Medical Demography

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Topics to be covered

By end of lecture, student will be able to:

1. Define demography and various related terms
2. Describe Census: definition, types and methodology
3. Explain Demographic Transition
4. Explain and interpret population pyramid
5. Calculate Sex Ratio & Dependency Ratio

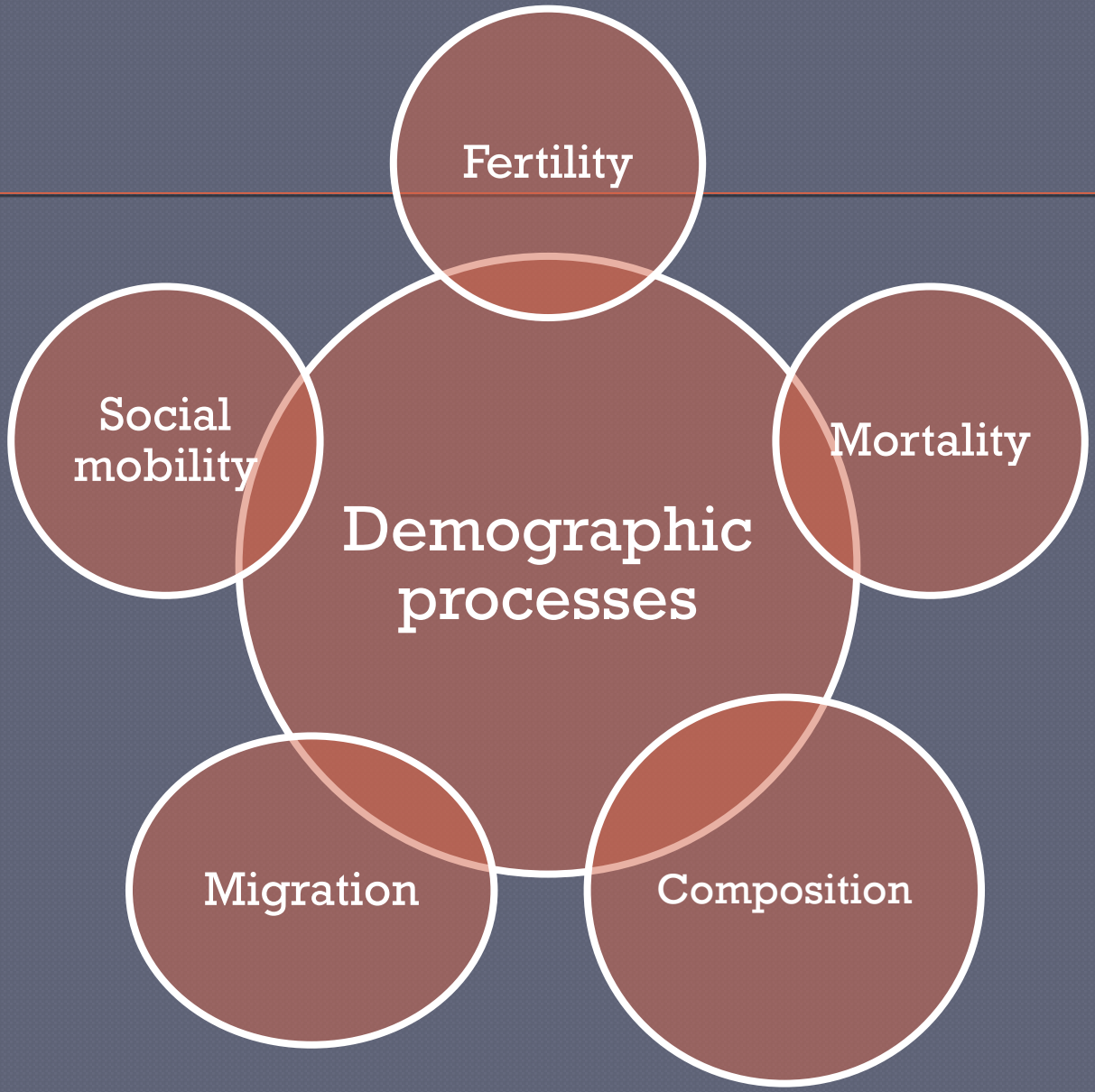
Definition of Demography

The study of the characteristics of human populations, such as size, growth, density, distribution, and vital statistics.

The American Heritage® Medical Dictionary

Definition:

The statistical science dealing with the distribution, density, vital statistics, etc. of human populations


Fertility
Social mobility
Mortality
Demographic processes
Migration
Composition

What is census?

Census is defined as

- "The total process of collecting, compiling and publishing demographic, economic and social data pertaining at a specified time or times to all persons in a country or delimited territory"

- Census is usually conducted in at the end of the first quarter of the first year of each decade
- The legal basis has been provided by govt. act
- The main function is to count people, their age and gender
- But it also provide information about social and economic characteristics, the condition under which they live, how they work, their income and their basic information

Uses:

- This data provides a frame of reference and base line for planning, action and research not only in the field of medicine, human ecology, and social sciences but in the entire governmental system

Methods used for censuses

1. **De facto** – enumeration of individuals as of where they are found in the census, regardless of where they normally reside
2. **De jure** - enumeration of individuals as of where they usually reside, regardless of where they are on census day

- Since 1951, there have been only 6 **nationwide censuses**
  - 1961,
  - 1972,
  - 1981,
  - 1998 and
  - 2017
- Delays and postponements have often been due to politicization
- Pakistan's last completed census took place in 2017 began on 15 March 2017 and ended on 25 May 2017
- According to the final results of Census-2017 the population of Pakistan is **213.2 million**

2023 Census of Pakistan

It was the detailed enumeration of the Pakistani population and **the seventh national census** in the country

It was conducted by the Pakistan Bureau of Statistics

It was also the first ever digital census to be held in Pakistan, including the first in South Asian history

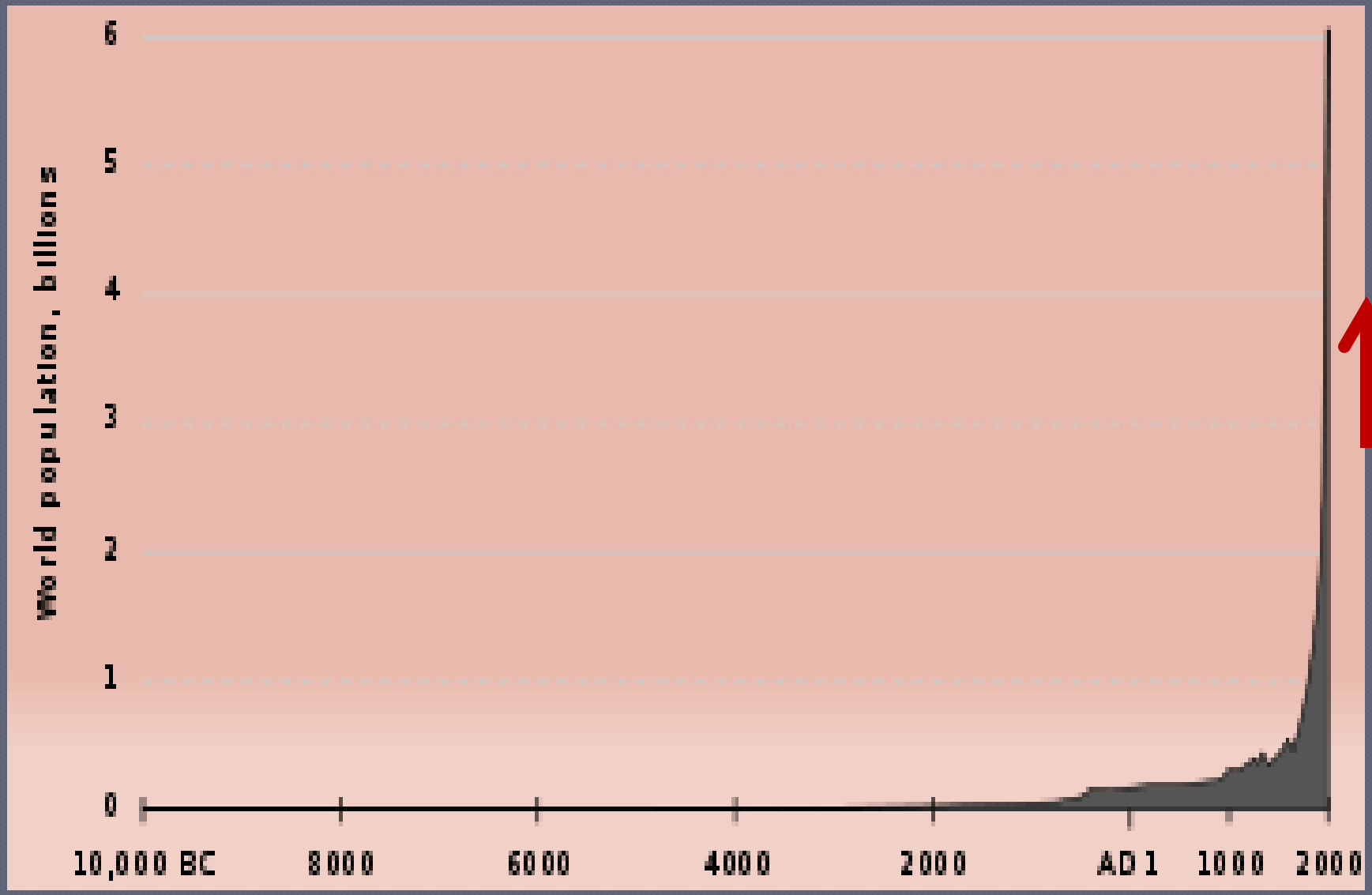
Census 2023

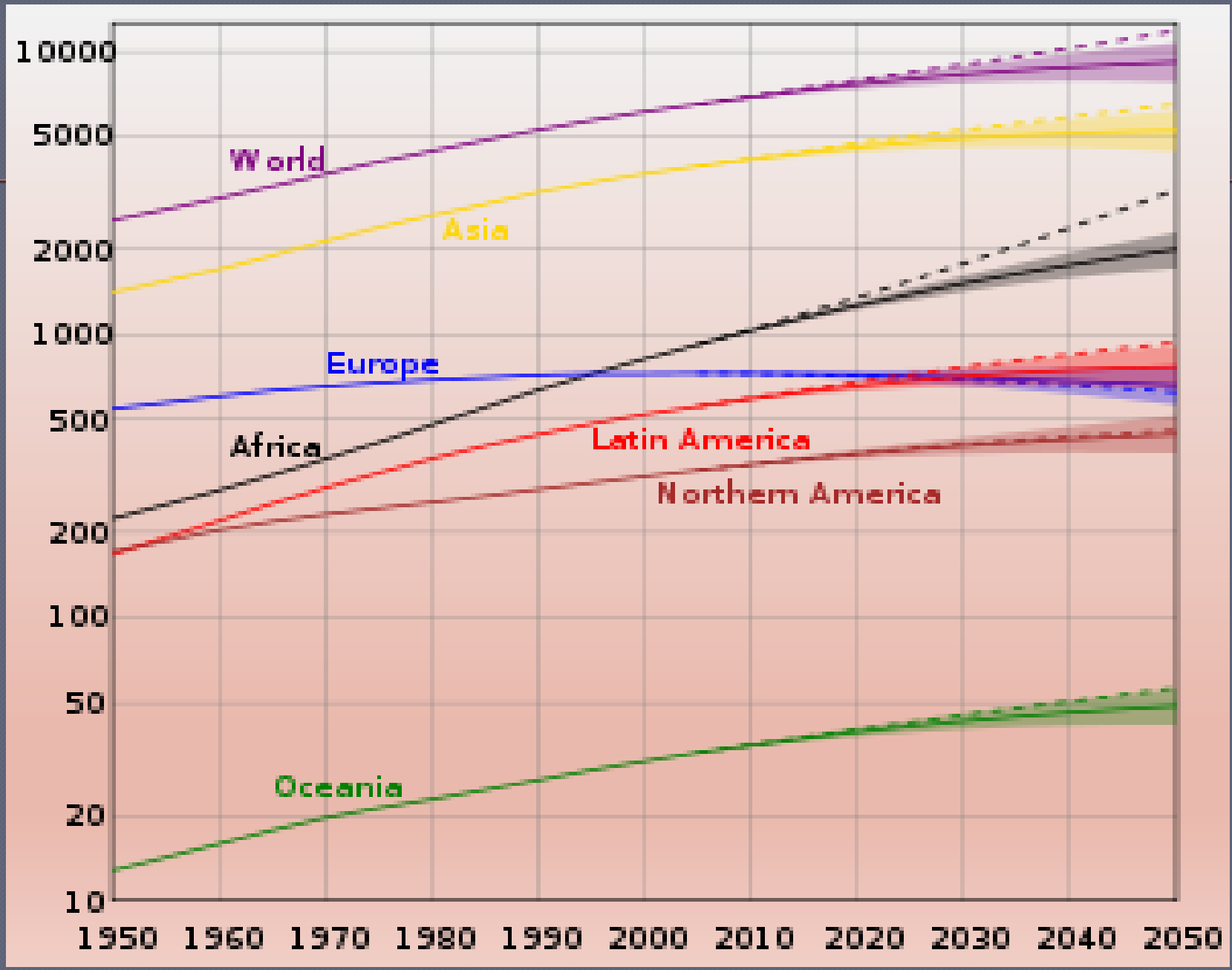
On 22 May 2023, the enumeration concluded all over Pakistan
On 23 May 2023, it was announced that the total population of Pakistan was 249,566,743 i.e. about 250 million
That's an increase of almost 42 million people compared to the 2017 census, or an annual growth rate of 3.1%

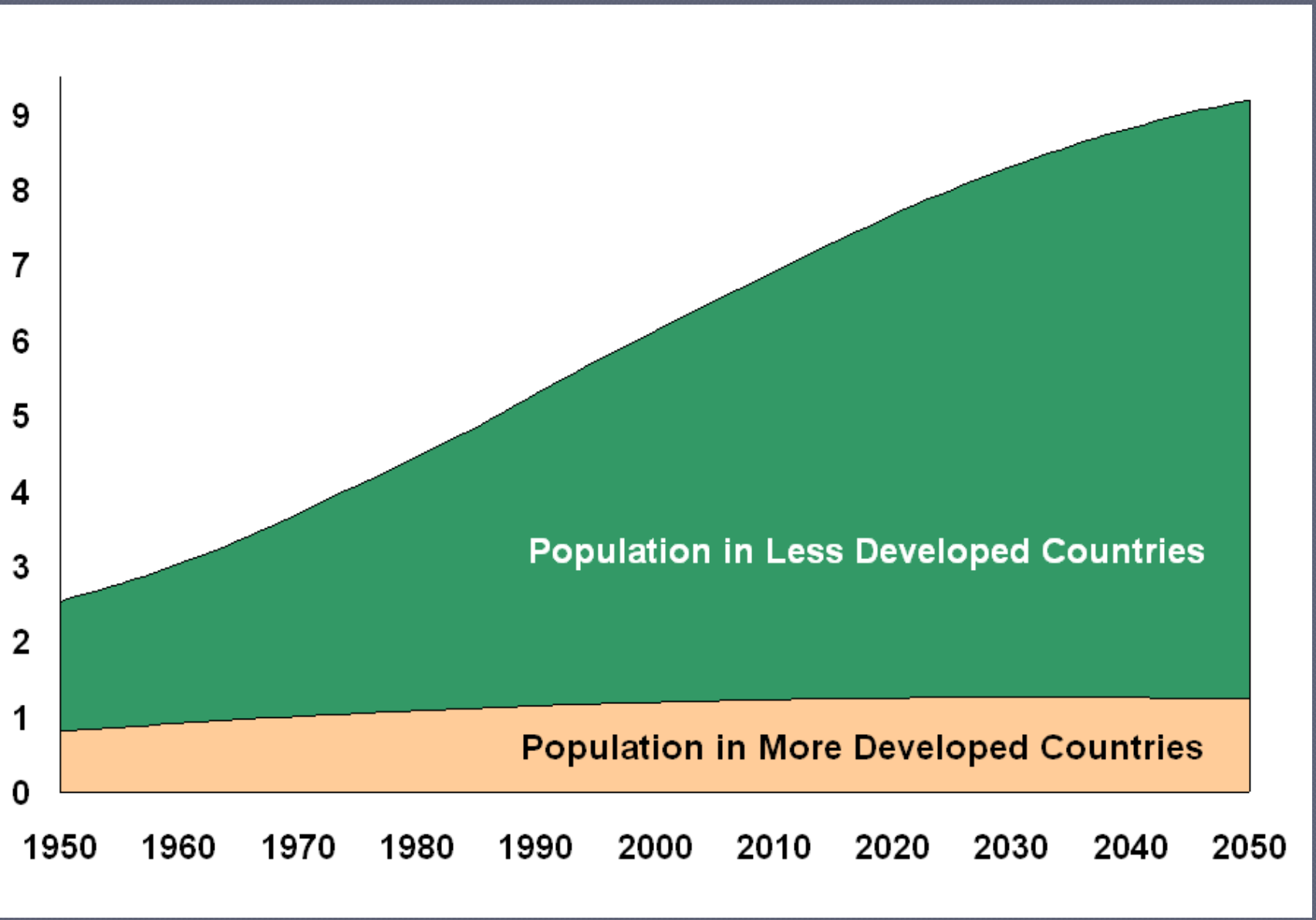
General Scenario

- Population of world is increasing day by day, bringing in its fold many problems as well as opportunities
- Population dynamics brings interesting changes like peace and war, prosperity and famine, development and pollution, so on.
- Studying population dynamics leads us to better management and planning at country or international level

7 Billion


World population, billions
6
5
4
3
2
1
0
10,000 BC
8000
6000
4000
2000
AD 1
1000
2000


10000
5000
2000
1000
500
200
100
50
20
10
World
Asia
Europe
Africa
Latin America
Northern America
Oceania
1950
1960
1970
1980
1990
2000
2010
2020
2030
2040
2050

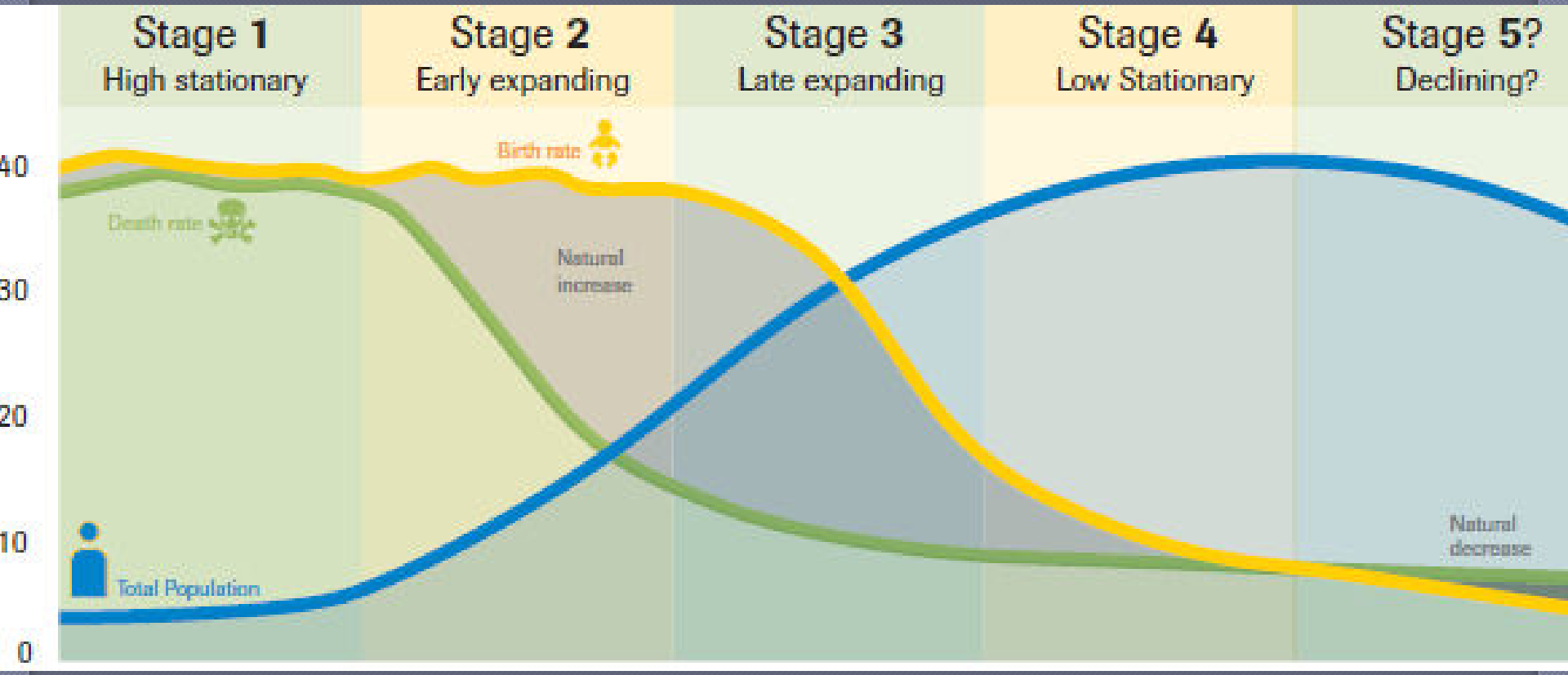

9
8
7
6
5
4
3
2
1
0
Population in Less Developed Countries
Population in More Developed Countries
1950
1960
1970
1980
1990
2000
2010
2020
2030
2040
2050

Demographic Transition Model

- Definition
- Stages
- Implications

- The Demographic Transition Model (DTM) is based on historical population trends of two demographic characteristics – birth rate and death rate –
- It suggests that a country's total population growth rate cycles through stages as that country develops economically

- Each stage is characterized by a specific relationship between **birth rate** and **death rate.**
- As these rates change in relation to each other, their produced impact greatly affects a country's total population
- Within the model, a country will progress over time from one stage to the next as certain social and economic forces act upon the birth and death rates


Stage 1
High stationary
Stage 2
Early expanding
Stage 3
Late expanding
Stage 4
Low Stationary
Stage 5?
Declining?
40
30
20
10
0
Birth rate
Death rate
Natural increase
Natural decrease
Total Population

Demographic Transition

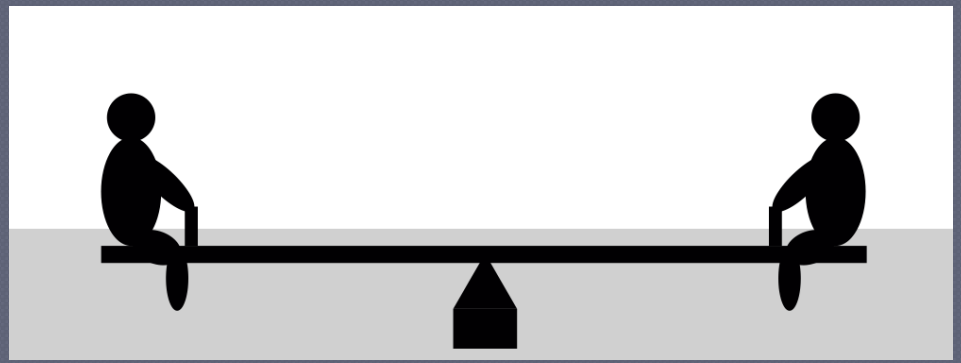
A look at the global demographic situation suggests:

"that some countries have passed through high fertility and mortality conditions to a low fertility and mortality conditions, both aiming at low growth of population"

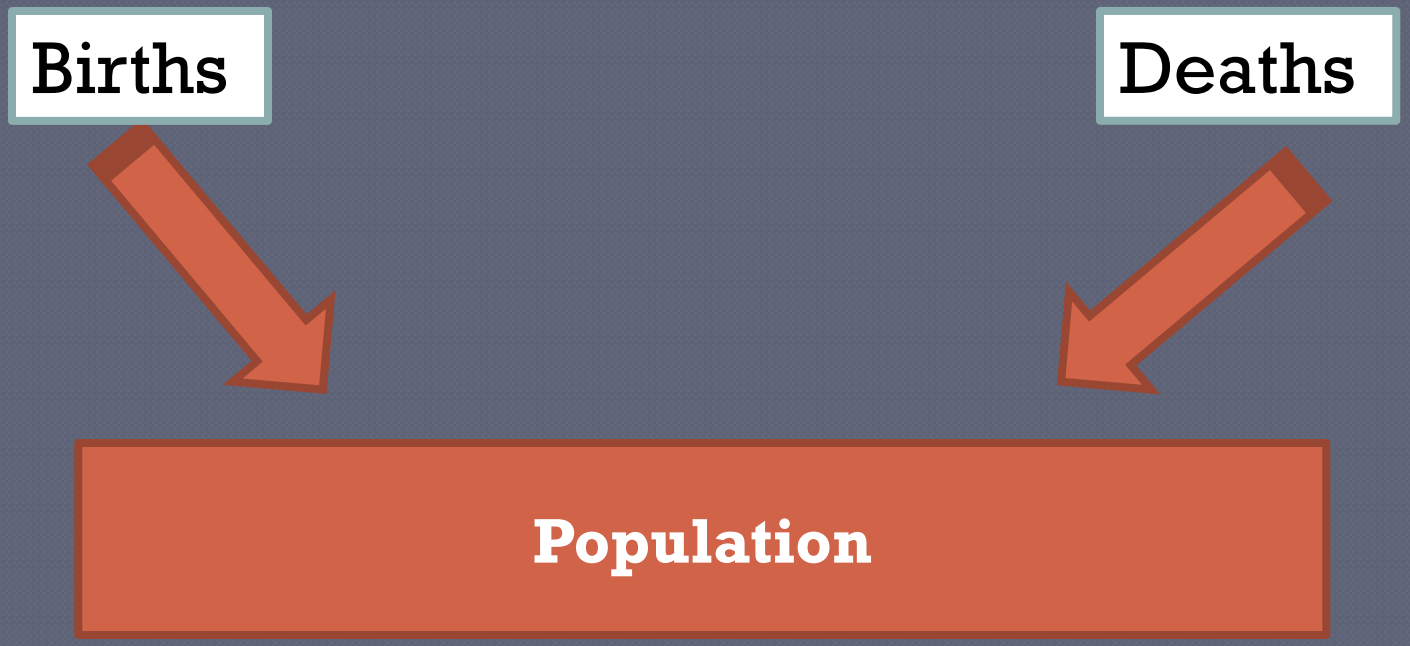
These two conditions have been referred as the old and new balance, with an in-between period of imbalance

What is balance?

- When population tend to keep it-self stable in term of number of people. e.g. a population may have approx. one million people at start of a decade and one million people at end of decade

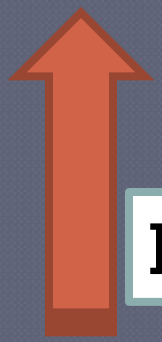


Balance

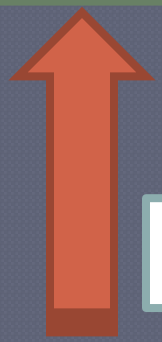


Total population same over a period of time

Old Balance



High Birth Rate



High Death Rate

Population size

Total population same over a period of time

New Balance

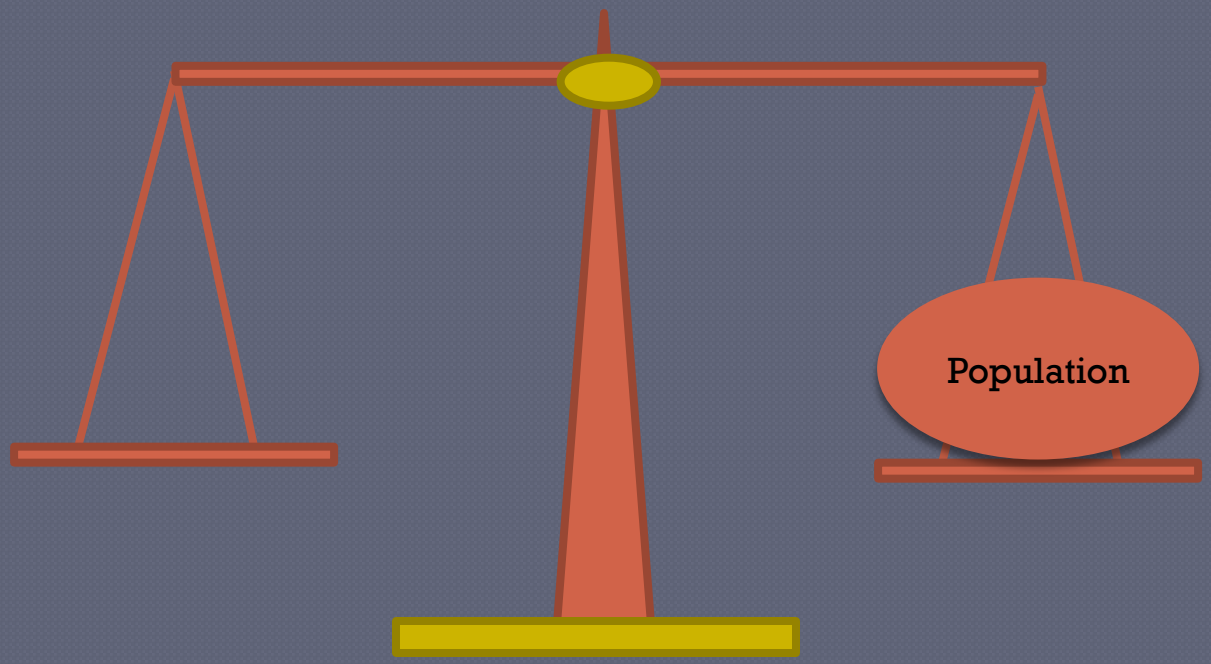
Low Birth Rate

Low Death Rate

Population size

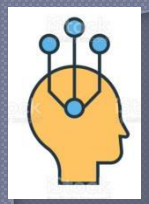
Total population same over a period of time

Imbalance



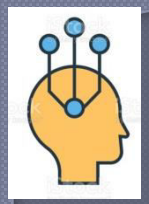
High Births

Total population increases over a period of time



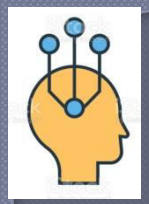
Old balance

- A large supply of births was necessary to compensate for the large number of deaths, specifically maternal and child deaths
- Maternal mortality was extremely high
- In addition, a large proportion of children born (sometime 1/4 to 1/3) died within a year after birth and about the same proportion within 1-5 years of age, and still more before reaching maturity



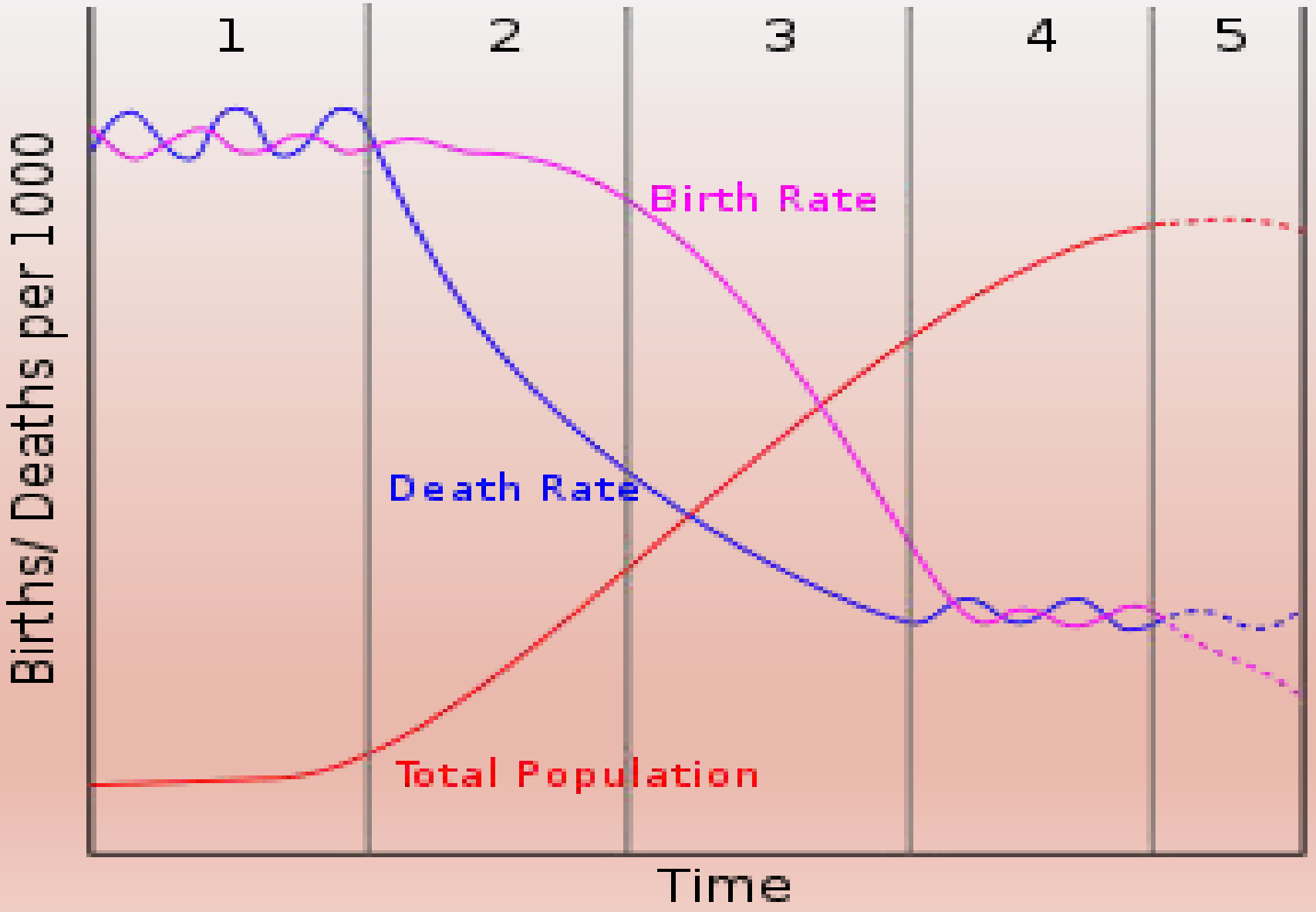
New balance

- Improved condition of human efficiency and health
- Fewer deaths, considerably less effort is required to bring a generation to maturity
- Production of agricultural & industrial commodities is greater
- Life style is more comfortable



Imbalance

- It is the period of rapid increase.
- growth is helpful for under populated nations which need more manpower, expanding markets and greater military potentials.
- However, eventually it results in too fast growth of the population leading to economic, political and social chaos. A number of developing countries such as Pakistan and many African countries are in this phase of demographic transition.


1
2
3
4
5
Births/ Deaths per 1000
Birth Rate
Death Rate
Total Population
Time

Momentum

Becoming Unstoppable With Momentum

Population Momentum

Population Momentum

- Population momentum refers to population growth or decline, which continues despite the falling or rising birth or fertility rate

- It naturally occurs towards the end of stage 3 of demographic transition
- Even though the birth rate may be falling in a country, the natural increase in terms of total number may be rising due to population momentum

Types of momentum

- Positive
- Negative

- **Positive Population momentum** is the propensity for a growing population to continue growing even through fertility or birth rate is declining

- Positive momentum is typical for a stage 3 to 4 country in demographic transition with high base of youthful population

- **Negative momentum** is the tendency for a population to continue to fall despite a rise in birth rate

- Negative momentum has been observed in case of the stage 5 countries with high numbers of elderly population

Theory of Transition suggests that populations passes through: different stages

Demographic Transition

- It is the **shifting** of the population, from one kind of **balance** into another
- It is named as old balance and new balance
- It is also described as high fertility and high mortality(old balance), low fertility and low mortality(new balance)

Theory of Transition

in stage one:

Death rates and Birth rates are high and roughly in balance

Example:
Pre-industrial society

Theory of Transition

in stage two:

Death rates drops rapidly
(due to improvements in food supply and sanitation, which increase life spans and reduce disease)

Without a corresponding fall in birth rates
(this produces an imbalance, and the countries in this stage experience a large increase in population

Cause: These changes usually come about due to improvements in farming techniques, access to technology, basic healthcare, and education..

Example: Developing countries

Theory of Transition

in stage three:

Birth rates falls;
Death rates already declined

Population growth begins to level off;

Causes: (due to access to contraception, increases in wages, urbanization, a reduction in subsistence agriculture, an increase in the status and education of women, a reduction in the value of children's work, an increase in parental investment in the education of children and other social changes)

Theory of Transition in stage four:

Both low birth rates & low death rates

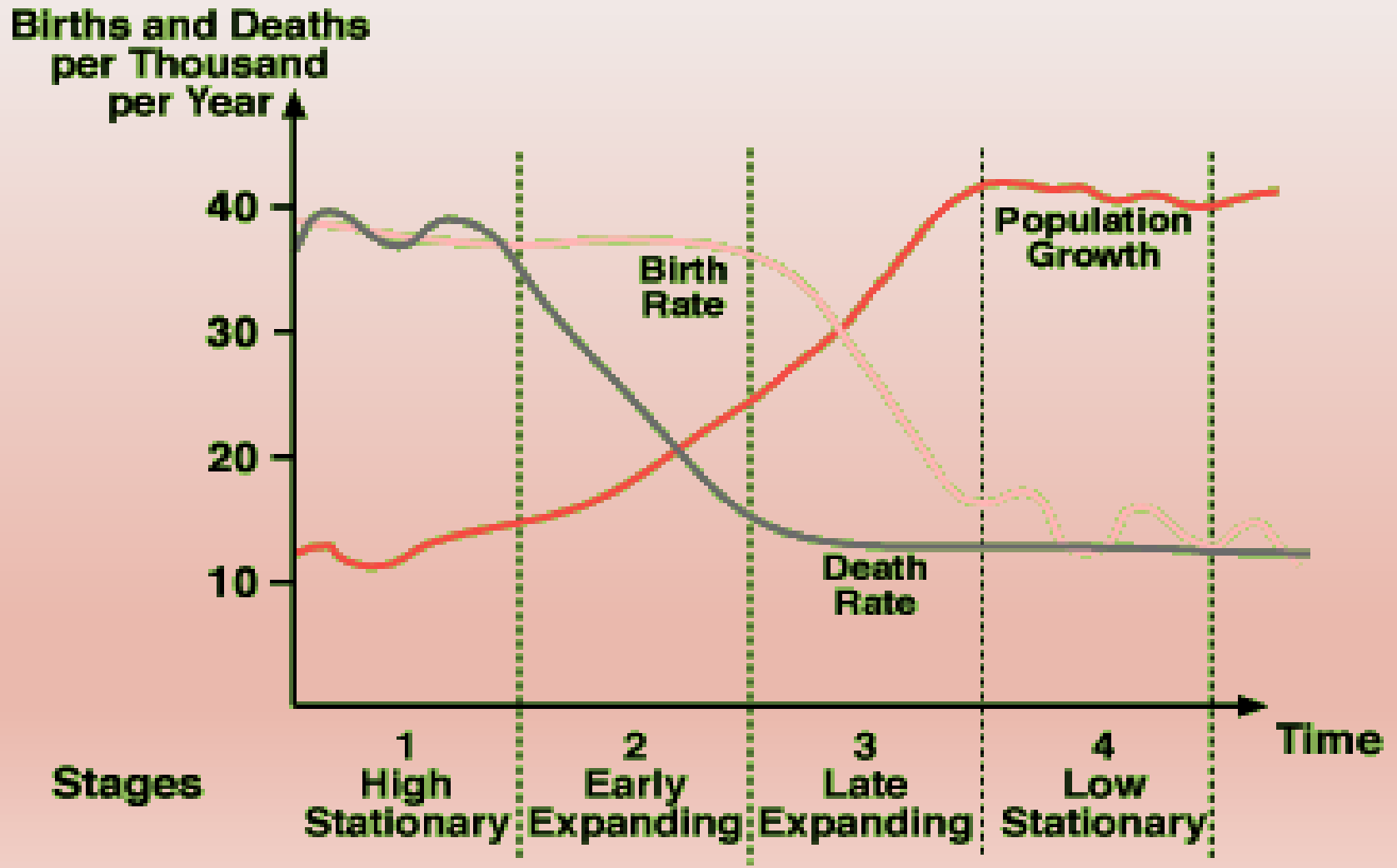
Birth rates may drop to well below replacement level as has happened in countries like Germany, Italy, and Japan, leading to a shrinking population, a threat to many industries that rely on population growth

Theory of Transition

in stage five:

A **possible** **Stage 5** would include countries in which fertility rates have fallen significantly below replacement level (2 children) and the elderly population is greater than the youthful population

Demographic Transition Model

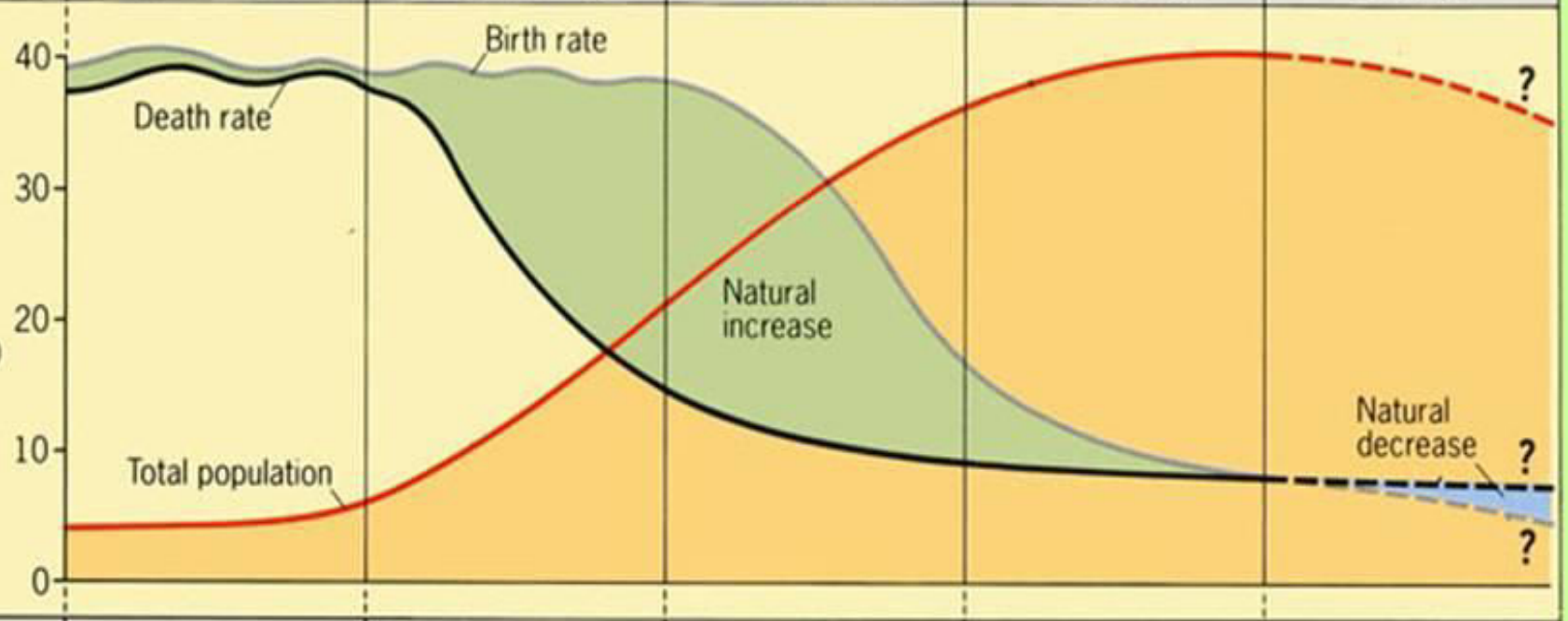


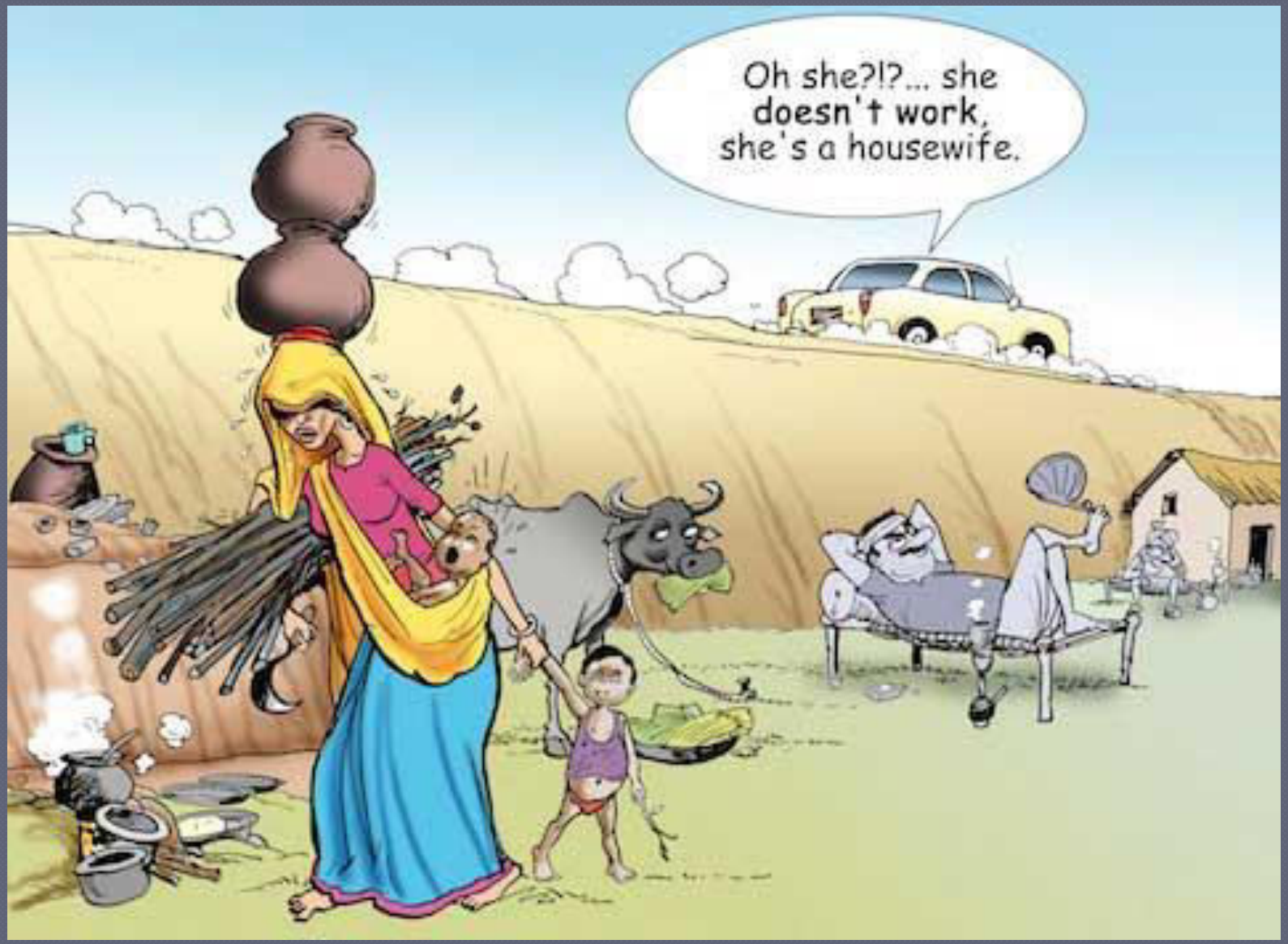
Theory of demographic transition concludes:

Those countries (mostly in Europe) which have passed from the old to the new balance, have gone through a transition, referred as the demographic transition

Countries such as U.S.A., Japan & in Europe which are currently experiencing low fertility and mortality have gone through five phases in their demographic transition whereas

Those countries such as Pakistan which are yet undergoing their demographic transition are in the high fertility & low mortality phase

Stage	1 High stationary	2 Early expanding	3 Late expanding	4 Low stationary	5? Declining?
					
Examples	A few remote groups	Egypt, Kenya, India	Brazil	USA, Japan France, UK	Germany
Birth rate	High	High	Falling	Low	Very low
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Stable or slow increase	Slow decrease
Reasons for changes in birth rate	Many children needed for farming. Many children die at an early age. Religious/social encouragement. No family planning.		Improved medical care and diet. Fewer children needed.	Family planning. Good health. Improving status of women. Later marriages.	
Reasons for changes in death rate	Disease, famine. Poor medical knowledge so many children die.	Improvements in medical care, water supply and sanitation. Fewer children die.		Good health care. Reliable food supply.	


Oh she?!?... she
doesn't work,
she's a housewife.


"Prophet (ﷺ) never hit a woman."
Ibn majah
islamic-sharias.com

How useful it is:

- The Demographic Transition Model describes changes in human fertility and mortality related to shifts in economic development, brought about by industrialization and urbanization
- In developed countries this transition began in the eighteenth century and continues today
- Less developed countries began the transition later and are still in the midst of earlier stages of the model

Worldwide Demographic Trends are:

Demographic Transition Model Stage 2 Case Study: *Afghanistan*

In 2013, Afghanistan

natural increase (birth rate minus death rate; or net increase)	2.7%	much higher than any other central Asian nation.
birth rate	35/1000	
death rate	8/1000	
Infant mortality rate	60.1/1000 live births	
		*Population Reference Bureau

Only a decade ago the death rate was over 20/1000

In 2023, Afghanistan

natural increase (birth rate minus death rate; or net increase)	2.7%	much higher than any other central Asian nation.
birth rate	29.68/1000	
death rate	5.89/1000	
Fertility rate	3.8 births per women	
Infant mortality rate	40.6 /1000 live births	
		*Population Reference Bureau

Only two decade ago the death rate was over 20/1000

- What is most significant here is that the death rate in Afghanistan is low and it continues to decline. Only two decade ago the death rate was over 20/1000, peaking around 2004. This fast reduction in the death rate is interesting to demographers because although life expectancy has risen quickly, one of the primary indicators of a lowered death rate (child mortality) remains high.

Afghanistan currently has the highest rate of child mortality in the world

where one in ten children do not live passed the age of 5.

Why then the decrease in death rate?

Overall public health has greatly improved, and even though the child mortality rate is still high it is an improvement, as is the increased access to food and sanitation that has allowed adults to live longer

Quite remarkable for a country that has experienced so much war during the same time period

Demographic Transition Model Stage 3 Case Study: Morocco

Prerequisites:

- Countries making the transition to Stage 3 all have some relative stability – economic, social or political
- usually as a result of improved economic conditions, an increase in women's status and education, and access to contraception

2016, Morocco		
Natural increase	1.4%	
Birth rate	18.97	
Death rate	4.7	
Fertility rate	2.7	
Life expectancy	70.64 years	

2022, Morocco		
Natural increase	1.02%	
Birth rate	17.2/1000	
Death rate	5.8 /1000	
Fertility rate	1.08	
Life expectancy	77.43 years	

https://www.macrotrends.net/countries/MAR/morocco/life-expectancy

- By 1990, fertility rate was down to 3.7. and today it is around 2.7 children per woman – a substantial improvement in a very short time
- This decrease in fertility rate is observed as the result of societal ideals evolving around contraception and the status of women. Increased access to contraception and the expansion of women in the work force both have led to the steady decrease in birth rate over the last four decades

- The transition has occurred simultaneously with other demographic changes including an increased life expectancy
- There was migration fro rural to urban areas also.

Cont:

- Education has been linked time and again to delaying women's child bearing years, providing opportunities to women outside the home, and increasing a woman's knowledge about her body and her health – all of which lead to smaller family sizes and ultimately a decrease in birth rate.

Demographic Transition Stage 4 Case Study: Argentina

Prerequisites:

2013, Argentina		
Natural increase	0.9%	
Birth rate	16.7	
Death rate	7.6	
Fertility rate	2.19	
Life expectancy	76.71 years	

Prerequisites:

2023, Argentina		
Natural increase	0.9%	
Birth rate	16.16	
Death rate	7.6	
Fertility rate	2.19	
Life expectancy	77.17 years	

- Through industrialization cities became the epicenter of life, causing internal migration as people move from rural to urban areas. Due to the limited space within cities, and the changing demands of work, smaller family size becomes an indirect result of urbanization.

- Gender equality. Argentine women have been protected, at least in theory, by a civil code that outlaws gender discrimination since 1869. Women maintain a relatively high level of employment and educational opportunities in relation to men. Gender equality and a high status of women are large components of lowered birth rates.

Difference between

Stage 1

- High birth rate and high death rate
- Total population remains constant
- Population in old balance

Stage 4

- Low birth rates and low death rates
- Total population remains constant
- Population in new balance

- Countries will remain categorized as Stage 4 until they reach the point where death rate exceeds birth rate,
- And they enter stage 5

Demographic Transition Model Stage 5 Case Study: Germany?

2016, Germany		
Natural increase	-1.7%	
Birth rate	8.5	
Death rate	10.6	
Fertility rate	1.38	
Life expectancy	80.89years	

2023, Germany		
Natural increase	-0.09%	
Birth rate	9.37	
Death rate	11.7	
Fertility rate	1.6	
Life expectancy	81.88years	
https://www.macrotrends.net/countries/DEU/germany/life-expectancy		

Pakistan

About Pakistan

Pakistan has an estimated population of 165,803,560, as of April 2006. Pakistan has the world's sixth largest population, more than Russia, but less than Brazil; because of Pakistan's high growth rate, it is expected to surpass Brazil in population in the year 2020.

Pakistan, Demographic profile 2023		
Natural increase (growth rate)	1.98%	
Birth rate	22.5/1000	
Death rate	7.2/1000	
Fertility rate	3.23 per woman	
Life expectancy	67.79 years	
https://www.macrotrends.net/countries/PAK/pakistan/population-growth-rate		

2014, Pakistan		
Natural increase (growth rate)	1.49%	
Birth rate	22.3	
Death rate	6.58	
Fertility rate	2.86	
Life expectancy	66.44 years	

Countries and Areas Ranked by Population: 2008

Rank	Country or Area	Population	
1	China	1,330,044,605	
2	India	1,140,566,211	
3	United States	304,059,724	
4	Indonesia	237,512,355	
5	Brazil	196,342,587	
6	Pakistan	171,852,793	
7	Bangladesh	154,037,902	
8	Nigeria	146,255,306	
9	Russia	140,702,094	
10	Japan	127,288,419	


WORLD
LOCATION OF PAKISTAN
ARCTIC OCEAN
Arctic Circle
Arctic Circle
ATLANTIC OCEAN
PACIFIC OCEAN
PACIFIC OCEAN
Tropic of Cancer
Tropic of Cancer
PAKISTAN
Equator
Equator
Tropic of Capricorn
Tropic of Capricorn
INDIAN OCEAN
SOUTHERN OCEAN
Antarctic Circle
0 3000 6000 Km
0 3000 Miles
Copyright © 2012-13 www.mapsofworld.com
(Updated on 18th October, 2012)

Rank	Country	2022 Population	2021 Population	Growth Rate	Area	Density (km²)
1	China	1,425,887,337	1,425,893,465	-0.00%	9,706,961	147/km²
2	India	1,417,173,173	1,407,563,842	0.68%	3,287,590	431/km²
3	United States	338,289,857	336,997,624	0.38%	9,372,610	36/km²
4	Indonesia	275,501,339	273,753,191	0.64%	1,904,569	145/km²
5	Pakistan	235,824,862	231,402,117	1.91%	881,912	267/km²
6	Nigeria	218,541,212	213,401,323	2.41%	923,768	237/km²
7	Brazil	215,313,498	214,326,223	0.46%	8,515,767	25/km²
8	Bangladesh	171,186,372	169,356,251	1.08%	147,570	1,160/km²
9	Russia	144,713,314	145,102,755	-0.27%	17,098,242	8/km²
10	Mexico	127,504,125	126,705,138	0.63%	1,964,375	65/km²

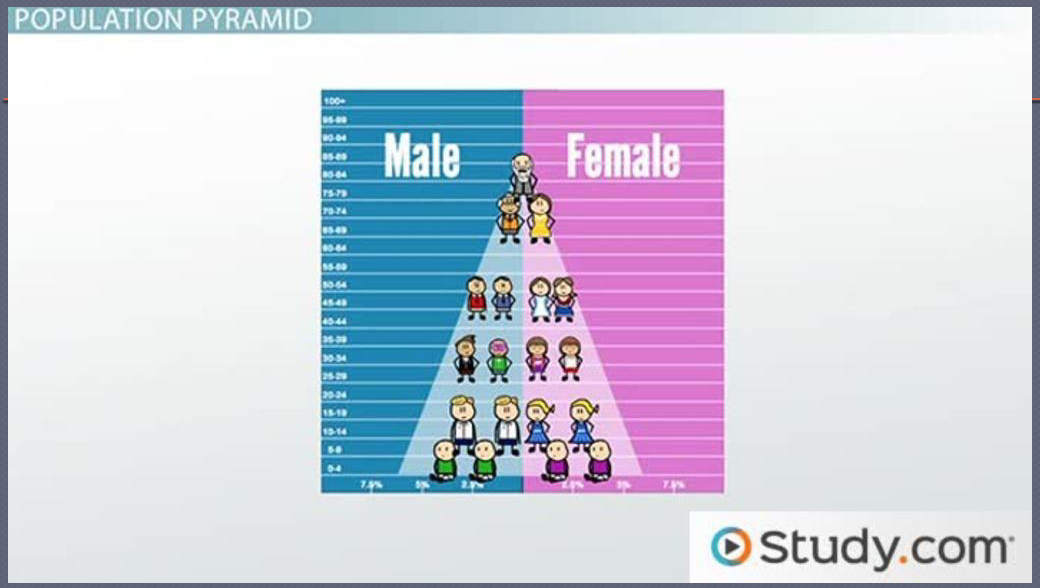
Population Composition

Population pyramid
Dependency ratio
Sex ratio

Population composition

While ***characteristics*** is an attribute of an individual (e.g. male, young, healthy, employed etc.)

composition is a property of a group of people. It describes how the total given population is constituted (e.g. 51% males, 20% below age five, 85% healthy and 30% employed).



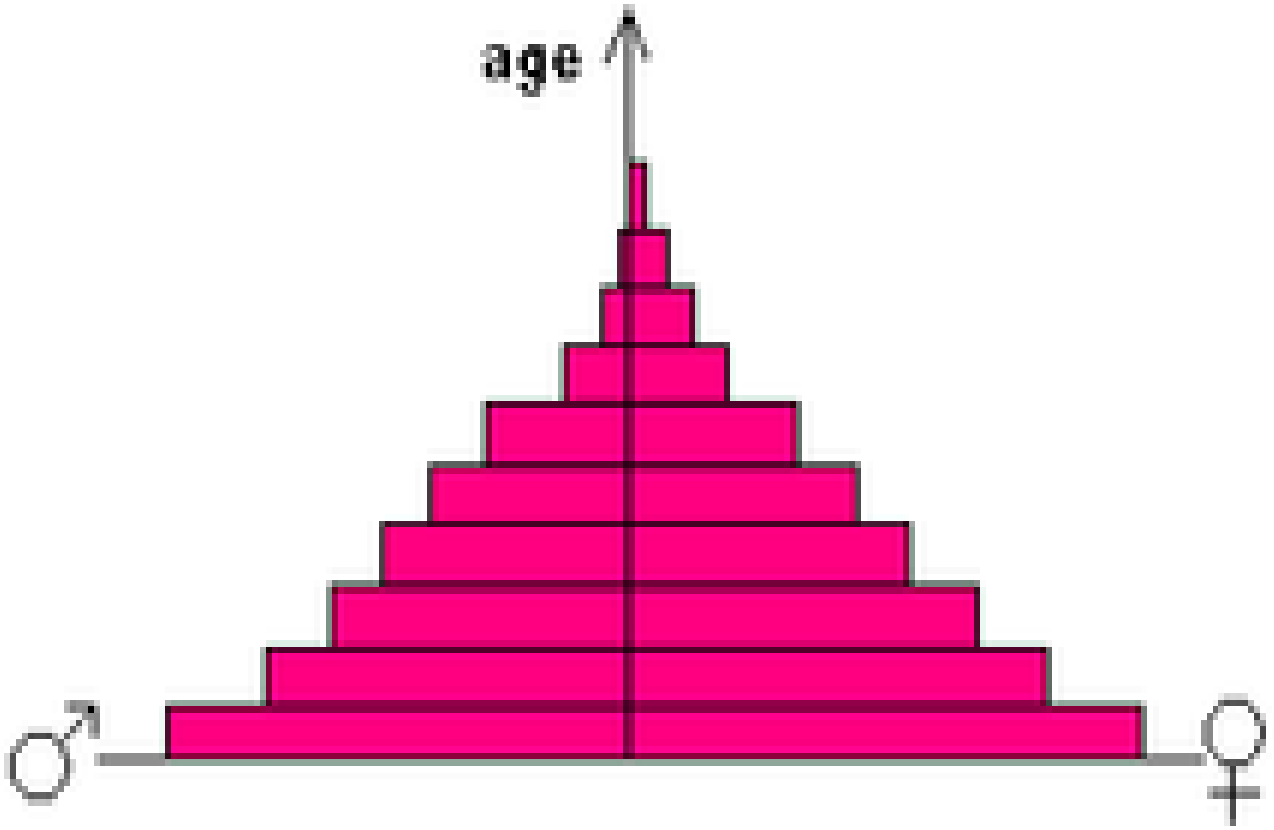
Population Pyramid

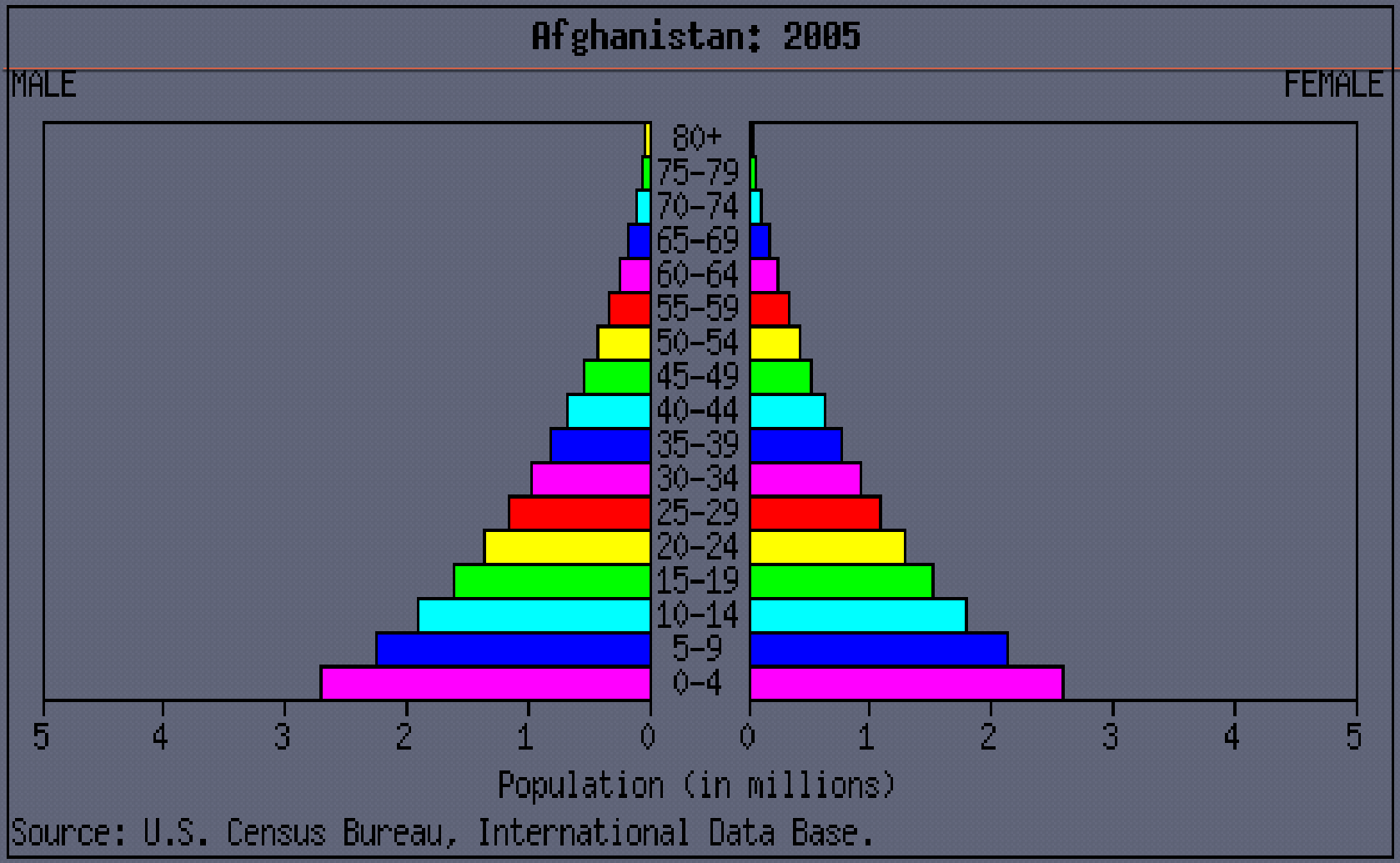
Population pyramid

The age-sex composition of a population is typically represented by a population pyramid which provides a demographic statement of the current age and sex distribution of a population.

Since ideally the number of people at each successive age is likely to be smaller (due to one grows older), the graph takes the form of a pyramid. The youngs are always at the bottom and the old at the top.

Usually pyramids are presented in five year age groups, especially when ages are not accurately reported in single years. The pyramid may be based on actual population of males and females in specified age-groups.

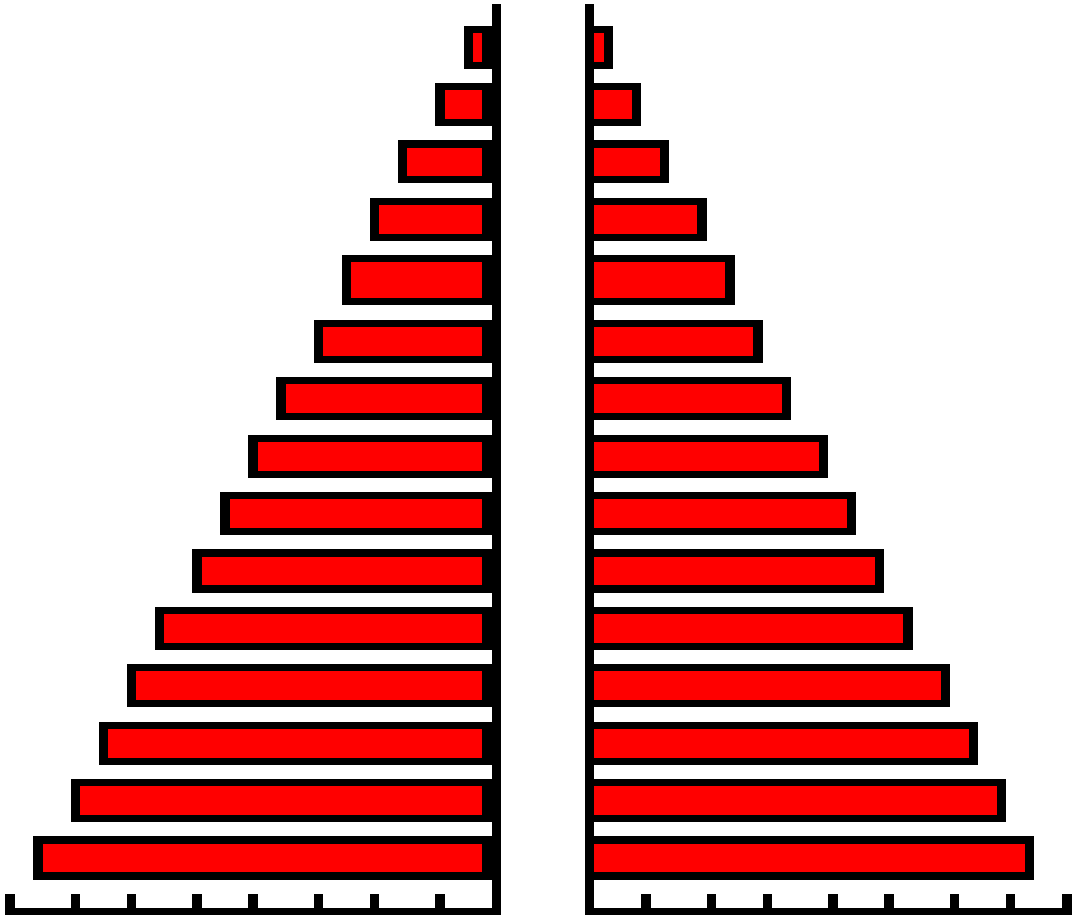

age
♂
♀


Afghanistan: 2005
MALE
FEMALE
80+
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
5
4
3
2
1
0
0
1
2
3
4
5
Population (in millions)
Source: U.S. Census Bureau, International Data Base.

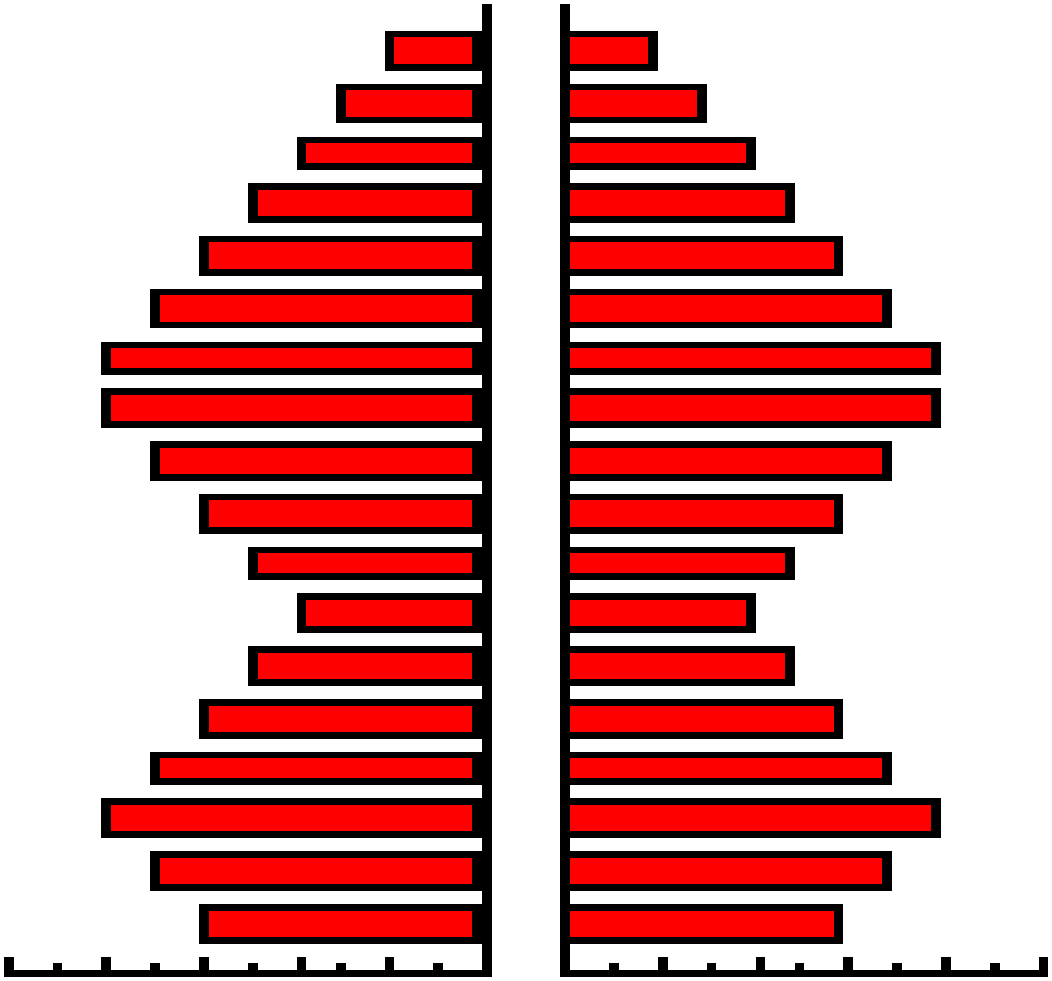
Types of Population Pyramids

1. Stable
2. Expansive
3. Constrictive
4. Stationary

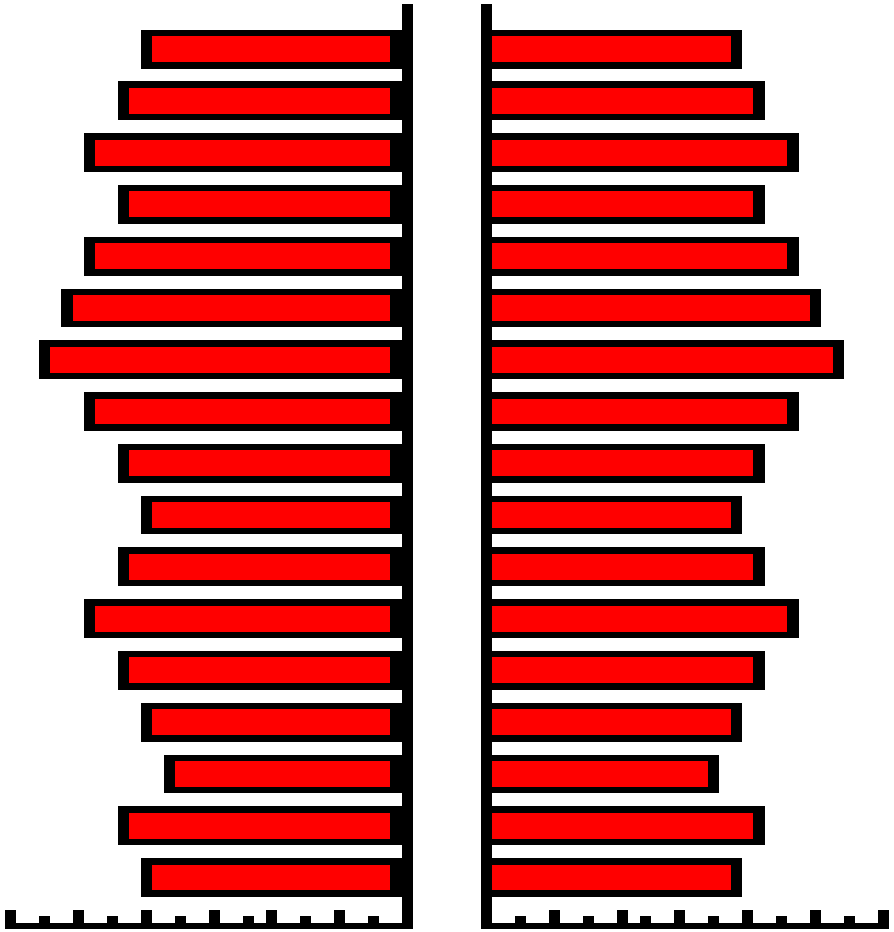
EXPANSIVE

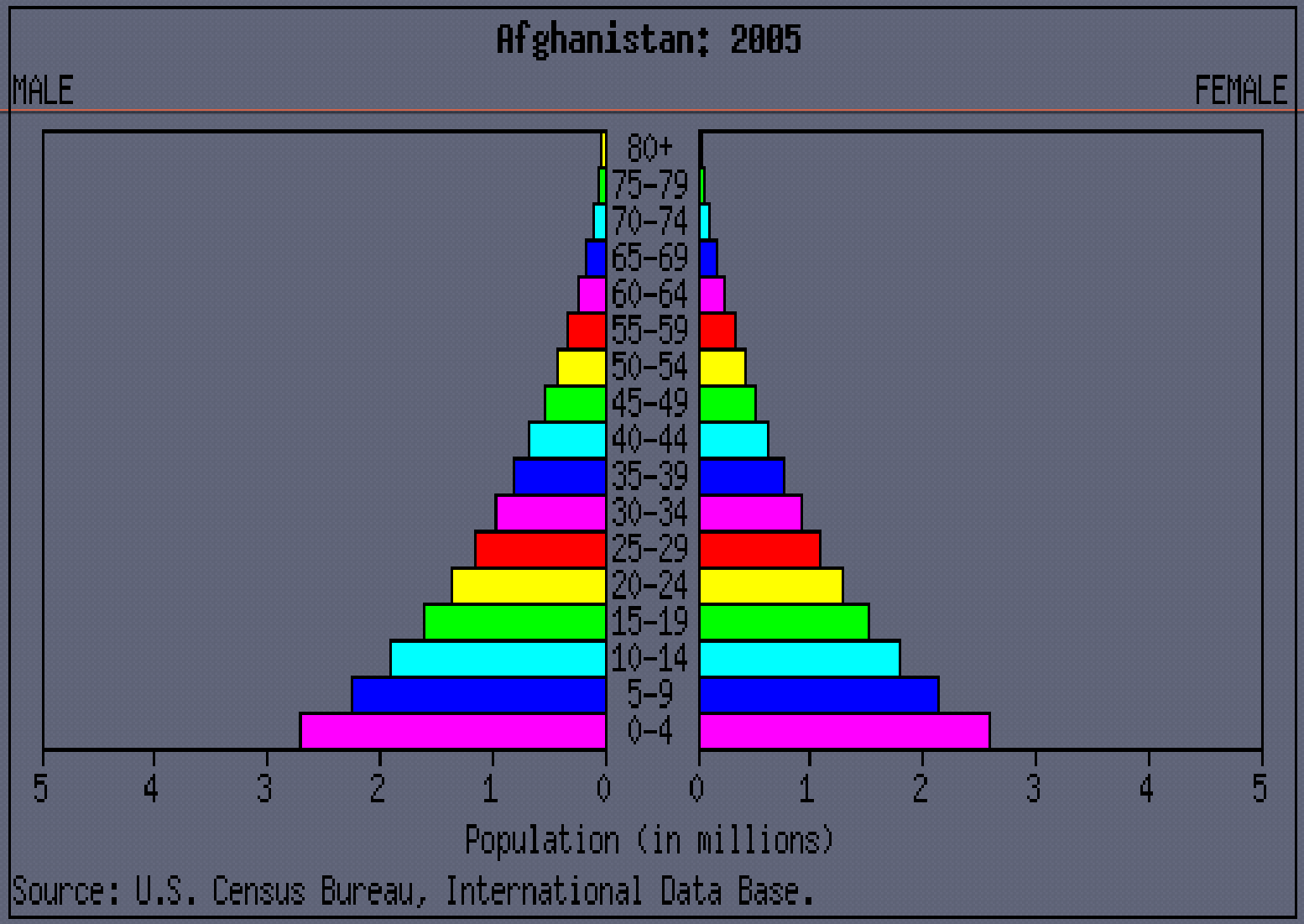


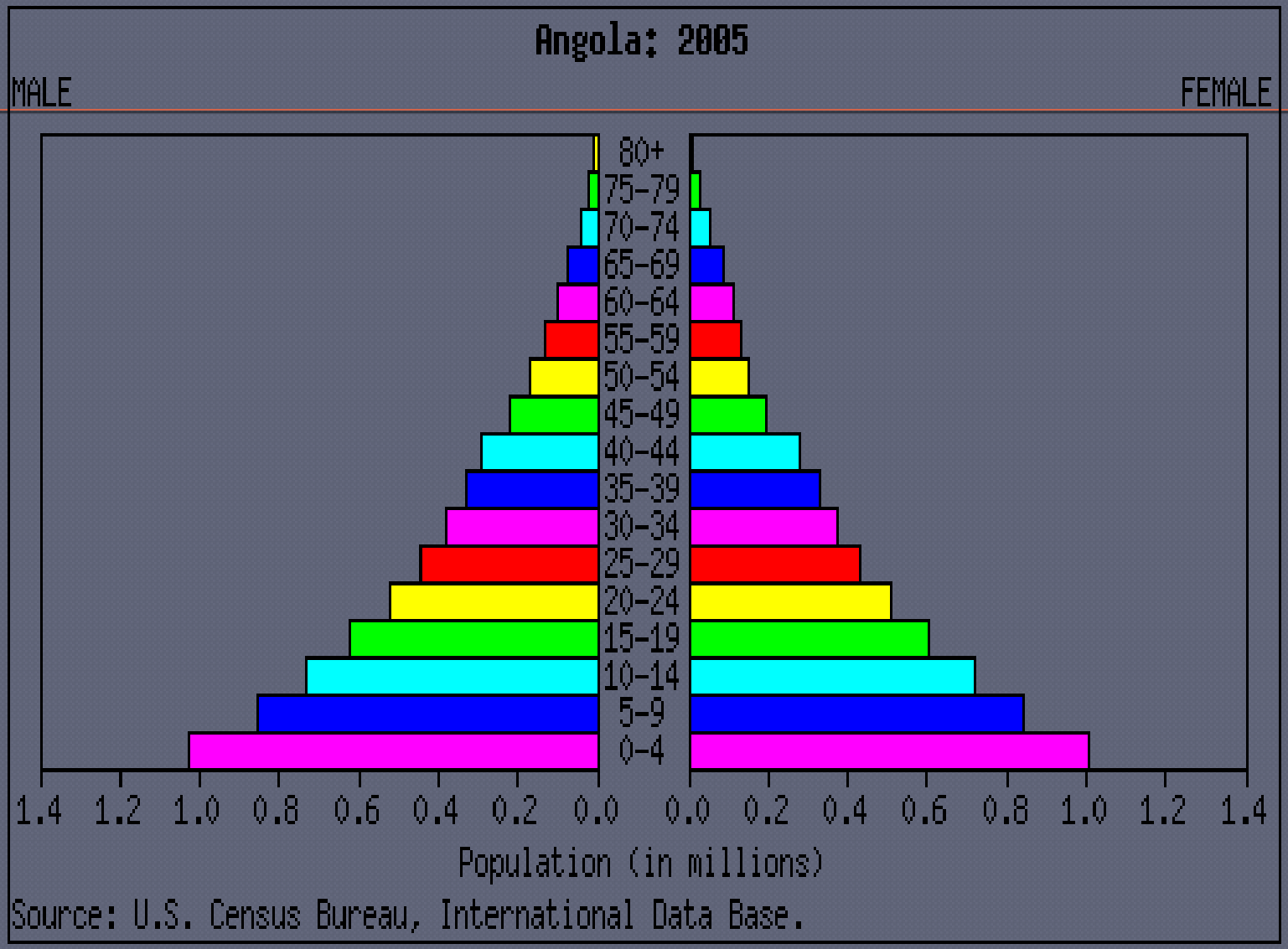
CONSTRICTIVE

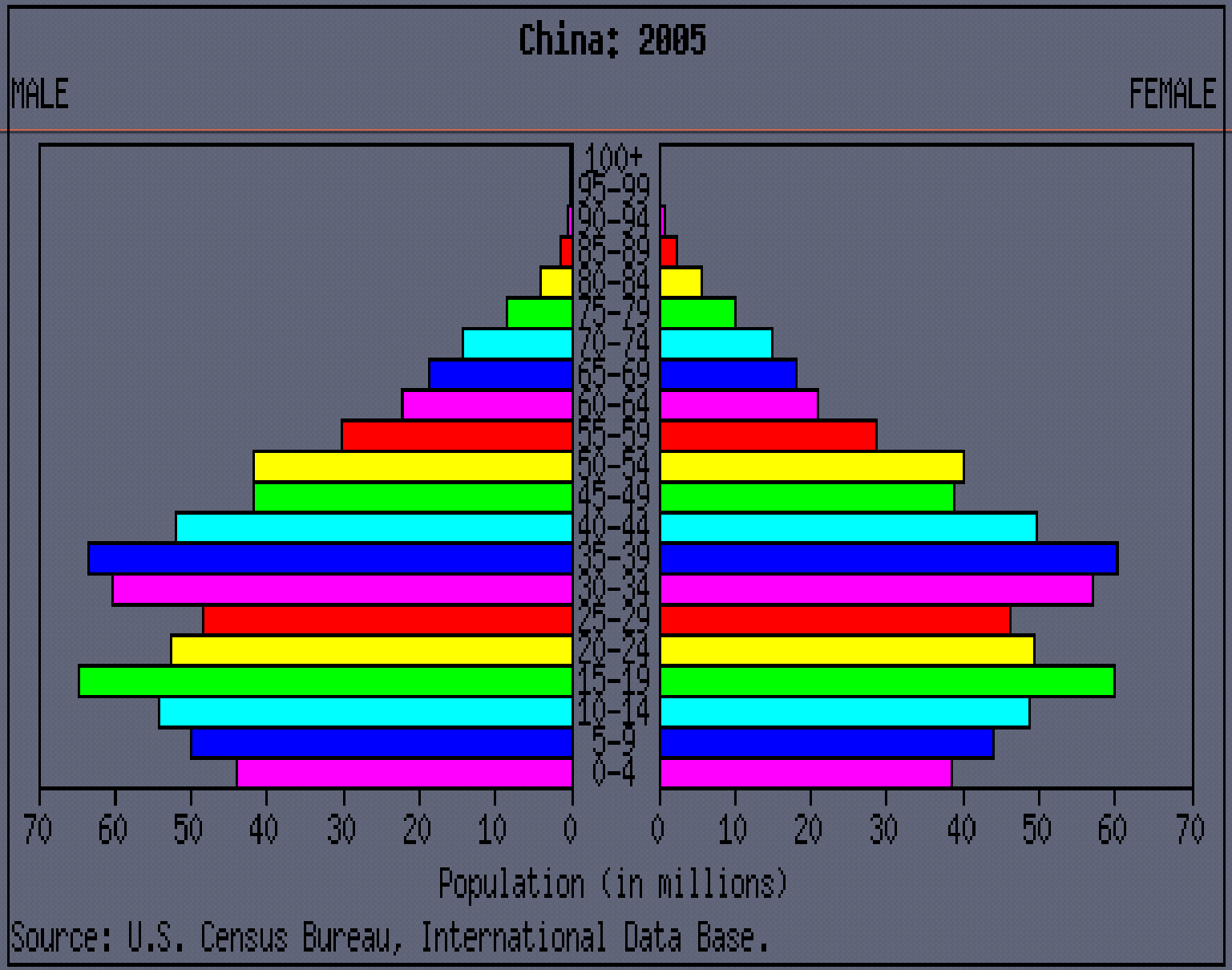


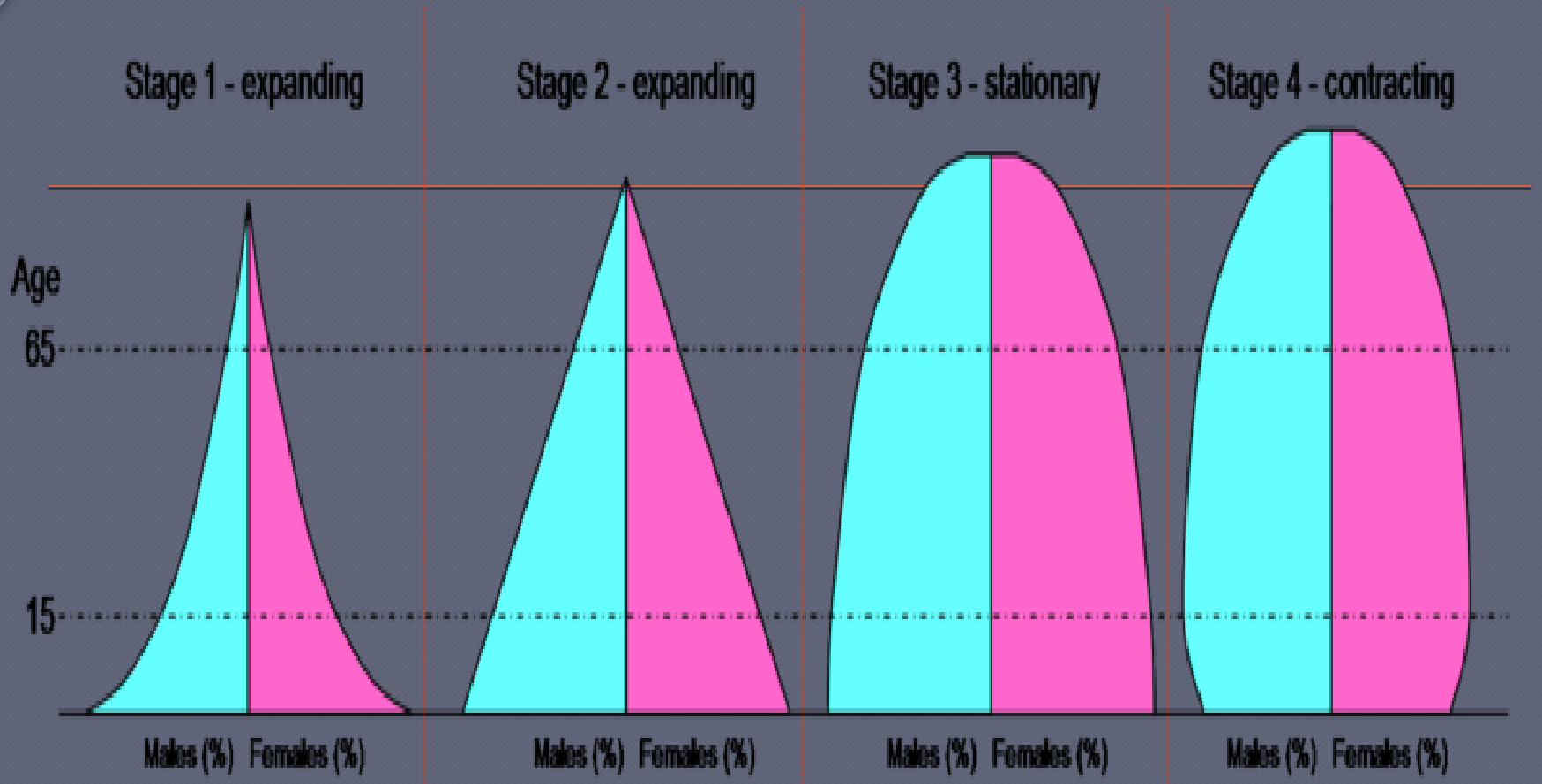
STATIONARY




Afghanistan: 2005
MALE
FEMALE
80+
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
5 4 3 2 1 0 0 1 2 3 4 5
Population (in millions)
Source: U.S. Census Bureau, International Data Base.

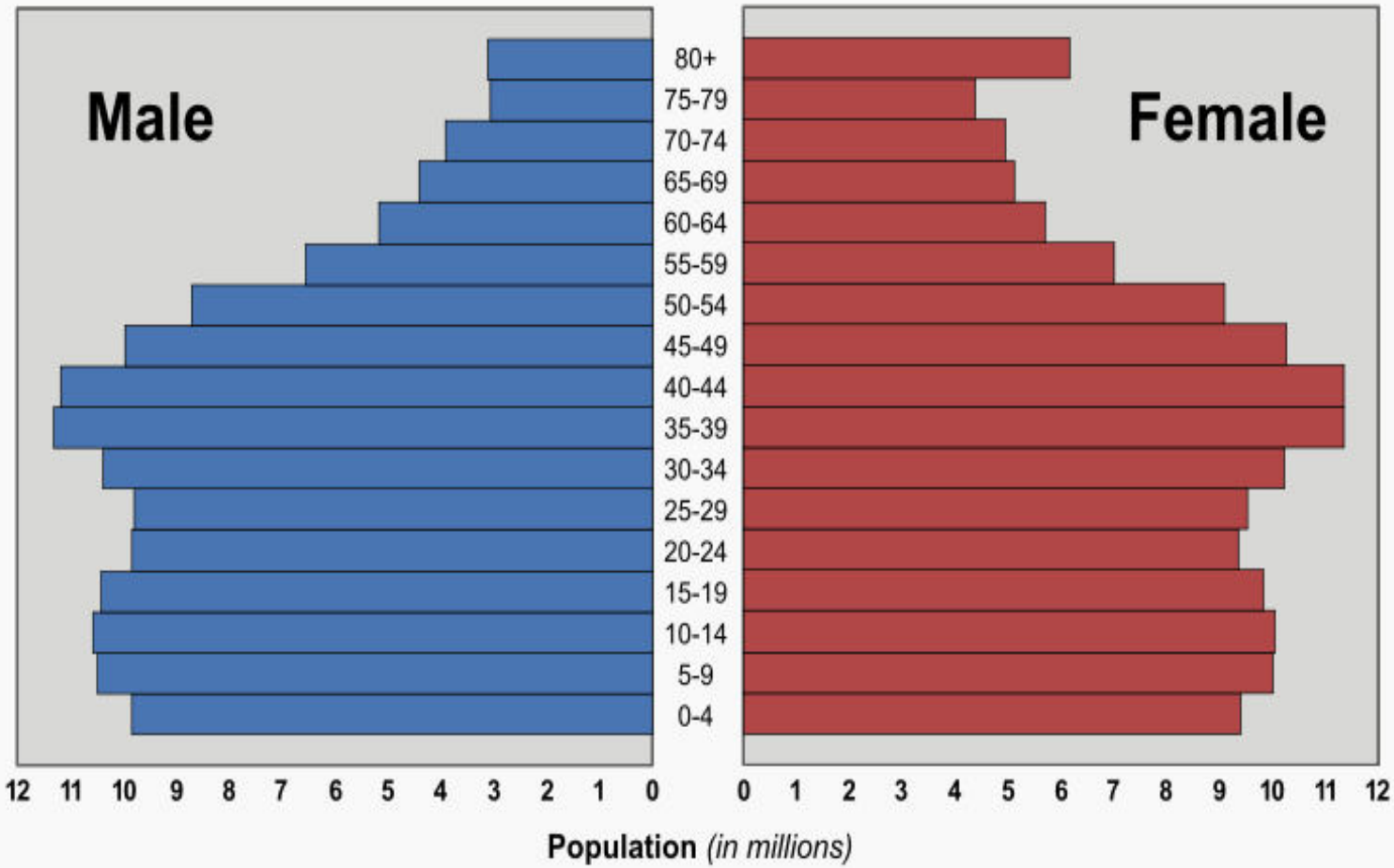

Angola: 2005
MALE
FEMALE
80+
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Population (in millions)
Source: U.S. Census Bureau, International Data Base.


China: 2005
MALE
FEMALE
100+
95-99
90-94
85-89
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
70 60 50 40 30 20 10 0
0 10 20 30 40 50 60 70
Population (in millions)
Source: U.S. Census Bureau, International Data Base.

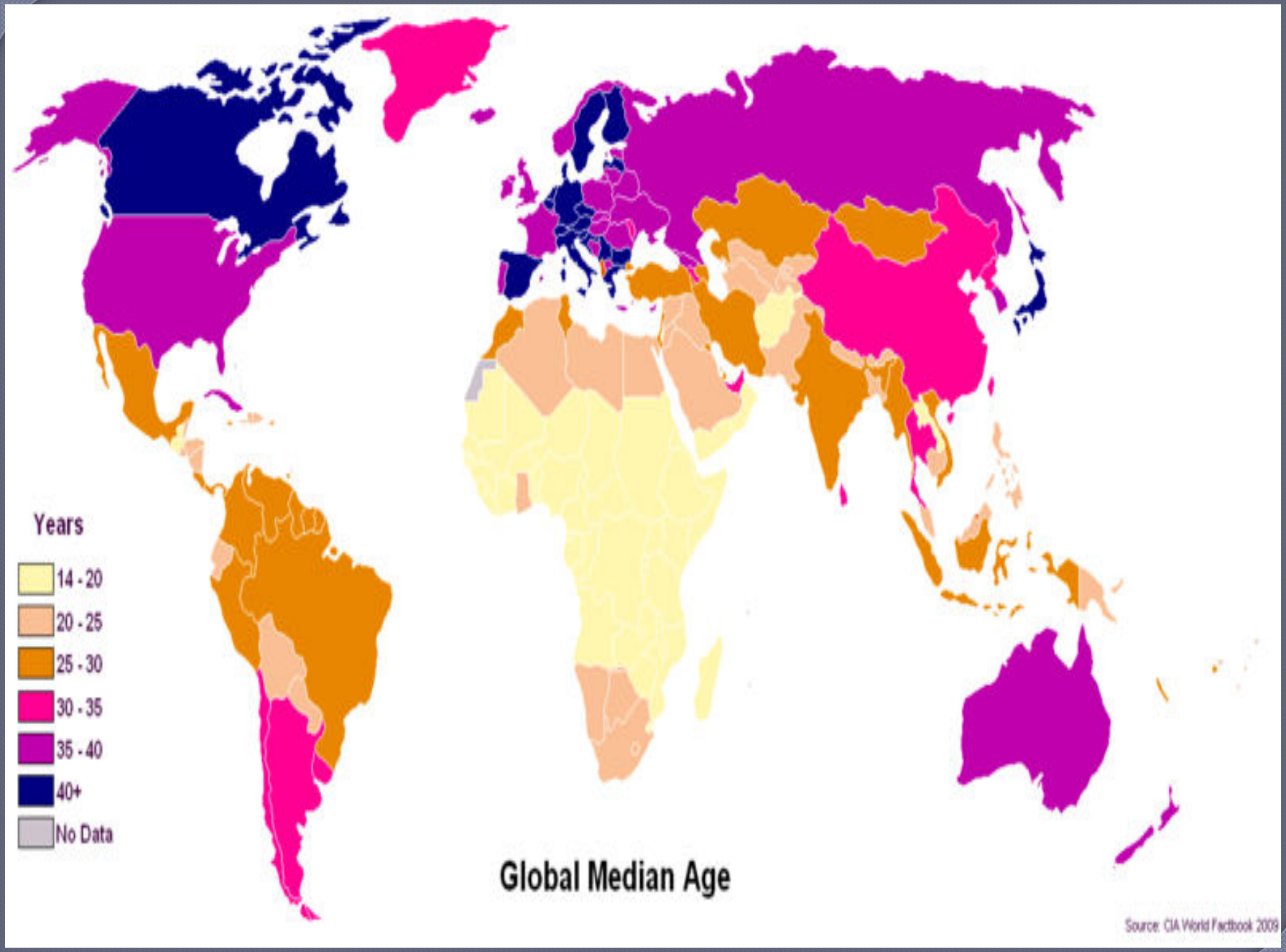


Stage 1 - expanding	Stage 2 - expanding	Stage 3 - stationary	Stage 4 - contracting
High birth rate; rapid fall in each upward age group due to high death rates; short life expectancy.	High birth rate; fall in death rate as more living in middle age; slightly longer life expectancy.	Declining birth rate; low death rate; more people living to old age.	Low birth rate; low death rate; higher dependency ratio; longer life expectancy

United States population (2000)



Data source: U.S. Census Bureau, International Data Base (IDB), http://www.census.gov/ipc/www/idbnew.html


Years
14 - 20
20 - 25
25 - 30
30 - 35
35 - 40
40+
No Data
Global Median Age
Source: CIA World Factbook 2009

- The Middle East and North Africa are currently experiencing a prominent youth bulge.
- Structural changes in service provision, especially health care, beginning in the 1960's created the conditions for a population explosion, which has resulted in a population comprised primarily of younger people. It is estimated that around 65% of the regional population is under the age of 30.

- The Middle East has invested more in education than most other regions such that education is available to most young people.
- The youth bulge in the Middle East and North Africa has been favorably compared to that of the *Asian Tigers*, which harnessed this human capital and saw huge economic growth in recent decades.

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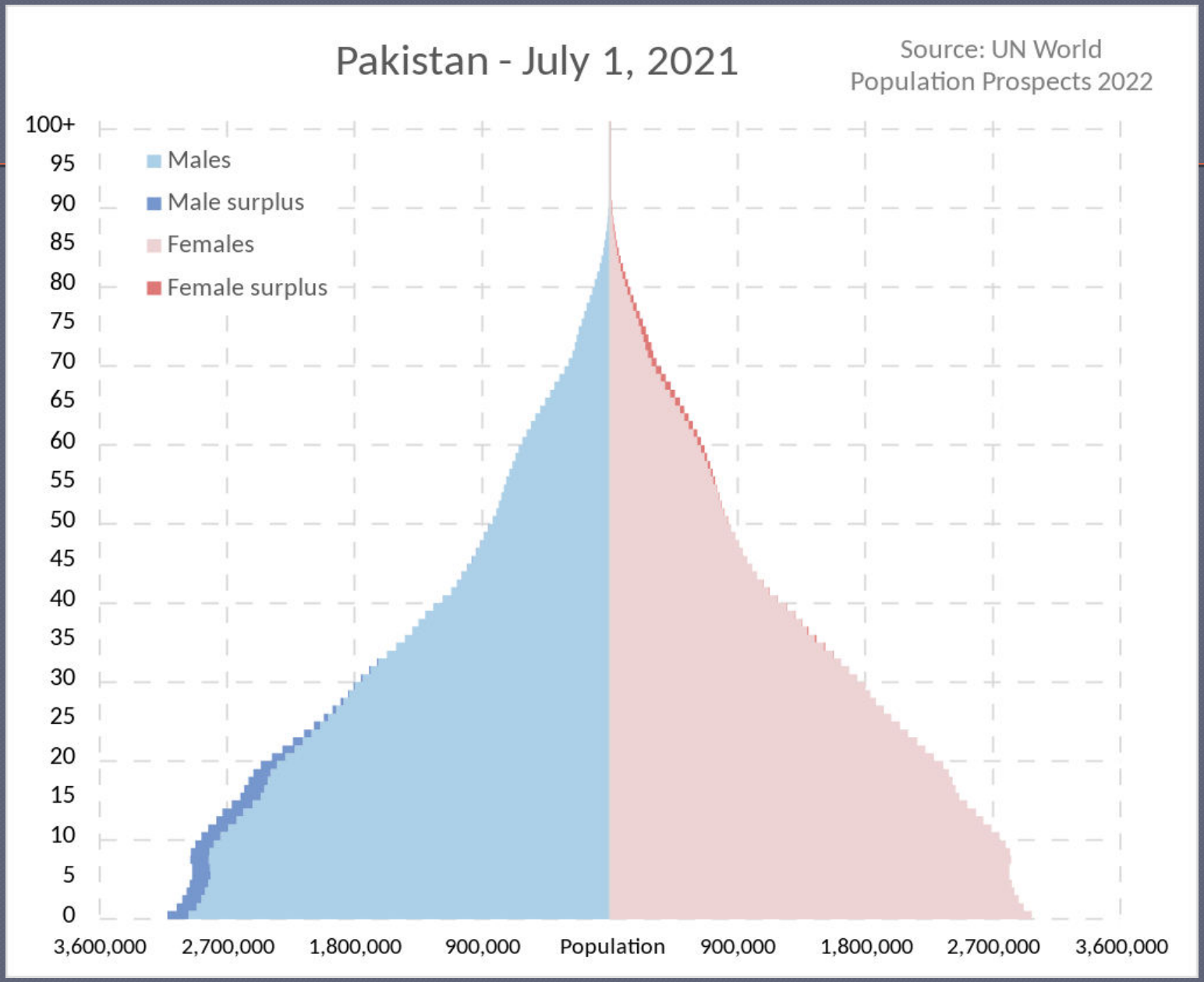
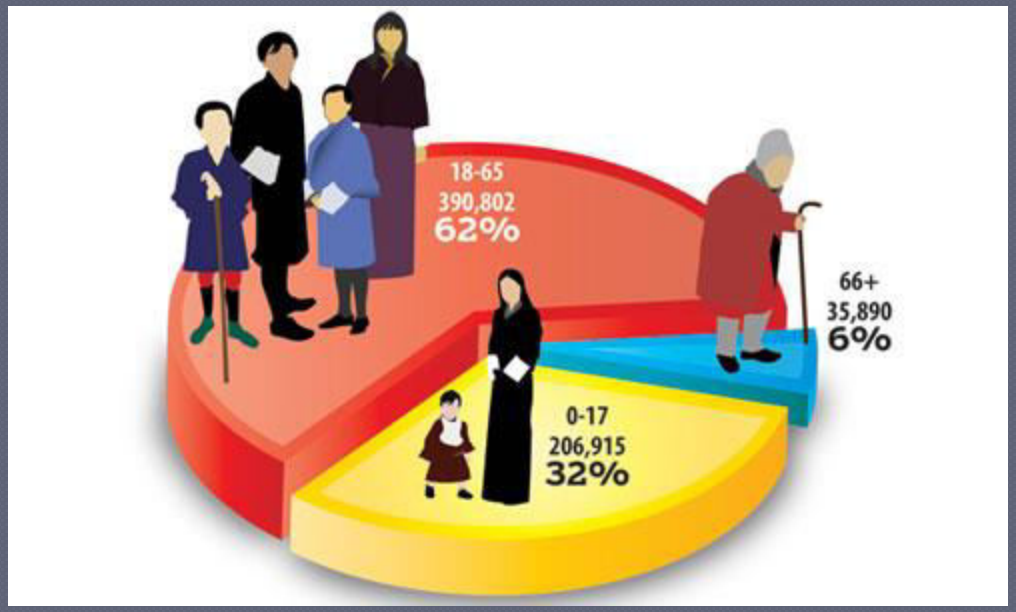
Uses of pyramids

1. To find the number of economic dependents being supported in a particular population.
2. Population pyramids can be used to observe the natural increase, birth, and death rate. Also called (generational accounting)
3. The government plans the economy in such a way that the working population can support these dependents.


Pakistan - July 1, 2021
Source: UN World Population Prospects 2022
Males
Male surplus
Females
Female surplus
100+
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
3,600,000
2,700,000
1,800,000
900,000
Population
900,000
1,800,000
2,700,000
3,600,000

Dependency Ratio



Dependency Ratio

Those under 15 (children who are in full time education and therefore unable to work) and those over 65 (those who have the option of being retired).

In some less developed countries children start work well before the age of 15, and in some developed countries it is common to not start work until 30 (like in the North European countries), and people may work beyond the age of 65, or retire early.

Dependency Ratio

Dependency ratio is an index summarizing an age distribution.
Strictly, this is the ratio of population who are economically not active. However, due to the difficulties in defining economic activity in many countries especially when international comparisons are to be made, a ratio of age group is used instead, such as:

Dependency Ratio=

$$\frac{\text{Pop. of children } \downarrow 15 + \text{Elderly 65 \& } \uparrow}{\text{working age population 15-64 yr}} \times 100$$

Sex Ratio

The overall sex ratio is simply the ratio of males to females in the population and is calculated by taking the number of males in a population and dividing it by the number of females in the same population. It is usually expressed as the number of males per 100 females:

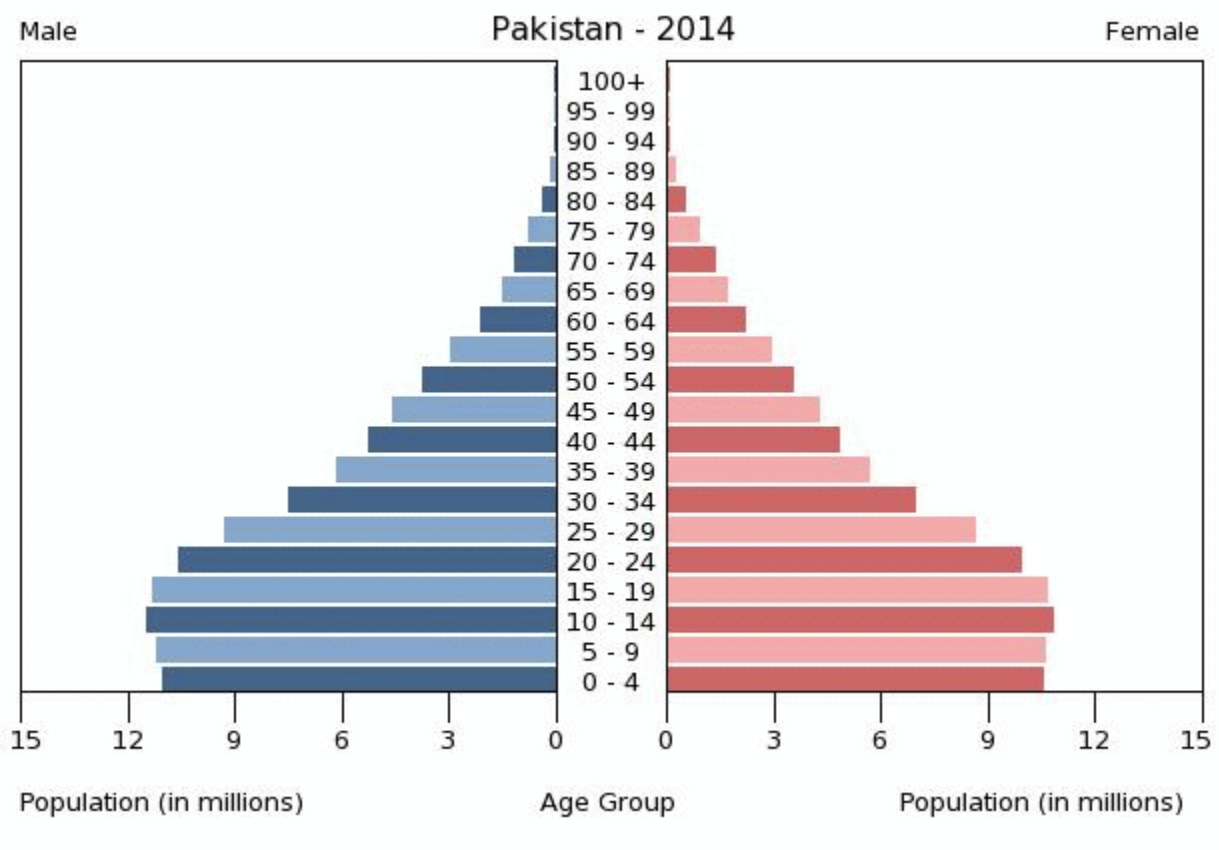
$$\text{Sex Ratio} = \frac{\text{number of males}}{\text{number of females}} \times 100$$

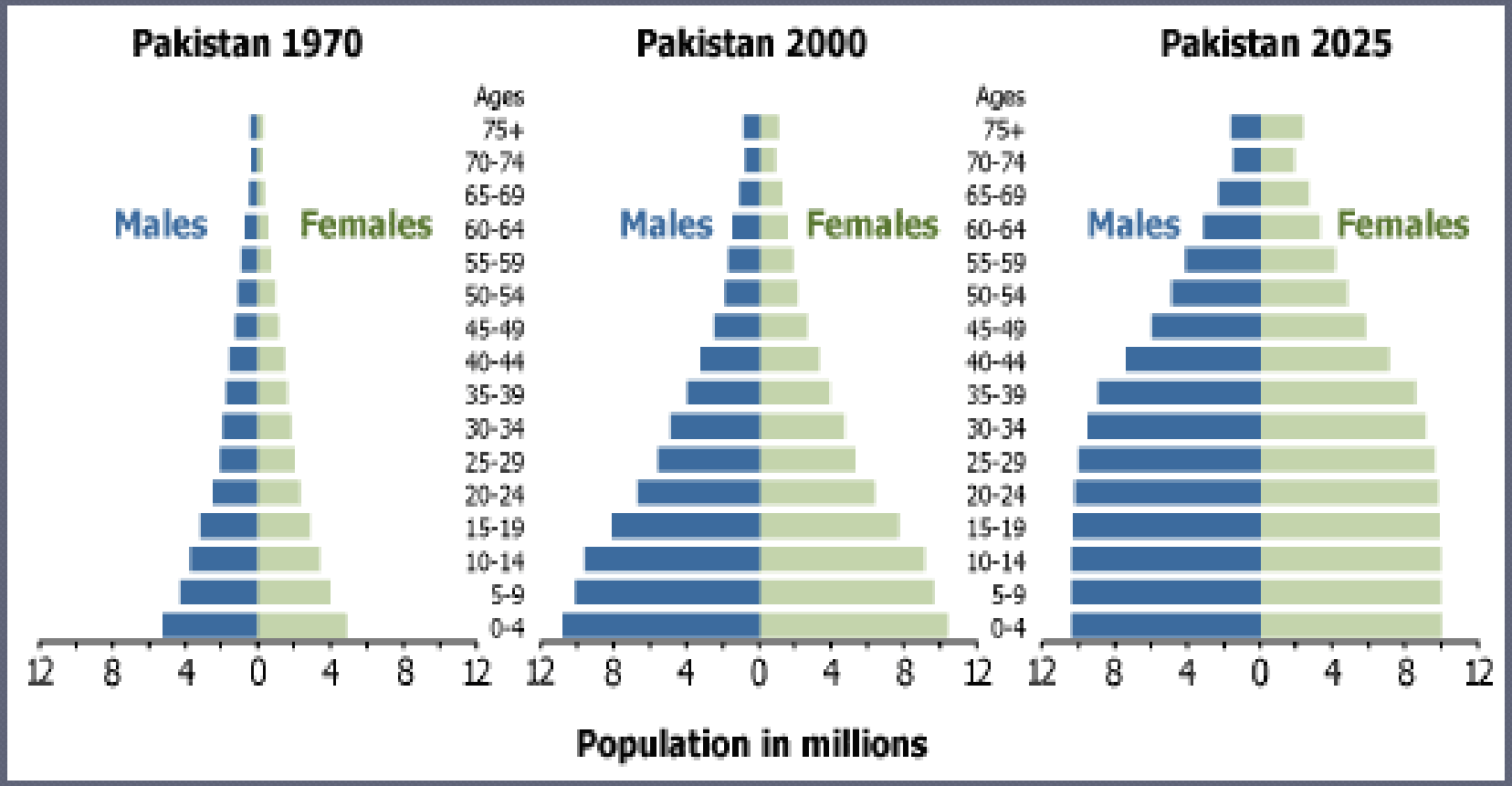
Pakistan: Population Characteristics

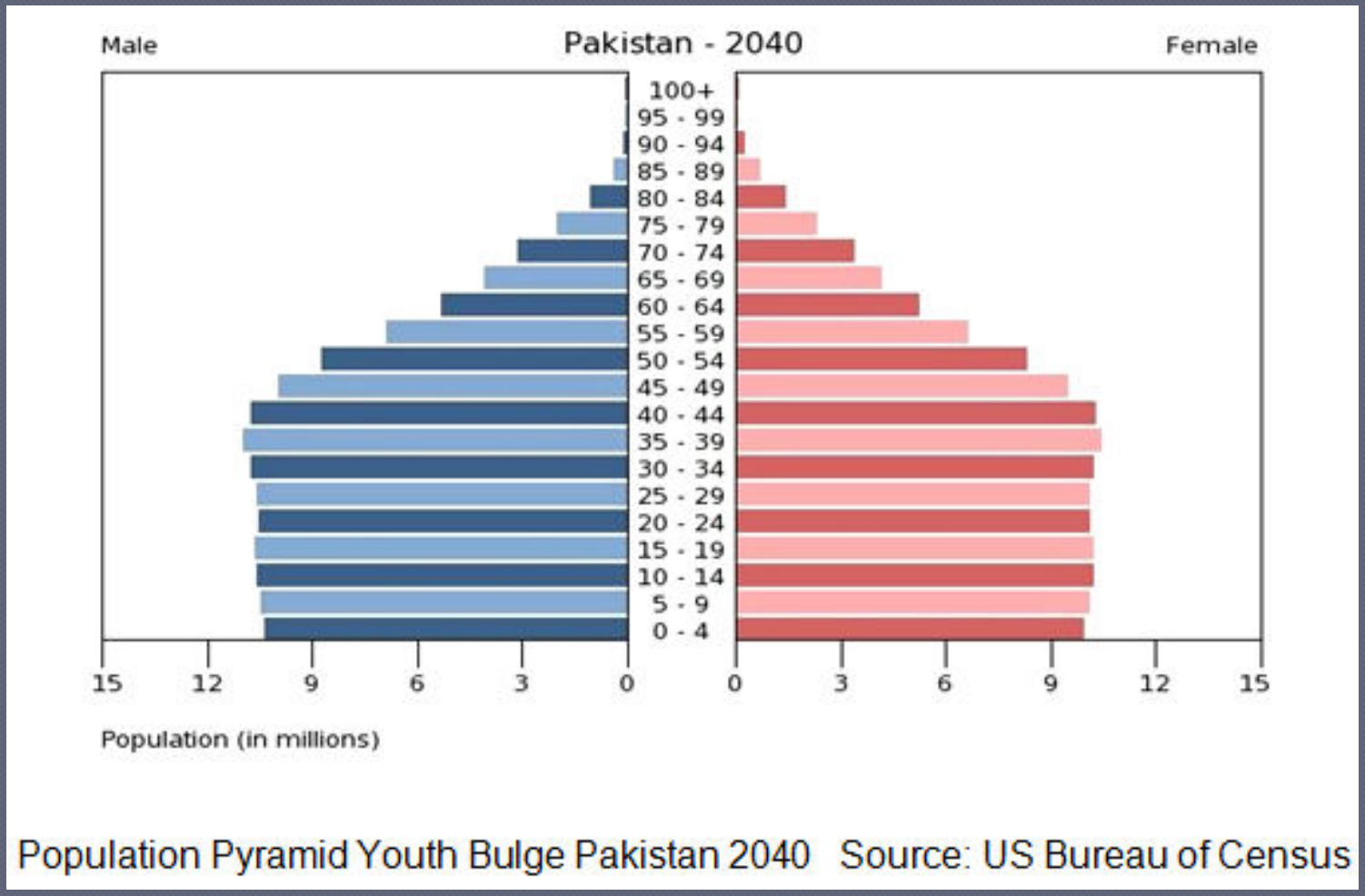
Population*	145.5 Million
World Ranking**	6
Growth Rate	2.1%
Population Density	166 persons/ Sq. Km.
Urban Population	32.52%
Broad Age-Groups	
< 15 years	43.4%
15-64 years	53.09%
> 65	3.5%
Population Doubling Time	33 years
Sex Ratio (Male : Female)	108.5 : 100

Based on 2002 estimations, NIPS, Islamabad
**Population Reference Bureau
Census Report of Pakistan 1998, Pakistan Census Organization, GoP

Population Pyramid of Pakistan, 2014




Pakistan 1970
Pakistan 2000
Pakistan 2025
Ages
75+
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
Males
Females
12
8
4
0
4
8
12
Population in millions



Population Pyramid Youth Bulge Pakistan 2040 Source: US Bureau of Census

Selected Demographic Indicators of Pakistan

	Year	Total	Urban	Rural
Crude Birth Rate	1999	30.2	27.8	32.2
	2000	29.1	25.8	31.2
Crude Death Rate	1999	8.3	7.1	9.2
	2000	7.8	6.7	8.8
Dependency Ratio	1999	88.4		
	2000	86.3		
			Male	**Female**
Singulate Mean Age at Marriage	1999		26.3	22.1
	2000		26.3	22.1
Total Fertility Rate	1999	4.5		
	2000	4.3		

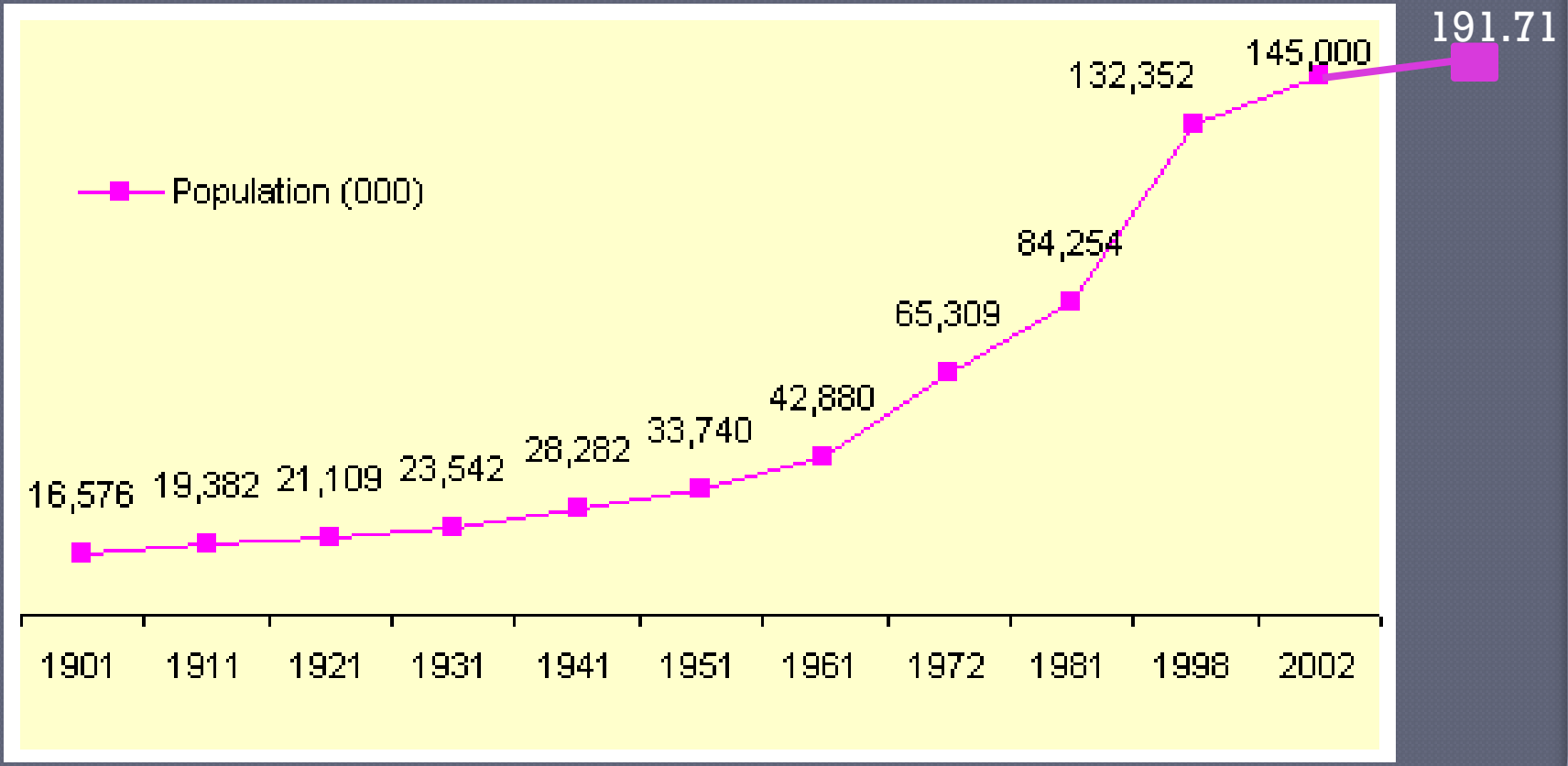
For 2015

DEMOGRAPHIC INDICATORS OF PAKISTAN	
INDICATORS	**FY2015**
Total Population (million)	191.71
Urban Population (million)	75.19
Rural Population (million)	116.52
Total Fertility Rate (TFR)	3.2
Crude Birth Rate (per thousand)	26.1
Crude Death Rate (per thousand)	6.80
Population Growth Rate (%)	1.92
Life Expectancy (years)	66.5
- Female	66.9
- Male	67.3

For 2022

DEMOGRAPHIC INDICATORS OF PAKISTAN	
INDICATORS	**FY2015**
Total Population (million)	247.65
Urban Population (million)	
Rural Population (million)	
Total Fertility Rate (TFR)	3.4 per woman
Crude Birth Rate (per thousand)	22.5/1000
Crude Death Rate (per thousand)	7.2/1000
Population Growth Rate (%)	1.85%
Life Expectancy (years)	69.1 year
- Female	71.6
- Male	66.8

Population of Pakistan (1901-2002 & 2015) from Census



Population	**196,174,380 (July 2014 est.)**
Age structure	**0-14 years:** 33.3% (male 33,595,949/female 31,797,766) **15-24 years:** 21.5% (male 21,803,617/female 20,463,184) **25-54 years:** 35.7% (male 36,390,119/female 33,632,395) **55-64 years:** 5.1% (male 5,008,681/female 5,041,434) **65 years and over:** 4.3% (male 3,951,190/female 4,490,045) (2014 est.)
Dependency ratios	**total dependency ratio:** 60.4 % **youth dependency ratio:** 53.4 % **elderly dependency ratio:** 7.1 % **potential support ratio:** 14.2 (2014 est.)
Median age	**total:** 22.6 years **male:** 22.6 years **female:** 22.6 years (2014 est.)
Population growth rate	1.49% (2014 est.)
Birth rate	23.19 births/1,000 population (2014 est.)
Death rate	6.58 deaths/1,000 population (2014 est.)
Net migration rate	-1.69 migrant(s)/1,000 population (2014 est.)
Urbanization	**urban population:** 36.2% of total population (2011) **rate of urbanization:** 2.68% annual rate of change (2010-15 est.)
Major cities - population	Karachi 13.876 million; Lahore 7.566 million; Faisalabad 3.038 million; Rawalpindi 2.164 million; Multan 1.775 million; ISLAMABAD (capital) 919,000 (2011)
Sex ratio	**at birth:** 1.05 male(s)/female **0-14 years:** 1.06 male(s)/female **15-24 years:** 1.07 male(s)/female **25-54 years:** 1.08 male(s)/female **55-64 years:** 1.06 male(s)/female **65 years and over:** 0.89 male(s)/female **total population:** 1.06 male(s)/female (2014 est.)

	Pakistan	NWFP	FATA	Punjab	Sindh	Balochistan	Islamabad
Area (SQ. KM.)	796,096	74,521	27,220	205,345	140,914	347,190	906
Both Sexes	132,352,279	17,743,645	3,176,331	73,621,290	30,439,893	6,565,885	805,235
Male	68,873,686	9,088,936	1,652,047	38,094,367	16,097,591	3,506,506	434,239
Female	63,478,593	8,654,709	1,524,284	35,526,923	14,342,302	3,059,379	370,996
Sex Ratio	108.5	105.0	108.4	107.2	112.2	114.6	117.0
Population Density (SQ. KM.)	166.3	238.1	116.7	358.5	216.0	18.9	888.8
Urban Proportion	32.5	16.9	2.7	31.3	48.8	23.9	65.7
Average Household Size	6.8	8.0	9.3	6.9	6.0	6.7	6.2
Population 1981	84,253,644	11,061,328	2,198,547	47,292,441	19,028,666	4,332,376	340,286
1981-1998 Average Annual Growth Rate	2.69	2.82	2.19	2.64	2.80	2.47	5.19

population according to the last two censuses (1981): 84253,644; (1998): 130579,571	
total population according to the estimate of midyear 2000: 2001: 140673,000	141533,775; or: 138080,000 /-;
population density:	176 per sq.km = 455 per sq.mi
population growth: 3% //; - doubling time:	24 years
birth rate:	31 - 38 per 1000
death rate:	8 - 9 per 1000
fertility rate:	6 children per female
maternal mortality:	500 per 100,000
infant mortality (1-4 years):	79 per 1000
life expectancy:	61 years (male: 61; female: 62)
urbanisation: - urbanisation growth: 4%	37% //;
% of urban population in the greatest city:	21%