated rate of 50 per 1,000 population is reported for 1977-78 (FBIS, 1978).
4. Data not available. Siampos (1970, p. 344) estimated a crude death rate of 16 per 1,000 population around the time of the census, based on a quasi-stable population analysis. The U.N. (1979, table 2-B) estimated a crude death rate for 1960-65 of 21 per 1,000 population.
5. Data not available.
- 6-7. Data not available. Based on 1962 census data on children ever born and children surviving, Siampos (1970, p. 341) estimated a life expectancy at birth of 54 years and an infant mortality rate of 120 per 1,000 live births. The U.N. estimate of life expectancy at birth for 1960-65 is 45 years (U.N., 1979, table 3-B).
8. See notes for Midyear Population Estimates.
- 9-11. Data not available. The crude birth, death, and growth rates for 1978 as interpolated from U.N. medium variant projection series for 1975-80 and 1980-85 are 33, 15, and 1.8, respectively (U.N., 1979, tables 2-A and 1-A). The Pol Pot regime reported that there were nearly 800,000 deaths between 1970 and 1975 due to the war (FBIS, 1976). Based primarily on refugee accounts, various articles in *The New York Times* and *The Washington Post* show estimates of the number of deaths since the change of government in 1975 ranging from the tens of thousands to over 2 million. Given the extremes of the above mortality figures, as well as the refugee movements during the period, it is probable that the growth rate since the mid 1970's has been negative.

## KAMPUCHEA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
<b>PROJECTED ESTIMATES</b>		1968	6,877	1950-55	2.4
		1969	6,866		
1950	4,163	1970	7,060	1955-60	2.6
1955	4,702	1971	7,133	1960-65	2.7
1960	5,364	1972	7,201	1965-70	2.8
		1973	7,270	1970-75	-1.0
1961	5,511	1974	7,334	1975-79	-3.8
1962	5,663	1975	6,726		
1963	5,818	1976	6,191		
1964	5,978	1977	6,012		
1965	6,142				
1966	6,315	1978	5,899		
1967	6,494	1979	5,767		

**NOTES:** 1950-70—Projected based on estimated midyear populations for each fifth year, 1950 to 1970 (U.N., unpublished computer printout), and the growth rates implied by these estimates.

1971-79—Projected based on the estimated 1970 midyear population, taking into account various estimates of war deaths, refugee movements, and reports by international relief personnel on the nutritional and health status of the population.

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**Benchmark Vital Rates for Selected Years Since 1950**


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Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1961-62	47			7.01

**NOTES:** The 1961-62 crude birth rate and total fertility rate were estimated by Siampos (1970, pp. 335-336) based on census data on children ever born and children born during the 12 months preceding the 1962 census.

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Siampos, George S. 1970. "The Population of Cambodia 1945-1980." *Milbank Memorial Fund Quarterly*, vol. XLVIII, no. 3. New York.

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# DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

## BENCHMARK DATA

1. Enumerated population.....	NA
2. Adjusted population.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	18,717,000
9. Births per 1,000 population, 1978.....	43
10. Deaths per 1,000 population, 1978.....	11
11. Annual rate of growth, 1978 (percent).....	3.2

## NOTES:

- 1-7. Data not available.
- 8-11. Reported and estimated data provided by FDAD. For further information on sources and methods used in estimation, write the Chief, Foreign Demographic Analysis Division, Bureau of the Census, Washington, D.C. 20230.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	9,196	1968	13,369	1950-55	-0.5
1955	8,990	1969	13,770	1955-60	3.3
1960	10,605	1970	14,185	1960-65	2.8
1961	10,930	1971	14,615	1965-70	3.0
1962	11,214	1972	15,060	1970-75	3.0
1963	11,497	1973	15,524	1975-79	3.1
1964	11,816	1974	16,005		
1965	12,200	1975	16,507		
1966	12,596	1976	17,023		
		1977	17,571		
<b>PROJECTED ESTIMATES</b>					
		1978	18,134		
1967	12,978	1979	18,717		

**NOTES:** 1950-70—Reported and estimated data provided by FDAD. For further information on sources and methods used in estimation, write the Chief, Foreign Demographic Analysis Division, Bureau of the Census, Washington, D.C. 20230.

**MAJOR SOURCES**

All sources are shown in the country notes.

# REPUBLIC OF KOREA

## BENCHMARK DATA

1. Enumerated population, census of October 1, 1975.....	34,708,542
2. Adjusted population, census of October 1, 1975.....	36,821,000
3. Births per 1,000 population, 1975.....	23
4. Deaths per 1,000 population, 1970.....	7
5. Annual rate of growth, 1970 (percent).....	2.4
6. Life expectancy at birth, 1970.....	64
7. Infant deaths per 1,000 live births, 1970.....	47

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	39,140,000
9. Births per 1,000 population, 1978.....	22-24
10. Deaths per 1,000 population, 1978.....	6
11. Annual rate of growth, 1978 (percent).....	1.5-1.7

## NOTES:

1. Preliminary census figure (Economic Planning Board, 1976b, table 1).
2. Census population adjusted at the U.S. Bureau of the Census for 5.7 percent net under-enumeration based on the adjusted 1970 census population (U.S. Bureau of the Census, 1978), and estimated fertility, mortality, and migration for the 1970 to 1975 intercensal period.
3. Based on 1975 age-specific fertility rates from the 1976 National Family Planning Evaluation Survey (Korean Institute for Family Planning, 1978, table 16) and estimated 1975 midyear population, by age and sex.
4. Based on life table central death rates and estimated 1970 midyear population, by age and sex (U.S. Bureau of the Census, 1978).
5. Difference between 1970 unrounded crude birth and death rates and net emigration rate of 31.5, 6.9, and 0.2 per 1,000 population, respectively (U.S. Bureau of the Census, 1978).
- 6-7. Calculated from empirical life tables derived at the U.S. Bureau of the Census (1978).
8. See notes for Midyear Population Estimates.
9. Projected range of variation based on assumed trend of fertility since 1975.
10. Projected based on assumed trend of mortality since 1970.
11. Projected range of variation given selected combinations of unrounded crude birth and death rates and net emigration rate (22.5, 5.9, and 1.1 per 1,000 population and 24.0, 5.9, and 1.1 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	21,147	1970	32,976	1950-55	0.7
1955	21,863	1971	33,793	1955-60	2.8
1960	25,142	1972	34,600	1960-65	2.9
1961	25,984	1973	35,336	1965-70	2.5
1962	26,802	1974	36,027	1970-75	2.1
1963	27,605	1975	36,669	1975-79	1.6
1964	28,388	<b>PROJECTED ESTIMATES</b>			
1965	29,130	1976	37,276		
1966	29,863	1977	37,893		
1967	30,614				
1968	31,389	1978	38,515		
1969	32,176	1979	39,140		

**NOTES:** 1950-75—Based on the inflated 1949 and 1955 censuses, the adjusted 1960, 1966, 1970, and 1975 censuses, and estimated fertility, mortality, and migration trends.

1976-79—Projected by the component method based on the adjusted 1975 midyear population and assumed trends in fertility, mortality, and net emigration.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
May 1, 1949	20,188,641	20,594,000	Enumerated populations as reported in <i>UNDY 1962</i> , table 7; Economic Planning Board, 1974, table 11; 1969, tables 2 and 7; 1973, tables 2 and 7; and 1976b, table 1.
September 1, 1955	21,526,374	21,959,000	
December 1, 1960	24,989,241	25,492,000	
October 1, 1966	29,192,762	30,052,000	
October 1, 1970	31,465,654	33,178,000	
October 1, 1975	34,708,542	36,821,000	
			The 1949 and 1955 censuses were inflated for the same percent net underenumeration (2.0) as estimated for 1960. The 1960, 1966, and 1970 censuses were adjusted at the U.S. Bureau of the Census (1978) for 2.0, 2.9, and 5.2 percent net underenumeration, respectively, based on the 1970 post enumeration survey and estimated fertility and mortality trends for the period 1960 to 1970. The 1975 census was adjusted at the U.S. Bureau of the Census for 5.7 percent net underenumeration based on the adjusted 1970 census and estimated fertility, mortality, and migration trends for the period 1970 to 1975.

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960	45	12	3.3	6.28
1966	33	8	2.5	4.64
1970	32	7	2.4	4.51
1975	23			3.20
1976	24			3.21

**NOTES:** Crude birth and death rates for 1960, 1966, and 1970 were based on estimated age-specific fertility rates, age-sex-specific life table central death rates, and adjusted populations, by age and sex. Crude birth rates for 1975 and 1976 were based on estimated age-specific fertility rates, the adjusted 1975 population, and the projected 1976 population, by age and sex.

Growth rates for 1960 and 1966 are the difference between unrounded crude birth and death rates. The 1970 growth rate is the difference between unrounded crude birth and death rates and an estimated net emigration rate of 0.2 per 1,000 population. Migration for 1970 was estimated using data on migrants from Korea to the United States for that year.

Total fertility rates for 1960, 1966, and 1970 were based on data from the 1971 Fertility-Abortion Survey (Korean Institute for Family Planning, 1976, appendix A). Rates for 1975 and 1976 are reported rates from the 1976 National Family Planning Evaluation Survey (Korean Institute for Family Planning, 1978, table 16).

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Korean Institute for Family Planning. 1976. *The Increasing Utilization of Induced Abortion in Korea*, by Sung-Bong Hong and Walter B. Watson. Seoul.

\_\_\_\_\_. 1978. *Statistics on Population and Family Planning in Korea*. [Seoul.]

U.S. Bureau of the Census. 1978. *Country Demographic Profiles—Republic of Korea*. Washington, D.C.

## BENCHMARK DATA

1. Enumerated population, census of August 25, 1970.....	10,439,435
2. Adjusted population, census of August 25, 1970.....	10,953,000
3. Births per 1,000 population, 1976.....	33
4. Deaths per 1,000 population, 1976.....	8
5. Annual rate of growth, 1976 (percent).....	2.5
6. Life expectancy at birth, 1970.....	60
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	13,674,000
9. Births per 1,000 population, 1978.....	31-33
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	2.4-2.5

## NOTES:

1. Final census figure (Department of Statistics, 1975, tables 4.4 and 5.1; 1976a, tables 2.3 and 3.1; 1976b, table 4.1). This figure includes 120,111 persons (primarily persons afloat, institutional population, and population living in special curfew areas) who are often excluded from census tabulations.
2. Census population adjusted for 4.7 percent net underenumeration (U.S. Bureau of the Census, 1979) based on the 1970 Post Enumeration Survey in Peninsular Malaysia, which represents about 84 percent of the total population of Malaysia.
- 3-4. Based on 1976 registered births and deaths, adjusted for 7.1 and 26.2 percent under-registration, respectively, and the estimated 1976 population (U.S. Bureau of the Census, 1979). Births and deaths in Peninsular Malaysia were adjusted for 3.5 percent and 7.0 percent underregistration, respectively; and in East Malaysia for 23 percent and 70 percent, respectively.
5. Difference between crude birth and death rates.
6. Based on an estimated life expectancy of 64 years for Peninsular Malaysia, derived using adjusted registered births and deaths; and estimates for East Malaysia derived from 1960 and 1970 census data, registered deaths, and Coale-Demeny west region model life tables.
7. Data not available. Based on 1970 adjusted registered births and infant deaths, an infant mortality rate of 42 can be derived for Peninsular Malaysia. Using this estimate for Peninsular Malaysia and a 1970 estimate for East Malaysia derived from 1960 and 1970 census data, registered deaths, and Coale-Demeny west region model life tables, an infant mortality rate of 60 in 1970 can be calculated for total Malaysia (U.S. Bureau of the Census, 1979). An infant mortality rate of 35 for Peninsular Malaysia in 1975 was also calculated at the U.S. Bureau of the Census (1979) based on adjusted births and infant deaths.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation derived at the U.S. Bureau of the Census based on assumed trends in fertility and mortality since 1976.
11. Projected range of variation given selected combinations of unrounded crude birth and death rates (31.1 and 7.5 per 1,000 population and 32.7 and 7.6 per 1,000 population, respectively).

## MALAYSIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	6,434	1970	10,910	1950-55	2.6
1955	7,312	1971	11,196	1955-60	2.8
1960	8,428	1972	11,491	1960-65	2.7
1961	8,663	1973	11,785	1965-70	2.5
1962	8,906	1974	12,082	1970-75	2.5
1963	9,148	1975	12,388	1975-79	2.5
1964	9,397	1976	12,702		
1965	9,648	<b>PROJECTED ESTIMATES</b>			
1966	9,900	1977	13,024		
1967	10,155	1978	13,348		
1968	10,409	1979	13,674		
1969	10,662				

**NOTES:** 1950-70—Based on the inflated 1947 and 1957 censuses and the adjusted 1970 census of Peninsular Malaysia; the inflated 1951, 1960, and 1970 censuses of Sabah; the inflated 1947, 1960, and 1970 censuses of Sarawak; and the registered trend in fertility and mortality from 1950 to 1970 (U.S. Bureau of the Census, 1979).

1971-76—Based on the adjusted 1970 census for total Malaysia and adjusted births and deaths, 1970 to 1976. Births and deaths were adjusted at the U.S. Bureau of the Census for 7.1 and 26.2 percent underregistration, respectively. It was assumed that there was no net migration during the period.

1977-79—Projected at the U.S. Bureau of the Census by the component method based on the 1976 estimated midyear population.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
<b>Peninsular Malaysia:</b>			
September 23, 1947	4,920,605	5,163,000	Peninsular Malaysia: Enumerated populations as reported in <i>UNDY 1970</i> , table 7; and Department of Statistics, 1975b, tables 4.4 and 5.1. The 1970 census was adjusted for 4.7 percent net underenumeration based on the 1970 post enumeration survey and registered births and deaths for 1960 to 1970. The 1947 and 1957 censuses were inflated for the same percent net underenumeration as was estimated for 1970.
June 17, 1957	6,278,758	6,588,000	
August 25, 1970	8,809,562	9,243,000	
<b>Sabah:</b>			
June 3, 1951	335,583	352,000	Sabah and Sarawak: Enumerated populations as reported in <i>UNDY 1970</i> , table 7; Department of Statistics, 1976a, tables 2, 3, and 3.1; and 1976b, table 4.1. Each of these censuses was inflated for the same percent net underenumeration as was estimated for Peninsular Malaysia in 1970.
August 9, 1960	456,331	479,000	
August 25, 1970	653,604	686,000	
<b>Sarawak:</b>			
November 26, 1947	546,385	573,000	
June 14, 1960	744,529	781,000	
August 25, 1970	976,269	1,024,000	

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1970	35	9	2.4	5.27
1975	33	8	2.5	4.59
1976	33	8	2.5	4.55

**NOTES:** Crude birth and death rates were based on registered births and deaths adjusted for 7.1 and 26.2 percent underregistration, respectively, and estimated midyear populations (U.S. Bureau of the Census, 1979).

The 1970 growth rate is the difference between unrounded crude birth and death rates and an implied net emigration rate of 1.3 per 1,000 population. Net emigration for Malaysia is implied for the 1957-70 period by the intercensal growth rates and the trends in registered births and deaths for Peninsular and East Malaysia. The 1975 and 1976 growth rates are the difference between unrounded crude birth and death rates, assuming that international migration was nil after 1970.

Vital rates for Peninsular Malaysia for 1957 to 1976 are shown in U.S. Bureau of the Census, 1979, table A-6.

The 1970, 1975, and 1976 total fertility rates were based on registered births by age of mother, adjusted for 7.1 percent underregistration, and the estimated midyear populations, by age and sex (U.S. Bureau of the Census, 1979).

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\_\_\_\_\_. 1976a. *1970 Population and Housing Census of Malaysia*, vol. I, *Basic Population Tables*, part XII, *Sabah*. Kuala Lumpur.

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U.S. Bureau of the Census. 1979. *Country Demographic Profiles—Malaysia*. Washington, D.C.

**BENCHMARK DATA**

1. Enumerated population, census of June 22, 1971.....	11,555,983
2. Adjusted population, census of June 22, 1971.....	12,149,000
3. Births per 1,000 population, 1975.....	45
4. Deaths per 1,000 population, 1975.....	21
5. Annual rate of growth, 1975 (percent).....	2.4
6. Life expectancy at birth, 1974-76.....	43
7. Infant deaths per 1,000 live births, 1974-76.....	133

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	14,608,000
9. Births per 1,000 population, 1978.....	44-45
10. Deaths per 1,000 population, 1978.....	20
11. Annual rate of growth, 1978 (percent).....	2.4-2.5

**NOTES:**

1. Final census figure (Central Bureau of Statistics, 1973, table 1). A "mid-term population census" (based on a 3.5 percent sample) was taken in 1976 but no population figure is yet available.
2. Census population adjusted for 4.9 percent net underenumeration (U.S. Bureau of the Census, 1979).
3. Based on estimated 1975 age-specific fertility rates, derived from the 1974-75 and 1976 population, by age and sex, based on the adjusted 1971 census population (U.S. Bureau of the Census, 1979).
4. Based on 1974-76 estimated life table central death rates derived from the 1974-75 and 1976 Demographic Sample Surveys and the 1975 midyear population, by age and sex, based on the adjusted 1971 census population (U.S. Bureau of the Census, 1979).
5. Difference between crude birth and death rates.
6. Calculated from life tables derived from the Demographic Sample Surveys of 1974-75 and 1976, based on the average of age-sex-specific death rates (U.S. Bureau of the Census, 1979).
7. Derived by averaging the results of the Demographic Sample Surveys of 1974-75 and 1976 (U.N., 1976, tables 4 and 5; and 1977, tables 20 and 21) and assuming a sex ratio at birth of 1.05.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1975 (U.S. Bureau of the Census, 1979).
11. Range of variation given selected combinations of unrounded crude birth and death rates (44.0 and 20.0 per 1,000 population and 44.8 and 20.1 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	8,990	1970	11,919	1950-55	1.1
1955	9,479	1971	12,155	1955-60	1.1
1960	10,035	1972	12,401	1960-65	1.6
1961	10,176	1973	12,667	1965-70	1.9
1962	10,332	1974	12,952	1970-75	2.1
1963	10,500	1975	13,257	1975-79	2.4
1964	10,677	<b>PROJECTED ESTIMATES</b>			
1965	10,862	1976	13,580		
1966	11,057	1977	13,913		
1967	11,262				
1968	11,473	1978	14,256		
1969	11,692	1979	14,608		

**NOTES:** 1950-71—Based on the 1961 and 1971 adjusted censuses and estimated fertility, mortality, and migration trends from 1950 to 1971.

1972-79—Projected at the U.S. Bureau of the Census by the component method based on the adjusted 1971 midyear population and assumed trends in fertility and mortality which take into consideration results from the 1974-75 and 1976 Demographic Sample Surveys and the 1976 Nepal Fertility Survey.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 22, 1961	9,412,996	10,173,000	Enumerated populations as reported in <i>UNDP 1970</i> , table 7; and Central Bureau of Statistics, 1975, table 1.
June 22, 1971	11,555,983	12,149,000	

The 1961 and 1971 enumerated populations were adjusted at the U.S. Bureau of the Census for 7.5 percent and 4.9 percent net underenumeration, respectively (U.S. Bureau of the Census, 1979).

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1971	43	24	2.0	5.99
1975	45	21	2.4	6.37

**NOTES:** The 1971 and 1975 crude birth rates were estimated at the U.S. Bureau of the Census (1979) using estimated age-specific fertility rates and estimated midyear populations, by age and sex, based on the adjusted 1971 census population.

Crude death rates for 1971 and 1975 were based on age-sex-specific life table central death rates for 1971 and 1974-76, respectively, from life tables derived at the U.S. Bureau of the Census (1979), applied to estimated midyear populations for the appropriate years.

Growth rates were calculated from unrounded crude birth and death rates.

The total fertility rate for 1971 was based on estimated trends in fertility during the period 1961 to 1975. The total fertility rate for 1975 was derived by the U.S. Bureau of the Census (1979) as an average of rates from the 1974-75 Demographic Sample Survey (U.N., 1976, p. 20), the 1976 Demographic Sample Survey (U.N., 1977, p. 10) and the 1976 Nepal Fertility Survey (Family Planning and Maternal Child Health Project, tables 5.7 and II.4).

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United Nations. Office of Technical Cooperation and Fund for Population Activities. 1976. *The Demographic Sample Survey of Nepal, 1974-75, Survey Method and Findings*, by A. K. Bourini. Kathmandu.

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U.S. Bureau of the Census. 1979. *Country Demographic Profiles—Nepal*. Forthcoming.

## BENCHMARK DATA

1. Enumerated population, census of September 16, 1972.....	65,309,340
2. Adjusted population, census of September 16, 1972.....	69,717,000
3. Births per 1,000 population, 1974-75.....	45
4. Deaths per 1,000 population, 1972.....	18
5. Annual rate of growth, 1972 (percent).....	2.7
6. Life expectancy at birth, 1962-65.....	48
7. Infant deaths per 1,000 live births, 1971.....	142

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	84,075,000
9. Births per 1,000 population, 1978.....	44-45
10. Deaths per 1,000 population, 1978.....	16-17
11. Annual rate of growth, 1978 (percent).....	2.8-2.9

## NOTES:

1. Final census figure as reported in Census and Registration Organization, 1979.
2. Census population adjusted at the U.S. Bureau of the Census (1980) for 6.3 percent net underenumeration based on the Census Evaluation Survey (Statistical Division, 1974).
3. Estimated at the U.S. Bureau of the Census (1980) based on estimated 1974-75 age-specific fertility rates, derived from the 1975 Pakistan Fertility Survey (Population Planning Council of Pakistan, 1976) and the 1974 end-of-year population by age and sex, based on the adjusted 1972 census population.
4. Estimated at the U.S. Bureau of the Census (1980) based on 1972 estimated life table central death rates and midyear population, by age and sex.
5. Difference between crude birth and death rates.
6. Calculated from life tables estimated at the U.S. Bureau of the Census (1980) using deaths from the 1962 to 1965 Population Growth Estimation (PGE) surveys adjusted by the Chandrasekaran-Deming technique. The U.S. Bureau of the Census (1980) estimated a life expectancy at birth of 49 for 1971, consistent with an infant mortality rate of 142 for that year.
7. Estimated at the U.S. Bureau of the Census (1980) by applying the Sullivan mortality technique to data from the Pakistan Fertility Survey.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility since 1974-75 and mortality since 1972 (U.S. Bureau of the Census, 1980).
11. Range of variation given selected combinations of unrounded crude birth and death rates (44.1 and 16.4 per 1,000 population and 45.0 and 16.5 per 1,000 population, respectively).

## PAKISTAN

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	39,448	1970	65,706	1950-55	2.4	
1955	44,434	1971	67,491	1955-60	2.5	
1960	50,387	1972	69,326	1960-65	2.6	
1961	51,719	<b>PROJECTED ESTIMATES</b>			1965-70	2.7
1962	53,101	1973	71,206	1970-75	2.7	
1963	54,524	1974	73,164	1975-79	2.8	
1964	55,988	1975	75,195			
1965	57,495	1976	77,299			
1966	59,046	1977	79,477			
1967	60,642					
1968	62,282	1978	81,735			
1969	63,970	1979	84,075			

**NOTES:** 1950-72—Based on the 1961 and 1972 adjusted censuses, and estimated fertility and mortality trends from 1950 to 1972.

1973-79—Projected at the U.S. Bureau of the Census by the component method based on the adjusted 1972 midyear population and assumed fertility and mortality trends since 1972.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
February 1, 1961	42,978,261	51,167,000	Enumerated populations for 1961 and 1972 as reported in Census Commission, no date, p. II-1 and Census and Registration Organization, 1979, respectively.
September 16, 1972	65,309,340	69,717,000	

The 1961 and 1972 enumerated populations were adjusted at the U.S. Bureau of the Census (1980) for 16.0 and 6.3 percent net underenumeration, respectively. The percent net underenumeration for 1972 is that estimated by the Census Evaluation Survey (Statistical Division, 1974).

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1961	46	22	2.4	
1963-65				7.03
1972	45	18	2.7	
1974-75	45			7.02

**NOTES:** The 1961 crude birth rate was estimated at the U.S. Bureau of the Census (1980) by applying the estimated 1963-65 age-specific fertility rates to the 1961 adjusted midyear population, by age and sex. Similarly, the 1972 and 1974-75 crude birth rates were based on the 1974-75 age-specific fertility rates and age-sex distributions estimated at the U.S. Bureau of the Census based on the adjusted 1972 census population.

Crude death rates for 1961 and 1972 were estimated at the U.S. Bureau of the Census (1980) based on the midyear populations and age-sex-specific life table central death rates for 1961 and 1972, respectively.

Growth rates were calculated from unrounded crude birth and death rates.

The total fertility rate for 1963-65 was based on a slight adjustment to the average of the longitudinal registration and Chandrasekaran-Deming estimates from the 1963-65 Population Growth Estimation (PGE) surveys. The 1974 total fertility rate was based on an application of the Brass fertility technique (average of  $P_2/F_2$  and  $P_3/F_3$  ratios) to data from the 1975 Pakistan Fertility Survey.

**MAJOR SOURCES**

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Census Commission. no date. *Census of Pakistan Population, 1961*, vol. 1. Karachi.

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Population Planning Council of Pakistan. 1976. *Pakistan Fertility Survey, World Fertility Survey, First Report*. Lahore.

Statistical Division. 1974. *Census Evaluation Survey, Population Census 1972*. Karachi.

U.S. Bureau of the Census. 1980. *Country Demographic Profiles—Pakistan*. Forthcoming.

## BENCHMARK DATA

1. Enumerated population, census of May 1, 1975.....	42,070,660
2. Adjusted population, census of May 1, 1975.....	NA
3. Births per 1,000 population, 1968-72.....	40
4. Deaths per 1,000 population, 1970.....	11
5. Annual rate of growth, 1970-75 (percent).....	2.7
6. Life expectancy at birth, 1970.....	58
7. Infant deaths per 1,000 live births, 1970.....	80

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	47,678,000
9. Births per 1,000 population, 1978.....	32-37
10. Deaths per 1,000 population, 1978.....	16
11. Annual rate of growth, 1978 (percent).....	2.2-2.6

## NOTES:

- Final census figure as reported in National Census and Statistics Office, 1978, table i.
- The 1975 census has not been evaluated for possible coverage error.
- Based on the 1968-72 period age-specific fertility rates from the 1973 National Demographic Survey as reported by Concepcion (1974, table 1), and the 1970 census (based on a 5 percent sample of census returns) adjusted at the U.S. Bureau of the Census for 1.9 percent net underenumeration and moved to midyear.
- Based on 1970 life table central death rates (Engracia, 1974, tables 1 and 2), and the 1970 census age-sex distribution (based on a 5 percent sample of census returns) adjusted at the U.S. Bureau of the Census for 1.9 percent net underenumeration and moved to midyear.
- Intercensal growth rate based on the 1970 and 1975 unadjusted censuses.
- Based on 1970 life tables as reported in Engracia, 1974, tables 1 and 2. The 1970 life tables are based on an analysis of the 1970 census age-sex distribution.
- See notes for Midyear Population Estimates.
- Projected range of variation based on assumed trends in fertility since 1968-72 considering projected trends by the National Census and Statistics Office (1974) and the University of the Philippines Population Institute (no date), as well as results from the 1976 and 1977 rounds of the Seven Provinces Survey (Flieger and Pagtolun-an, no date), and results from the 1978 Philippine Fertility Survey (International Statistical Institute and World Fertility Survey, 1979).
- Projected based on assumed trends in mortality since 1970 considering projected trends by the University of the Philippines Population Institute (no date). Figures round to the same number for all three variants.
- Projected range of variation given selected combinations of unrounded crude birth and death rates (32.3 and 9.5 per 1,000 population and 37.0 and 9.8 per 1,000 population, respectively), and an estimated net emigration rate of 1.1 per 1,000 population. The migration rate is based on the 1970-76 observed trend in statistics on immigration into the United States and Canada, by age and sex (U.S. Immigration and Naturalization Service, various years; and Canada, Manpower and Immigration, various years), and the lifetime migration between 1970 and 1975 (National Census and Statistics Office, 1978, table 17), is offset by Philippine emigration to other countries.

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate		
1950	20,647	<b>PROJECTED ESTIMATES</b>		1950-55	3.0		
1955	24,000			1955-60	3.0		
1960	27,898			1970	37,540	1960-65	3.0
1961	28,750			1971	38,614	1965-70	2.9
1962	29,628			1972	39,703	1970-75	2.7
1963	30,533			1973	40,808	1975-79	2.5
1964	31,467			1974	41,925		
1965	32,415			1975	43,059		
1966	33,392			1976	44,204		
1967	34,399			1977	45,356		
1968	35,436	1978	46,515				
1969	36,493	1979	47,678				

**NOTES:** 1950-69—Based on the 1970 census, adjusted at the U.S. Bureau of the Census for 1.9 percent net underenumeration; the inflated 1948 and 1960 censuses; and assumed trends in fertility, mortality, and migration since 1950.

1970-79—Projected by the component method based on the 1970 adjusted midyear population, assumed trends in fertility and mortality, and estimated net emigration. These estimates take into consideration the inflated 1975 census figure.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
October 1, 1948	19,234,182	19,598,000	Enumerated populations as reported in National Census and Statistics Office, 1978, table 1.
February 15, 1960	27,087,685	27,600,000	
May 6, 1970	36,684,486	37,378,000	The 1970 enumerated total population, distributed by age and sex based on a 5 percent sample of census returns, was adjusted at the U.S. Bureau of the Census for 1.9 percent net underenumeration. The 1948, 1960, and 1975 enumerated total populations were inflated for the same percent net underenumeration as was estimated for the 1970 census.
May 1, 1975	42,070,660	42,866,000	

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1958-62				6.46
1963-67				6.30
1968-72	40			5.89
1970		11		
1960-70			3.0	
1970-75			2.7	

**NOTES:** The 1968-72 crude birth rate was based on the 1968-72 period age-specific fertility rates from the 1973 National Demographic Survey as reported by Concepcion (1974, table 1), and the 1970 census (based on a 5 percent sample of census returns) adjusted at the U.S. Bureau of the Census for 1.9 percent net underenumeration and moved to midyear.

The 1970 crude death rate was based on 1970 life table central death rates (Engracia, 1974, tables 1 and 2), and the 1970 census age-sex distribution (based on a 5 percent sample of census returns) adjusted at the U.S. Bureau of the Census for 1.9 percent net underenumeration and moved to midyear.

The 1960-70 and 1970-75 intercensal growth rates were based on the unadjusted 1960, 1970, and 1975 censuses.

The total fertility rates were derived from the 1958-62, 1963-67, and 1968-72 period age-specific fertility rates from the 1973 National Demographic Survey as reported by Concepcion (1974, table 1). An estimated total fertility rate of 5.01 for 1977, based on results from the 1978 Philippine Fertility Survey, is reported in International Statistical Institute and World Fertility Survey, 1979, table 4.

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**BENCHMARK DATA**

1. Enumerated population, census of September 9-14, 1974.....	7,012,642
2. Adjusted population, census of September 9-14, 1974.....	NA
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth.....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	9,292,000
9. Births per 1,000 population, 1978.....	49
10. Deaths per 1,000 population, 1978.....	18
11. Annual rate of growth, 1978 (percent).....	4.4-6.7

**NOTES:**

1. Preliminary census figure as reported by Department of Finance and Economics 1976, p. 3.
2. The 1974 census has not been evaluated for possible coverage error.
- 3-7. Data not available.
8. See notes for Midyear Population Estimates.
- 9-10. Derived by interpolation of 1975-80 and 1980-85 projected rates from the U.N. high, medium, and low variant projections (U.N., 1979, tables 2-A, 7, and 9). Figures round to the same number for all three variants.
11. Range of variation given possible combinations of unrounded crude birth and death rates, and estimated range of net immigration of 16-39 per 1,000 population based on recent migration trends.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,901	1970	6,174	1950-55	1.9
1955	4,288	1971	6,354	1955-60	2.1
1960	4,768	1972	6,541	1960-65	2.4
1961	4,879	1973	6,748	1967-70	2.7
1962	4,995	1974	6,963	1970-75	3.3
1963	5,119	<b>PROJECTED ESTIMATES</b>		1975-79	6.1
1964	5,248				
1965	5,384	1975	7,272		
1966	5,527	1976	7,708		
1967	5,678	1977	8,243		
1968	5,836	1978	8,785		
1969	6,002	1979	9,292		

**NOTES:** 1950-74—Estimated based on the 1974 census, assumed growth rates which take into consideration U.N. estimates (1979, tables 1.C and 2.B), and estimated net migration for 1972-74 based on arrival and departure data (Ministry of Finance and National Economy, 1979 and 1980, tables 4-44 and 4-52, respectively).

1975-79—Projected based on the 1974 census, assumed growth rates which take into consideration U.N. estimates (1979, tables 2.A and 2.B), and estimated net migration trends based on arrival and departure data (Ministry of Finance and National Economy, 1979 and 1980, tables 4-44 and 4-52, respectively).

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**BENCHMARK DATA**

1. Enumerated population, census of October 9, 1971.....	12,689,897
2. Adjusted population, census of October 9, 1971.....	12,840,000
3. Births per 1,000 population, 1978.....	28
4. Deaths per 1,000 population, 1978.....	7
5. Annual rate of growth, 1978 (percent).....	1.7
6. Life expectancy at birth, 1970-72.....	64
7. Infant deaths per 1,000 live births, 1974.....	53

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	14,594,000
9. Births per 1,000 population, 1978.....	28
10. Deaths per 1,000 population, 1978.....	7
11. Annual rate of growth, 1978 (percent).....	1.7

**NOTES:**

1. Final census figure as reported in Department of Census and Statistics, 1975, table 7.
2. Preliminary census population (12,712,277) as reported in Department of Census and Statistics (1974, table 1) adjusted for 1.0 percent net underenumeration (U.S. Bureau of the Census, 1977).
- 3-4. Based on provisional registered data as reported by the Department of Census and Statistics (Guneratne, 1979). The same rates (when rounded) were calculated at the U.S. Bureau of the Census from the implied registered births and deaths adjusted for 1 percent and 3 percent underregistration, respectively, and adjusted midyear population.
5. Difference between crude birth and death rates and an estimated net emigration rate of 3.7 per 1,000 population based on past trends in official migration estimates.
6. Calculated from 1970-72 empirical life tables (U.S. Bureau of the Census, 1977, table 5).
7. Based on registered infant deaths and births (Department of Census and Statistics, 1978a, tables 10 and 21) adjusted at the U.S. Bureau of the Census for underregistration of 4 percent and 1 percent, respectively.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	7,533	1970	12,532	1950-55	2.8
1955	8,679	1971	12,776	1955-60	2.6
1960	9,879	1972	13,011	1960-65	2.5
1961	10,152	1973	13,239	1965-70	2.2
1962	10,422	1974	13,443	1970-75	1.7
1963	10,687	1975	13,655	1975-79	1.7
1964	10,942	1976	13,879		
1965	11,202	1977	14,106		
1966	11,470	1978	14,347		
1967	11,737				
1968	12,010	<b>PROJECTED ESTIMATES</b>			
1969	12,275	1979	14,594		

**NOTES:** 1950-78—Based on the adjusted 1953, 1963, and 1971 censuses, adjusted births and deaths, and estimated net migration for each year 1950 to 1978.

1979—Projected from the 1978 end-of-year population assuming a continuation of the 1978 growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
March 20, 1953	8,098,637	8,153,000	Enumerated populations for 1953, 1963, and 1971 as reported in Department of Census and Statistics, 1953, table III; <i>UNDY 1971</i> , table 7; and Department of Census and Statistics, 1975, table 7; respectively.
July 8, 1963	10,582,064	10,692,000	
October 9, 1971	12,689,897	12,840,000	

The enumerated populations were each adjusted for 1.0 percent net underenumeration; the 1953 census was adjusted by the Department of Census and Statistics (1953, table III) and the 1963 and 1971 censuses were adjusted at the U.S. Bureau of the Census (1977).

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1953	44	12	3.0	5.95
1963	35	9	2.4	5.10
1971	30	8	1.8	4.20
1975	28	9	1.7	
1976	28	8	1.6	
1977	28	8	1.7	
1978	28	7	1.7	

**NOTES:** Crude birth and death rates were calculated at the U.S. Bureau of the Census based on adjusted registered births and deaths and adjusted midyear populations.

Growth rates were calculated from unrounded crude birth and death rates and official annual estimates of net migration which were adjusted for consistency with the adjusted intercensal growth rate, 1953 to 1971. The adjusted net emigration rates per 1,000 population were as follows:

Year	1953	1963	1971	1975	1976	1977	1978
Net emigration rate	2.5	1.5	4.2	2.2	3.7	3.7	3.7

Total fertility rates were derived from official rates adjusted at the U.S. Bureau of the Census for consistency with the adjusted crude birth rates and adjusted midyear populations, by age and sex.

For a further discussion of benchmark vital rates, see U.S. Bureau of the Census (1977).

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## BENCHMARK DATA

1. Enumerated population, census of September 2-11, 1976.....	7,725,766
2. Adjusted population, census of September 2-11, 1976.....	NA
3. Births per 1,000 population, 1976.....	44
4. Deaths per 1,000 population, 1974-78.....	9
5. Annual rate of growth, 1970-76 (percent).....	3.4
6. Life expectancy at birth, 1974-78.....	62
7. Infant deaths per 1,000 live births, 1974.....	81

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	8,506,000
9. Births per 1,000 population, 1978.....	41-44
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	3.4

## NOTES:

- Final 3 percent sample census figure as reported in Hallak and Hill, 1979, table 1. Population is de jure.
- The 1976 sample census has not been evaluated for possible coverage error.
- Estimated at the U.S. Bureau of the Census based on age-specific fertility rates derived by an application of the Brass fertility technique ( $P_2/F_2$  ratio) to 1976 census data (Hallak and Hill, 1979, table 19), and the 1976 smoothed female age distribution.
- Estimated at the U.S. Bureau of the Census based on 1974-78 life table central death rates for both sexes (see note 6) and the 1976 census age distribution.
- Intercensal growth rate based on the 1970 and 1976 censuses.
- Estimated at the U.S. Bureau of the Census based on estimated infant mortality (see note 7) and reported deaths by broad age groups from the 1976-78 Demographic Follow-up Survey adjusted for 15 percent underreporting of deaths over age 5 (Hallak and Hill, 1979, table 13 and p. 12).
- Estimated at the U.S. Bureau of the Census based on an application of the Trussell mortality technique to data from the 1976 census.
- See notes for Midyear Population Estimates.
- Projected range of variation based on assumed trend of fertility since 1976 which takes into consideration results from the 1976-78 Demographic Follow-up Survey (Hallak and Hill, 1979, p. 20).
- Projected assuming no significant change in mortality since 1974-78.
- Projected assuming a continuation of the 1970-76 intercensal growth rate.

## SYRIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,495	1970	6,258	1950-55	2.4
1955	3,938	1971	6,473	1955-60	2.8
1960	4,533	1972	6,697	1960-65	3.2
1961	4,681	1973	6,930	1965-70	3.2
1962	4,835	1974	7,171	1970-75	3.4
1963	4,993	1975	7,420	1975-79	3.4
1964	5,157	1976	7,677		
1965	5,326	<b>PROJECTED ESTIMATES</b>			
1966	5,500	1977	7,944		
1967	5,681				
1968	5,867	1978	8,220		
1969	6,059	1979	8,506		

**NOTES:** 1950-76—Based on the 1960 de facto and 1970 and 1976 de jure censuses, and assumed growth rates which take into consideration U.N. estimates and intercensal growth rates.

1977-79—Projected based on a continuation of the 1970-76 intercensal growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
September 20, 1960	4,565,121		The 1960 and 1970 enumerated populations as reported in Central Bureau of Statistics, 1975, table 4/2; the percent sample census for 1976 as reported in Hallak and Hill, 1979, table 1. The 1970 and 1976 populations are de jure.
September 23, 1970	6,304,685		
September 2-11, 1976	7,725,766		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960-70	49	17	3.2	
1970	47			7.88
1970-76			3.4	
1974-78		9		
1976	44			7.24

**NOTES:** The 1960-70 crude birth rate was estimated at the U.S. Bureau of the Census by applying the 1970 age-specific fertility rates to an average of the smoothed female age distributions from the 1960 and 1970 censuses. The 1970 crude birth rate and total fertility rate were estimated at the U.S. Bureau of the Census based on age-specific fertility rates derived by an application of the Mortara fertility technique to 1970 census data (*UNDY 1973*, table 26; and *UNDY 1975*, table 51), and the 1970 smoothed female age distribution. The 1976 crude birth rate and total fertility rate were estimated at the U.S. Bureau of the Census based on age-specific fertility rates derived by an application of the Brass fertility technique ( $P_2/F_2$  ratio) to 1976 census data (Hallak and Hill, 1979, table 19), and the 1976 smoothed female age distribution.

The 1960-70 crude death rate is implied by the difference between the 1960-70 crude birth rate and the 1960-70 intercensal growth rate. The 1974-78 crude death rate was estimated at the U.S. Bureau of the Census based on 1974-78 life table central death rates for both sexes, and the 1976 census age distribution.

The 1960-70 and 1970-76 intercensal growth rates are based on census data for the respective years (Central Bureau of Statistics, 1975, table 4/2; and Hallak and Hill, 1979, table 1).

**MAJOR SOURCES**

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Hallak, Muhammad Nadir and Allan G. Hill. [1979.] *Levels and Trends in Fertility and Mortality in the Syrian Arab Republic*. Unpublished paper.

**BENCHMARK DATA**

1. Enumerated population, census of April 1, 1970.....	34,397,374
2. Adjusted population, census of April 1, 1970.....	36,825,000
3. Births per 1,000 population, 1975.....	32-36
4. Deaths per 1,000 population, 1974-75.....	8-10
5. Annual rate of growth, 1975 (percent).....	2.3-2.6
6. Life expectancy at birth, 1974-75.....	61
7. Infant deaths per 1,000 live births, 1974-75.....	76

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	46,687,000
9. Births per 1,000 population, 1978.....	28-34
10. Deaths per 1,000 population, 1978.....	7-9
11. Annual rate of growth, 1978 (percent).....	2.1-2.5

**NOTES:**

- Final census figure (National Statistical Office, 1973, table 1.A).
- Census population adjusted for 6.6 percent net underenumeration (U.S. Bureau of the Census, 1978).
- Range of variation based on an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980, p. 3), which takes into consideration various indirect estimation techniques applied to data from the 1970 census, the 1974-75 Survey of Population Change, and the 1975 Survey of Fertility in Thailand.
- Range of variation based on results from the 1974-75 Survey of Population Change (National Statistical Office, 1977, p. 14), taking into account sampling variability.
- Range of variation based on an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980, p. 3).
- 6-7. Calculated from official life tables based on results from the 1974-75 Survey of Population Change (National Statistical Office, 1977, table 6), and assuming a sex ratio at birth of 1.05.
- See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1975 and 1974-75, respectively, which take into consideration results from the 1974-76 Survey of Population Change (National Statistical Office, 1977), the Survey of Fertility in Thailand (Institute of Population Studies, Chulalongkorn University and National Statistical Office, 1977), national projection series (National Statistical Office, 1976), and an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980).
- Projected range of variation given selected combinations of unrounded crude birth and death rates (27.9 and 6.6 per 1,000 population and 34.3 and 9.1 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	20,042	1970	37,091	1950-55	3.1
1955	23,451	<b>PROJECTED ESTIMATES</b>			
1960	27,513			1955-60	3.2
1961	28,376	1971	38,152	1960-65	3.1
1962	29,263	1972	39,215	1965-70	2.9
1963	30,174	1973	40,281	1970-75	2.7
1964	31,107	1974	41,350	1975-79	2.4
1965	32,062	1975	42,422		
1966	33,036	1976	43,492		
1967	34,024	1977	44,562		
1968	35,028	1978	45,626		
1969	36,050	1979	46,687		

**NOTES:** 1950-70—Based on the 1960 and 1970 adjusted censuses and estimated fertility, mortality, and migration trends from 1950 to 1970 (U.S. Bureau of the Census, 1978).

1971-79—Projected based on the adjusted 1970 midyear population and assumed trends in fertility and mortality which take into consideration results from the 1974-76 Survey of Population Change (National Statistical Office, 1977), the Survey of Fertility in Thailand (Institute of Population Studies, Chulalongkorn University and National Statistical Office, 1977), national projection series (National Statistical Office, 1976), and an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
April 25, 1960	26,257,916	27,357,000	Enumerated populations as reported in National Statistical Office, 1962, table 1.A; and 1973, table 1.A, respectively. The 1960 and 1970 enumerated populations were adjusted at the U.S. Bureau of the Census (1978) for 4.0 percent and 6.6 percent net enumeration, respectively.
April 1, 1970	34,397,374	36,825,000	

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1960	43	12	3.1	6.53
1964-65				6.30
1970	39	10	2.8	5.87
1974-75		8-10		
1975	32-36		2.3-2.6	4.50-4.90

**NOTES:** The 1960 and 1970 crude birth rates were estimated at the U.S. Bureau of the Census (1978) based on adjusted census populations moved to midyear and estimated age-specific fertility rates. The 1975 crude birth rate range of variation is based on an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980, p. 3), which takes into consideration various indirect estimation techniques applied to data from the 1970 census, the 1974-75 Survey of Population Change, and the 1975 Survey of Fertility in Thailand.

Crude death rates for 1960 and 1970 were estimated at the U.S. Bureau of the Census (1978) based on the respective adjusted censuses moved to midyear and age-sex-specific life table central death rates. Life tables were derived at the U.S. Bureau of the Census (1978). The 1974-75 crude death rate range of variation is based on results from the 1974-75 Survey of Population Change (National Statistical Office, 1977, p. 14), taking account of sampling variability.

Growth rates were calculated from unrounded crude birth and death rates. The 1975 growth rate range of variation is based on an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980, p. 3).

The 1960 total fertility rate was derived at the U.S. Bureau of the Census (1978) from an average of Brass adjustments to current fertility based on registered births in 1959 and children-ever-born data from the 1960 census. The 1964-65 total fertility rate was reported in the Survey of Population Change (National Statistical Office, no date, table C). The total fertility rate for 1970 was derived at the U.S. Bureau of the Census from 1968-69 and 1971-72 period age-specific marital fertility rates from the Thai Longitudinal Study (Knodel and Pitaktepsombati, 1975, table 10). The 1975 total fertility rate range is based on an analysis of the current demographic situation by the Committee on Population and Demography, National Academy of Sciences (1980, p. 2), which takes into consideration various indirect estimation techniques applied to data from the 1970 census, the 1974-75 Survey of Population Change, and the 1975 Survey of Fertility in Thailand.

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## BENCHMARK DATA

1. Enumerated population, census of October 26, 1975.....	40,347,719
2. Adjusted population, census of October 26, 1975.....	40,839,000
3. Births per 1,000 population, 1975.....	37
4. Deaths per 1,000 population, 1975.....	12
5. Annual rate of growth, 1975 (percent).....	2.4
6. Life expectancy at birth, 1974-75.....	57
7. Infant deaths per 1,000 live births, 1974-75.....	125

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	44,561,000
9. Births per 1,000 population, 1978.....	34-36
10. Deaths per 1,000 population, 1978.....	11-12
11. Annual rate of growth, 1978 (percent).....	2.3-2.4

## NOTES:

- Final census figure as reported in State Institute of Statistics, 1977, table 22.
- Census population adjusted for 1.2 percent net underenumeration (U.S. Bureau of the Census, 1980).
- Estimated at the U.S. Bureau of the Census (1980) based on 1974-75 age-specific fertility rates and estimated midyear 1975 population, by age and sex.
- Estimated at the U.S. Bureau of the Census (1980) based on age-sex-specific central death rates from 1974-75 life tables and estimated 1975 midyear population, by age and sex.
- Difference between unrounded crude birth and death rates.
- 6-7. Calculated from 1974-75 life tables derived at the U.S. Bureau of the Census based on population and adjusted deaths, by age, from the 1974-75 Turkish Demographic Survey (State Institute of Statistics, no date, tables 1, 22, and 23). The adjusted deaths were based on the average of survey and registered deaths, by age, from the dual record system, inflated to the total deaths estimated by the Chandrasekaran-Deming technique.
- See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1975.
11. Range of variation given selected combinations of unrounded crude birth and death rates (34.0 and 11.4 per 1,000 population and 35.9 and 11.6 per 1,000 population, respectively).

## TURKEY

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	21,122	1970	35,743	1950-55	2.7
1955	24,145	1971	36,604	1955-60	3.1
1960	28,217	1972	37,542	1960-65	2.5
1961	29,030	1973	38,525	1965-70	2.2
1962	29,789	1974	39,524	1970-75	2.5
1963	30,509	1975	40,521	1975-79	2.4
1964	31,227	<b>PROJECTED ESTIMATES</b>			
1965	31,951	1976	41,514		
1966	32,678	1977	42,519		
1967	33,411				
1968	34,165	1978	43,535		
1969	34,937	1979	44,561		

**NOTES:** 1950-75—Based on the 1950, 1955, 1960, 1965, 1970, and 1975 adjusted censuses, and estimated fertility, mortality, and migration trends from 1950 to 1975.

1976-79—Projected at the U.S. Bureau of the Census by the component method based on the adjusted 1975 midyear population assuming a continuation of trends in fertility and mortality estimated from results of the 1966-67 and 1974-75 Turkish Demographic Surveys.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
October 22, 1950	20,947,188	21,290,000	Enumerated populations as reported in State Institute of Statistics, 1977, table 29.
October 23, 1955	24,064,763	24,371,000	
October 23, 1960	27,754,820	28,469,000	The censuses were adjusted at the U.S. Bureau of the Census (1980), for 1.6, 1.3, 2.5, 2.4, 1.1, and 1.2 percent net underenumeration, respectively, based on an analysis of the underenumeration of the population ages 0 to 4.
October 24, 1965	31,391,421	32,178,000	
October 25, 1970	35,605,176	36,015,000	
October 26, 1975	40,347,719	40,839,000	

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950-55	48	23	2.7	
1955-60	48	21	3.1	
1960-65	45	18	2.5	
1965-70	40	16	2.2	5.98
1975	37	12	2.4	5.21

**NOTES:** Crude birth and death rates for the periods 1950-55 to 1965-70 were estimated at the U.S. Bureau of the Census (1980) based on a reverse survival procedure and estimated life table for each period. Crude birth and death rates for 1975 were estimated at the U.S. Bureau of the Census (1980) based on the application of age-specific fertility and age-sex-specific mortality rates, estimated from the 1974-75 Turkish Demographic Survey, to the adjusted population for 1975.

Growth rates were calculated from the estimated change in the adjusted population in the period, and include the effect of net international migration (U.S. Bureau of the Census, 1980).

The total fertility rate for 1965-70 was derived at the U.S. Bureau of the Census (1980) from age-specific fertility rates from the 1966-67 Turkish Demographic Survey, inflated to the total number of births estimated for the 1965-70 period. The 1975 total fertility rate was derived at the U.S. Bureau of the Census (1980) from age-specific fertility rates, based on births in the 12 months preceding the 1974-75 Turkish Demographic Survey, inflated to the total births from the survey estimated by the Chandrasekaran-Deming technique.

**MAJOR SOURCES**

Ministry of Health and Social Welfare. 1970. *Vital Statistics from the Turkish Demographic Survey, 1966-67*. Ankara.

\_\_\_\_\_. 1976. *Population Census of Turkey 26 October 1975. 1% Sample Results*. Ankara.

\_\_\_\_\_. 1977. *1977 Statistical Yearbook of Turkey*. Ankara.

\_\_\_\_\_. no date. *Türkiye Nüfus Araştırmaları 1974-1975* (Turkish Demographic Survey 1974-1975). [Ankara.]

U.S. Bureau of the Census. 1980. *Country Demographic Profiles—Turkey*. Washington, D.C. coming.

## BENCHMARK DATA

1. Enumerated population, census of	{ April 1, 1974 (North Vietnam).....	23,787,375
	{ February 6, 1976 (South Vietnam).....	23,614,653
2. Adjusted population, census of April 1, 1974, and February 6, 1976.....		NA
3. Births per 1,000 population.....		NA
4. Deaths per 1,000 population.....		NA
5. Annual rate of growth.....		NA
6. Life expectancy at birth.....		NA
7. Infant deaths per 1,000 live births.....		NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	52,127,000
9. Births per 1,000 population, 1978.....	NA
10. Deaths per 1,000 population, 1978.....	NA
11. Annual rate of growth, 1978 (percent).....	NA

## NOTES:

1. Census figure for North Vietnam as reported in *PVSR April 1979*; and for South Vietnam as reported in the *Vietnam Courier*, Mar. 1977, no. 58. A census of Vietnam was taken Oct. 1-10, 1979, but no results are yet available.
- 2-7. Data not available. An official crude birth rate of 34 per 1,000 population for 1978 and an infant mortality rate of 30 per 1,000 live births for 1977 were reported by the British Broadcasting Corporation, 1979.
8. See notes for Midyear Population Estimates.
- 9-11. Data not available. The crude birth, death, and growth rates for 1978 from the U.N. medium variant projection series are 41 and 17 per 1,000 population, and 2.3 percent, respectively (U.N., 1979, tables 2-A and 1-A). The government of Vietnam has indicated strong support for family planning in an attempt to obtain an average annual growth rate in 1980 of 1.5 to 2.0 percent (FBIS, 1978, p. 77). Given the lack of adequate benchmark data, the military involvement with neighboring countries, and the large amount of refugee movements within the region, it is impossible to specify the levels of current rates.

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	27,072	1970	42,984	1950-55	1.6
1955	29,357	1971	43,935	1955-60	2.5
1960	33,283	1972	44,889	1960-65	2.8
1961	34,214	1973	45,845	1965-70	2.4
1962	35,189	1974	46,792	1970-75	2.1
1963	36,208	1975	47,728	1975-79	2.2
1964	37,217	<b>PROJECTED ESTIMATES</b>			
1965	38,212	1976	48,751		
1966	39,191	1977	49,922		
1967	40,152	1978	50,969		
1968	41,091	1979	52,127		
1969	42,036				

**NOTES:** 1950-79—Based on the 1960 and 1974 censuses of North Vietnam, the 1976 census of South Vietnam, and Jan. 1 population estimates for 1974-80 prepared by FDAD; assumed growth rates between 1950 and 1975 which take into consideration U.N. estimates; and estimated trends in refugee movements during the period 1975-79 (U.N. General Assembly, various issues, 1976-78; and High Commissioner for Refugees, 1979; *Newsweek*, July 2, 1978, p. 42; and *The Economist*, July 22, 1978, p. 54).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
March 1, 1960 (North Vietnam)	15,916,955		The 1960 and 1974 enumerated populations for North Vietnam as reported in <i>PVSR April 1979</i> and <i>UNDY 1975</i> , table 3, respectively. The 1976 enumerated population for South Vietnam as reported in the <i>Vietnam Courier</i> , Mar. 1977, no. 58.
April 1, 1974 (North Vietnam)	23,787,375		
February 6, 1976 (South Vietnam)	23,614,653		

#### MAJOR SOURCES

British Broadcasting Corporation. 1979. *Summary of World Broadcasts*, part 3. *Far East*, series FE/W1014/A/26, Jan. 17, 1979; and FE/W1016/A/20, Jan. 31, 1979.

Foreign Broadcast Information Service (FBIS). 1978. *Translations on Vietnam*, no. 2067. Tap Chi Cong San, no. 7, July.

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## BENCHMARK DATA

1. Enumerated population, census of January 31-February 1, 1975.....	4,519,593
2. Adjusted population, census of January 31-February 1, 1975.....	4,705,336
3. Births per 1,000 population.....	NA
4. Deaths per 1,000 population.....	NA
5. Annual rate of growth(percent).....	NA
6. Life expectancy at birth.....	NA
7. Infant deaths per 1,000 live births.....	NA

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	5,126,000
9. Births per 1,000 population, 1978.....	48
10. Deaths per 1,000 population, 1978.....	25
11. Annual rate of growth, 1978 (percent).....	2.3

## NOTES:

- Final census figure as reported by Steffen (1979, fig. 2-12).
- Adjusted for an estimated 48,602 persons residing in areas not covered by the census enumeration and 137,141 persons omitted in areas covered (Steffen, 1979, fig. 2-12).
- 3-7. Data not available. Based on an application of various techniques to fertility and mortality data from the 1972 Socio-Demographic Survey of Sana City, the 1976 survey of clinic attenders at two Maternal and Child Health Centers, and the 1977 survey of three rural villages, Hill (1979, table 14) estimates crude birth and death rates in the mid 1970's of 49 and 20 per 1,000 population, respectively, for Sana City; and a crude birth rate of 42-48 per 1,000 population and a crude death rate of 20 per 1,000 population for the remainder of Yemen. The Central Planning Agency (1976, table 15) estimates crude birth and death rates of 47 and 29 per 1,000 population, respectively, for the period 1970-75; the crude death rate is an estimate derived from a "two month (Sept. and Oct.) survey of deaths in 1976." The crude birth rate is an estimate derived from reverse survival of the population from a three percent sample of the 1975 census returns. Hill (1979, table 14) estimates infant mortality rates for the mid 1970's of 161 for Sana City and approximately 157 for the remainder of Yemen, based on an application of the Trussell mortality technique to data from the 1972 survey of Sana City and the 1977 survey of three rural villages, respectively.
- See notes for Midyear Population Estimates.
- 9-10. Derived by interpolation of 1975-80 and 1980-85 projected rates from the United Nations high, medium, and low variant projections (United Nations, 1979, tables 2.A, 2.B, 7, and 9). Birth and death rate figures round to the same numbers for all three variants.
11. Difference between unrounded crude birth and death rates, and an estimated net emigration rate of 0.8 per 1,000 population, based on estimates made by Steffen (1979, p.I/91-96 and fig. 2-31).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	2,994	1970	4,357	1950-55	1.8
1955	3,284	1971	4,442	1955-60	2.0
1960	3,639	1972	4,525	1960-65	2.1
1961	3,720	1973	4,601	1965-70	1.5
1962	3,805	1974	4,667	1970-75	1.6
1963	3,890	<b>PROJECTED ESTIMATES</b>		1975-79	2.0
1964	3,972	1975	4,723		
1965	4,047	1976	4,798		
1966	4,114	1977	4,900		
1967	4,175	1978	5,010		
1968	4,234	1979	5,126		
1969	4,293				

NOTES: 1950-79 - Based on the adjusted 1975 census, annual rates of growth for 1950-69 as estimated by the United Nations (1979, table 1.C), rates of natural increase for 1970-79 as estimated by the United Nations (1979, tables 2.A, and 2.B), annual rates of net emigration for 1970-79 as estimated by Steffen (1979, fig. 2-31) and taking into consideration reported 1972-76 migration balances between Yemen (Sana) and Saudi Arabia (1978, table 4-44).

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## BENCHMARK DATA

1. Enumerated population, census of September 30, 1970.....	23,362,204
2. Adjusted population, census of September 30, 1970.....	NA
3. Births per 1,000 population, 1976.....	26
4. Deaths per 1,000 population, 1977.....	9
5. Annual rate of growth, 1970 (percent).....	1.4
6. Life expectancy at birth, 1969-70.....	66
7. Infant deaths per 1,000 live births, 1977.....	45

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	27,210,000
9. Births per 1,000 population, 1978.....	26
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	1.6

## NOTES:

1. Provisional census figure as reported in *PVSR July 1979*.
2. The 1970 census has not been evaluated for possible coverage error.
- 3-4. Based on registered births and deaths (*PVSR July 1979*) adjusted at the U.S. Bureau of the Census for 2 and 1 percent underregistration, respectively (official estimates of underregistration as reported in Instituto Nacional de Estadística y Censos, 1975, pp. 175 and 180) and estimated midyear population.
5. Difference between unrounded crude birth, death, and net immigration rates (23.4, 9.4, and 0.3 per 1,000 population, respectively). The 1970 crude birth and death rates are based on registered births and deaths as reported in *PVSR April 1975* adjusted for 2 percent and 1 percent underregistration, respectively, and estimated midyear population. The net immigration rate is based on official estimates of migrants (Instituto Nacional de Estadística y Censos, 1974b, p. 20).
6. Calculated from empirical life tables prepared at the U.S. Bureau of the Census, based on registered deaths, by age and sex, for 1969 and 1970 (*UNDY 1974*, table 25), and 2 percent sample data from the 1970 census (Instituto Nacional de Estadística y Censos, 1974a, table 1).
7. Registered rate as reported in *PVSR April 1975*. Reliability of infant death statistics is unknown.
8. See notes for Midyear Population Estimates.
- 9-10. Projected assuming no significant change in fertility or mortality since 1976 and 1977, respectively.
11. Projected based on an estimated 1976-77 growth rate, which takes into consideration projected births for 1977.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	17,150	1970	23,758	1950-55	2.0
1955	18,928	<b>PROJECTED ESTIMATES</b>			
1960	20,611	1971	24,106	1955-60	1.7
1961	20,930	1972	24,458	1960-65	1.5
1962	21,245			1965-70	1.4
1963	21,558	1973	24,807	1970-75	1.4
1964	21,868	1974	25,154	1975-79	1.6
1965	22,179	1975	25,519		
1966	22,479	1976	25,931		
1967	22,774	1977	26,351		
1968	23,068	1978	26,777		
1969	23,402	1979	27,210		

**NOTES:** 1950-65—Official estimates based on the 1947 (de jure), 1960, and 1970 censuses, registered births and deaths, and estimated net migration (Instituto Nacional de Estadística y Censos, 1974b, p. 28).

1966-70—Based on the official estimate for midyear 1965 and registered births and deaths adjusted at the U.S. Bureau of the Census for 2 and 1 percent underregistration, respectively (official estimates of underregistration as reported in Instituto Nacional de Estadística y Censos, 1975, pp. 175 and 180); and official estimates of net immigration (Instituto Nacional de Estadística y Censos, 1974b, p. 20).

1971-79—Projected at the U.S. Bureau of the Census based on the estimated midyear 1970 population; registered births through 1974 and for 1976; registered deaths for 1970 and 1977; estimated and projected trends in fertility and mortality for other years; and projected net immigration (Instituto Nacional de Estadística y Censos, 1974b).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
May 10, 1947	15,893,827		The 1947 and 1960 enumerated populations as reported in <i>UNDY 1970</i> , table 7; and the 1970 enumerated population as reported in <i>UNDY 1975</i> , table 3.
September 30, 1960	20,010,539		
September 30, 1970	23,362,204		

## ARGENTINA

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	26	9	2.1	
1955	25	9	1.7	
1960	23	9	1.5	
1965	22	9	1.4	3.0
1970	23	9	1.4	3.2
1976	26			
1977		9		

**NOTES:** Crude birth and death rates for 1950 to 1970 were estimated at the U.S. Bureau of the Census based on official midyear estimates and registered births and deaths adjusted based on official estimates of underregistration (Instituto Nacional de Estadística y Censos, 1975, pp. 175 and 180). The 1976 crude birth rate and 1977 crude death rate were estimated at the U.S. Bureau of the Census based on 1976 and 1977 projected midyear populations and registered births and deaths adjusted based on official estimates of underregistration (Instituto Nacional de Estadística y Censos, 1975, pp. 175 and 180).

Growth rates were calculated from unrounded crude birth and death rates, and net immigration rates per 1,000 population as follows:

Year	1950	1955	1960	1965	1970
Net immigration rate	3.6	1.5	0.2	0.3	0.3

The total fertility rates for 1965 and 1970 were estimated at the U.S. Bureau of the Census based on adjusted births by age of mother and midyear female age distribution for 1965 (*UNDY 1965*, table 6) and an estimated midyear female age distribution for 1970.

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## BENCHMARK DATA

1. Enumerated population, census of September 29, 1976.....	4,647,816
2. Adjusted population, census of September 29, 1976.....	4,853,000
3. Births per 1,000 population, 1976.....	44-46
4. Deaths per 1,000 population, 1976.....	20
5. Annual rate of growth, 1976 (percent).....	2.2-2.5
6. Life expectancy at birth, 1975.....	47
7. Infant deaths per 1,000 live births, 1975.....	168

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	5,213,000
9. Births per 1,000 population, 1978.....	43-45
10. Deaths per 1,000 population, 1978.....	19
11. Annual rate of growth, 1978 (percent).....	2.3-2.5

## NOTES:

1. Preliminary census figure (Instituto Nacional de Estadística, 1977, table 1).
2. Census population (3.3 percent sample tabulation) adjusted at the U.S. Bureau of the Census for 4.2 percent net underenumeration. Preliminary results from the 1976 post enumeration survey indicate a net underenumeration of 7 to 8 percent (Instituto Nacional de Estadística, 1979).
3. Lower bound of the range is based on estimated 1964-73 age-specific fertility rates derived from an application of the own-children method to data from a sample of the 1976 census (Soliz and Bartlema, 1979, graph 5). The 1964-73 rates were assumed to be constant through 1976. Upper bound of the range is based on 1976 estimated age-specific fertility rates derived from an application of the Brass fertility technique (an average of the  $P_2/F_2$  and  $P_3/F_3$  ratios) to data from the 1976 census. The rates were applied to an estimated 1976 midyear population.
4. Estimated at the U.S. Bureau of the Census based on age-sex-specific mortality rates from a 1975 life table (see note 6-7) and estimated 1976 midyear population, by age and sex. The 1975 mortality rates were assumed to remain constant through 1976.
5. Difference between unrounded crude birth and death rates and an estimated net emigration rate of 1.0 per 1,000 population (Instituto Nacional de Estadística, and U.N., 1976, p. 44).
- 6-7. Derived from estimated life tables as reported in Soliz and Bartlema, 1979, table F. Life tables were generated from age-sex-specific central death rates, adjusted by the logit technique, taking into consideration results from child survivorship, orphanhood, and widowhood techniques applied to data from 1975 National Demographic Survey and the 1976 census.
8. See notes for Midyear Population Estimates.
- 9-10. Projected range of variation based on assumed trends in fertility and mortality since 1976 (Soliz and Bartlema, 1979, pp. 8 and 13) which take into consideration projected rates as reported in U.N., 1978.
11. Range of variation given selected combinations of unrounded crude birth, death, and net emigration rates (42.5, 19.1, 1.0; and 44.9, 18.9, and 1.0 per 1,000 population, respectively).

## BOLIVIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate	
1950	2,814	1970	4,140	1950-55	1.7	
1955	3,070	1971	4,242	1955-60	1.8	
1960	3,366	1972	4,350	1960-65	1.9	
1961	3,430	1973	4,460	1965-70	2.2	
1962	3,497	1974	4,576	1970-75	2.5	
1963	3,565	1975	4,697	1975-79	2.6	
1964	3,636	1976	4,822			
1965	3,708	<b>PROJECTED ESTIMATES</b>				
1966	3,783	1977	4,950			
1967	3,864					
1968	3,950	1978	5,080			
1969	4,042	1979	5,213			

**NOTES:** 1950-76—Based on the inflated 1950 and adjusted 1976 censuses and estimated fertility, mortality, and migration trends since 1950.

1977-79—Projected based on assumed trends in fertility, mortality, and migration which take into consideration results from the 1975 National Demographic Survey, the 1976 census, and projected rates as reported in U.N., 1978.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
September 5, 1950	2,704,165	2,823,000	The 1950 and 1976 enumerated populations as reported in <i>PVSR October 1976</i> and <i>PVSR October 1979</i> , respectively.
September 29, 1976	4,647,816	4,853,000	

The 1976 enumerated population (3.3 percent sample tabulation) was adjusted at the U.S. Bureau of the Census for 4.2 percent net underenumeration. The 1950 census was inflated for the same percent net underenumeration as in 1976.

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**Benchmark Vital Rates for Selected Years Since 1950**


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Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1976	44-46	20	2.2-2.5	6.4-6.7

**NOTES:** The 1976 crude birth and death rates were estimated at the U.S. Bureau of the Census based on a range of estimated age-specific fertility rates for 1976, and 1975 age-sex-specific mortality rates from the 1975 National Demographic Survey and the 1976 census (Soliz and Bartlema, 1979, tables D and E), applied to an estimated 1976 midyear population, assuming fertility and mortality rates remained constant to 1976.

The 1976 growth rate is the difference between unrounded crude birth and death rates and an estimated net emigration rate of 1.0 per 1,000 population (Instituto Nacional de Estadística and U.N., 1976, p. 44).

The lower bound of the 1976 total fertility rate is based on estimated 1964-73 age-specific fertility rates derived from an application of the own-children method to data from the 1976 census (Soliz and Bartlema, 1979, graph 5). The 1964-73 rates are assumed to be constant through 1976. Upper bound of the range is based on estimated 1976 age-specific fertility rates derived from an application of the Brass fertility technique (an average of the  $P_2/F_2$  and  $P_3/F_3$  ratios) to data from the 1976 census.

#### MAJOR SOURCES

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United Nations. CELADE. 1978. Unpublished computer printouts.

## BENCHMARK DATA

1. Enumerated population, census of September 1, 1970.....	93,139,037
2. Adjusted population, census of September 1, 1970.....	96,137,000
3. Births per 1,000 population, 1976-77.....	31-33
4. Deaths per 1,000 population, 1974-75.....	9
5. Annual rate of growth, 1974-75 (percent).....	2.4-2.5
6. Life expectancy at birth, 1974-75.....	60
7. Infant deaths per 1,000 live births, 1974-75.....	84

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	119,175,000
9. Births per 1,000 population, 1978.....	31-33
10. Deaths per 1,000 population, 1978.....	8-9
11. Annual rate of growth, 1978 (percent).....	2.2-2.4

## NOTES:

- Final census (Departamento de Censos, 1973, table 1). Population is de jure.
- Census population adjusted for 3.1 percent net underenumeration (U.S. Bureau of the Census, 1980).
- Range of variation estimated at the U.S. Bureau of the Census (1980) based on age-specific fertility rates derived by averaging the results from an application of the Brass fertility technique to data from the 1976 and 1977 National Household Sample Surveys (IBGE, 1978; and 1979), and estimated January 1977 populations.
- Based on 1974-75 estimated life table central death rates and an estimated January 1975 population, by age and sex. Life tables were derived at the U.S. Bureau of the Census (1980).
- Range of variation given selected combinations of unrounded crude birth and death rates for 1974-75 (33.5 and 9.3 per 1,000 population and 34.5 and 9.4 per 1,000 population, respectively).
- Calculated from the 1974-75 life tables (U.S. Bureau of the Census, 1980), based on registered deaths for 1974-75 (IBGE, 1977, tables C a.1 and C b.1) adjusted for 21 percent underregistration at the U.S. Bureau of the Census (1980).
- Based on an application of the Brass, Sullivan and Trussell mortality techniques to data from the 1976 National Household Sample Survey (IBGE, 1978, table 12).
- See notes for Midyear Population Estimates.
- Projected range of variation based on assumed trend of fertility since 1976-77 which takes into consideration results from the 1976 and 1977 National Household Sample Surveys (IBGE, 1978; and 1979).
- Projected range of variation based on assumed trend of mortality since 1974-75 which takes into consideration past trends.
- Range of variation given selected combinations of unrounded crude birth and death rates (30.5 and 8.4 per 1,000 population and 32.9 and 8.6 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	53,443	1970	95,684	1950-55	2.9
1955	61,774	1971	98,241	1955-60	3.0
1960	71,695	1972	100,797	1960-65	3.0
1961	73,833	1973	103,340	1965-70	2.8
1962	76,039	1974	105,889	1970-75	2.5
1963	78,317	1975	108,474	1975-79	2.4
1964	80,667	<b>PROJECTED ESTIMATES</b>			
1965	83,093	1976	111,094		
1966	85,557	1977	113,748		
1967	88,050	1978	116,441		
1968	90,569	1979	119,175		
1969	93,114				

**NOTES:** 1950-75—Based on the 1950 and 1970 adjusted censuses and estimated trends in fertility, mortality, and migration.

1976-79—Projected at the U.S. Bureau of the Census by the component method based on the estimated 1975 midyear population, by age and sex, and assumed trends in fertility and mortality since 1975 which take into consideration results from the 1976 and 1977 National Household Sample Surveys (IBGE, 1978, table 12; and 1979). For further discussion see U.S. Bureau of the Census (1980).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
July 1, 1950	51,944,397	53,443,075	Enumerated populations for 1950 and 1970 as reported in Serviço Nacional de Recenseamento, 1953, table 2; and IBGE, 1973, table 1, respectively.
September 1, 1970	93,139,037	96,137,186	
			The 1950 and 1970 enumerated populations were adjusted at the U.S. Bureau of the Census for 2.8 percent and 3.1 percent net underenumeration, respectively (U.S. Bureau of the Census, 1980).

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	44	16	2.9	5.93
1960	43	14	2.9	6.07
1970	37	11	2.7	5.33
1972-73	35-36	10	2.5-2.6	4.90-5.04
1974-75		9		
1976-77	31-33			4.25-4.55

**NOTES:** The 1950, 1960, and 1970 crude birth rates were estimated at the U.S. Bureau of the Census (1980) based on estimated age-specific fertility rates derived from an application of the Arriaga fertility technique to data from the 1950, 1960, and 1970 censuses and the 1976 National Household Sample Survey, and estimated midyear populations. The range of variation for the 1972-73 crude birth rate was estimated at the U.S. Bureau of the Census (1980) based on estimated age-specific fertility rates and estimated January 1973 populations. The 1972-73 age-specific fertility rates were estimated by applying the Brass fertility technique ( $P_2/F_2$  ratio, and the average of the  $P_2/F_2$  and  $P_3/F_3$  ratios, respectively) to data from the 1973 National Household Sample Survey (IBGE, no date b). The range of variation for the 1976-77 crude birth rates was estimated at the U.S. Bureau of the Census (1980) based on age-specific fertility rates derived by averaging the results from an application of the Brass fertility technique to data from the 1976 and 1977 National Household Sample Surveys (IBGE, 1978; and 1979) and estimated January 1977 populations.

The 1950, 1960, 1970, 1972-73 and 1974-75 crude death rates were estimated at the U.S. Bureau of the Census (1980) using estimated age-sex-specific life table central death rates for the respective years and estimated populations.

The 1950 growth rate was calculated from unrounded crude birth and death rates and estimated net immigration of 0.7 per 1,000 population, based on foreign-born population enumerated in the 1950 and 1960 censuses (Serviço Nacional de Recenseamento, 1953, table 8; and IBGE, 1977, table 6, respectively). The growth rates for 1960, 1970, 1972-73 and 1974-75 were based on selected combinations of unrounded crude birth and death rates, indicating that net migration was not significant for these years.

The 1950, 1960, and 1970 total fertility rates were estimated at the U.S. Bureau of the Census (1980) based on age-specific fertility rates derived from an application of the Arriaga fertility technique to data from the 1950, 1960, and 1970 censuses and the 1976 National Household Sample Survey. The range of variation in the 1972-73 and 1976-77 total fertility rates were based on the estimated age-specific fertility rates for these years.

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**BENCHMARK DATA**

1. Enumerated population, census of April 22, 1970.....	8,884,768
2. Adjusted population, census of April 22, 1970.....	9,336,000
3. Births per 1,000 population, 1975.....	24
4. Deaths per 1,000 population, 1975.....	7
5. Annual rate of growth, 1975 (percent).....	1.6
6. Life expectancy at birth, 1969-70.....	62
7. Infant deaths per 1,000 live births, 1975.....	61

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	10,848,000
9. Births per 1,000 population, 1978.....	21-23
10. Deaths per 1,000 population, 1978.....	7
11. Annual rate of growth, 1978 (percent).....	1.4-1.6

**NOTES:**

1. Final census figure (INE, 1977, table 3).
2. Estimate for the census date based on official adjusted midyear population estimates for 1969 and 1970 (ODEPLAN, 1975, p. 25), which implies 4.8 percent net underenumeration.
- 3-4. Based on registered births and deaths adjusted for 5 percent and 2 percent under-registration, respectively, and adjusted midyear population (U.S. Bureau of the Census, 1978).
5. Difference between unrounded crude birth and death rates and a net emigration rate of 0.5 per 1,000 population (U.S. Bureau of the Census, 1978).
6. Derived from empirical life table for both sexes (U.N., 1976, p. 35).
7. Based on registered infant deaths and births, both adjusted for 5 percent under-registration (U.S. Bureau of the Census, 1978).
8. See notes for Midyear Population Estimates.
9. Projected range of variation based on assumed trend of fertility since 1975.
10. Projected based on assumed trend of mortality since 1975.
11. Range of variation given selected combinations of unrounded crude birth and death rates and net emigration rates (21.4, 6.9, and 0.3 per 1,000 population and 22.7, 6.9, and 0.2 per 1,000 population, respectively).

## CHILE

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	6,091	1970	9,369	1950-55	2.0
1955	6,743	1971	9,533	1955-60	2.4
1960	7,585	1972	9,703	1960-65	2.3
1961	7,773	1973	9,875	1965-70	1.9
1962	7,961	1974	10,047	1970-75	1.7
1963	8,147	1975	10,214	1975-79	1.5
1964	8,330	<b>PROJECTED ESTIMATES</b>			
1965	8,510	1976	10,375		
1966	8,686	1977	10,531		
1967	8,859				
1968	9,030	1978	10,689		
1969	9,199	1979	10,848		

**NOTES:** 1950-70—Official estimates (ODEPLAN, 1975, p. 25) based on results of the 1952, 1960, and 1970 adjusted censuses, adjusted births and deaths, and estimated migrants.

1971-75—Estimated at the U.S. Bureau of the Census (1978) based on the 1970 adjusted mid-year population, adjusted births and deaths, and official estimates of net emigration (ODEPLAN, 1975, p. 18).

1976-79—Projected at the U.S. Bureau of the Census by the component method based on the 1975 adjusted midyear population (U.S. Bureau of the Census, 1978), and assumed trends in fertility, mortality, and migration since 1975.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
April 24, 1952	5,932,995	6,354,000	The 1952 and 1960 enumerated populations as reported in <i>UNDY 1970</i> , table 7; and 1970 enumerated population as reported in <i>INE</i> , 1977, table 1.
November 29, 1960	7,374,115	7,663,000	
April 22, 1970	8,884,768	9,336,000	

The adjusted populations for 1952, 1960, and 1970 are implied by official midyear population estimates based on the respective censuses adjusted by ODEPLAN (1975, p. 25), resulting in an implied net underenumeration of 6.6 percent, 3.8 percent, and 4.8 percent, respectively.

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	34	15	1.8	
1955	36	13	2.2	
1960	36	13	2.3	5.11
1965	35	11	2.3	
1970	27	9	1.7	3.54
1975	24	7	1.6	3.00

**NOTES:** Crude birth rates and total fertility rates were based on registered births (SNS, 1976), adjusted for underregistration by the U.S. Bureau of the Census (1978, tables 3 and 6) and adjusted midyear population. Registered births were adjusted for about 10 percent under-registration in 1950 and 1955, 7 percent in 1960, and 5 percent in 1965 through 1975, based on adjustments made by ODEPLAN (1975).

Crude death rates were based on registered deaths (SNS, 1976, table 1), adjusted for under-registration by the U.S. Bureau of the Census (1978, table 5) and adjusted midyear population. Registered deaths were adjusted for about 3 percent underregistration in 1950, and 1955, and 2 percent in 1960 through 1975 based on adjustments made by ODEPLAN (1975).

Growth rates were calculated from unrounded crude birth and death rates and estimated net migration based on 1960 and 1970 Argentine census data on immigrants from Chile (ODEPLAN, 1975, pp. 17 and 18).

The net emigration rates per 1,000 population were as follows:

Year	1950	1955	1960	1965	1970	1975
Net emigration rates	0.6	0.6	0.5	0.5	0.5	0.3

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## BENCHMARK DATA

1. Enumerated population, census of October 24, 1973.....	21,055,665-21,237,876
2. Adjusted population, census of October 24, 1973.....	23,228,000
3. Births per 1,000 population, 1978.....	31
4. Deaths per 1,000 population, 1973.....	9
5. Annual rate of growth, 1973 (percent).....	2.2
6. Life expectancy at birth, 1973.....	59
7. Infant deaths per 1,000 live births, 1973.....	77

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	26,205,000
9. Births per 1,000 population, 1978.....	31
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	2.1

## NOTES:

1. Census population as reported in DANE, 1977b, p. 9; and Potter and Ordóñez, 1976, p. 378. The range is based on 20,503,966 persons in the Departments (excluding an initial adjustment of 322,932 persons in Bogotá), 485,070-533,910 persons in the National Territories, and 66,629-200,000 persons in the armed forces (excluding police). DANE considers the lower bound of the range to be the more accurate.
2. Census population (low total census figure given in item 1) adjusted for 9.4 percent net underenumeration (U.S. Bureau of the Census, 1979).
3. Estimated at the U.S. Bureau of the Census (1979) based on age-specific fertility rates derived considering information from the 1978 National Household Survey (DANE, 1978, p. 10) and the 1978 National Prevalence Survey (unpublished), and projected midyear population, by age and sex.
4. Based on 1973 life table central death rates and midyear population, by age and sex, estimated at the U.S. Bureau of the Census (1979).
5. Difference between unrounded crude birth and death rates (34.2 and 9.5 per 1,000 population, respectively) and a net emigration rate of 2.6 per 1,000 population estimated at the U.S. Bureau of the Census (1979). The 1973 crude birth rate was derived from 1973 age-specific fertility rates based on data from the 1976 Colombia National Fertility Survey (CCRP and DANE, 1978, p. 45) and estimated midyear 1973 population, by age and sex. Net emigration for 1973 was derived using net migration estimates for the 1963-73 period made by Arbeláez (DANE, 1977a); arrival and departure data for Venezuela for each year, 1963 to 1974; and immigration data for the United States for each year, 1963 to 1975.
6. Calculated from life expectancy at birth, by sex, estimated by Bayona (1977, pp. 107-108) using 1973 census data.
7. Estimated at the U.S. Bureau of the Census (1979) by applying the Trussell mortality technique to data from the 1976 Colombia National Fertility Survey.
8. See notes for Midyear Population Estimates.
9. See note 3.
10. Projected based on assumed trend in mortality since 1973 (U.S. Bureau of the Census, 1979).
11. Based on the difference between unrounded crude birth and death rates (31.3 and 8.3 per 1,000 population, respectively) and a net emigration rate of 2.5 per 1,000 population.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	11,592	1970	21,430	1950-55	3.2
1955	13,588	1971	21,993	1955-60	3.2
1960	15,953	1972	22,543	1960-65	3.1
1961	16,476	1973	23,069	1965-70	2.8
1962	17,010			1970-75	2.3
		<b>PROJECTED ESTIMATES</b>		1975-79	2.1
1963	17,546	1974	23,576		
1964	18,090	1975	24,092		
1965	18,646	1976	24,618		
1966	19,202	1977	25,146		
1967	19,764				
1968	20,322	1978	25,673		
1969	20,869	1979	26,205		

**NOTES:** 1950-64—Based on the 1951 and 1964 adjusted censuses, and estimated fertility, mortality, and migration trends.

1965-79—Projected by the component method based on the 1964 adjusted census (U.N., 1968, p. 22). Fertility trends during the period were based on results from the 1969 National Fertility Survey (Elkins, 1973, p. 31) and the 1976 Colombia National Fertility Survey (CCRP and DANE, 1978, p. 45). Mortality trends were based on 1964 and 1973 life tables estimated at the U.S. Bureau of the Census (1979). Trends in migration were derived using net migration estimates for the 1963-73 period made by Arbeláez (DANE, 1977a) and arrival and departure data for Venezuela for each year, 1963 to 1974, and immigration data for the United States for each year, 1963 to 1975.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
May 9, 1951	11,548,172	11,910,000	Enumerated populations as reported in DANE, no date, table 1; and 1967, table 1.
July 15, 1964	17,484,506	18,090,000	

The 1951 adjusted census population was derived at the U.S. Bureau of the Census by moving the adjusted midyear 1951 population by Arévalo (U.N., 1968, p. 55) to the census date using the growth rate implied by his adjusted mid-year 1951 (11,965,000) and 1964 (18,090,000) populations. The 1964 enumerated population was adjusted by Arévalo (U.N., 1968, p. 22).

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1964	46	13	3.1	6.74
1973	34	9	2.2	4.65
1978	31			4.00

**NOTES:** Crude birth rates were estimated at the U.S. Bureau of the Census (1979) based on age-specific fertility rates and midyear population by age and sex.

Crude death rates were estimated at the U.S. Bureau of the Census (1979) based on age-sex-specific life table central death rates and midyear populations, by age and sex.

Growth rates were estimated at the U.S. Bureau of the Census (1979) based on unrounded crude birth and death rates and net emigration rates of 2.5 and 2.6 per 1,000 population, for 1964 and 1973, respectively. Net migration for each year was derived using net migration estimates for the 1963-73 period made by Arbeláez (DANE, 1977a); arrival and departure data for Venezuela for each year, 1963 to 1974; and immigration data for the United States for each year, 1963 to 1974.

The total fertility rate for 1964 was estimated at the U.S. Bureau of the Census (1979) by interpolation of age-specific fertility rates for 1960-64 and 1965-66, derived by applying the pregnancy history method to data from the 1969 National Fertility Survey (Elkins, 1973, tables 1A and 1B). The 1973 total fertility rate was estimated at the U.S. Bureau of the Census based on age-specific fertility rates for 1972, 1973, and 1974, derived by applying the pregnancy history method to data from the 1976 Colombia National Fertility Survey (CCRP and DANE, 1978, table 15).

The 1978 total fertility rate was estimated at the U.S. Bureau of the Census, considering information from the 1978 National Household Survey (DANE, 1978, p. 10) and the 1978 National Prevalence Survey (unpublished).

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**BENCHMARK DATA**

1. Enumerated population, census of September 6, 1970.....	8,569,121
2. Adjusted population, census of September 6, 1970.....	NA
3. Births per 1,000 population, 1977.....	18
4. Deaths per 1,000 population, 1977.....	6
5. Annual rate of growth, 1977 (percent).....	1.2
6. Life expectancy at birth, 1970.....	70
7. Infant deaths per 1,000 live births, 1977.....	25

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	9,824,000
9. Births per 1,000 population, 1978.....	18
10. Deaths per 1,000 population, 1978.....	6
11. Annual rate of growth, 1978 (percent).....	1.2

**NOTES:**

1. Final census figure as reported in Comité Estatal de Estadísticas, 1975, p. 26.
2. The 1970 census has not been evaluated for possible coverage error.
- 3-4. Registered vital rates (Ministerio de Salud Pública, 1977, tables 1 and 4), adjusted by FDAD.
5. Difference between crude birth and death rates.
6. Reported in CMEA, 1978, table 6.
7. Reported in Ministerio de Salud Pública, 1977, table 4.
8. See notes for Midyear Population Estimates.
- 9-10. Projected assuming no significant change in fertility or mortality since 1977.
11. Projected assuming no significant change in the 1977 growth rate.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	5,785	1970	8,551	1950-55	2.0
1955	6,381	1971	8,692	1955-60	1.9
1960	7,027	1972	8,862	1960-65	2.1
1961	7,134	1973	9,036	1965-70	1.8
1962	7,254	1974	9,194	1970-75	1.7
1963	7,415	1975	9,332	1975-79	1.3
1964	7,612	1976	9,464		
1965	7,810	1977	9,597		
1966	7,985				
1967	8,139				
		<b>PROJECTED ESTIMATES</b>			
1968	8,284	1978	9,707		
1969	8,421	1979	9,824		

**NOTES:** 1950—Estimated by FDAD based on an official estimate for midyear 1953 reported in Junta Central de Planificación, 1974, p. 26, and the net change for 1950-53 implied by U.N. estimates.

1955—Estimated by FDAD based on official Dec. 31 estimates for 1954 and 1955 reported in Comité Estatal de Estadísticas, 1975, p. 26.

1960-75—Reported in Comité Estatal de Estadísticas, 1975, p. 30.

1976-77—Reported in Ministerio de Salud Pública, 1977, table 1.

1978-79—Projected by FDAD based on the assumptions that fertility and mortality declined slightly from the estimated 1977 levels and that net migration was negligible.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
January 28, 1953	5,829,029		Final census figures for 1953 and 1970 as reported in Comité Estatal de Estadísticas, 1975, p. 26.
September 6, 1970	8,569,121		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1970	28	7	1.5	3.74
1975	22	6	1.5	2.93
1976	20	6	1.4	2.75
1977	18	6	1.2	2.42

**NOTES:** Crude birth and death rates are based on registered vital events (Comité Estatal de Estadísticas, 1975, p. 32; and Ministerio de Salud Pública, 1977, table 4) adjusted by FDAD.

The growth rates are the differences between unrounded birth and death rates, and estimated net emigration rates of 6.6 and 0.3 per 1,000 population for 1970 and 1975, respectively. Net international migration was assumed to be insignificant after 1975.

Total fertility rates were estimated by FDAD based on adjusted registered births by age of mother, and female population.

**MAJOR SOURCES**

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Council for Mutual Economic Aid (CMEA). Secretariat. 1979. *Statistical Yearbook of the Member Countries of the Council for Mutual Economic Aid 1978* (in Russian). Moscow.

Junta Central de Planificación. Dirección Central de Estadística. 1974. *Anuario Estadístico de Cuba 1974*. Havana.

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## BENCHMARK DATA

1. Enumerated population, census of January 9-10, 1970.....	4,009,458
2. Adjusted population, census of January 9-10, 1970.....	4,284,000
3. Births per 1,000 population, 1974-75.....	40
4. Deaths per 1,000 population, 1965-70.....	13
5. Annual rate of growth, 1965-70 (percent).....	3.2
6. Life expectancy at birth, 1965-70.....	55
7. Infant deaths per 1,000 live births, 1965-70.....	96

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	5,551,000
9. Births per 1,000 population, 1978.....	35-37
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	2.4-2.6

## NOTES:

1. Final census figure as reported in Oficina Nacional de Estadística, 1976, table 2.
2. Estimate for the census date based on the midyear 1970 population adjusted by García (1974, tables 42 and 43) in an analysis of a 20 percent sample of preliminary census returns, and an estimated growth rate for midyear 1969 to 1970. A net underenumeration of 6.4 percent is implied.
3. Based on 1974-75 age-specific fertility rates estimated by Bartlema (1978, p. 13) derived from an application of the own-children method to data from the National Fertility Survey and the 1975 medium variant female age distribution and total population projected at the U.S. Bureau of the Census.
4. Based on the average number of deaths occurring between 1965 and 1970, and an estimated population for the midpoint of the period. The average number of deaths was calculated from the adjusted 1965 midyear population and number of persons who survived to midyear 1970, and the estimated number of births which occurred during the 1965-70 period who survived to midyear 1970 (García, 1974, tables 42 and 43).
5. Based on adjusted 1965 and 1970 midyear population figures (García, 1974, tables 42 and 43).
6. Estimated by García (1974, table 7), taking into consideration Brass mortality estimates based on a 20 percent sample of 1970 census returns, the 1960-70 intercensal survival ratios, and a Coale-Demeny west region pattern of mortality.
7. Calculated from Coale-Demeny west region model life tables selected based on the survival ratios from birth to 1 year of age estimated by García (1974, tables 8 and 9).
8. See notes for Midyear Population Estimates.
9. Projected range of variation based on assumed trends in fertility since 1970 which take into account results by Bartlema (1978) from the application of the own-children method to data from the National Fertility Survey.
10. Projected based on assumed trends in mortality since 1965-70.
11. Projected range of variation given selected combinations of unrounded crude birth, death, and net emigration rates (34.6, 8.7, and 2.2 per 1,000 population, and 36.7, 8.8, and 2.2 per 1,000 population, respectively). Net emigration rates are based on the estimated average annual number of net emigrants from the continuous registration system (Campanario and Segovia, 1978, p. 22; and García, 1974, p. 18).

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate		
1950	2,312	<b>PROJECTED ESTIMATES</b>		1950-55	3.0		
1955	2,685			1955-60	3.3		
1960	3,159			1970	4,343	1960-65	3.2
1961	3,255			1971	4,477	1965-70	3.2
1962	3,357			1972	4,611	1970-75	2.9
1963	3,465			1973	4,747	1975-79	2.6
1964	3,580			1974	4,876		
1965	3,703			1975	5,010		
1966	3,833			1976	5,144		
1967	3,963			1977	5,280		
1968	4,092	1978	5,415				
1969	4,218	1979	5,551				

**NOTES:** 1950-69—Based on adjusted 1950, 1955, 1960, 1965, and 1970 midyear population figures (García, 1974, tables 42, 43, and 44) and estimated trends in fertility, mortality, and migration during the respective 5-year periods.

1970-79—Projected at the U.S. Bureau of the Census by the component method based on the 1970 adjusted midyear population, by age and sex (García, 1974, tables 42 and 43), assumed declines in fertility which take into account own-children estimates based on the National Fertility Survey (Bartlema, 1978, p. 13), assumed declines in mortality (García, 1974), and constant net migration (García, 1974; and Campanario and Segovia, 1978, table 10).

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
August 6, 1950	2,135,872	2,318,000	Enumerated populations for 1950 and 1960 as reported in <i>UNDY 1970</i> , table 7; and for 1970 as reported in Oficina Nacional de Estadística, 1976, table 2.
August 7, 1960	3,047,070	3,169,000	
January 9, 1970	4,009,458	4,284,000	

The adjusted 1950, 1960, and 1970 censuses are implied by adjusted midyear population figures (García, 1974, tables 42 and 43) and estimated midyear 1950-51, 1960-61, and 1969-70 growth rates, respectively. The 1970 analysis was based on a 20 percent sample of preliminary census returns.

## DOMINICAN REPUBLIC

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950-55				
1955-60			3.0	
1960-65	51		3.3	
1965-70	45	13	3.2	7.61
1970	43		3.2	7.02
				6.67
1970-75	42			
1974-75	40			6.32
				5.85

**NOTES:** Crude birth rates for 1960-75, 1965-70, and 1970 are based on period age-specific fertility rates from Bartlema (1978, p. 13) derived by an application of the own-children method to data from the National Fertility Survey and populations estimated by CELADE (U.N., 1978). The 1970-75 and 1974-75 rates are also based on age-specific fertility rates estimated by Bartlema (1978, p. 13) and female population by age and sex, projected at the U.S. Bureau of the Census.

The crude death rate is based on the average number of deaths occurring between 1965 and 1970 and an estimated population for the midpoint of the period. The average number of deaths was calculated from the adjusted 1965 midyear population and number of persons who survived to mid-year 1970, and an estimated number of births which occurred during the 1965-70 period who survived to midyear 1970 (García, 1974, tables 42 and 45).

Growth rates were reported by García (1974, tables 42-44) based on adjusted 1950, 1955, 1960, 1965, and 1970 midyear population figures and estimated trends in fertility, mortality, and migration for the respective 5-year periods.

The total fertility rate for 1960-65 was based on pregnancy history data from the National Fertility Survey (Bartlema, 1978, p. 13); those for 1965-70, 1970-75, and 1974-75 were reported in Bartlema (1978, p. 13) based on an application of the own-children method to data from the National Fertility Survey; and that for 1970 was based on an average of the 1965-70 and 1970-75 period age-specific fertility rates estimated by Bartlema (1978, p. 13).

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**BENCHMARK DATA**

1. Enumerated population, census of June 8, 1974.....	6,521,710
2. Adjusted population, census of June 8, 1974.....	6,686,000
3. Births per 1,000 population, 1965-70.....	44
4. Deaths per 1,000 population, 1965-70.....	14
5. Annual rate of growth 1965-70 (percent).....	3.0
6. Life expectancy at birth, 1965-70.....	61
7. Infant deaths per 1,000 live births, 1965-70.....	115

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	7,763,000
9. Births per 1,000 population, 1978.....	41-42
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	3.0-3.1

**NOTES:**

1. Final census figure as reported in OAS, 1977, table 2.
2. Estimate for the census date based on an estimated midyear population for 1974 and an estimated midyear 1973-74 growth rate, which implies 2.5 percent net underenumeration.
3. Estimated by the U.N. (1977) taking into consideration fertility estimates based on the 1974 census using the Brass fertility technique, the own-children method, and rejuvenation of children under age 15.
4. Estimated by the U.N. (1977), taking into consideration results of the logit technique using 1962 and 1974 census data, the child survivorship technique based on 1974 census data, and an evaluation of registered deaths in relation to the age structure of the population.
5. Based on unrounded crude birth and death rates (44.2 and 13.8 per 1,000 population, respectively) estimated by the U.N. (1977) and an estimated net migration rate of 0.8 per 1,000 population (U.N., 1977). Estimated migration is based on the difference between the adjusted 1974 census and a projected population from the 1962 census which is comparable to the number of Ecuadorians found in the censuses of other countries.
- 6-7. Based on U.N. life tables (1977) and an assumed sex ratio at birth of 1.05. The life tables were derived using the logit and child survivorship techniques, registered deaths by age, and the age structure of the population.
8. See notes for Midyear Population Estimates.
- 9-10. Derived by interpolation of 1970-75 and 1975-80 projected rates from U.N. high and low variant projections (U.N., 1977) which take into consideration results from the 1974 census. The crude death rate rounds to the same number for both variants.
11. Projected range of variation based on selected combinations of unrounded crude birth, death, and net emigration rates (41.1, 10.2, and 0.9 per 1,000 population and 41.8, 10.3, and 0.9 per 1,000 population, respectively) as reported by the U.N. (1977).

## ECUADOR

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,307	1970	5,958	1950-55	2.8
1955	3,812	1971	6,146	1955-60	3.0
1960	4,422	1972	6,336	1960-65	3.0
1961	4,557	1973	6,515	1965-70	3.0
1962	4,696	1974	6,697	1970-75	2.9
1963	4,841	1975	6,891	1975-79	3.0
1964	4,988	1976	7,090		
1965	5,134	1977	7,308		
1966	5,300				
1967	5,465				
		<b>PROJECTED ESTIMATES</b>			
1968	5,631	1978	7,532		
1969	5,793	1979	7,763		

**NOTES:** 1950-77—Based on estimated midyear populations for every fifth year 1950 to 1975 (U.N., 1977, table 10) taking into account the registered births and deaths and estimated net migration.

1978-79—Projected based on a continuation of the 1976-77 growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
November 29, 1950	3,202,757	3,346,000	The 1950 enumerated population as reported in <i>UNDY 1970</i> , table 7; and the 1962 and 1974 enumerated populations as reported in OAS, 1977, table 2.
November 25, 1962	4,476,007	4,754,000	
June 8, 1974	6,521,710	6,699,000	

The adjusted 1950 census population was calculated at the U.S. Bureau of the Census based on an estimated midyear population for 1950 and an estimated 1950-51 growth rate, which implies 4.3 percent net underenumeration. The adjusted 1962 census population was calculated at the U.S. Bureau of the Census based on an estimated midyear population for 1962 and an estimated 1962-63 growth rate, which implies 5.8 percent net underenumeration. The adjusted 1974 census population was calculated at the U.S. Bureau of the Census based on an estimated midyear population for 1974 and an estimated 1973-74 growth rate, which implies 2.7 percent net underenumeration.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950-55	48	19	2.8	7.0
1955-60	47	17	3.0	7.0
1960-65	46	16	3.0	7.0
1965-70	44	14	3.0	6.8

**NOTES:** Crude birth and death rates were estimated by CELADE (1977, table 9). Crude birth rates were based on 1974 census data on own-children and crude death rates were based on life tables using the Brass logit technique and 1974 census data on children ever born and children surviving (U.N., 1977, table 9).

Growth rates for 1950-55 and 1955-60 were calculated from unrounded crude birth and death rates. Growth rates for 1960-65 and 1965-70 were calculated from unrounded crude birth and death rates and estimated net emigration rates per 1,000 population (U.N., 1977, table 9) of 0.5 for 1960-65 and 0.8 for 1965-70.

Total fertility rates were estimated by CELADE (U.N., 1977, table 9) based on 1974 census data on own children.

**MAJOR SOURCES**

Organization of American States (OAS). 1977. *Boletín Estadístico*, no. 145, July. Washington, D.C.

United Nations. CELADE. 1977. "Ecuador. Proyecciones de Población por Sexo y Grupos de Edades 1950-2000." Unpublished.

## BENCHMARK DATA

1. Enumerated population, census of March 26, 1973.....	5,160,221
2. Adjusted population, census of March 26, 1973.....	5,699,000
3. Births per 1,000 population, 1976.....	43
4. Deaths per 1,000 population, 1975.....	13
5. Annual rate of growth, 1975 (percent).....	2.8
6. Life expectancy at birth, 1970-72.....	53
7. Infant deaths per 1,000 live births, 1976.....	76

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	6,849,000
9. Births per 1,000 population, 1978.....	41-42
10. Deaths per 1,000 population, 1978.....	10-11
11. Annual rate of growth, 1978 (percent).....	3.0-3.2

## NOTES:

- Final census figure (Dirección General de Estadística, 1975, table 1).
- Census population adjusted for 9.5 percent net underenumeration (U.S. Bureau of the Census, 1977).
- 3-4. Estimated at the U.S. Bureau of the Census based on registered births and deaths (OAS, 1979) and estimated population. A crude death rate of 13.0 for 1976 was published by the OAS (1979), but this rate excludes most of the 23,000 earthquake deaths which were largely unregistered.
- Difference between unrounded crude birth and death rates for 1975 (40.9 and 12.9 per 1,000 population, respectively).
- Calculated from empirical life tables prepared at the U.S. Bureau of the Census (1977).
- Registered rate as reported in *PVSR April 1979*, which most likely represents an undercount due to the undetermined number of infant deaths in the 1976 earthquake.
- See notes for Midyear Population Estimates.
- Projected range of variation based on assumed trends in fertility since 1976.
- Projected based on assumed trends in mortality since 1975, with 1976 earthquake mortality treated separately.
- Range of variation given possible combinations of unrounded crude birth and death rates (40.8 and 10.3, and 41.9 and 10.4 per 1,000 population, respectively).

**Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,024	1970	5,262	1950-55	2.6
1955	3,452	1971	5,407	1955-60	2.8
1960	3,969	1972	5,572	1960-65	2.9
1961	4,094	1973	5,743	1965-70	2.7
1962	4,220	1974	5,919	1970-75	2.9
1963	4,343	1975	6,096	1975-79	2.9
1964	4,470	<b>PROJECTED ESTIMATES</b>			
1965	4,595	1976	6,253		
1966	4,725	1977	6,447		
1967	4,861				
1968	4,996	1978	6,646		
1969	5,129	1979	6,849		

**NOTES:** 1950-75—Based on the adjusted 1950, 1964, and 1973 censuses, and adjusted vital rates for each year, 1950 to 1976.

1976-79—Projected at the U.S. Bureau of the Census by the component method based on the 1975 adjusted midyear population.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
April 18, 1950	2,790,868	3,024,000	Enumerated populations for 1950, 1964, and 1973 as reported by Dirección General de Estadística (1971, table I; and 1975, table I).
April 18, 1964	4,287,997	4,445,000	
March 26, 1973	5,160,221	5,699,000	

The 1950 and 1964 censuses were adjusted by CELADE (U.N., 1970, p. 6) for 7.7 percent and 3.6 percent net underenumeration, respectively; the 1973 census was adjusted by the U.S. Bureau of the Census (1977) for 9.5 percent net underenumeration.

## GUATEMALA

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	48	23	2.5	
1964	44	16	2.8	6.38
1970	40	15	2.6	5.68
1971	42	12	2.9	5.96
1972	43	12	3.1	6.11
1973	42	12	2.9	5.81
1974	43	12	3.1	
1975	41	13	2.8	
1976	43			

**NOTES:** Crude birth rates were based on registered births and midyear populations estimated at the U.S. Bureau of the Census. Births for 1950 were adjusted for 1 percent underregistration; those for subsequent years were unadjusted.

Crude death rates were based on registered deaths and midyear populations estimated at the U.S. Bureau of the Census. Deaths were adjusted for 12 percent underregistration in 1950 and 6 percent in 1964; those for subsequent years were unadjusted.

Total fertility rates were based on unadjusted registered births for 1964, and 1970 to 1973. The births distributed by age of mother were applied to midyear female populations estimated at the U.S. Bureau of the Census.

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## BENCHMARK DATA

1. Enumerated population, census of September 1, 1971.....	4,329,991
2. Adjusted population, census of September 1, 1971.....	NA
3. Births per 1,000 population, 1965-70.....	44
4. Deaths per 1,000 population, 1965-70.....	19
5. Annual rate of growth, 1965-70 (percent).....	2.1
6. Life expectancy at birth, 1965-70.....	46
7. Infant deaths per 1,000 live births, 1965-70.....	150

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	5,670,000
9. Births per 1,000 population, 1978.....	41-43
10. Deaths per 1,000 population, 1978.....	15-16
11. Annual rate of growth, 1978 (percent).....	2.3-2.5

## NOTES:

- Final census figure as reported in *PVSR April 1979*. Based on results of a 10 percent sample of population in rural areas and a complete enumeration in all other areas. Population is de jure.
- The 1971 census has not been evaluated for possible coverage error. An estimate for the census date based on the projected midyear 1970 population (U.N., 1978) and estimated growth rates for 1970-71 and 1971-72 implies 8.4 percent net underenumeration.
- Estimated by the U.N. (1978), taking into consideration fertility estimates based on the 1971 census and Brass estimates of the 1973 rounds of the Multi-round Demographic Survey, and own-children estimates based on a sample of the 1971 census.
- Estimated by the U.N. (1978), taking into consideration Brass mortality estimates based on results from the 1971 census and the Brass growth balance equation technique based on census reported deaths.
- Based on the unrounded crude birth and death rates (43.7 and 19.3 per 1,000 population, respectively) estimated by the U.N. (1978), and an estimated net emigration rate of 3.0 per 1,000 population (U.N., 1978). Estimated migration takes into consideration results from the 1973 rounds of the Multi-round Demographic Survey, official migration data, immigration data for the United States and Canada, and migration data collected by censuses in various other Latin American countries (Hobcraft, 1978, tables I.1-I.6).
- Estimated by the U.N. (as reported by Moya and Somoza, 1978, p. 5), taking into consideration Brass mortality estimates based on results from the 1971 census, and the Brass death distribution technique based on census reported deaths.
- See notes for Midyear Population Estimates.
- Derived by interpolation of 1970-75 and 1975-80 projected rates from U.N. constant, high, medium, and low variant projections (U.N., 1978) which take into consideration estimates derived from results of the 1971 census and the 1973 rounds of the Multi-round Demographic Survey.
- Projected range of variation based on selected combinations of unrounded crude birth, death, and net emigration rates (41.2, 15.5, and 2.4 per 1,000 population, and 42.9, 15.7, and 2.3 per 1,000 population, respectively) as reported in U.N., 1978.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	3,097	1968	4,412	1950-55	1.7
<b>PROJECTED ESTIMATES</b>		1969	4,507	1955-60	2.0
1955	3,376	1970	4,605	1960-65	2.1
1960	3,723	1971	4,707	1965-70	2.1
1961	3,800	1972	4,814	1970-75	2.3
1962	3,880	1973	4,924	1975-79	2.4
1963	3,964	1974	5,038		
1964	4,050	1975	5,157		
1965	4,137	1976	5,279		
1966	4,227	1977	5,405		
1967	4,318	1978	5,520		
		1979	5,670		

**NOTES:** 1950-79—Based on estimated and projected 1950, 1955, 1960, 1965, 1970, 1975, and 1980 midyear population figures (U.N., 1978). Projected population figures are based on the 1950 census and estimated and projected trends in fertility, mortality, and migration during the respective 5-year periods, which take into consideration results from the 1971 census and the 1973 rounds of the Multiround Demographic Survey.

The following census was used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
August 7, 1950	3,097,220		The 1950 enumerated population is de jure, excluding 84 diplomatic personnel stationed outside the country, as reported in <i>UNDY 1970</i> , table 6.

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1965-70	44	19	2.1	6.15

**NOTES:** Crude birth rate and total fertility rate were estimated by the U.N. (1978), taking into consideration fertility estimates based on the retrospective fertility question of the 1971 census, Brass estimates of the 1973 rounds of the Multi-round Demographic Survey, and own-children estimates based on a sample of the 1971 census.

Crude death rate was estimated by the U.N. (1978), taking into consideration Brass mortality estimates based on results from the 1971 census and the Brass death distribution technique based on census reported deaths.

Growth rate was based on the unrounded crude birth and death rates (43.7 and 19.3 per 1,000 population, respectively) estimated by the U.N. (1978), and an estimated net emigration rate of 3.0 per 1,000 population (U.N., 1978). Estimated migration takes into consideration results from the 1973 rounds of the Multi-round Demographic Survey, official migration data, immigration data for the United States and Canada, and migration data collected by censuses in various other Latin American countries (Hobcraft, 1978, tables I.1-I.6).

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## BENCHMARK DATA

1. Enumerated population, census of January 28, 1970.....	48,225,238
2. Adjusted population, census of January 28, 1970.....	49,417,000
3. Births per 1,000 population, 1977-78.....	37
4. Deaths per 1,000 population, 1970.....	10
5. Annual rate of growth, 1970 (percent).....	3.2
6. Life expectancy at birth, 1969-71.....	60
7. Infant deaths per 1,000 live births, 1972-74.....	70

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	65,770,000
9. Births per 1,000 population, 1978.....	36
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	2.7

## NOTES:

- Final census figure (Dirección General de Estadística, 1972, table 8).
- Census population adjusted for 2.4 percent net underenumeration (U.S. Bureau of the Census, 1979).
- Based on 1977-78 age-specific fertility rates from the 1978 National Prevalence Survey on the Use of Contraceptive Methods (Coordinación del Programa Nacional de Planificación Familiar, 1979, p. 27) and projected Jan. 1, 1978 population (U.S. Bureau of the Census, 1979).
- Based on registered deaths (*UNDY 1974*, table 24) adjusted for 3 percent net under-registration at the U.S. Bureau of the Census, and adjusted 1970 census population moved to midyear (U.S. Bureau of the Census, 1979).
- Difference between unrounded 1970 crude birth and death rates (42.6 and 10.0 per 1,000 population, respectively) and a net emigration rate of 1.0 per 1,000 population estimated at the U.S. Bureau of the Census (1979). The migration rate is based on statistics on immigration into the United States and Canada (U.S. Immigration and Naturalization Service, various issues; and Canada Manpower and Immigration, 1971, table 9). These can be considered as minimum estimates of the actual number of emigrants since there is a great deal of uncertainty concerning the true levels of international migration for Mexico.
- Calculated from empirical life tables prepared at the U.S. Bureau of the Census (1979).
- Based on live births to ever-married women during the period 1972 to 1974 and deaths to population aged 0 to 1 during the same period from the 1976 National Fertility Survey (Coordinación General del Sistema Nacional de Información, 1979, p. 174).
- See notes for Midyear Population Estimates.
- Projected based on assumed trends in fertility since 1977-78 (U.S. Bureau of the Census, 1979).
- Projected based on an assumed trend in mortality taking into consideration registered deaths since 1970 (various issues of *UNDY* and *PVSR January 1979*).
- Projected based on the difference between unrounded crude birth and death rates and a net emigration rate of 1.0 per 1,000 population. The migration rate is based on the assumption that the average annual number of immigrants to the United States and Canada for the period 1972-76 would remain constant through 1979 (U.S. Bureau of the Census, 1979).

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate		
1950	26,715	1970	50,078	1950-55	2.8		
1955	30,781	<b>PROJECTED ESTIMATES</b>				1955-60	3.2
1960	36,182					1960-65	3.3
1961	37,374	1971	51,679	1965-70	3.2		
1962	38,597	1972	53,334	1970-75	3.2		
1963	39,859	1973	55,055	1975-79	2.8		
1964	41,198	1974	56,842				
1965	42,601	1975	58,692				
1966	44,041	1976	60,546				
1967	45,515	1977	62,343				
1968	47,016	1978	64,087				
1969	48,542	1979	65,770				

**NOTES:** 1950-70—Based on the inflated 1950 census, the adjusted 1960 and 1970 censuses and the trend in adjusted annual registered births and deaths from 1950 to 1970 (U.S. Bureau of the Census, 1979).

1971-79—Projected at the U.S. Bureau of the Census (1979) by the component method based on the 1970 adjusted census population moved to midyear, by age and sex. Fertility trends during the period were based on results from the 1976 National Fertility Survey and the 1978 National Prevalence Survey on the Use of Contraceptive Methods. The trend of mortality during the period was assumed considering the past trend of mortality as well as registered deaths (various issues of *UNDY*) since 1970. The trend of migration was derived using statistics on immigration into the United States and Canada for each year 1970 to 1976.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 6, 1950	25,791,017	26,665,000	Enumerated populations as reported in <i>UNDY 1970</i> , table 7; and <i>UNDY 1973</i> , table 6.  The 1960 and 1970 enumerated populations were adjusted at the U.S. Bureau of the Census (1979) for 3.3 percent and 2.4 percent net underenumeration, respectively. The 1950 enumerated population was inflated assuming the same percent net underenumeration as found for the 1960 census.
June 8, 1960	34,923,129	36,106,000	
January 28, 1970	48,225,238	49,417,000	

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	46	17	2.8	
1960	46	12	3.3	6.69
1970	43	10	3.2	6.54
1975	42			6.03
1977-78	37			5.18

**NOTES:** The 1950 and 1960 crude birth rates were estimated at the U.S. Bureau of the Census (1979) based on registered births adjusted for 5 and 3 percent underregistration, respectively, and estimated midyear population for 1950 and 1960. The 1970 crude birth rate was based on registered births (*UNDP 1975*, table 20) and estimated 1970 midyear population. The 1975 crude birth rate was based on age-specific fertility rates (Coordinación General del Sistema Nacional de Información, 1979, table VII.1) and projected 1975 midyear population. The 1977-78 crude birth rate was based on age-specific fertility rates from the 1978 National Prevalence Survey on the Use of Contraceptive Methods (Coordinación del Programa Nacional de Planificación Familiar, 1979, p. 29) and projected Jan. 1, 1978, population.

The 1950, 1960, and 1970 crude death rates were estimated at the U.S. Bureau of the Census (1979) based on registered deaths adjusted for underregistration of 8 percent in 1950, 5 percent in 1960, and 3 percent in 1970, and estimated midyear populations.

The 1950, 1960, and 1970 growth rates are based on the difference between unrounded crude birth and death rates for the respective years and an implied net emigration rate of 1.0 per 1,000 population for each year. Net emigration is implied by the intercensal growth rates for the periods 1950-60 and 1960-70, and trends in registered births and deaths.

The total fertility rates for 1960 and 1970 were estimated at the U.S. Bureau of the Census (1979). The rate for 1960 was based on registered births by age of mother, adjusted for 3 percent underregistration and adjusted midyear female population, by age. The rate for 1970 is based on registered births, by age of mother, and adjusted midyear female population, by age. The 1975 total fertility rate is based on pregnancy history data as reported in the 1976 Mexican Fertility Survey (Coordinación General del Sistema Nacional de Información, 1979, table VII.1). The figure for 1977-78 is based on births during the 12 months prior to the 1978 National Prevalence Survey on the Use of Contraceptive Methods (Coordinación del Programa Nacional de Planificación Familiar, 1979, p. 27).

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**BENCHMARK DATA**

1. Enumerated population, census of June 4, 1972.....	13,538,208
2. Adjusted population, census of June 4, 1972.....	14,235,000
3. Births per 1,000 population, 1975.....	38
4. Deaths per 1,000 population, 1975.....	13
5. Annual rate of growth, 1975 (percent).....	2.5
6. Life expectancy at birth, 1970-75.....	55
7. Infant deaths per 1,000 live births, 1970-75.....	130

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	17,164,000
9. Births per 1,000 population, 1978.....	36-39
10. Deaths per 1,000 population, 1978.....	12
11. Annual rate of growth, 1978 (percent).....	2.5-2.7

**NOTES:**

- Final census figure (Oficina Nacional de Estadística y Censos, 1975, table 1). Excludes an estimated 39,800 jungle population.
- Estimate for the census date based on an adjusted midyear population for 1972 and an estimated 1970-75 growth rate (U.N., 1978b), which implies 4.9 percent net under-enumeration.
- Adjusted rate as reported in INE, 1978b, p. 13, based on age-specific fertility rates adjusted by the Brass fertility technique ( $P_2/F_2$  ratio) using data from the 1974-76 multi-round National Demographic Survey.
- Adjusted rate as reported in INE, 1978a, p. 67, based on age-sex-specific central death rates, adjusted by the logit mortality technique, which takes into consideration child survivorship, orphanhood, and widowhood techniques applied to data from the 1974-76 multi-round National Demographic Survey.
- Difference between crude birth and death rates.
- 6-7. Derived from estimated life tables for both sexes as reported in INE, 1978a, p. 52. Life tables were generated from age-sex-specific central death rates, adjusted by the logit mortality technique, taking into consideration results from child survivorship, orphanhood, and widowhood techniques applied to data from the 1974-76 multi-round National Demographic Survey.
- See notes for Midyear Population Estimates.
- 9-11. Projected range of variation based on 1975-80 and 1980-85 projected rates from CELADE's high, medium, and low variant projections (U.N., 1978b), and estimates from the multi-round National Demographic Survey.

### Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979 (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	7,832	1970	13,504	1950-55	2.5
1955	8,864	1971	13,879	1955-60	2.7
1960	10,162	1972	14,264	1960-65	2.9
1961	10,438	1973	14,660	1965-70	2.8
1962	10,727	1974	15,067	1970-75	2.7
1963	11,040	1975	15,485	1975-79	2.6
1964	11,372	<b>PROJECTED ESTIMATES</b>			
1965	11,721	1976	15,888		
1966	12,065	1977	16,302		
1967	12,432				
1968	12,798	1978	16,727		
1969	13,148	1979	17,164		

**NOTES:** 1950-75—Based on estimated midyear populations for every fifth year, 1950 to 1975 (U.N., 1978b) implying the same underenumeration in the 1961 and 1972 censuses, the trend in fertility and mortality as measured by the vital registration system for 1950-70, and an analysis of the 1972 census and the 1974-76 multi-round National Demographic Survey.

1976-79—Projected based on estimated 1975 midyear population and interpolated crude birth and death rates from CELADE's recommended projection series (U.N., 1978b), taking into account final results from the 1974-76 multi-round National Demographic Survey.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 2, 1961	9,906,746	10,416,000	Enumerated populations as reported by Oficina Nacional Estadística y Censos, 1975, table 3.
June 4, 1972	13,538,208	14,235,000	

The 1961 and 1971 adjusted populations are implied by estimated midyear populations for 1961 and 1972, respectively, and estimated 1960-61 and 1970-72 growth rates. The figures imply 4.9 percent net underenumeration for both the 1961 and 1972 censuses.

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1962-64				6.04
1965-67				6.25
1968-70				6.35
1971-73	40			5.88
1974-76				5.47
1975	38	13	2.5	5.61

**NOTES:** The 1975 crude birth, death, growth, and total fertility rates as reported in INE, 1978a, p. 67; and 1978b, p. 13.

The 1972 crude birth rate is based on reported 1971-73 age-specific fertility rates (INE, 1978b, p. 18) and a 1972 female age distribution derived from CELADE (U.N., 1978b).

The total fertility rates for 1962-64, 1965-67, 1968-70, 1971-73, and 1974-76 are based on reported age-specific fertility rates (INE, 1978b, p. 18), which take into consideration results from the own-children method and Brass fertility technique applied to data from the 1974-76 multiround National Demographic Survey.

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## BENCHMARK DATA

1. Enumerated population, census of November 2, 1971.....	10,721,522
2. Adjusted population, census of November 2, 1971.....	11,234,000
3. Births per 1,000 population, 1977.....	36
4. Deaths per 1,000 population, 1977.....	6
5. Annual rate of growth, 1977 (percent).....	3.3
6. Life expectancy at birth, 1971.....	65
7. Infant deaths per 1,000 live births, 1975-77.....	45

## PROJECTED ESTIMATES

8. Population, July ., 1979.....	14,539,000
9. Births per 1,000 population, 1978.....	36
10. Deaths per 1,000 population, 1978.....	6
11. Annual rate of growth, 1978 (percent).....	3.3

## NOTES:

1. Census figure as reported in Dirección General de Estadística y Censos Nacionales, 1974, table 1.
2. Estimate for the census date based on a midyear population for 1971 estimated by CELADE and an estimated 1971-72 growth rate implying 4.6 percent net underenumeration.
3. Calculated based on registered births (*PVSR October 1979*) adjusted at the U.S. Bureau of the Census for 4 percent underregistration, and the estimated 1977 midyear population. The adjustment for births was based on a study by Picouet (1977) of registered births for 1957-75 assuming the same underregistration in 1977 as was estimated for 1975.
4. Calculated based on registered deaths (*PVSR October 1979*) adjusted at the U.S. Bureau of the Census for 8 percent underregistration, and the estimated 1977 midyear population. The adjustment for deaths was based on the trend in underregistration estimated by comparing registered deaths for 1960-75 with CELADE's estimated deaths for these years (U.N., 1978b).
5. Difference between unrounded crude birth and death rates and a net immigration rate of 3.4 per 1,000. Net immigration was estimated at the U.S. Bureau of the Census based on a study of emigration from Colombia to Venezuela during 1963-73 (Colombia, 1977).
6. Derived from a life table for both sexes estimated at the U.S. Bureau of the Census based on adjusted registered deaths for 1971 and a sex ratio at birth of 1.05.
7. Calculated from registered infant deaths and births (*UNDY 1977*, table 15; and *PVSR July 1973*) adjusted for 8 and 4 percent underregistration, respectively.
8. See notes for Midyear Population Estimates.
- 9-10. Projected assuming no significant change in fertility or mortality since 1977.
11. Projected assuming a continuation of the 1977 growth rate.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	5,145	1970	10,709	1950-55	3.4
1955	6,110	1971	11,101	1955-60	4.4
1960	7,632	1972	11,497	1960-65	3.6
1961	7,920	1973	11,891	1965-70	3.2
1962	8,210	1974	12,299	1970-75	3.4
1963	8,511	1975	12,722	1975-79	3.3
1964	8,814	1976	13,153		
1965	9,119	1977	13,605		
1966	9,422				
1967	9,728				
		<b>PROJECTED ESTIMATES</b>			
1968	10,045	1978	14,064		
1969	10,361	1979	14,539		

**NOTES:** 1950-70—Based on estimated midyear populations for every fifth year, 1950-70 (U.N., 1978b), and the estimated trend in fertility, mortality, and migration.

1971-77—Based on 1970 estimated midyear population, adjusted births and deaths, and estimated net immigration.

1978-79—Projected assuming a continuation of the 1977 growth rate.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
November 26, 1950	5,034,838	5,212,000	The 1950 and 1961 enumerated populations as reported in <i>UNDY 1970</i> , table 7. The 1971 enumerated population as reported in Dirección General de Estadística y Censos Nacionales, 1974, table 1.
February 26, 1961	7,523,999	7,520,000	
November 2, 1971	10,721,522	11,234,000	

The 1950, 1961, and 1971 adjusted populations were calculated at the U.S. Bureau of the Census. The 1950 adjusted population is based on a midyear population for 1950 estimated by CELADE and an estimated 1950-51 growth rate, which implies 3.4 percent net underenumeration. The 1961 adjusted population is based on a midyear population for 1961 estimated by CELADE and an estimated 1960-61 growth rate, which implies 3.8 percent net underenumeration. The 1971 adjusted population is based on the midyear population for 1971 projected by CELADE and which implies 4.6 percent net underenumeration.

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950-55	46	13	3.4	6.5
1955-60	46	11	4.4	6.7
1960-65	45	10	3.6	6.7
1965-70	39	8	3.2	6.0
1971	39	7	3.6	5.8
1975	37	6	3.4	
1976	36	6	3.3	
1977	36	6	3.3	

**NOTES:** The 1950-55, 1955-60, 1960-65, and 1965-70 crude birth rates were estimated by CELADE (U.N., 1978b) based on registered births for 1950-70, and 1950 and 1961 census data on children ever born.

The 1971 and 1975 to 1977 crude birth rates were estimated at the U.S. Bureau of the Census based on adjusted registered births and estimated midyear population. The adjustment for births was based on a study by Picouet (1977) of registered births for 1957-75.

The 1950-55, 1955-60, 1960-65, and 1965-70 crude death rates were estimated by CELADE (U.N., 1978b) based on intercensal survival ratios. The crude death rates for 1971 and 1975 to 1977 were estimated at the U.S. Bureau of the Census based on adjusted registered deaths and the estimated midyear populations. The adjustment for deaths was based on the trend in under-registration estimated by comparing registered deaths for 1960-75 with deaths estimated by CELADE for these years (U.N., 1978b).

Growth rates for 1950-55, 1955-60, 1960-65, and 1965-70 were estimated by CELADE (U.N., 1978b). Immigration during the 1950-61 intercensal period was based on data on foreigners enumerated in the censuses, and was attributed primarily to the period 1955-60. Based on census data for 1961 and 1970, an apparent emigration of foreign population was determined for that intercensal period, compensated by immigration, especially of Colombians (U.N., 1978a). Growth rates for 1971 and 1975 to 1977 were calculated from unrounded crude birth and death rates and estimated net immigration from Colombia (Colombia, 1977). The net immigration rates per 1,000 population were as follows:

Year	1971	1975	1976	1977
Net immigration	4.4	3.7	3.5	3.4

The total fertility rates for 1950-55, 1955-60, 1960-65, and 1965-70 were estimated by CELADE (U.N., 1978b). The total fertility rate for 1971 was estimated at the U.S. Bureau of the Census based on adjusted registered births by age of mother and a midyear female age distribution estimated by the U.S. Bureau of the Census.

## MAJOR SOURCES

Colombia. Departamento Administrativo Nacional de Estadística. 1977. "El Exodo de Colombianos 1963-1973," by Alfonso Arbeláez. *Boletín Mensual de Estadística*, no. 310. Bogotá.

Picouet, Michel R. 1977. "Natalidad y Fecundidad en Venezuela." Paper presented at the Aug. 1977 meeting of the International Union for the Scientific Study of Population, Mexico City. Unpublished.

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**BENCHMARK DATA**

1. Enumerated population, census of June 1, 1976.....	22,992,604
2. Adjusted population, census of June 1, 1976.....	NA
3. Births per 1,000 population, 1978.....	15
4. Deaths per 1,000 population, 1978.....	7
5. Annual rate of growth, 1978 (percent).....	0.9
6. Life expectancy at birth, 1971.....	73
7. Infant deaths per 1,000 live births, 1977.....	12

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	23,688,000
9. Births per 1,000 population, 1978.....	15
10. Deaths per 1,000 population, 1978.....	7
11. Annual rate of growth, 1978 (percent).....	0.9

**NOTES:**

1. Final census figure as reported in Statistics Canada, 1978a, table 4.1.
2. The 1976 census has not been evaluated for possible coverage error. A post enumeration survey was taken but results are not yet available.
- 3-4. Based on registered vital statistics and midyear population for 1978 as reported in Statistics Canada, 1979, pp. 14-16.
5. Based on January 1 population figures for 1978 and 1979 reported in Statistics Canada, 1979, p. 14. The difference between the birth, death, and growth rates implies a net immigration rate of 0.7 per 1,000 population.
6. Calculated from official estimates of life expectancy by sex as reported in Statistics Canada, 1978a, table 4.46.
7. Reported in *PVSR October 1979*.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:**  
**1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	13,737	1970	21,324	1950-55	2.7
1955	15,736	1971	21,595	1955-60	2.6
1960	17,909	1972	21,822	1960-65	1.9
1961	18,269	1973	22,072	1965-70	1.6
1962	18,615	1974	22,395	1970-75	1.3
1963	18,965	1975	22,727	1975-79	1.0
1964	19,325	1976	23,025		
1965	19,678	1977	23,280		
1966	20,048	1978	23,499		
1967	20,412				
1968	20,729	<b>PROJECTED ESTIMATES</b>			
1969	21,028	1979	23,688		

**NOTES:** 1950 and 1955 - Reported in *UNDP 1966*, table 4.

1960-75 - Reported in OECD, 1972, pp. 14-15; and 1979, pp. 14-15.

1976-78 - Reported in Statistics Canada, 1979, p. 14.

1979 - Estimated by FDAD based on an official estimate for June 1, 1979 reported in Statistics Canada, 1979, p. 14, and on the assumption that the net change between June 1 and July 1 would be the same as the net change for the same period in 1978.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 1, 1951	14,009,429		Census data as reported in Statistics Canada, 1978a, table 4.1. Population is de jure.
June 1, 1956	16,080,791		
June 1, 1961	18,238,247		
June 1, 1966	20,014,880		
June 1, 1971	21,568,311		
June 1, 1976	22,992,604		

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	27	9	1.9	3.46
1955	28	8	2.4	3.83
1960	27	8	2.1	3.90
1965	21	8	1.8	3.14
1970	17	7	1.3	2.33
1975	16	7	1.4	1.85
1976	16	7	1.2	1.82
1977	15	7	1.0	
1978	15	7	0.9	

**NOTES:** Birth rates for 1950-75 were reported in Statistics Canada, 1978b, table 1; and for 1976 in OECD, 1979, p. 53. Those for 1977 and 1978 were calculated from registered births and official July 1 population reported in Statistics Canada, 1979, pp. 14-16.

Death rates for 1950-75 were reported in Statistics Canada, 1978c, table 4; and for 1976 in OECD, 1979, p. 53. Those for 1977 and 1978 were calculated from registered deaths and official July 1 population reported in Statistics Canada, 1979, pp. 14-16.

Growth rates for 1950 and 1955 were calculated from population figures reported in OECD, 1963, p. 122; for 1960 and 1965 in OECD, 1972, p. 48; and for 1970 and 1975-77 in OECD, 1979, pp. 52-53. The growth rate for 1978 was calculated from population figures reported in Statistics Canada, 1979, p. 14.

Net migration data were reported for 1950 and 1955 in OECD, 1963, p. 22; for 1960 and 1965 in OECD, 1972, p. 48; and for 1970 and 1975-77 in OECD, 1979, pp. 52 and 53. The implied net migration for 1978 was calculated from population and vital data reported in Statistics Canada, 1979, pp. 14-16. The net immigration rates per 1,000 population were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net Immigration rate	1.1	4.4	2.4	4.4	3.3	5.4	3.3	1.8	0.7

Total fertility rates for 1950-76 were reported in Statistics Canada, 1978b, table 6.

#### MAJOR SOURCES

Organization for Economic Cooperation and Development (OECD). 1963. *Manpower Statistics 1950-1962*. Paris.

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Statistics Canada. 1978a. *Canada Year Book 1978-79*. Ottawa.

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**BENCHMARK DATA**

1. Enumerated population, census of April 1, 1970.....	204,335,000
2. Adjusted population census of April 1, 1970.....	209,662,000
3. Births per 1,000 population, 1978.....	15
4. Deaths per 1,000 population, 1978.....	9
5. Annual rate of growth, 1978.....	0.8
6. Life expectancy at birth, 1977.....	73
7. Infant deaths per 1,000 live births, 1977.....	14

**PROJECTED ESTIMATES**

8. Population, July 1, 1979 .....	220,584,000
9. Births per 1,000 population, 1978 .....	15
10. Deaths per 1,000 population, 1978 .....	9
11. Annual rate of growth, 1978 (percent).....	0.8

**NOTES:**

1. Final census figure (Bureau of the Census, 1979a, table 4). Includes armed forces overseas.
2. Census population adjusted for 2.5 percent net underenumeration (Bureau of the Census, 1979a, table A-1). Includes armed forces overseas.
- 3-4. Based on births and deaths for the resident population, estimated overseas military deaths, and total midyear population including armed forces overseas (Bureau of the Census, forthcoming).
5. Based on official January 1 population estimates for 1978 and 1979 (Bureau of the Census, forthcoming). A net immigration rate of 2.0 per 1,000 population is implied.
6. Based on an empirical life table (National Center for Health Statistics, 1979, table 3).
7. Official rate as reported in National Center for Health Statistics, 1979, p. 9.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	152,271	1970	204,878	1950-55	1.7
1955	165,931	1971	207,053	1955-60	1.7
1960	180,671	1972	208,846	1960-65	1.5
1961	183,691	1973	210,410	1965-70	1.1
1962	186,538	1974	211,901	1970-75	0.8
1963	189,242	1975	213,559	1975-79	0.8
1964	191,889	1976	215,152		
1965	194,303	1977	216,880		
1966	196,560	1978	218,717		
1967	198,712	1979	220,584		
1968	200,706				
1969	202,677				

**NOTES:** 1950-79 - Official midyear estimates based on the unadjusted 1950, 1960, and 1970 censuses including the armed forces overseas, as reported in Bureau of the Census, 1979b, table 1; and Bureau of the Census, forthcoming report.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
April 1, 1950	151,718,000	156,850,000	The 1950 enumerated population including armed forces overseas as reported in Bureau of the Census, 1965, table 2. The 1960 and 1970 enumerated populations including armed forces overseas as reported in Bureau of the Census, 1974, table 5.
April 1, 1960	180,007,000	185,070,000	
April 1, 1970	204,335,000	209,662,000	
			The 1950 adjusted population including armed forces overseas as reported in Bureau of the Census, 1973, table 3. The adjusted 1960 and 1970 populations including armed forces overseas as reported in Bureau of the Census, 1974, table A-1.

## UNITED STATES

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	24	10	1.6	3.09
1955	25	9	1.8	3.57
1960	24	10	1.6	3.65
1965	20	9	1.2	2.93
1970	18	9	1.1	2.48
1975	15	9	0.8	1.80
1976	15	9	0.8	1.77
1977	15	9	0.8	1.83
1978	15	9	0.8	1.80

**NOTES:** Crude birth and death rates were based on births and deaths for the resident population, estimated overseas military deaths, and total midyear populations including armed forces overseas (Bureau of the Census, 1979b, tables B and I; and Bureau of the Census, forthcoming).

Growth rates were based on official January 1 population estimates (Bureau of the Census, 1979b, table I; and Bureau of the Census, forthcoming). The net civilian immigration rates per 1,000 population were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net civilian immigration rate	2.0	2.0	1.8	1.9	2.1	2.1	1.6	1.8	2.0

Total fertility rates were based on registered births for the resident population and estimated female age distributions for the resident population (Bureau of the Census, 1979b table B).

## MAJOR SOURCES

Bureau of the Census. 1965. "Estimates of the Population of the United States and Components of Change, by Age, Color, and Sex: 1950 to 1960." *Current Population Reports*, series P-25, no. 310. Washington, D.C.

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**BENCHMARK DATA**

1. Enumerated population, census of May 12, 1971.....	7,456,403
2. Adjusted population, census of May 12, 1971.....	NA
3. Births per 1,000 population, 1978.....	11
4. Deaths per 1,000 population, 1978.....	13
5. Annual rate of growth, 1978 (percent).....	-0.1
6. Life expectancy at birth, 1977.....	72
7. Infant deaths per 1,000 live births, 1978.....	15

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	7,506,000
9. Births per 1,000 population, 1978.....	11
10. Deaths per 1,000 population, 1978.....	13
11. Annual rate of growth, 1978 (percent).....	-0.1

**NOTES:**

1. Final census figure as reported in Österreichisches Statistisches Zentralamt, 1978a, table 2.02. Population is de jure.
2. The census figure was not adjusted. Based on various measures of census coverage, it was estimated that the population was overenumerated by less than 1 percent (Österreichisches Statistisches Zentralamt, 1979c).
- 3-4. Registered rates as reported in Österreichisches Statistisches Zentralamt, 1979b, table 11.3.
5. Calculated from official Jan. 1 population estimates for 1978 and 1979 as reported in Österreichisches Statistisches Zentralamt (1979a, table 11.1; and 1979b, table 11.1).
6. Calculated from data on life expectancy at birth by sex as reported in Österreichisches Statistisches Zentralamt, 1978b, tables 4.30 and 9.06.
7. Registered rate as reported Österreichisches Statistisches Zentralamt, 1979b, table 11.3.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## AUSTRIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	6,935	1970	7,426	1950-55	0.0
1955	6,947	1971	7,459	1955-60	0.3
1960	7,048	1972	7,495	1960-65	0.6
1961	7,087	1973	7,525	1965-70	0.5
1962	7,130	1974	7,533	1970-75	0.3
1963	7,172	1975	7,520	1975-79	-0.0
1964	7,215	1976	7,513		
1965	7,255	1977	7,518		
1966	7,290	1978	7,508		
1967	7,323	1979	7,506		
1968	7,360				
1969	7,393				

**NOTES:** 1950-79—Official estimates of the de jure population as reported in Österreichisches Statistisches Zentralamt, 1978b, tables 9.04 and 9.06; and 1979b, table 11.1

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 1, 1951	6,933,905		Final de jure census figures as reported in Österreichisches Statistisches Zentralamt 1978b, table 9.03.
March 21, 1961	7,073,807		
May 12, 1971	7,456,403		

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	16	12	-0.2	
1951				2.06
1955	16	12	0.1	2.23
1960	18	13	0.5	2.65
1965	18	13	0.5	2.68
1970	15	13	0.5	2.31
1975	12	15	-0.2	1.84
1976	12	13	0.0	1.70
1977	11	12	-0.0	1.65
1978	11	13	-0.1	1.63

NOTES: Birth and death rates for 1950-78 as reported in Österreichisches Statistisches Zentralamt, 1978b, table 1.01; and 1979b, table 11.3.

Growth rates for 1950-78 were calculated from data reported in OECD, 1963, p. 20; OECD, 1978, p. 142; and Council of Europe, 1979, p. 47. The net migration rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-4.8	-2.5	-0.3	+0.0	+3.5	-1.8	+1.5	+0.7	-0.2

The fertility rates for 1951 and 1955 as reported in U.N., 1975, table V.2; and for 1960, 1965, 1970, and 1975-78 as reported in Council of Europe, 1979, p. 47.

## MAJOR SOURCES

Council of Europe. 1979. *Recent Demographic Developments in the Member States of the Council of Europe*. Strasbourg.

Organization for Economic Cooperation and Development. 1963. *Manpower Statistics 1950-1962*. Paris.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of December 31, 1970.....	9,650,944
2. Adjusted population, census of December 31, 1970 .....	NA
3. Births per 1,000 population, 1978.....	12
4. Deaths per 1,000 population, 1978.....	12
5. Annual rate of growth, 1978 (percent).....	0.0
6. Life expectancy at birth, 1968-72.....	71
7. Infant deaths per 1,000 live births, 1978.....	12

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	9,849,000
9. Births per 1,000 population, 1978.....	12
10. Deaths per 1,000 population, 1978.....	12
11. Annual rate of growth, 1978 (percent).....	0.0

**NOTES:**

1. Final census figure as reported in Institut National de Statistique, 1979c, p. 11. Population is de jure.
2. The census figure was not adjusted. Results of a comparison with population registers indicated that the census underenumerated the population by less than 1 percent (Institut National de Statistique, 1980).
- 3-4. Registered vital rates as reported in Institut National de Statistique, 1979b, p. 848.
5. Difference between unrounded crude birth and death rates (12.4 and 11.7 per 1,000 population, respectively) and a net emigration rate of 0.3 per 1,000 population. Data were reported in Institut National de Statistique, 1979c, p. 848.
6. Official figure as reported in Institut National de Statistique, 1979c, p. 63.
7. Calculated from data reported in Institut National de Statistique, 1979a, p. 408.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	8,639	1970	9,656	1950-55	0.5
1955	8,868	1971	9,673	1955-60	0.6
1960	9,153	1972	9,711	1960-65	0.7
1961	9,184	1973	9,742	1965-70	0.4
1962	9,221	1974	9,772	1970-75	0.3
1963	9,290	1975	9,801	1975-79	0.1
1964	9,378	1976	9,818		
1965	9,464	1977	9,830		
1966	9,528	1978	9,840		
1967	9,581				
		<b>PROJECTED ESTIMATES</b>			
1968	9,619	1979	9,849		
1969	9,646				

**NOTES:** 1950, 1955, and 1960—Reported in *UNDY 1970*, table 6.

1961-77—Reported in Institut National de Statistique, 1973, p. 13; and 1978, p. 275.

1978—Reported in *PVSR October 1979*.

1979—Estimated by FDAD based on an official estimate for the end of 1978 reported in Institut National de Statistique, 1979b, p. 848, and on the assumption that 1975-78 average annual growth rate would continue through 1979.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 31, 1947	8,512,195		Enumerated population for 1947 as reported in <i>UNDY 1960</i> , table 1; and for 1961 and 1970 as reported in Institut National de Statistique, 1979c, p. 11. Population is de jure.
December 31, 1961	9,189,741		
December 31, 1970	9,650,944		

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	17	12	3.0	2.34
1955	17	12	0.6	2.38
1960	17	12	0.5	2.52
1965	16	12	0.7	2.59
1970	15	12	0.3	2.25
1975	12	12	0.3	1.74
1976	12	12	0.1	1.73
1977	12	11	0.1	
1978	12	12	0.0	

**NOTES:** Birth, death, and growth rates for 1950-77 as reported in Institut National de Statistique, 1979c, p. 10, and for 1978 as reported in Institut National de Statistique, 1979b, p. 848.

Net migration rates per 1,000 population for 1950-77 were reported in Institut National de Statistique, 1979c, p. 10, and for 1978 in Institut National de Statistique, 1979b, p. 848. The net migration rates are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-1.2	+1.7	+0.8	+3.2	+0.9	+2.5	+0.9	+0.5	-0.3

Total fertility rates for 1950 and 1955 as reported in U.N., 1975, table V.2; those for 1960 and 1965 as reported in Council of Europe, 1979, p. 50; and those for 1970 and 1975-76 as reported in Institut National de Statistique, 1978, p. 56.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

## BENCHMARK DATA

1. Enumerated population, census of December 2, 1975.....	8,727,771
2. Adjusted population, census of December 2, 1975.....	NA
3. Births per 1,000 population, 1978.....	15
4. Deaths per 1,000 population, 1978.....	10
5. Annual rate of growth, 1978 (percent).....	-0.2
6. Life expectancy at birth, 1974-76.....	71
7. Infant deaths per 1,000 live births, 1978.....	22

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	8,827,000
9. Births per 1,000 population, 1978.....	15
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	-0.2

## NOTES:

1. Final census figure as reported in Komitet..., 1978, p. 27.
2. The census figure was not adjusted. Results of a post enumeration survey indicated that net coverage error was negligible (Komitet..., 1977b).
- 3-4. Registered rates as reported in Komitet..., 1979, p. 174.
5. Calculated from official Jan. 1 population estimates for 1978 and 1979 reported in Komitet..., 1978, p. 32, and in Komitet..., 1979, p. 172. A net emigration rate of 7 per 1,000 population is implied by the difference between the unrounded rate of natural increase (5.00 per 1,000 population) and the unrounded growth rate (-2.02 per 1,000 population).
6. Reported in Komitet..., 1979, p. 176.
7. Reported in Komitet..., 1979, p. 174.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## BULGARIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	7,250	1970	8,490	1950-55	0.7
1955	7,499	1971	8,536	1955-60	1.0
1960	7,867	1972	8,576	1960-65	0.8
1961	7,943	1973	8,621	1965-70	0.7
1962	8,013	1974	8,679	1970-75	0.5
1963	8,078	1975	8,721	1975-79	0.3
1964	8,144	1976	8,759		
1965	8,201	1977	8,804		
1966	8,258	1978	8,814		
1967	8,310				
		<b>PROJECTED ESTIMATES</b>			
1968	8,370	1979	8,827		
1969	8,434				

**NOTES:** 1950-78—Official estimates as reported in *Komitet...*, 1978, p. 30; and 1979, p. 173.  
1979—Estimated by FDAD based on official estimate for the first of the year as reported in *Komitet...*, 1979, p. 173, and projected natural increase for the first half of 1979.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 1, 1956	7,613,709		Enumerated populations as reported in <i>Komitet...</i> , 1978, p. 27.
December 1, 1965	8,227,866		
December 2, 1975	8,727,771		

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	25	10	0.6	2.94
1955	20	9	1.0	2.41
1960	18	8	1.0	2.30
1965	15	8	0.6	2.08
1970	16	9	0.6	2.18
1975	17	10	0.2	2.24
1976	17	10	0.6	2.26
1977	16	11	0.4	2.21
1978	15	10	-0.2	

NOTES: Birth, death and natural increase rates for 1950-77 were reported in *Komitet...*, 1978, p. 34; and for 1978 in *Komitet...*, 1979, p. 174.

Growth rates were calculated from population figures for the beginning and end of each year reported in *Komitet...*, 1978, p. 31; and in *Komitet...*, 1979, p. 172. The net emigration rates per 1,000 population implied by the differences between the growth rates and the natural increase rates were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net emigration rate	8.8	0.9	0.0	0.7	1.2	3.9	0.2	1.2	7.0

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2; those for 1975-77 were calculated from births by age of mother reported in *Komitet...*, 1978, p. 50, and the female population by age as reported in *UNDY 1977*, table 7; in *Tsentralno...*, 1977, p. 32; in *Komitet...*, 1977a, p. 34; and in *Komitet...*, 1979, p. 32.

## MAJOR SOURCES

*Komitet po yedinna sistema za sotsialna informatsiya pri Ministerskiya S"vet.* 1977a. *Statisticheski godishnik na Narodna republika Bulgariya 1977.* Sofia.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000.* New York

**BENCHMARK DATA**

1. Enumerated population, census of December 1, 1970.....	14,344,987
2. Adjusted population, census of December 1, 1970.....	NA
3. Births per 1,000 population, 1978.....	18
4. Deaths per 1,000 population, 1978.....	12
5. Annual rate of growth, 1978 (percent).....	0.7
6. Life expectancy at birth, 1977.....	70
7. Infant deaths per 1,000 live births, 1978.....	19

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	15,239,000
9. Births per 1,000 population, 1978.....	18
10. Deaths per 1,000 population, 1978.....	12
11. Annual rate of growth, 1978 (percent).....	0.7

**NOTES:**

1. Final census figure as reported in Federální statistický úrad, 1978a, table 4-1.
2. The census figure was not adjusted. Results of a comparison with population movement statistics indicated that net coverage error was negligible (Federální statistický úrad, 1979c).
- 3-4. Preliminary data as reported in Federální statistický úrad, 1979b, table 18.
5. Calculated from official Jan. 1 population estimates for 1978 and 1979 reported in Federální statistický úrad, 1978a, table 4-2; and 1979a, p. 71. A net emigration rate of less than 1 per 1,000 is implied by the difference between the unrounded rate of natural increase and the unrounded growth rate.
6. Reported in Federální statistický úrad, 1978d, p. 85.
7. Preliminary data as reported in Federální statistický úrad, 1979b, table 18.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	12,389	1970	14,319	1950-55	1.1
1955	13,039	1971	14,390	1955-60	0.8
1960	13,654	1972	14,465	1960-65	0.7
1961	13,779	1973	14,560	1965-70	0.2
1962	13,858	1974	14,686	1970-75	0.7
1963	13,948	1975	14,802	1975-79	0.7
1964	14,052	1976	14,918		
1965	14,147	1977	15,031		
1966	14,224	1978	15,138		
1967	14,277	1979	15,239		
1968	14,323				
1969	14,284				

NOTES: 1950-60—Reported in Federální statistický úrad, 1978b, p. 14.

1961-70—Estimated by FDAD based on the 1961 census and adjustments to the implied net emigration figures so as to be consistent with the 1970 census.

1971-79—Reported in Federální statistický úrad, 1978b, p. 14; 1979b, table 18; and 1979c, p. 261.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
March 1, 1950	12,338,450		Enumerated populations as reported in Federální statistický úrad, 1978a, table 4-1.
March 1, 1961	13,745,577		
December 1, 1970	14,344,987		

## CZECHOSLOVAKIA

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	23	12	1.0	3.04
1955	20	10	1.1	2.85
1960	16	9	0.7	2.39
1965	16	10	0.6	2.37
1970	16	12	0.3	2.07
1975	20	11	0.8	2.46
1976	19	11	0.8	2.44
1977	19	12	0.7	2.38
1978	18	12	0.7	

**NOTES:** Birth and death rates for all years were reported in Federální statistický úrad, 1978b, p. 15; and 1979b, table 18. Data for 1977-78 are preliminary.

Growth rates were based on reported and estimated Jan. 1 populations. The rates for 1950-60 were based on population figures reported in Srb, table 1-27; the rates for 1965-70 were based on estimated population figures derived from the 1961 and 1970 census totals and adjustments to implied migration for the years 1961-70. The rates for 1975-78 were based on population figures reported in Federální statistický úrad, 1978a, table 4-2; and 1979a, p. 71. The net emigration rates per 1,000 population implied by the differences between the growth rates and the natural increase rates were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net emigration rate	1.6	0.1	0.1	0.6	1.6	0.1	0.0	0.1	0.1

Migration data were reported in Federální statistický úrad, 1978c, p. 15; and 1978d, table 7.

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2. The 1975-76 rates were reported in Federální statistický úrad, 1978c, p. 17. The 1977 rate was cited in Federální statistický úrad, 1978d, p. 85.

## MAJOR SOURCES

Federální statistický úrad. 1978a. *Statistická ročenka Československé socialistické republiky 1978*. Prague.

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\_\_\_\_\_. 1979a. *Statistické přehledy*, no. 3. Prague.

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United Nations. 1975. *Economic Survey of Europe in 1974, part II, Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of July 1, 1976.....	5,072,516
2. Adjusted population, census of July 1, 1976.....	NA
3. Births per 1,000 population, 1978.....	12
4. Deaths per 1,000 population, 1978.....	10
5. Annual rate of growth, 1978 (percent).....	0.3
6. Life expectancy at birth, 1976-77.....	74
7. Infant deaths per 1,000 live births, 1978.....	9

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	5,118,000
9. Births per 1,000 population, 1978.....	12
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	0.3

**NOTES:**

1. Final census figure reported in Danmarks Statistik, 1979a, table 6. This census was based on information from population registers.
2. The 1976 census has not been evaluated for possible coverage error.
- 3-4. Registered data as reported in Danmarks Statistik, 1979e, p. 1133.
5. Based on Jan. 1 populations as reported in Danmarks Statistik, 1979c, pp. 542-543.
6. Calculated from official estimates of life expectancy by sex as reported in Danmarks Statistik, 1978, table 38.
7. Registered rate as reported in Danmarks Statistik, 1979e, p. 1133.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## DENMARK

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	4,271	1970	4,929	1950-55	0.8
1955	4,439	1971	4,963	1955-60	0.6
1960	4,581	1972	4,992	1960-65	0.8
1961	4,610	1973	5,022	1965-70	0.7
1962	4,647	1974	5,045	1970-75	0.5
1963	4,684	1975	5,060	1975-79	0.3
1964	4,720	1976	5,073		
1965	4,758	1977	5,088		
1966	4,797	1978	5,104		
1967	4,839	1979	5,118		
1968	4,867				
1969	4,891				

**NOTES:** 1950-79—Official estimates as reported in Danmarks Statistik, 1979a, table 16; 1979d, p. 997; and *PVSR October 1979*.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
November 7, 1950	4,281,275		Final census figures as reported in Danmarks Statistik, 1979a, table 6. Population is de jure.
October 1, 1955	4,448,401		
September 26, 1960	4,585,256		
September 27, 1965	4,767,597		
November 9, 1970	4,937,579		
July 1, 1976	5,072,516		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	19	9	0.8	2.58
1955	17	9	0.7	2.58
1960	17	10	0.6	2.54
1965	18	10	0.8	2.61
1970	14	10	0.9	1.95
1975	14	10	0.2	1.92
1976	13	11	0.3	1.75
1977	12	10	0.3	1.66
1978	12	10	0.3	1.67

**NOTES:** Birth and death rates for 1950-77 as reported in Danmarks Statistik, 1978, table 1, and for 1978 as reported in Danmarks Statistik, 1979e, p. 1133.

Growth rates were calculated from January 1 population figures for 1950 and 1955 reported in Danmarks Statistik, 1979a, table 20; for 1951 and 1956 reported in OECD, 1963, p. 36; for 1960 and 1961 reported in Danmarks Statistik, 1971, p. 4; for 1965 and 1966 reported in Danmarks Statistik, 1976, p. 4; for 1970-78 reported in Danmarks Statistik, 1979b, p. 4; and for 1979 reported in Danmarks Statistik, 1979c, p. 543. Net migration data for 1950-77 were reported in Danmarks Statistik, 1978, table 1; and for 1978 in Danmarks Statistik, 1979e, p. 1133. Net migration rates and implied statistical adjustment rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-0.7	-1.8	+0.7	+0.1	+2.4	-1.7	+0.7	+1.1	+1.0
Statistical adjustment	-0.6		-1.5	-0.5	+1.9	-0.3			

Total fertility rates for 1950-77 as reported in Danmarks Statistik, 1978, table 4. The total fertility rate for 1978 was reported in the Council of Europe, 1979, p. 56.

**MAJOR SOURCES**

Council of Europe. 1979. *Recent Demographic Developments in the Member States of the Council of Europe*. Strasbourg.

Danmarks Statistik. 1971. *Statistisk tiårs-oversigt 1971*. Copenhagen.

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Organization for Economic Cooperation and Development (OECD). 1963. *Manpower Statistics 1950-1962*. Paris.

## BENCHMARK DATA

1. Enumerated population, census of February 20, 1975.....	52,655,802
2. Adjusted population, census of February 20, 1975.....	NA
3. Births per 1,000 population, 1978.....	14
4. Deaths per 1,000 population, 1978.....	10
5. Annual rate of growth, 1978 (percent).....	0.4
6. Life expectancy at birth, 1976.....	73
7. Infant deaths per 1,000 live births, 1978.....	11

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	53,478,000
9. Births per 1,000 population, 1978.....	14
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	0.4

## NOTES:

1. Final census figure as reported in *UNDY 1977*, table 3. Population is de jure.
2. The 1975 census has not been evaluated for possible coverage error.
- 3-4. Registered rates as reported in INSEE, 1979b, p. 68.
5. Calculated from Jan. 1 population estimates for 1978 and 1979 reported in Council of Europe, 1979, p. 59.
6. Calculated from official data reported in INSEE, 1978, p. 46.
7. Official data reported in INSEE, 1979b, p. 68.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	41,829	1970	50,787	1950-55	0.8
1955	43,428	1971	51,285	1955-60	1.0
1960	45,670	1972	51,732	1960-65	1.3
1961	46,189	1973	52,157	1965-70	0.8
1962	47,124	1974	52,503	1970-75	0.8
1963	47,808	1975	52,748	1975-79	0.3
1964	48,340	1976	52,914		
1965	48,763	1977	53,096		
1966	49,194	1978	53,302		
1967	49,569				
		<b>PROJECTED ESTIMATES</b>			
1968	49,934	1979	53,478		
1969	50,353				

**NOTES:** 1950-78—Reported in INSEE, 1970, pp. 80-81; 1974, p. 6; 1979a, pp. 83-84; and 1979b, p. 8.

1979—Estimated by FDAD based on an official estimate for the beginning of the year reported in Council of Europe, 1979, p. 59, and on births and deaths for the first half of the year reported in INSEE, 1979b, p. 8.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
May 10, 1954	42,843,520		Enumerated populations as reported in <i>UNDY 1962</i> , table 7; <i>1970</i> , tables 2 and 5; and <i>1977</i> , table 3. Population is de jure.
March 7, 1962	46,520,271		
March 1, 1968	49,778,540		
February 20, 1975	52,655,802		

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	21	13	0.9	2.93
1955	19	12	0.9	2.67
1960	18	11	1.0	2.73
1965	18	11	0.8	2.83
1970	17	11	1.0	2.48
1975	14	11	0.4	1.93
1976	14	11	0.3	1.83
1977	14	10	0.4	1.86
1978	14	10	0.4	1.84

NOTES: Birth rates, death rates, and growth rates were calculated from vital statistics and population figures reported for 1950 and 1955 in INSEE, 1974, pp. 6 and 91; for 1960 and 1965 in INSEE, 1970, pp. 80-81; for 1970 and 1975-77 in INSEE, 1979a, pp. 8 and 83-84; and for 1978 in INSEE, 1979b, pp. 8 and 68, and in Council of Europe, 1979, p. 59. The implied net immigration rates per 1,000 population were as follows:

Year	1950	1955	1960	1965	1970	1975	1977
Net immigration rate	0.8	2.8	3.1	1.4	3.5	0.5	0.3

Total fertility rates for 1950 and 1955 were reported in U.N., 1975, table V.2; and for 1960 to 1978 in Council of Europe, 1979, p. 59.

## MAJOR SOURCES

Institut National de la Statistique et des Etudes Economiques (INSEE). 1970. *Bulletin Mensuel de Statistique*, no. 12. Paris.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of January 1, 1971.....	17,068,318
2. Adjusted population, census of January 1, 1971.....	NA
3. Births per 1,000 population, 1978.....	14
4. Deaths per 1,000 population, 1978.....	14
5. Annual rate of growth, 1978 (percent).....	-0.0
6. Life expectancy at birth, 1976.....	72
7. Infant deaths per 1,000 live births, 1978.....	13

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	16,758,000
9. Births per 1,000 population, 1978.....	14
10. Deaths per 1,000 population, 1978.....	14
11. Annual rate of growth, 1978 (percent).....	-0.0

**NOTES:**

1. Final census figure as reported in Staatliche Zentralverwaltung..., 1978a, p. 2. Population is de jure.
2. The 1971 census has not been evaluated for possible coverage error.
- 3-4. Registered rates reported in Staatliche Zentralverwaltung..., 1979, p. 96. Data are preliminary.
5. Difference between birth and death rates.
6. Calculated from life expectancy at birth by sex as reported in Staatliche Zentralverwaltung..., 1978a, p. 370.
7. Reported in Staatliche Zentralverwaltung..., 1979, p. 96.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## GERMAN DEMOCRATIC REPUBLIC

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	18,388	1970	17,070	1950-55	-0.6
1955	17,832	1971	17,061	1955-60	-0.9
1960	17,058	1972	17,043	1960-65	-0.0
1961	16,938	1973	16,980	1965-70	0.1
1962	16,903	1974	16,925	1970-75	-0.3
1963	16,951	1975	16,850	1975-79	-0.1
1964	16,983	1976	16,786		
1965	17,020	1977	16,765		
1966	17,058				
1967	17,082				
		<b>PROJECTED ESTIMATES</b>			
1968	17,084	1978	16,758		
1969	17,076	1979	16,758		

**NOTES:** 1950, 1964-69, 1971-77—Reported in Staatliche Zentralverwaltung..., 1978a, p. 349.

1955 and 1960-63—Estimated by FDAD based on 1950 census total and adjustments to the implied net emigration figures so as to be consistent with the 1964 census total.

1970—Estimated by FDAD based on January 1, 1971, census total and the estimated net population change for the last half of 1970.

1978—Estimated by FDAD based on the population for the beginning of the year reported in Staatliche Zentralverwaltung..., 1978a, p. 2; on births and deaths for the first half of 1978 reported in Staatliche Zentralverwaltung..., 1979, p. 96; and on the assumption that net migration was negligible during the first half of 1978.

1979—Estimated by FDAD based on the population for the beginning of 1978 reported in Staatliche Zentralverwaltung..., 1978a, p. 2; on births and deaths for 1978 reported in Staatliche Zentralverwaltung..., 1979, p. 96; on the assumption that the number of births and deaths during the first half of the year would be the same in 1979 as in 1978; and on the assumption that net migration was negligible during 1978 and the first half of 1979.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
August 31, 1950	18,388,172		Enumerated populations as reported in Staatliche Zentralverwaltung..., 1978a, pp. 2 and 342. Population is de jure.
December 31, 1964	17,003,632		
January 1, 1971	17,068,318		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	17	12	-0.2	2.30
1955	16	12	-1.1	2.35
1960	17	14	-0.7	2.33
1965	17	14	+0.2	2.48
1970	14	14	-0.0	2.19
1975	11	14	-0.4	1.54
1976	12	14	-0.3	1.64
1977	13	13	-0.1	
1978	14	14	-0.0	

NOTES: The 1950-77 birth and death rates are reported in Staatliche Zentralverwaltung..., 1978a, pp. 350-351. The 1978 birth and death rates are reported in Staatliche Zentralverwaltung..., 1979, p. 46. The rates for 1978 are provisional.

Growth rates were based on reported and estimated January 1 population figures. The rates for 1950-60 were based on estimated population figures derived from the 1950 and 1964 census totals and adjustments to implied migration for the years 1950-64. The rates for 1965-77 were based on population figures reported in Staatliche Zentralverwaltung..., 1978b, p. 13. The rate for 1978 was based on the difference between the unrounded birth and death rates.

The net emigration rates per 1,000 population implied by the differences between the growth rates and the natural increase rates are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977
Net emigration rate	6.4	15.3	10.1	0.9	0.1	0.7	0.9	0.4

The total fertility rates for 1950-70 are reported in U.N., 1975, table V.2, pp. 81-82; and for 1975-76 in Staatliche Zentralverwaltung..., p. 364.

**MAJOR SOURCES**

Staatliche Zentralverwaltung für Statistik. 1978a. *Statistisches Jahrbuch 1978 der Deutschen Demokratischen Republik*. Berlin.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

## BENCHMARK DATA

1. Enumerated population, census of May 27, 1970.....	60,650,599
2. Adjusted population, census of May 27, 1970.....	NA
3. Births per 1,000 population, 1978.....	9
4. Deaths per 1,000 population, 1978.....	12
5. Annual rate of growth, 1978 (percent).....	-0.1
6. Life expectancy at birth, 1975-77.....	72
7. Infant deaths per 1,000 live births, 1978.....	15

## PROJECTED ESTIMATES

8. Population, July 1, 1979.....	61,302,000
9. Births per 1,000 population, 1978.....	9
10. Deaths per 1,000 population, 1978.....	12
11. Annual rate of growth, 1978 (percent).....	-0.1

## NOTES:

1. Final census figure as reported in *PVSR October 1979*.
2. The census figure was not adjusted. Based on various studies of census coverage, it was estimated that the population was underenumerated by less than 1 percent (Statistisches Bundesamt, Wiesbaden, 1979e).
- 3-4. Registered rates as reported in Statistisches Bundesamt, Wiesbaden, 1979c, table 1.2.
5. Calculated from January 1 population figures for 1978 and 1979 as reported in Statistisches Bundesamt, Wiesbaden, 1979b, table 2. A net immigration rate of 2 per 1,000 was reported in Statistisches Bundesamt, Wiesbaden, 1979d, table 1.
6. Calculated from official estimates of life expectancy by sex as reported in Statistisches Bundesamt, Wiesbaden, 1979a, table 3.26.
7. Registered rate as reported in Statistisches Bundesamt, Wiesbaden, 1979c, table 1.2.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	49,986	1970	60,714	1950-55	0.9
1955	52,364	1971	61,294	1955-60	1.1
1960	55,423	1972	61,671	1960-65	1.1
1961	56,185	1973	61,971	1965-70	0.7
1962	56,837	1974	62,041	1970-75	0.4
1963	57,389	1975	61,832	1975-79	-0.2
1964	57,971	1976	61,513		
1965	58,619	1977	61,396		
1966	59,148	1978	61,310		
1967	59,286				
		<b>PROJECTED ESTIMATES</b>			
1968	59,500	1979	61,302		
1969	60,067				

**NOTES:** 1950-78—Official estimates as reported in Statistisches Bundesamt, Wiesbaden, 1978, table 4.1; 1979a, table 3.1; and 1979b, table 2.

1979—Estimated by FDAD based on an official estimate for the end of March 1979 reported in Statistisches Bundesamt, Wiesbaden, 1979b, table 2, and on the assumption that the net change during the second quarter of 1979 would be the same as during the second quarter of 1978.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
September 13, 1950	50,194,700		Final census figures for 1950 and 1961 as reported in Statistisches Bundesamt, Wiesbaden, 1979a, table 3.3; and for 1970 as reported in <i>PVSR October 1979</i> . The 1956 population is from a housing census as reported in <i>UNDY 1962</i> , table 7.
September 25, 1956	53,187,277		
June 6, 1961	56,184,900		
May 27, 1970	60,650,599		

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	16	11	1.4	2.10
1955	16	11	1.1	2.14
1960	17	12	1.2	2.37
1965	18	12	1.0	2.51
1970	13	12	1.0	2.02
1975	10	12	-0.6	1.45
1976	10	12	-0.3	1.46
1977	9	11	-0.1	1.41
1978	9	12	-0.1	1.39

NOTES: Crude birth and death rates for 1950-78 as reported in Statistisches Bundesamt, Wiesbaden, 1979c, table 1.2.

Growth rates for 1950, 1955, 1960, and 1975-78 were calculated from January 1 population estimates reported in Statistisches Bundesamt, Wiesbaden, 1978, tables 4.1 and 8; and 1979b, table 2. Growth rates for 1965 and 1970 were calculated from vital data reported in Statistisches Bundesamt, Wiesbaden, 1979c, table 1.1, and from adjusted figures for net migration. The net migration figures for 1961-70 were adjusted by FDAD to account for the discrepancy of 857,707 persons between the 1970 census figure and the estimate for the same date derived from the 1961 census and recorded births, deaths, and net migration.

The net migration rates per 1,000 population were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	+8.3	+6.4	+6.1	+4.2	+8.1	-3.2	-1.2	+0.5	+1.9

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2 and for 1975-78 in Council of Europe, 1979, p. 62.

## MAJOR SOURCES

Council of Europe. 1979. *Recent Demographic Developments in the Member States of the Council of Europe*. Strasbourg.

Statistisches Bundesamt, Wiesbaden. 1978. Fachserie 1. *Bevölkerung und Erwerbstätigkeit*, reihe 1.1, *Stand und Entwicklung der Bevölkerung 1977*. Stuttgart: W. Kohlhammer.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of March 14, 1971.....	8,768,641
2. Adjusted population, census of March 14, 1971.....	NA
3. Births per 1,000 population, 1978.....	16
4. Deaths per 1,000 population, 1978.....	9
5. Annual rate of growth, 1978 (percent).....	1.1
6. Life expectancy at birth, 1970.....	72
7. Infant deaths per 1,000 live births, 1978.....	20

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	9,444,000
9. Births per 1,000 population, 1978.....	16
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	1.1

**NOTES:**

1. Final census figure as reported in National Statistical Service of Greece, 1978a, table II:1.
2. The census figure was not adjusted. Results of a post enumeration survey indicated that the population was underenumerated by less than 1 percent (National Statistical Service of Greece, 1979b).
- 3-4. Calculated from registered vital data as reported in National Statistical Service of Greece, 1979a, tables 3 and 5.
5. Calculated from population estimates for the beginning and end of the year reported in Council of Europe, 1979, p. 65. There was a net immigration of 4 persons per 1,000 population during the year.
6. Calculated from official estimates of life expectancy by sex as reported in National Statistical Service of Greece, 1978a, table II:31.
7. Calculated from registered vital data as reported in National Statistical Service of Greece, 1979a, table 5.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## GREECE

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	7,566	1970	8,793	1950-55	1.0
1955	7,966	1971	8,831	1955-60	0.9
1960	8,327	1972	8,889	1960-65	0.5
1961	8,398	1973	8,929	1965-70	0.6
1962	8,448	1974	8,962	1970-75	0.6
1963	8,480	1975	9,047	1975-79	1.1
1964	8,510	1976	9,167		
1965	8,550	1977	9,268		
1966	8,614	1978	9,360		
1967	8,716				
1968	8,741	<b>PROJECTED ESTIMATES</b>			
1969	8,773	1979	9,444		

**NOTES:** 1950-78—National Statistical Service of Greece, 1978a, table II:3; and 1979a, table 3.

1979—Estimated by FDAD based on an estimate for the beginning of the year reported in Council of Europe, 1979, p. 65, and on the assumption that the rate of growth during the first half of 1979 would be equal to the 1978 rate of natural increase.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
April 7, 1951	7,632,801		Final census figures as reported in National Statistical Service of Greece, 1978a, table II:1.
March 19, 1961	8,388,553		
March 14, 1971	8,768,641		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	20	7	1.1	2.57
1955	19	7	0.9	2.39
1960	19	7	0.6	2.23
1965	18	8	0.5	2.32
1970	16	8	0.4	2.43
1975	16	9	1.3	2.32
1976	16	9	1.3	2.35
1977	15	9	0.9	2.28
1978	16	9	1.1	

**NOTES:** Birth and death rates for 1950-76 were reported in National Statistical Service of Greece, 1978a, table II:23. The rates for 1977 and 1978 were calculated from registered vital data reported in National Statistical Service of Greece, 1979a, table 5. Data for 1969-76 are by year of occurrence; those for other years are by year of registration.

Growth rates were calculated from Jan. 1 population estimates for 1950 and 1955 reported in OECD, 1963, p. 52; for 1960 in OECD, 1972, p. 214; for 1965 in OECD, 1978, p. 238; for 1970 and 1975-77 in OECD, 1979, pp. 232-233; and for 1978 in Council of Europe, 1979, p. 65.

The net migration rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-2.1	-3.8	-5.0	-4.8	-4.4	+6.5	+6.0	+2.4	+4.1

Total fertility rates for 1950-70 were reported in National Statistical Service of Greece, 1978b, p. 11; those for 1975-77 were reported in Council of Europe, 1979, p. 65.

**MAJOR SOURCES**

Council of Europe. 1979. *Recent Demographic Developments in the Member States of the Council of Europe*. Strasbourg.

National Statistical Service of Greece. 1978a. *Statistical Yearbook of Greece 1977*. Athens.

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Organization for Economic Cooperation and Development (OECD). 1963. *Manpower Statistics 1950-1962*. Paris.

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**BENCHMARK DATA**

1. Enumerated population, census of January 1, 1970.....	10,322,099
2. Adjusted population, census of January 1, 1970.....	NA
3. Births per 1,000 population, 1978.....	16
4. Deaths per 1,000 population, 1978.....	13
5. Annual rate of growth, 1978 (percent).....	0.3
6. Life expectancy at birth, 1974.....	70
7. Infant deaths per 1,000 live births, 1978.....	24

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	10,710,000
9. Births per 1,000 population, 1978.....	16
10. Deaths per 1,000 population, 1978.....	13
11. Annual rate of growth, 1978 (percent).....	0.3

**NOTES:**

1. Final census figure as reported in Központi Statisztikai Hivatal, 1979a, table 1.1
2. The census figure was not adjusted. Results of a post enumeration survey indicated that the population was underenumerated by less than 1 percent (Központi Statisztikai Hivatal, 1977).
- 3-4. Rates as reported in Központi Statisztikai Hivatal, 1979b, table II.1, p. 11.
5. Difference between birth and death rates.
6. Derived from official figures by sex reported in Központi Statisztikai Hivatal, 1979a, table 11.5.
7. Figure reported in Központi Statisztikai Hivatal, 1979b, table II.1, p. 11.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	9,338	1970	10,338	1950-55	1.0
1955	9,825	1971	10,368	1955-60	0.3
1960	9,984	1972	10,398	1960-65	0.3
1961	10,029	1973	10,432	1965-70	0.4
1962	10,063	1974	10,479	1970-75	0.4
1963	10,091	1975	10,541	1975-79	0.4
1964	10,124	1976	10,599		
1965	10,153	1977	10,648		
1966	10,185	1978	10,684		
1967	10,223				
		<b>PROJECTED ESTIMATES</b>			
1968	10,264	1979	10,710		
1969	10,303				

**NOTES:** 1950-78—Központi Statisztikai Hivatal, 1979a, table 1.2; and 1979b, table II.1, p. 11.  
1979—Estimated by FDAD based on an official estimate for the end of May 1979 reported in Központi Statisztikai Hivatal, 1979b, table II.1, p. 11, and on projected births and deaths for June 1979.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
January 1, 1949	9,204,799		Census figures as reported in Központi Statisztikai Hivatal, 1979a, table 1.1.
January 1, 1960	9,961,044		
January 1, 1970	10,322,099		

## HUNGARY

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	21	11	1.0	2.60
1955	21	10	1.2	2.81
1960	15	10	0.5	2.02
1965	13	11	0.3	1.82
1970	15	12	0.3	1.97
1975	18	12	0.6	2.38
1976	17	12	0.5	2.26
1977	17	12	0.4	2.17
1978	16	13	0.3	2.08

NOTES: Official birth and death rates for 1950-78 as reported in Központi Statisztikai Hivatal, 1979a, table 1.17; and 1979b, table II.1, p. 11.

Growth rates for 1950-78 are based on reported Jan. 1 populations as reported in Központi Statisztikai Hivatal, 1979a, tables 1.1 and 1.2; and 1979b, table II.1, p. 11.

The net immigration rates per 1,000 population implied by the differences between the growth rates and the natural increase rates were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net immigration rate	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0

Total fertility rates for 1950-70 as reported in U.N., 1975, table V.2; those for 1975-77 were calculated from birth rates by age of mother reported in Központi Statisztikai Hivatal, 1979a, table 4.22; and the rate for 1978 was reported in Központi Statisztikai Hivatal, 1979c, p. 43.

## MAJOR SOURCES

Központi Statisztikai Hivatal. 1977. *1970 Hungarian Census of Population*. Budapest.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of October 24, 1971.....	54,136,547
2. Adjusted population, census of October 24, 1971.....	NA
3. Births per 1,000 population, 1978.....	13
4. Deaths per 1,000 population, 1978.....	10
5. Annual rate of growth, 1978 (percent).....	0.4
6. Life expectancy at birth, 1970-72.....	72
7. Infant deaths per 1,000 live births, 1978.....	17

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	56,877,000
9. Births per 1,000 population, 1978.....	13
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	0.4

**NOTES:**

1. Final census figure as reported in Istituto Centrale di Statistica, 1978a, table 6. Refers to resident population.
2. The 1971 census has not been evaluated for possible coverage error.
- 3-4. Calculated from registered births and deaths and an official midyear population estimate reported in Istituto Centrale di Statistica, 1979, table 2-1.
5. Based on official January 1 population estimate reported in Istituto Centrale di Statistica, 1979, table 2-1.
6. Official estimate as reported in Istituto Centrale di Statistica, 1978a, table 31.
7. Calculated from registered data as reported in Istituto Centrale di Statistica, 1979, table 2-2.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	47,105	1970	53,661	1950-55	0.6
1955	48,633	1971	54,005	1955-60	0.6
1960	50,198	1972	54,344	1960-65	0.7
1961	50,523	1973	54,892	1965-70	0.6
1962	50,843	1974	55,385	1970-75	0.8
1963	51,198	1975	55,810	1975-79	0.5
1964	51,600	1976	56,156		
1965	51,987	1977	56,446		
1966	52,332	1978	56,697		
1967	52,667	1979	56,877		
1968	52,987				
1969	53,317				

**NOTES:** All data refer to the resident population.

1950-55—Reported in OECD, 1963, p. 68.

1960-71—Calculated from January 1 estimates reported in Council of Europe, 1979, p. 73; OECD, 1974, p. 266; and Istituto Centrale di Statistica, 1973, table 2-1.

1972-79—Reported in Istituto Centrale di Statistica, various issues, 1973 through 1979.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
November 4, 1951	47,158,738		Final census figures for 1951, 1961, and 1971 as reported in <i>UNDY 1960</i> , table 1; <i>UNDY 1970</i> , table 2; and <i>UNDY 1977</i> , table 3, respectively.
October 15, 1961	49,903,878		
October 24, 1971	53,744,736		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	19	10	0.8	2.49
1955	18	9	0.6	2.31
1960	18	10	0.7	2.41
1965	20	10	0.7	2.65
1970	17	10	0.6	2.39
1975	15	10	0.7	2.18
1976	14	10	0.5	2.08
1977	13	10	0.5	1.93
1978	13	10	0.4	

**NOTES:** The birth, death, and growth rates for 1950 and 1955 were calculated from population and vital data for the "present" population reported in OECD, 1963, p. 68. Those for 1960 were calculated from population and vital data for the "resident" population reported in Council of Europe, 1979, p. 73, and in OECD, 1972, p. 250. The rates for 1965, 1970, and 1975-78 were calculated from data for the "resident" population reported in Istituto Centrale di Statistica, 1973, table 2-1; and 1979, table 2-1.

The net migration rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-1.6	-2.7	-1.9	-3.0	-0.9	+1.5	+1.0	+1.2	+0.9

Total fertility rates for 1950 and 1955 were reported in U.N., 1975, table V.2; and for 1960-77 in Council of Europe, 1979, p. 73.

**MAJOR SOURCES**

Council of Europe. 1979. *Recent Demographic Developments in the Member States of the Council of Europe*. Strasbourg.

Istituto Centrale di Statistica. 1973. *Bollettino mensile di statistica*, no. 4. Rome.

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\_\_\_\_\_. 1979. *Bollettino mensile di statistica*, no. 8. Rome.

Organization for Economic Cooperation and Development (OECD). 1963. *Manpower Statistics 1950-1962*. Paris.

\_\_\_\_\_. 1972. *Labour Force Statistics 1959-1970*. Paris.

\_\_\_\_\_. 1974. *Labour Force Statistics 1961-1972*. Paris.

United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of February 28, 1971.....	13,060,115
2. Adjusted population, census of February 28, 1971.....	NA
3. Births per 1,000 population, 1978.....	13
4. Deaths per 1,000 population, 1978.....	8
5. Annual rate of growth, 1978 (percent).....	0.6
6. Life expectancy at birth, 1977.....	75
7. Infant deaths per 1,000 live births, 1978.....	9

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	14,029,000
9. Births per 1,000 population, 1978.....	13
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	0.6

**NOTES:**

1. Census figure as reported in Centraal Bureau voor de Statistiek, 1978a, p. 21.
2. The 1971 census has not been evaluated for possible coverage error.
- 3-4. Registered vital rates as reported in Centraal Bureau voor de Statistiek, 1979c, p. 168.
5. Based on official population estimates for the beginning and end of the year reported in Centraal Bureau voor de Statistiek, 1979c, p. 168. The growth rate exceeded the rate of natural increase due to a net migration rate of 2 per 1,000 population. Migration data were reported in Centraal Bureau voor de Statistiek, 1979c, pp. 174-175.
6. Calculated from official estimates of life expectancy by sex reported in Centraal Bureau voor de Statistiek, 1979a, table 22.
7. Registered rate as reported in Centraal Bureau voor de Statistiek, 1979c, p. 168.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	10,114	1970	13,032	1950-55	1.2
1955	10,751	1971	13,194	1955-60	1.3
1960	11,486	1972	13,330	1960-65	1.4
1961	11,639	1973	13,438	1965-70	1.2
1962	11,806	1974	13,541	1970-75	0.9
1963	11,966	1975	13,653	1975-79	0.7
1964	12,127	1976	13,770		
1965	12,292	1977	13,853		
1966	12,455	1978	13,937		
1967	12,597				
		<b>PROJECTED ESTIMATES</b>			
1968	12,725	1979	14,029		
1969	12,873				

**NOTES:** 1950-55—*UNDY 1970*, table 6.

1960-71—OECD, 1975, pp. 14-15.

1972-74—*UNDY 1977*, table 6.

1975-78—Centraal Bureau voor de Statistiek, 1977, p. 84; 1978b, p. 6; 1979b, p. 84; and 1979c, p. 168.

1979—Estimated by FDAD based on an official estimate for May 1, 1979, reported in Centraal Bureau voor de Statistiek, 1979d, p. 675, and on the assumption that the net change during May and June of 1979 would be the same as in May and June of 1978.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
May 31, 1960	11,461,964		Final population census figures as reported in Centraal Bureau voor de Statistiek, 1978a, p. 21. Figures are for the resident (de jure) population.
February 28, 1971	13,060,115		

## NETHERLANDS

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	23	8	1.7	3.09
1955	21	8	1.3	3.03
1960	21	8	1.2	3.12
1965	20	8	1.3	3.04
1970	18	8	1.2	2.57
1975	13	8	1.0	1.66
1976	13	8	0.6	1.63
1977	13	8	0.6	1.58
1978	13	8	0.6	1.59

NOTES: Birth, death, and growth rates for 1950-77 as reported in Centraal Bureau voor de Statistiek, 1979a, table 6. The rates for 1978 were calculated from data reported in Centraal Bureau voor de Statistiek, 1979c, p. 168. The net migration rates and statistical adjustment rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration	+2.0	-0.5	-1.1	+1.5	+2.6	+5.3	+1.6	+1.6	+2.0
Statistical adjustment		-0.1		-0.1	-0.1	-0.1	-0.2	-0.2	-0.1

Total fertility rates for 1950-77 as reported in Centraal Bureau voor de Statistiek, 1979a, text-table 2; and for 1978 as reported in Council of Europe, 1979, p. 84.

## MAJOR SOURCES

Centraal Bureau voor de Statistiek. 1977. *Maandstatistiek van Bevolking en Volksgezondheid*, vol. 25, no. 3, Mar. The Hague.

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Organization for Economic Cooperation and Development (OECD). *Labour Force Statistics 1962-1973*. Paris.

**BENCHMARK DATA**

1. Enumerated population, census of December 7, 1978.....	35,032,000
2. Adjusted population, census of December 7, 1978.....	NA
3. Births per 1,000 population, 1978.....	19
4. Deaths per 1,000 population, 1978.....	9
5. Annual rate of growth, 1978 (percent).....	0.9
6. Life expectancy at birth, 1975-76.....	71
7. Infant deaths per 1,000 live births, 1978.....	22

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	35,227,000
9. Births per 1,000 population, 1978.....	19
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	0.9

**NOTES:**

1. Preliminary census figure as reported in Główny Urząd Statystyczny, 1979a, p. 23.
2. The 1978 census has not been evaluated for possible coverage error. A post enumeration survey was conducted but results are not yet available.
- 3-4. Registered vital rates as reported in Główny Urząd Statystyczny, 1979b, table 3.
5. Derived by subtracting the net emigration rate (0.8 per 1,000 population) and the 1978 portion (0.4 per 1,000 population) of the 1970-78 intercensal adjustment from the natural increase rate (9.8 per 1,000). Net emigration for 1978 was reported in Główny Urząd Statystyczny, 1979a, p. 24. The intercensal adjustment was made to account for the difference between the preliminary 1978 census total and the unrevised population estimates.
- 6-7. Reported in Główny Urząd Statystyczny, 1979b, table 3; and 1979c, table 62(72), p. 124.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	24,824	1970	32,526	1950-55	1.8
1955	27,221	1971	32,776	1955-60	1.7
1960	29,590	1972	33,034	1960-65	1.1
1961	29,979	1973	33,321	1965-70	0.8
1962	30,330	1974	33,629	1970-75	0.9
1963	30,662	1975	33,951	1975-79	0.9
1964	30,976	1976	34,277		
1965	31,262	1977	34,595		
1966	31,532	1978	34,899		
1967	31,785				
1968	32,035	<b>PROJECTED ESTIMATES</b>			
1969	32,281	1979	35,227		

**NOTES:** 1950 and 1970—Reported in Główny Urząd Statystyczny, 1979c, table I, p. XVIII.

1955, 1960-69, and 1971-78—Estimated by FDAD based on official estimates for the end of 1950, 1960, 1970, and 1978, reported births, deaths, and net migration, and on intercensal statistical adjustments necessary to correct for the discrepancies between the unrevised population estimates and the respective census figures.

1979—Estimated by FDAD based on an official estimate for the end of May 1979 reported in Główny Urząd Statystyczny, 1979b, table 1, and on projected births and deaths for June 1979.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 3, 1950	25,008,179		Enumerated population for 1950, 1960, and 1970 as reported in <i>UNDY 1964</i> , table 6; and 1977, table 6. Preliminary enumerated population for 1978 as reported in Główny Urząd Statystyczny, 1979a, p. 23.
December 6, 1960	29,775,508		
December 8, 1970	32,642,270		
December 7, 1978	35,032,000		

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per w. man
1950	31	12	1.7	3.71
1955	25	10	1.9	3.61
1960	23	8	1.4	2.98
1965	17	7	0.9	2.52
1970	17	8	0.8	2.20
1975	19	9	1.0	2.27
1976	20	9	1.0	2.30
1977	19	9	0.9	2.23
1978	19	9	0.9	

**NOTES:** Birth and death rates were based on registered data reported in Główny Urząd Statystyczny, 1979c, table I, p. XVIII; and 1979a, p. 31; and on adjusted midyear population figures.

Growth rates were based on the birth rates, death rates, and net migration reported in Główny Urząd Statystyczny, 1979c, table I, p. XVIII; and 1979a, p. 24; and on intercensal statistical adjustments necessary to correct for the discrepancies between the unrevised population estimates and the respective census figures.

The net migration rates and statistical adjustments per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-2.1	+0.1	-0.8	-0.8	-0.4	-0.2	-0.7	-0.8	-0.8
Statistical adjustment		-0.5	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2; and those for 1975-77 in Główny Urząd Statystyczny, 1979c, table 34(44), p. 62.

#### MAJOR SOURCES

Główny Urząd Statystyczny. 1978. *Rocznik Statystyczny 1978*. Warsaw.

\_\_\_\_\_. 1979a. *Maly Rocznik Statystyczny 1979*. Warsaw.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of December 15, 1970.....	8,663,252
2. Adjusted population, census of December 15, 1970.....	NA
3. Births per 1,000 population, 1978.....	16
4. Deaths per 1,000 population, 1978.....	10
5. Annual rate of growth, 1978 (percent).....	0.5
6. Life expectancy at birth, 1975.....	70
7. Infant deaths per 1,000 live births, 1975.....	39

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	9,843,000
9. Births per 1,000 population, 1978.....	16
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	0.5

**NOTES:**

1. Final census figure as reported in Instituto Nacional de Estatística, 1978, table 2.1.1. Census figure is for the resident population.
2. The 1970 census has not been evaluated for possible coverage error.
- 3-4. Birth and death rates as reported in Council of Europe, 1979, p. 88.
5. Calculated from provisional population estimates for the beginning and end of the year reported in Council of Europe, 1979, p. 90.
6. Reported in Council of Europe, 1979, p. 31.
7. Calculated from registered data reported in Instituto Nacional de Estatística, 1978, table 2.2.1.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	8,443	1970	9,044	1950-55	0.6
1955	8,693	1971	8,990	1955-60	0.8
1960	9,037	1972	8,970	1960-65	0.2
1961	9,031	1973	8,976	1965-70	-0.2
1962	9,020	1974	9,098	1970-75	0.8
1963	9,082	1975	9,426	1975-79	1.1
1964	9,122	1976	9,666		
1965	9,129	1977	9,736		
1966	9,109	1978	9,796		
1967	9,103				
		<b>PROJECTED ESTIMATES</b>			
1968	9,115	1979	9,843		
1969	9,097				

**NOTES:** 1950-77 - Calculated from end-of-year estimates reported in Instituto Nacional de Estatística, 1978, table 2.1.2.

1978—Calculated from estimates for the beginning and end of the year reported in Council of Europe, 1979, p. 90.

1979—Estimated by FDAD based on an estimate for the beginning of the year reported in Council of Europe, 1979, p. 90, and on the assumption that the growth rate would be the same as in 1978.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 15, 1950	8,510,240		Census figures for the resident population as reported in Instituto Nacional de Estatística, 1978, table 2.1.1.
December 15, 1960	8,889,392		
December 15, 1970	8,663,252		

## PORTUGAL

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	24	12	0.9	3.04
1955	24	11	0.8	2.91
1960	24	11	0.9	3.13
1965	23	10	-0.2	3.08
1970	19	10	-0.7	3.11
1975	19	10	4.4	2.52
1976	19	11	0.7	2.58
1977	19	10	0.8	2.48
1978	16	10	0.5	2.11

**NOTES:** Birth and death rates for 1950 and 1955 were calculated from data reported in Instituto Nacional de Estatística, 1969, p. XCV; and 1978, table 2.12. Those for 1960-78 were reported in Council of Europe, 1979, p. 88. Growth rates were calculated from population estimates reported in Instituto Nacional de Estatística, 1978, table 2.1.2; and Council of Europe, 1979, p. 90. The net migration rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-3.3	-4.7	-4.3	-14.1	-15.6	+35.3	-2.0	-1.1	-1.2

The total fertility rates for 1950 and 1955 were reported in U.N., 1975, table V.2. Those for 1960-78 were reported in Council of Europe, 1979, pp. 30 and 90.

## MAJOR SOURCES

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Instituto Nacional de Estatística. 1969. *Estatísticas Demográficas 1968*. Lisbon.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of January 5, 1977.....	21,559,416
2. Adjusted population, census of January 5, 1977.....	NA
3. Births per 1,000 population, 1977.....	20
4. Deaths per 1,000 population, 1977.....	10
5. Annual rate of growth, 1977(percent).....	0.9
6. Life expectancy at birth, 1975-77.....	70
7. Infant deaths per 1,000 live births, 1977.....	31

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	22,057,000
9. Births per 1,000 population, 1978.....	19
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	0.9

**NOTES:**

1. Census figure as reported in Direcția Centrala de Statistica, 1978, table 13.
2. The census figure was not adjusted. Results of a post enumeration survey indicated that net coverage error was negligible (Direcția Centrala de Statistica, 1979).
- 3-4. Official registered vital rates as reported in Direcția Centrala de Statistica, 1978, table 21.
5. Difference between crude birth and death rates and an estimated net emigration rate of 0.6 per 1,000 population.
- 6-7. Official estimates as reported in Direcția Centrala de Statistica, 1978, tables 21 and 30.
8. See notes for Midyear Population Estimates.
- 9-10. Estimated based on birth and death rates for the period 1975-78 reported in Consiliul Suprem al Dezvoltării Economice și Sociale, Institutul Central de Cercetări Economice, 1979a, pp. 17-18, and on data for the years 1975-77 reported in Direcția Centrala de Statistica, 1978, table 21.
11. Difference between birth and death rates and an estimated net emigration rate of 0.6 per 1,000 population.

## ROMANIA

**Midyear Population Estimates and Average Annual Period Growth Rates:  
 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	16,311	1970	20,253	1950-55	1.2
1955	17,325	1971	20,470	1955-60	1.2
1960	18,403	1972	20,663	1960-65	0.7
1961	18,567	1973	20,828	1965-70	1.2
1962	18,681	1974	21,029	1970-75	1.0
1963	18,813	1975	21,245	1975-79	0.9
1964	18,927	1976	21,446		
1965	19,027	1977	21,658		
1966	19,141	1978	21,855		
1967	19,285				
1968	19,721	<b>PROJECTED ESTIMATES</b>			
1969	20,010	1979	22,057		

**NOTES:** 1950-77—Official estimates reported in Direcția Centrala de Statistica, 1978, tables 13 and 21.

1978—Official estimate reported in *PVSR July 1979*.

1979—Projected estimate provided by FDAD. For further information on sources and methods used in estimation, write the Chief, Foreign Demographic Analysis Division, Bureau of the Census, Washington, D.C. 20230.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
January 25, 1948	15,872,624		Enumerated populations as reported in Direcția Centrala de Statistica, 1978, table 13.
February 21, 1956	17,489,450		
March 15, 1966	19,103,163		
January 5, 1977	21,559,416		

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	26	12	1.2	3.17
1955	26	10	1.6	3.09
1960	19	9	1.0	2.34
1965	15	9	0.5	1.91
1970	21	10	1.1	2.89
1975	20	9	1.0	2.62
1976	19	10	1.0	2.58
1977	20	10	0.9	2.60
1978				2.54

NOTES: Birth and death rates for 1950-77 were reported in Direcția Centrala de Statistica, 1978, table 21.

Growth rates for 1950-77 were based on reported and estimated Jan. 1 populations provided by FDAD. For further information on sources and methods used in estimation, write the Chief, Foreign Demographic Analysis Division, Bureau of the Census, Washington, D.C. 20230. The net emigration rates per 1,000 population implied by the differences between the growth rates and natural increase rates were as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977
Net emigration rate	1.8	0.0	0.8	0.6	0.6	0.4	0.3	0.6

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2; those for 1975-77 reported in Direcția Centrala de Statistica, 1978, table 24; and the rate for 1978 in Consiliul Suprem al Dezvoltării Economice și Sociale, Institutul Central de Cercetări Economice, 1979b, p. 14.

## MAJOR SOURCES

Consiliul Suprem al Dezvoltării Economice și Sociale. Institutul Central de Cercetări Economice. 1979a. *Revista Economica*, no. 30. Bucharest.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of December 31, 1970.....	33,956,376
2. Adjusted population, census of December 31, 1970.....	NA
3. Births per 1,000 population, 1978.....	17
4. Deaths per 1,000 population, 1978.....	8
5. Annual rate of growth, 1978 (percent).....	1.1
6. Life expectancy at birth, 1970.....	72
7. Infant deaths per 1,000 live births, 1978.....	15

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	37,077,000
9. Births per 1,000 population, 1978.....	17
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	1.1

**NOTES:**

1. Final census figure as reported in Instituto Nacional de Estadística, 1979b, p. 3. Population includes Balearic Islands, Canary Islands, Ceuta and Melilla.
2. The 1970 census has not been evaluated for possible coverage error.
- 3-4. Provisional rates as reported in Instituto Nacional de Estadística, 1979b, p. 4.
5. Based on official estimates of the Jan. 1 de jure population for 1978 and 1979 reported in Instituto Nacional de Estadística, 1979b, p. 3. The official estimates were adjusted by adding estimates for Ceuta and Melilla.
6. Reported in Instituto Nacional Estadística, 1979b, p. 3.
7. Provisional rate as reported in Instituto Nacional Estadística, 1979b, p. 4.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	28,009	1970	33,779	1950-55	0.8
1955	29,202	1971	34,106	1955-60	0.8
1960	30,455	1972	34,416	1960-65	1.0
1961	30,743	1973	34,730	1965-70	1.0
1962	31,066	1974	35,066	1970-75	1.0
1963	31,393	1975	35,442	1975-79	1.1
1964	31,723	1976	35,849		
1965	32,056	1977	36,278		
1966	32,393	1978	36,686		
1967	32,734				
		<b>PROJECTED ESTIMATES</b>			
1968	33,079	1979	37,077		
1969	33,427				

**NOTES:** 1950-60—Estimated by FDAD based on estimates reported in *UNDY 1969*, table 4, and in Instituto Nacional de Estadística, 1969, p. 36. The reported figures were adjusted by adding estimates for Ceuta and Melilla.

1961-70—Reported in Instituto Nacional de Estadística, 1977, p. 56.

1971-78—Estimated by FDAD based on the de facto population total for the 1970 census and on annual growth rates derived from de jure population estimates for the years 1970-78 reported in Instituto Nacional de Estadística, 1979b, p. 3. The reported de jure estimates were adjusted by adding estimates for Ceuta and Melilla.

1979—Estimated by FDAD based on the estimated de facto population for the beginning of the year derived from de jure estimates for 1970-78 and on the assumption that the rate of growth during 1979 would be the same as in 1978.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 31, 1950	28,117,873		Final census figure as reported in Instituto Nacional de Estadística, 1979b, p. 3. The census figures include the population of the Balearic Islands, Canary Islands, Ceuta, and Melilla.
December 31, 1960	30,582,936		
December 31, 1970	33,956,376		

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	20	11	0.8	2.46
1955	20	9	0.8	2.56
1960	22	9	0.8	2.79
1965	21	8	1.0	2.92
1970	19	8	1.0	2.84
1975	19	8	1.1	2.77
1976	19	8	1.2	
1977	18	8	1.2	
1978	17	8	1.1	

**NOTES:** The birth, death, and growth rates for 1950 and 1955 were calculated from data reported in OECD, 1963, p. 92. Those for 1960 and 1965 were reported in OECD, 1972, p. 324; and 1978, p. 354. The rates for 1970 and 1975-78 were calculated from births and deaths reported in Instituto Nacional de Estadística, 1979b, p. 4, and de facto population estimates derived from de jure population figures reported in Instituto Nacional de Estadística, 1979b, p. 3.

The net migration rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-1.5	-2.7	-4.5	-2.0	-0.7	+0.4	+1.4	+1.7	+1.3

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2. The total fertility rate for 1975 was estimated from births by age of mother reported in Instituto Nacional de Estadística, 1978, p. 6.

#### MAJOR SOURCES

Instituto Nacional de Estadística. 1969. *Anuario Estadístico de España 1969*, edición manual. Madrid.

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Organization for Economic Cooperation and Development (OECD). 1963. *Manpower Statistics 1950-1962*. Paris.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of November 1, 1975.....	8,208,544
2. Adjusted population, census of November 1, 1975.....	NA
3. Births per 1,000 population, 1978.....	11
4. Deaths per 1,000 population, 1978.....	11
5. Annual rate of growth, 1978 (percent).....	0.2
6. Life expectancy at birth, 1977.....	75
7. Infant deaths per 1,000 live births, 1978.....	8

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	8,296,000
9. Births per 1,000 population, 1978.....	11
10. Deaths per 1,000 population, 1978.....	11
11. Annual rate of growth, 1978 (percent).....	0.2

**NOTES:**

1. Final census figure as reported in *UNDY 1977*, table 3.
2. The 1975 census has not been evaluated for possible coverage error.
- 3-4. Preliminary registered rates as reported in Statistiska Centralbyrån, 1979, table A.
5. Based on Jan. 1 population figures for 1978 and 1979 reported in Statistiska Centralbyrån, 1979, table A. The growth rate exceeds the rate of natural increase due to a net immigration rate of 1.7 per 1,000 population.
6. Based on life expectancy by sex as reported in Statistiska Centralbyrån, 1978b, table 4.17.
7. Reported in *PVSR October 1979*.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## SWEDEN

**Midyear Population Estimates and Average Annual Period Growth Rates:  
 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	7,014	1969	7,968	1950-55	0.7
1955	7,262	1970	8,043	1955-60	0.6
1960	7,480	1971	8,098	1960-65	0.7
1961	7,520	1972	8,122	1965-70	0.8
1962	7,562	1973	8,137	1970-75	0.4
1963	7,604	1974	8,161	1975-79	0.3
1964	7,661	1975	8,193		
1965	7,734	1976	8,222		
1966	7,808	1977	8,252		
1967	7,868	1978	8,278		
1968	7,912	1979	8,296		

**NOTES:** 1950-79—Official estimates as reported in Statistiska Centralbyrån, 1976, table 39; 1978a, table 45; and 1979, table A.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 31, 1950	7,041,829		Final de jure census figures for 1950, 1960, and 1965 as reported in <i>UNDY 1970</i> , table 7; and for 1970 and 1975 as reported in <i>UNDY 1977</i> , table 6.
November 1, 1960	7,495,316		
November 1, 1965	7,766,424		
November 1, 1970	8,076,903		
November 1, 1975	8,208,544		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	16	10	0.8	2.30
1955	15	9	0.8	2.25
1960	14	10	0.5	2.17
1965	16	10	1.0	2.41
1970	14	10	1.0	1.94
1975	13	11	0.4	1.78
1976	12	11	0.3	1.69
1977	12	11	0.4	1.65
1978	11	11	0.2	1.59

NOTES: The birth, death, and growth rates for 1950 and 1955 were reported in Statistiska Centralbyrån, 1976, table 39; and for 1960-77 in Statistiska Centralbyrån, 1978a, table 45. The rates for 1978 were calculated from data reported in Statistiska Centralbyrån, 1979, table A.

The net migration rates and statistical adjustments per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	+2.1	+2.4	+1.5	+4.3	+6.1	+2.1	+2.4	+2.8	+1.7
Statistical adjustment	-0.6	-0.1	-0.4	-0.1		-0.1			

Total fertility rates for 1950 and 1955 were reported in U.N., 1975, table V.2; and for 1960-78 in Council of Europe, 1979, p. 95.

**MAJOR SOURCES**

Council of Europe. 1979. *Recent Demographic Developments in the Member States of the Council of Europe*. Strasbourg.

Statistiska Centralbyrån. 1976. *Statistisk årsbok för Sverige 1976*. Stockholm.

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United Nations. 1975. *Economic Survey of Europe in 1974*, part II, *Post-War Demographic Trends in Europe and the Outlook Until the Year 2000*. New York.

**BENCHMARK DATA**

1. Enumerated population, census of December 1, 1970.....	6,269,783
2. Adjusted population, census of December 1, 1970.....	NA
3. Births per 1,000 population, 1978.....	11
4. Deaths per 1,000 population, 1978.....	9
5. Annual rate of growth, 1978 (percent).....	0.1
6. Life expectancy at birth, 1976-77.....	75
7. Infant deaths per 1,000 live births, 1978.....	9

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	6,343,000
9. Births per 1,000 population, 1978.....	11
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	0.1

**NOTES:**

1. Final census figure as reported in Bundesamt für Statistik, 1979, p. 14.
2. The 1970 census has not been evaluated for possible coverage error.
- 3-4. Reported in Bundesamt für Statistik, 1979, p. 31.
5. Based on official Jan. 1 populations for 1978 and 1979 reported in Eidgenössisches Statistisches Amt, 1978b, table 67, and in Bundesamt für Statistik, 1979, p. 23. A net emigration rate of 1 per 1,000 population was calculated from data reported in Council of Europe, 1979, p. 98.
6. Calculated from official estimates of life expectancy at birth by sex as reported in Council of Europe, 1979, p. 36.
7. Official rate reported in Bundesamt für Statistik, 1979, p. 61.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	4,694	1970	6,267	1950-55	1.2
1955	4,980	1971	6,324	1955-60	1.5
1960	5,362	1972	6,385	1960-65	2.1
1961	5,512	1973	6,431	1965-70	1.1
1962	5,666	1974	6,443	1970-75	0.4
1963	5,789	1975	6,405	1975-79	-0.2
1964	5,887	1976	6,346		
1965	5,943	1977	6,327		
1966	5,996	1978	6,337		
1967	6,063				
		<b>PROJECTED ESTIMATES</b>			
1968	6,132	1979	6,343		
1969	6,212				

NOTES: 1950-78—Reported in Bundesamt für Statistik, 1979, p. 31.

1979—Estimated by FDAD based on the official estimate for midyear 1978 and on the assumption that the 1978 growth rate would continue unchanged.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
December 1, 1950	4,714,992		Enumerated populations for 1950, 1960, and 1970 as reported in Bundesamt für Statistik, 1979, p. 14. Population is de jure.
December 1, 1960	5,429,061		
December 1, 1970	6,269,783		

### Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	18	10	1.2	2.40
1955	17	10	1.2	2.30
1960	18	10	1.2	2.44
1965	19	9	0.9	2.61
1970	16	9	0.6	2.09
1975	12	9	-0.7	1.60
1976	12	9	-0.6	1.54
1977	12	9	-0.1	1.52
1978	11	9	0.1	1.50

**NOTES:** Birth and death rates for all years were reported in Bundesamt für Statistik, 1979, p. 31. Growth rates for 1950 and 1955 were calculated from data reported in OECD, 1963, p. 104; those for 1960, 1970, and 1975-78 were calculated from data reported in Council of Europe, 1979, p. 98. The growth rate for 1965 was reported in OECD, 1978, p. 396. The net migration rates per 1,000 population consistent with the birth, death, and growth rates are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	+3.6	+4.6	+4.2	-0.2	-1.0	-10.1	-8.3	-3.6	-1.3

Total fertility rates for 1950 and 1955 were reported in U.N., 1975, table V.2; those for other years were reported in Council of Europe, 1979, p. 98.

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**BENCHMARK DATA**

1. Enumerated population, census of April 25, 1971.....	55,515,000
2. Adjusted population, census of April 25, 1971.....	NA
3. Births per 1,000 population, 1978.....	12
4. Deaths per 1,000 population, 1978.....	12
5. Annual rate of growth, 1978-79 (percent).....	-0.0
6. Life expectancy at birth, 1974-76.....	73
7. Infant deaths per 1,000 live births, 1977.....	14

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	55,901,000
9. Births per 1,000 population, 1978.....	12
10. Deaths per 1,000 population, 1978.....	12
11. Annual rate of growth, 1978 (percent).....	-0.0

**NOTES:**

1. Final census figure as reported in Central Statistical Office, 1978, table 2.1.
2. The 1971 census has not been evaluated for possible coverage error.
3. Reported in Office of Population Censuses and Surveys, 1979, p. 29.
4. Reported in Council of Europe, 1979, p. 102.
5. Calculated from official midyear population estimates for 1978 and 1979 as reported in Central Statistical Office, 1979, p. 177.
6. Calculated from official estimates of life expectancy by sex as reported in Central Statistical Office, 1978, table 2.33.
7. Reported in Office of Population Censuses and Surveys, 1979, p. 29.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## UNITED KINGDOM

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	50,363	1970	55,522	1950-55	0.3
1955	51,199	1971	55,712	1955-60	0.5
1960	52,559	1972	55,869	1960-65	0.7
1961	52,956	1973	56,000	1965-70	0.4
1962	53,414	1974	56,011	1970-75	0.2
1963	53,691	1975	55,981	1975-79	-0.0
1964	54,033	1976	55,959		
1965	54,378	1977	55,919		
1966	54,653	1978	55,903		
1967	54,933	1979	55,901		
1968	55,157				
1969	55,372				

**NOTES:** 1950—Estimated by FDAD by averaging beginning and end-of-year estimates reported in OECD, 1963, p. 114.

1955-60—Reported in *UNDY 1966*, table 4.

1961-64—Reported in OECD, 1975, p. 14.

1965-79—Official estimates as reported in Central Statistical Office, 1976, table 12; 1978, table 2.7; and 1979, p. 177.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
April 8, 1951	50,225,000		Final census figure as reported in Central Statistical Office, 1978, table 2.1.
April 23, 1961	52,709,000		
April 24, 1966	53,788,000		
April 25, 1971	55,515,000		

**Benchmark Vital Rates for Selected Years Since 1950**

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	16	12	0.4	2.22
1955	15	12	0.4	2.25
1960	17	12	0.7	2.69
1965	18	12	0.6	2.86
1970	16	12	0.3	2.44
1975	12	12	-0.0	1.81
1976	12	12	-0.1	1.73
1977	12	12	-0.1	1.70
1978	12	12	-0.0	

**NOTES:** Crude birth and death rates were reported in *UNDY 1966*, tables 13 and 15; *1966*, tables 7 and 17; *1973*, tables 8 and 15; Office of Population Censuses and Surveys, 1979, p. 29; and Council of Europe, 1979, p. 102.

Growth rates were calculated from data reported in OECD, 1963, p. 114 for 1950 and 1955; OECD, 1972, p. 380 for 1960; OECD, 1978, p. 428 for 1965; OECD, 1979, pp. 418-419 for 1970-77; and Central Statistical Office, 1979, pp. 176-177, and Council of Europe, 1979, pp. 40-41 and 102-104 for 1978.

Net migration rates per 1,000 population are as follows:

Year	1950	1955	1960	1965	1970	1975	1976	1977	1978
Net migration rate	-0.3	-0.2	+1.3	-1.0	-1.4	-1	-0.5	-0.8	-0.4

Total fertility rates for 1950 and 1955 were based on rates for England, Scotland, and Wales as reported in U.N., 1975, table V.2; and female population by age as reported in *UNDY 1960*, table 5. Total fertility rates for 1960-77 were reported in Council of Europe, 1979, p. 104.

**MAJOR SOURCES**

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**BENCHMARK DATA**

1. Enumerated population, census of March 31, 1971.....	20,522,972
2. Adjusted population, census of March 31, 1971.....	NA
3. Births per 1,000 population, 1978.....	17
4. Deaths per 1,000 population, 1978.....	9
5. Annual rate of growth, 1978 (percent).....	0.9
6. Life expectancy at birth, 1974-75.....	69
7. Infant deaths per 1,000 live births, 1978.....	34

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	22,174,000
9. Births per 1,000 population, 1978.....	17
10. Deaths per 1,000 population, 1978.....	9
11. Annual rate of growth, 1978 (percent).....	0.9

**NOTES:**

1. Final census figures as reported in Savezni zavod za statistiku, 1978, table 104-1. Population is de jure.
2. The 1971 census has not been evaluated for possible coverage error.
- 3-4. Reported in Savezni zavod za statistiku, 1979, p. 4.
5. Difference between unrounded birth and death rates.
- 6-7. Reported in Savezni zavod za statistiku, 1978, table 202-2; and 1979, p. 4.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	16,346	1970	20,371	1950-55	1.4
1955	17,519	1971	20,574	1955-60	1.0
1960	18,402	1972	20,775	1960-65	1.1
1961	18,612	1973	20,963	1965-70	0.9
1962	18,819	1974	21,164	1970-75	1.0
1963	19,029	1975	21,365	1975-79	0.9
1964	19,222	1976	21,573		
1965	19,434	1977	21,775		
1966	19,644	1978	21,968		
1967	19,840				
1968	20,029	<b>PROJECTED ESTIMATES</b>			
1969	20,209	1979	22,174		

**NOTES:** 1950-78—Reported in Savezni zavod za statistiku, 1976, table 2-1; and 1979, p. 4.

1979—Estimate provided by FDAD. For further information on sources and methods used in estimation, write the Chief, Foreign Demographic Analysis Division, Bureau of the Census, Washington, D.C. 20230.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
March 31, 1953	16,991,449		De jure census figures as reported in Savezni zavod za statistiku, 1978, table 104-1.
March 31, 1961	18,549,291		
March 31, 1971	20,522,972		

## YUGOSLAVIA

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	30	13	1.4	3.74
1955	27	11	1.1	3.16
1960	24	10	1.1	2.80
1965	21	9	1.1	2.71
1970	18	9	0.9	2.28
1975	18	9	0.9	2.26
1976	18	8	1.0	2.25
1977	18	8	0.9	
1978	17	9	0.9	

NOTES: Birth and death rates for 1950-78 were reported in Savezni zavod za statistiku, 1976, table 2-2; and 1979, p. 4.

Growth rates for 1950-70 were derived from midyear population estimates reported in Savezni zavod za statistiku, 1976, table 2-1, and those for 1975-77 were calculated from January 1 population estimates reported in *PVSR April 1975, April 1976, April 1977, and April 1978*. The growth rate for 1978 was calculated from the unrounded birth and death rates.

The net migration rates implied by the differences between the growth rates and natural increase rates were less than 1 per 1,000 population for the years 1970-77. Emigration rates per 1,000 population for the years 1950-65 are as follows:

Year	1950	1955	1960	1965
Net emigration rate	3.3	4.0	2.8	1.4

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2; and for 1975 and 1976 in Savezni zavod za statistiku, 1978, table 104-17.

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**BENCHMARK DATA**

1. Enumerated population, census of January 17, 1979.....	262,442,000
2. Adjusted population, census of January 17, 1979.....	NA
3. Births per 1,000 population, 1978.....	18
4. Deaths per 1,000 population, 1978.....	10
5. Annual rate of growth, 1978 (percent).....	0.9
6. Life expectancy at birth, 1971-72.....	70
7. Infant deaths per 1,000 live births, 1974.....	28

**PROJECTED ESTIMATES**

8. Population, July 1, 1979.....	263,400,000
9. Births per 1,000 population, 1978.....	18
10. Deaths per 1,000 population, 1978.....	10
11. Annual rate of growth, 1978 (percent).....	0.9

**NOTES:**

1. Preliminary census figure as reported in *Tsentral'noye...*, 1979b, p. 67.
2. The census figure was not adjusted. During a post enumeration survey conducted immediately after the census, persons missed by the census were enumerated, resulting in a virtually complete enumeration overall (*Tsentral'noye...*, 1979c).
- 3-4. Reported in *Tsentral'noye...*, 1979a, p. 11.
5. Calculated from an official population estimate for Jan. 1, 1978, reported in *Tsentral'noye...*, 1978b, p. 10, and an estimate for Jan. 1, 1979, that was based on the 1979 census figure.
6. Official data reported in *Tsentral'noye...*, 1978b, p. 435. Life expectancy at birth for 1975 was estimated by FDAD to be 69 years.
7. Official data reported in *PVSR April 1979*. The infant mortality rate for 1975 was estimated by FDAD to be 30. Both figures exclude live-born infants of less than 28 weeks gestation, less than 1,000 grams in weight and 35 centimeters in length, who die within 7 days of birth.
8. See notes for Midyear Population Estimates.
- 9-11. See notes 3-5.

## SOVIET UNION

**Midyear Population Estimates and Average Annual Period Growth Rates:  
1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	180,075	1969	240,554	1950-55	1.7
1955	196,159	1970	242,757	1955-60	1.8
1960	214,329	1971	245,083	1960-65	1.5
1961	218,145	1972	247,459	1965-70	1.0
1962	221,730	1973	249,747	1970-75	0.9
1963	225,063	1974	252,065	1975-79	0.9
1964	228,149	1975	254,393		
1965	230,936	1976	256,674		
1966	233,533	1977	258,932		
1967	235,994	1978	261,200		
1968	238,317	1979	263,400		

NOTES: 1950-77—Reported in *Sovet...*, 1971, table 3; 1976, table 4; and 1978, table 3.

1978—Reported in *Tsentrāl'noye...*, 1978b, p. 7.

1979—Reported in *Pravda*, July 21, 1979, p. 2.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
January 15, 1959	208,826,650		Final census figures for 1959 and 1970 as reported in Boyarskiy, 1974, p. 166. Preliminary census figure for 1979 as reported in <i>Tsentrāl'noye...</i> , 1979b, p. 67.
January 15, 1970	241,720,134		
January 17, 1979	262,442,000		

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1950	27	10	1.7	2.88
1955	26	8	1.8	2.87
1960	25	7	1.8	2.84
1965	18	7	1.1	2.46
1970	17	8	0.9	2.43
1975	18	9	0.9	2.38
1976	18	9	0.9	2.39
1977	18	10	0.9	2.32
1978	18	10	0.9	

**NOTES:** Crude birth and death rates for 1950-78 were reported in *Tsentral'noye...*, 1975, p. 69; and 1979a, p. 11.

Growth rates for 1950-78 were based on Jan. 1 population estimates reported in *Tsentral'noye...*, 1975, p. 7; and in *Sovet...*, 1978, table 8; and on an estimate for Jan. 1, 1979 based on the 1979 census. The minor differences between the growth rates and natural increase rates represent statistical adjustments of the population and vital data to compensate for deficiencies in the reporting systems. These adjustments per 1,000 population are as follows:

Year	1955	1960	1965	1970	1975	1976	1977	1978
Statistical adjustment	0.3	0.5	0.2	0.0	0.1	0.0	0.1	0.3

Total fertility rates for 1950-70 were reported in U.N., 1975, table V.2; those for 1975-77 were estimated by FDAD and were derived from birth rates by age of mother for 1974-75, 1975-76, and 1976-77 reported in *Tsentral'noye...*, 1976, p. 86; 1977, p. 72; and 1979b, p. 81.

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# AUSTRALIA

## BENCHMARK DATA

1. Enumerated population, census of June 30, 1976.....	13,548,472
2. Adjusted population, census of June 30, 1976.....	13,915,500
3. Births per 1,000 population, 1978.....	16
4. Deaths per 1,000 population, 1978.....	8
5. Annual rate of growth, 1978-79 (percent).....	1.2
6. Life expectancy at birth, 1977.....	73
7. Infant deaths per 1,000 live births, 1977.....	12

## PROJECTEL ESTIMATES

8. Population, July 1, 1979.....	14,417,000
9. Births per 1,000 population, 1978.....	16
10. Deaths per 1,000 population, 1978.....	8
11. Annual rate of growth, 1978 (percent).....	1.2

## NOTES:

1. Final census figure as reported in Australian Bureau of Statistics, 1977b, p. 1.
2. Census population officially adjusted for 2.6 percent net underenumeration (Australian Bureau of Statistics, 1978a, p. 97).
- 3-4. Provisional registered rates as reported in *PVSR October 1979*. Data are tabulated by year of registration rather than occurrence.
5. Based on the 1978 and 1979 official midyear populations as reported in Australian Bureau of Statistics, 1979a, Mar. and June Quarter, table 1, and 1979d. Based on the 1978 reported natural increase (see note 3-4) and the 1978-79 growth rate, a net immigration rate of approximately 4 per 1,000 population is implied.
6. Calculated from official estimates of male and female life expectancy at birth (Australian Bureau of Statistics, 1979b, table 8; and 1979c, table 1), and a sex ratio at birth of 1.06 derived from registered data.
7. Registered rate as reported in Australian Bureau of Statistics, 1979b, table 14.
8. See notes for Midyear Population Estimates.
- 9-10. See note 3-4.
11. Based on the 1978 and 1979 official midyear population (Australian Bureau of Statistics, 1979a, June Quarter; and 1979d).

**Midyear Population Estimates and Average Annual Period Growth Rates: 1950, 1955, and 1960 to 1979** (Population in thousands, rate in percent)

Year	Population	Year	Population	Period	Average annual growth rate
1950	8,267	1969	12,379	1950-55	2.3
1955	9,277	1970	12,660	1955-60	2.2
1960	10,361	1971	12,937	1960-65	2.0
1961	10,599	1972	13,177	1965-70	2.0
1962	10,795	1973	13,380	1970-75	1.7
1963	11,001	1974	13,599	1975-79	1.2
1964	11,218	1975	13,771		
1965	11,439	1976	13,916		
1966	11,655	1977	14,074		
1967	11,872	1978	14,249		
1968	12,102	1979	14,417		

**NOTES:** 1950-65—Based on the inflated 1954 and 1961 censuses, the adjusted 1966 census, and estimated growth rates which take into consideration official midyear population estimates, excluding aborigines (Department of Immigration and Ethnic Affairs, 1977, table 2).  
 1966-70—Based on the adjusted 1971 census and registered births, deaths, and migrants during the 1966-71 intercensal period (Australian Bureau of Statistics, 1975, p. 2; 1978c, June Quarter, table 1; Commonwealth Bureau of Census and Statistics, 1968, Dec., p. 3; 1973, Jan., p. 2; and Department of Immigration and Ethnic Affairs, 1977, table 10).  
 1971-79—Official midyear population figures (Australian Bureau of Statistics, 1978b, June, p. 2; 1979a, Mar. and June Quarter, table 1 and 1979d), based on the adjusted 1971 and 1976 censuses and registered births, deaths, and migrants.

The following censuses were used in deriving the population time series:

Census date	Enumerated population	Adjusted population	Source
June 30, 1954	8,986,530	9,064,000	Enumerated populations of 1954 (excluding aborigines), 1961, and 1966 reported in Department of Immigration and Ethnic Affairs, 1977, table 2.
June 30, 1961	10,548,267	10,599,000	
June 30, 1966	11,599,498	11,655,000	
June 30, 1971	12,755,638	12,937,200	Enumerated populations of 1971 and 1976 are as reported in Australian Bureau of Statistics, 1977a, p. 136; and 1977b, p. 1, respectively. The 1971 and 1976 enumerated populations were officially adjusted for 1.4 and 2.6 percent net underenumeration, respectively. A 0.5 percent net underenumeration is implied for the 1966 enumerated census based on the adjusted 1971 census and registered births, deaths, and migrants for the 1966-71 intercensal period; the 1961 enumerated total population inflated for the same percent net underenumeration as implied for the 1966 census. The 1954 enumerated total population was inflated to include aborigines reported in the 1961 census; and further inflated for the same percent net underenumeration implied for the 1966 census.
June 30, 1976	13,548,472	13,915,500	

## AUSTRALIA

## Benchmark Vital Rates for Selected Years Since 1950

Year	Births per 1,000 population	Deaths per 1,000 population	Growth rate (percent)	Total fertility rate per woman
1966	19	9	1.8	2.88
1970	20	9	2.2	2.87
1975	17	8	1.0	2.17
1976	16	8	1.1	2.08
1977	16	8	1.2	2.04
1978	16	8		

**NOTES:** The crude birth and death rates for 1966 and 1970 are based on registered births and deaths (Australian Bureau of Statistics, 1974, tables 25, 188, and 190), and midyear populations estimated at the U.S. Bureau of the Census. Crude rates for 1975-78 are as reported in Australian Bureau of Statistics, 1979a, Mar. and June Quarters, table 4; and *PVSR July 1979*.

Growth rates were calculated from unrounded crude birth and death rates and estimated net migration based on reported permanent and long-term arrival and departure data. The net immigration rates per 1,000 population were as follows:

Year	1966	1970	1975	1976	1977
Net immigration rate	8.2	10.9	1.0	1.8	3.9

The total fertility rates for 1966, 1970, and 1975-77 are as reported in Australian Bureau of Statistics, 1969, p. 172; 1979c, table 7; and U.N., 1973, computer printouts.

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