

Fertility Patterns and Trends

Key Terms:

- **Fecundity**
- **Fertility**
- **Child-woman ratio**
- **General fertility rate**
- **Total fertility rate**
- **Gross reproduction rate**
- **Net reproduction rate**
- **Direct maintenance cost**
- **Opportunity costs**

The understanding of fertility – the processes underlying it, differentials between groups, changes over time, and spatial variation – requires knowledge of the complex interplay between social, economic, and other correlates behind the ultimate number of children an individual woman will have.

Key terms used above:

- **Processes**
- **Differentials**
- **Complex interplay**
- **Change over time**
- **Spatial variations**
 - **Social factors**
 - **Economic factors**
- **Individual woman**

More Key terms:

Fecundity: “...refers to the biological capacity for reproduction...”

Fertility “...refers to actual reproductive behavior”

Measures of Fertility

Crude Birth Rate: Already introduced in the introductory chapter. What is the formula?

Child-Woman Ratio (CWR)

$$\text{CWR} = \frac{P_{0-4}}{F_{15-49}} \times 1000$$

Where:

P_{0-4} = the number of children under five years of age

F_{15-44} = the total number of females between 15 and 49 years of age

“The child-woman ratio is an indirect measure of fertility that is used to estimate fertility in situations where birth records are deficient or nonexistent, mainly in the underdeveloped countries. It is indirect because it does not employ births in the measure at all”

Very rarely used today.

General Fertility Rate

- A more refined fertility measure.
- Actual number of births needed/used in this case
- Unlike the CBR this measure only considers women in their reproductive years (denominator)

This measure gives us the number of live births per 1000 women in the child-bearing age group.

$$\text{GFR} = \frac{B}{F_{15-49}} \times 1000$$

Age Specific Birth Rate

“The age-specific birth rate is analogous to the general fertility rate, but instead of having the total number of females in the child-bearing age group as the denominator, it has the total number of women in **a smaller age group**, such as a one-year or five-year age group.”

“The numerator is, then, the total number of children born in any given year to mothers in that specific age group”

$$\text{ASBR} = \frac{B_a}{F_a} \times 1000$$

Where: B_a = the number of births to females in the age group a
 F_a = the total number of females in the age group a at midyear

Five-year age groups

Seven age groups / classes

1 15 – 19

2 20 - 24

3 25 – 29

4 30 – 34

5 35 – 39

6 40 – 44

7 45 – 49

Five-year age groups

Age Group **ASBR**

1 **ASBR₁₅₋₁₉**

2 **ASBR₂₀₋₂₄**

3 **ASBR₂₅₋₂₉**

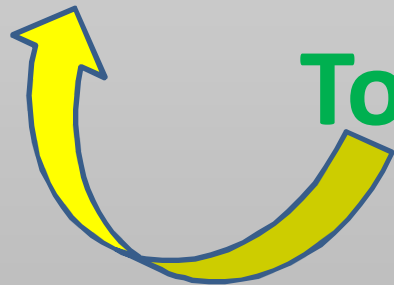
4 **ASBR₃₀₋₃₄**

5 **ASBR₃₅₋₃₉**

6 **ASBR₄₀₋₄₄**

7 **ASBR₄₅₋₄₉**

Total = 5 (1+2+3+4+5+6+7)



**Total Fertility
Rate (TFR)**

| Age group | Ethiopia | USA -ACS | USA - NCHS |
|------------------|-----------------|-----------------|-------------------|
| | | | |
| 15-19 | 0.104 | 0.0356 | 0.0444 |
| 20-24 | 0.228 | 0.1093 | 0.1055 |
| 25-29 | 0.241 | 0.116 | 0.1141 |
| 30-34 | 0.231 | 0.1006 | 0.0925 |
| 35-39 | 0.16 | 0.0502 | 0.0414 |
| 40-44 | 0.084 | 0.0142 | 0.0083 |
| 45-49 | 0.034 | | |
| | | | |
| Total | 1.082 | 0.426 | 0.4062 |

The total fertility rate is calculated as:

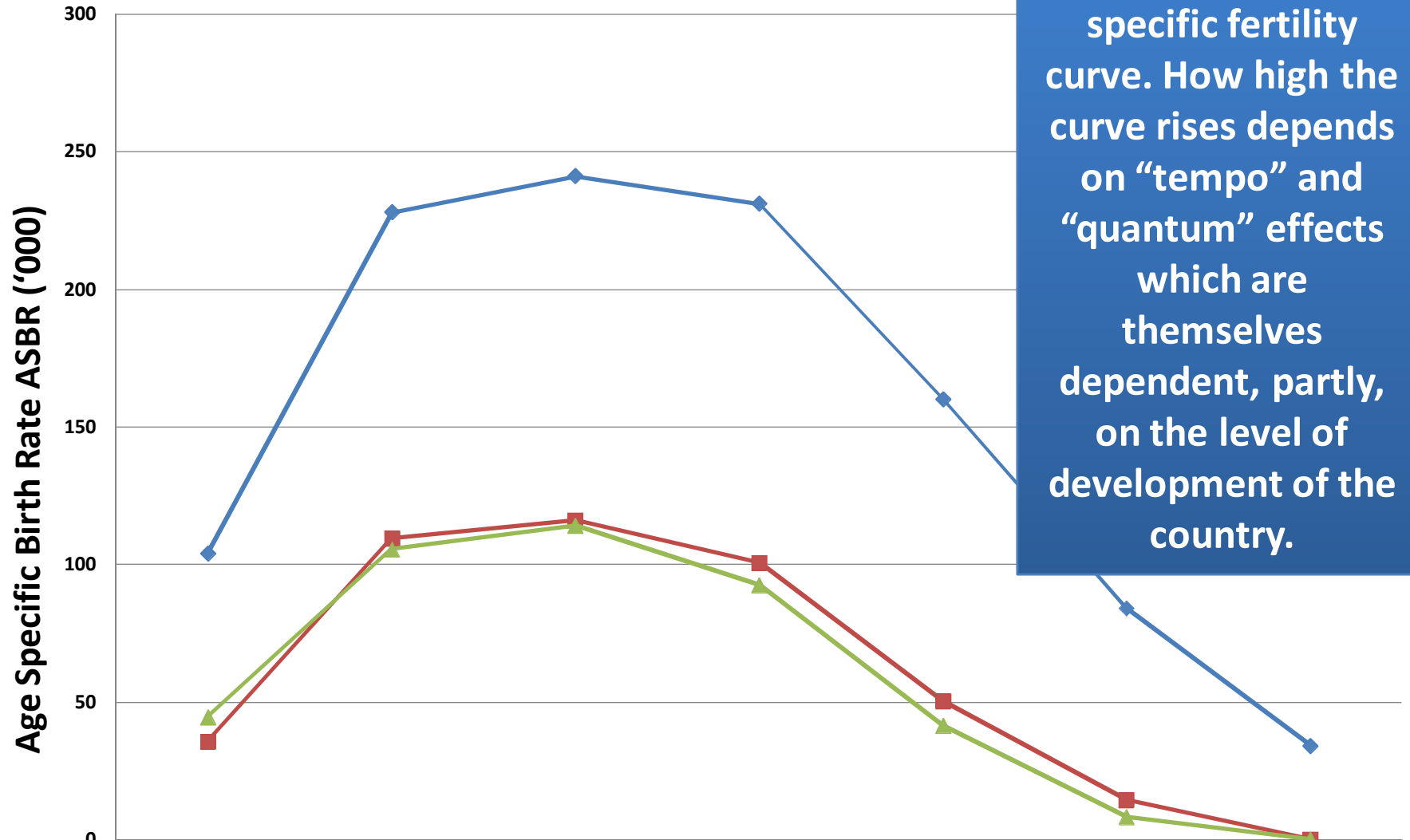
$$\text{TFR} = 5 \sum_{a=1}^7 \text{Ba/Fa}$$

A TFR of 2.1 =
Replacement
fertility
(low mortality
countries)

a = five-year age groups

The number 5 represents
the five-year age groups
used

Age-Specific Birth Rates - ASBR USA (2002) and Ethiopia (2005)



This is a typical shape of the age specific fertility curve. How high the curve rises depends on “tempo” and “quantum” effects which are themselves dependent, partly, on the level of development of the country.

| | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 |
|------------|-------|-------|-------|-------|-------|-------|-------|
| ◆ Ethiopia | 104 | 228 | 241 | 231 | 160 | 84 | 34 |
| ■ USA-ACS | 35.6 | 109.3 | 116 | 100.6 | 50.2 | 14.2 | 0 |
| ▲ USA-NCHS | 44.4 | 105.5 | 114.1 | 92.5 | 41.4 | 8.3 | 0 |

Total Fertility Rate

The total fertility rate is the most useful (most used) method of summarizing the age-specific birth rate for a population

“It is the average number of children a woman would have if she were to have children at the prevailing age specific rates as she passed through her reproductive years.”

| High TFR countries | TFR (2008) |
|--------------------|------------|
| Niger | 7.1 |
| Uganda | 6.8 |
| Burundi | 6.8 |
| Afghanistan | 6.8 |
| Yemen | 6.2 |
| | |
| Low TFR countries | TFR (2008) |
| | |
| Germany | 1.3 |
| | |
| Hungary | 1.3 |
| Poland | 1.3 |
| Rumania | 1.3 |
| Russia | 1.3 |
| Slovakia | 1.3 |
| Bostnia H. | 1.3 |
| | |
| Taiwan | 1.1 |
| South Korea | 1.3 |
| Japan | 1.3 |
| Singapore | 1.4 |

TFR

USA: 2.1

Canada: 1.6

**Caribbean countries: low TFR
(except Haiti)**

**A TFR of 2.1 = Replacement
fertility
(low mortality countries)**

Gross Reproduction Rate:

“The gross reproduction rate is the same as the total fertility rate except that only female births are counted. Thus, it gives **the average number of daughters** that a woman would have if she passed through the entire reproductive life as the prevailing age-specific birth rates.”

“The gross reproduction rate can be found by multiplying the total fertility rate by the proportion of births that is female.”

$$\mathbf{GRR} = 5 \sum_{a=1}^7 \mathbf{GBa/Fa}$$

Where: GBa = the number of female births to females in age group “a” in a one year period

I used G to symbolize “girl”

Net reproduction rate:

“The net reproduction rate is the same as the gross reproduction rate except that it is reduced somewhat to allow for the fact that not all women will live through their entire reproductive period. A net reproductive rate of 1.0 would indicate that, on average, females are exactly replacing themselves”

$$\text{NRR} = 5 \sum_{a=1}^7 P_a G B_a / F_a$$

P_a = Life table survivorship rate

Major Determinants of Fertility

- **Biological determinants**
 - **Age**
 - **Fecundity**
- **Health and nutritional status**
 - **Physical environment**
- **Socioeconomic determinants**

Age

- For both males and females, puberty marks the onset of reproductive capacity.
- For females, **menarche**, or the beginning of menstruation denotes, puberty.
- **Menopause** denotes the end of the female reproductive span.

“The change from infecund to fecund is not a sudden change from one state to another but rather a gradual increase through a period of adolescent subfecundity to a mature fecundity, reached at roughly ages 26–30”

- **Modern science is helping older women extend their child bearing years.**
- **Multiple births due to use of fertility clinics (mainly women in their forties)**

Are there implications for infant mortality rates in the US and other industrial nations where in vitro fertilization (IVF) are common?

“There are now three million people alive who owe their lives not to sex but to *in vitro* fertilization”

Nutrition and health

- **In general, good health and fecundity go together.**
 - **Diseases may impair child bearing.**
- **The most important diseases in this respect are venereal diseases which, if left untreated, cause permanent sterility.**
 - **“Nutritional status affects fecundity as well, especially in case of severe malnutrition, which may even lead to temporary infecundity. “**
- **Giving birth itself can be viewed as a “serious diseases” affecting a woman’s health, and hence, future reproductive performance.**

Environment and Fertility

- **Effect of various environments on sexual activity**
- **Some suspect altitude might have an impact**

Chemicals (Impact on sperm count):

“Following an earlier study that found that men in rural mid-Missouri had lower sperm counts and quality than their peers in urban centers, a University of Missouri-Columbia researcher has identified and linked three agricultural chemicals to the problem.” <http://www.ehponline.org/press/swan2003.html>

What's in your air freshener?

Jan 1, 2008 [11:35 PM](#)

wouldn't knowingly eat a dangerous substance, so why would you want to breathe one in? According to a recent paper published by the Natural Resources Defense Council (NRDC), chemicals called **phthalates** (pronounced "thalates") were found in 86 percent of commercially available air fresheners tested. Manufacturers use phthalates to help air-freshener and perfume droplets stay suspended in air. They are also used as softening agents in everything from lotion to nail polish to plastic toys. Unfortunately, phthalates are suspected endocrine disruptors that have been **linked to the abnormal development of male reproductive systems.**

"Phthalates have a lot of uses, which is why they are in so many consumer products," says Gina Solomon, MD, MPH, a senior scientist at the NRDC. "And they are only rarely included in ingredients lists, so this creates a buyer-beware situation in which you can't assume that products have been regulated and tested for safety." Last October, California became the first state to ban children's products that contain more than one tenth of 1 percent of phthalates. Instead of spraying an air freshener in a smelly room, Solomon suggests eliminating the odor's source by opening a window, taking out the trash, or using baking soda or natural cleaning agents.

<http://deliciouslivingmag.com/greenliving/air-freshener/>

In May 2005: **For the first time, researchers have identified an association between pregnant women's exposure to **phthalates** and adverse effects on genital development in their male children.** The pattern of genital changes seen in these baby boys is consistent with the "phthalate syndrome" previously observed in rodents prenatally exposed to phthalates. It is also suggestive of "testicular dysgenesis syndrome," a human health condition proposed to be linked to exposure to endocrine-disrupting compounds. The adverse effects are seen at phthalate levels below those found in one-quarter of women in the United States, based on a nation-wide survey by the Centers for Disease Control.

In September 2000, the US Centers for Disease Control released the first substantial [assessment](#) of phthalate exposure in the American public. Their study analyzed urine metabolite residues of seven phthalates. Levels were high for several of the compounds studied, particularly the metabolite of DBP. Of greatest concern was the discovery that in their sample, an disproportionate number of women of child-bearing age bore high levels of this metabolite. Given Gray's data on fetal vulnerability, this is precisely the population that should minimize exposure to this anti-androgen.

In winter/spring 2002-2003, three studies linked phthalate exposure to reductions in semen quality. All were of men exposed to background, environmental levels of phthalates, not higher occupational levels. One showed [DNA damage in sperm](#). Two others ([one from the US](#), the [other from India](#)) found reductions in sperm quality in men with slightly elevated phthalate levels. Phthalate levels associated with the damage were well within the range experienced by many Americans.

Source: <http://www.ourstolenfuture.org/NewScience/oncompounds/phthalates/phthalates.htm>

Social determinants

- 1. Factors that affect exposure to intercourse**
- 2. Factors that affect exposure to conception**
- 3. Factors that affect gestation and successful parturition**

Exposure to intercourse:



In most traditional societies exposure starts with **marriage.**



- Legal (modern) marriage
- Customary (traditional) marriage

Not so in most industrial countries



By Andrew Stern **Teen Pregnancy Linked to Racy TV Shows**

Reuters 11/03/2008

posted: 5 HOURS 10 MINUTES AGO

comments: [157](#)

filed under: [Health News](#), [National News](#)

CHICAGO (Nov. 3) - Exposure to some forms of entertainment is a corrupting influence on children, leading teens who watch sexy programs into early pregnancies and children who play violent video games to adopt aggressive behavior, researchers said on Monday. Researchers at the RAND research organization said their three-year study was the first to link viewing of racy television programming with risky sexual behavior by teens.

Source: <http://news.aol.com/health/article/teen-pregnancy-linked-to-racy-tv-shows/235779>

"Our findings suggest that television may play a significant role in the high rates of teenage pregnancy in the United States," said Anita Chandra, a behavioral scientist who led the research at RAND, a nonprofit research organization.

"We're not saying we're establishing causation, but we are saying this is one factor that we were able to prospectively link to the teen pregnancy outcome," Chandra said in a phone interview. The researchers recruited adolescents aged 12 to 17 and surveyed them three times between 2001 and 2004, asking about television viewing habits, sexual behavior and pregnancy. In findings that covered 718 teenagers, there were 91 pregnancies. The top 10th of adolescents who watched the most sexy programming were at double the risk of becoming pregnant or causing a pregnancy compared to the 10th who watched the fewest such programs, according to the study published in the journal Pediatrics.

The study focused on 23 free and cable television programs popular among teenagers including situation comedies, dramas, reality programs and animated shows. Comedies had the most sexual content and reality programs the least.

"The television content we see very rarely highlights the negative aspects of sex or the risks and responsibilities," Chandra said. "So if teens are getting any information about sex they're rarely getting information about pregnancy or sexually transmitted diseases."

TEEN PREGNANCY ON DECLINE

Teen pregnancy rates in the United States have declined sharply since 1991 but remain high compared to other industrialized nations. Nearly 1 million girls aged 15 to 19 years old become pregnant yearly, or about 20 percent of sexually active females in that age group. Most of the pregnancies were unplanned, the report said.....

Source: <http://news.aol.com/health/article/teen-pregnancy-linked-to-racy-tv-shows/235779>

Marriage and Fertility

- In non-contraceptive populations, the age at which females marry or enter into sexual unions is an important determinant of fertility.
- In some countries such as Honduras, Panama, and Bolivia the legal marriage age is as low as twelve for females and fourteen for males.
 - In Europe there was a rise in age at marriage beginning as early as the eighteenth century.
- In the US the median age at first marriage has not changed considerably during the last hundred years (a slight uptick after WWII)

See [proportion married by age text p. 169](#)

USA

New York Times

51% of Women Are Now Living Without Spouse

For what experts say is probably the first time, more American women are living without a husband than with one, according to a New York Times analysis of census results.

In 2005, 51 percent of women said they were living without a spouse, up from 35 percent in 1950 and 49 percent in 2000. In addition, marriage rates among black women remain low. Only about 30 percent of black women are living with a spouse, according to the [Census Bureau](#), compared with about 49 percent of Hispanic women, 55 percent of non-Hispanic white women and more than 60 percent of Asian women.

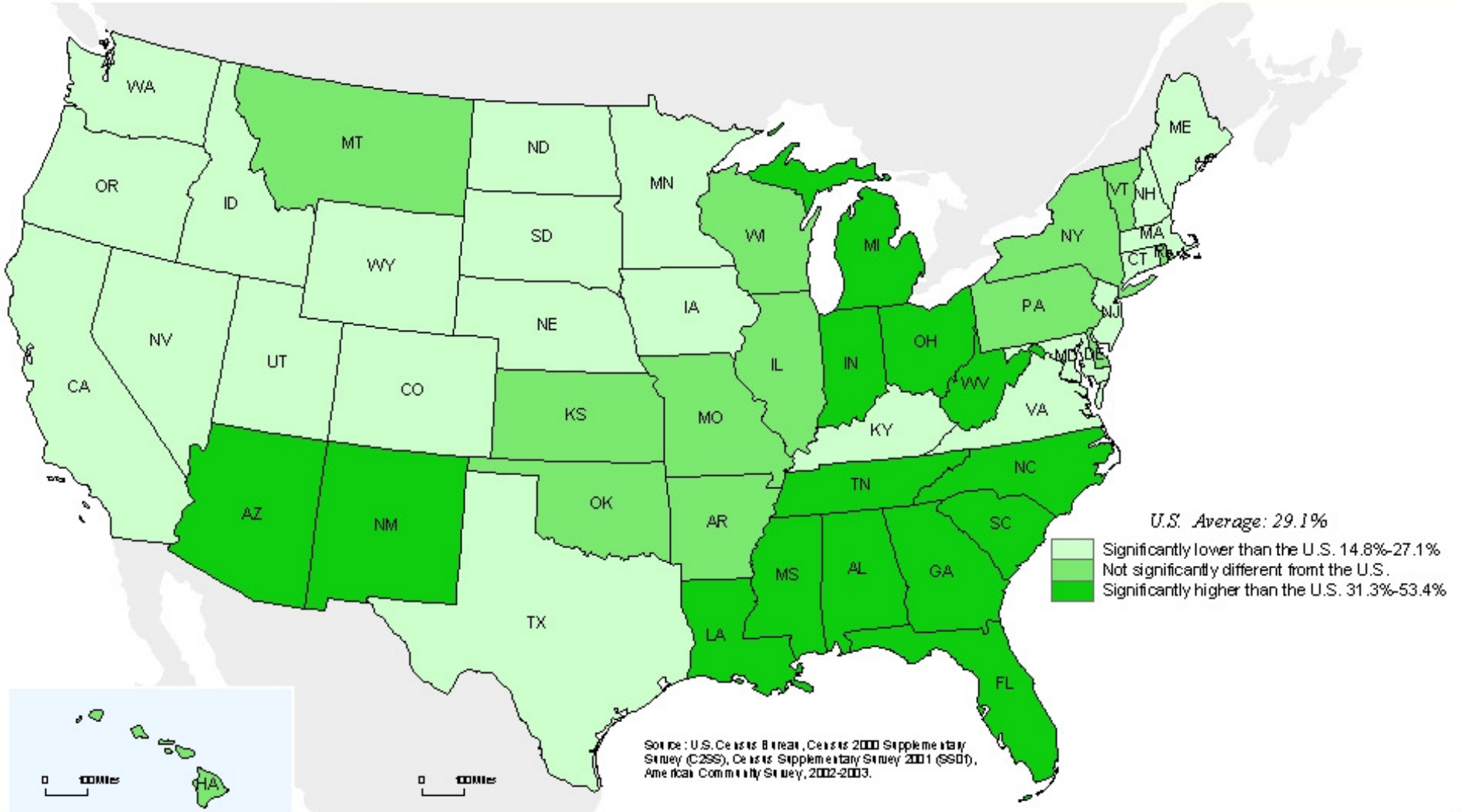
<http://www.nytimes.com/2007/01/16/us/16census.html>

“The estimated median age at first marriage (MAFM) in the United States for 2000-2003 was 27 and 25 years old for men and women respectively.”

“For 2000-2003, 29 percent of women with a birth in the last year were unmarried in the United States. Most states in the South had a higher percentage of mothers with a birth in the last year who were unmarried compared with the national average. Most states in the West, Midwest and Northeast had lower percentages of mothers with a birth in the last year who were unmarried compared with the national average.”

Percent of Women with a Birth in the Last Year who are Unmarried, 4-Year Average: 2000-2003

(Data based on sample. For information on confidentiality protection, sampling error, or sample nonresponse, and definitions, see www.census.gov)



Source: U.S. Census Bureau, Census 2000 Supplementary Survey (C2SS), Census Supplementary Survey 2001 (SS01), American Community Survey, 2002-2003.

Exposure to Conception

- A major determinant of fertility today is the degree to which contraception is practiced.
- Around **a third of married couples** in the world now practice some form of contraception, and that percentage is likely to rise

Three groups of contraceptives:

1. Those that prevent the entry of sperm
2. Those that avoid or suppress ovulation
3. Those that prevent implantation.

Factors that affect gestation and successful parturition

Abortion and Fertility

“Sometimes considered a contraceptive, but actually a backup measure when pregnancy has already occurred, abortion has been, and continues to be, an important determinant of fertility.”

In the US abortion was severely restricted prior to 1970.

Abortion in the US

- Nearly half of all pregnancies to American women are unintended; four in 10 of these end in abortion.

About half of American women have experienced an unintended pregnancy, and at current rates more than one-third (35%) will have had an abortion by age 45.

Overall unintended pregnancy rates have stagnated over the past decade, yet unintended pregnancy *increased* by 29% among poor women while *decreasing* 20% among higher-income women.

- In 2005, 1.21 million abortions were performed, down from 1.31 million abortions in 2000.

Nine in 10 abortions occur in the first 12 weeks of pregnancy.

A broad cross section of U.S. women have abortions:

- ❑ 56% of women having abortions are in their 20s;
- ❑ 61% have one or more children;
- ❑ 67% have never married;
- ❑ 57% are economically disadvantaged;
- ❑ 88% live in a metropolitan area; and
- ❑ 78% report a religious affiliation.

<http://www.guttmacher.org/media/presskits/2005/06/28/abortionoverview.html>

Economic Determinants of Fertility

- **“It has been suggested that fertility decline in the industrialized countries occurred as a response to economic development”**
- **Modernization remains the main driving force behind the demographic transition model**
- **See the scatter plots of CBR against per capita income (text p. 174)**
- **“The essence of economic theory of fertility is that a couple’s decision to produce, or not to produce, a child is based on the costs and benefits of the child, as perceived by the couple”**
 - **Cost and benefits have both economic and noneconomic components**

The value of children:

A variety of terms have been used to express the value of children including: satisfaction, benefits, utilities, rewards, gains, gratifications, advantages, etc.

Values

- Economic values
- Noneconomic values
(psychic satisfaction)

Two types of economic values:

1. Children as a source of financial security in old age
2. The value of children as productive agents

The Cost of Children

“Among the terms used for the costs of children are dissatisfaction, disadvantages, disvalues, penalties, and negative general values.

Costs

Economic

Direct maintenance costs

Opportunity costs

Noneconomic

What are the noneconomic costs?

Fertility Differentials

The fertility level for a given population is determined by a multitude of factors, and different groups within the population may respond to those factors in different ways. This leads to a fertility differential between population groups.

Commonly observed differentials include:

- **Urban-rural**
- **Income**
- **Educational**
- **Regional**
- **Ethnic**

Rural Urban Differential

Fertility tends to be inversely related to levels of urbanization

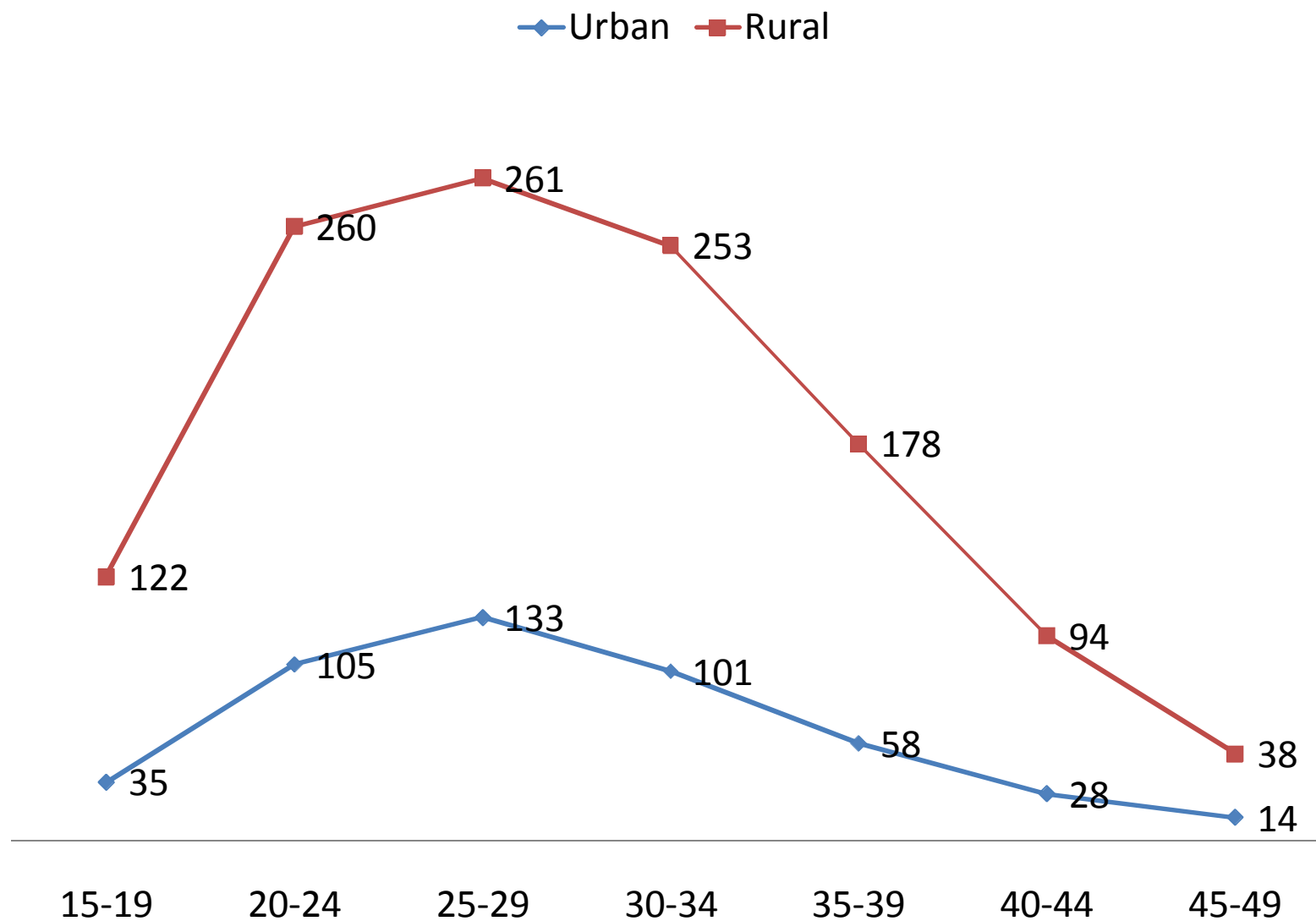
Urban – rural differentials are also common within nations

e.g. Ethiopia



ETHIOPIA, 2005

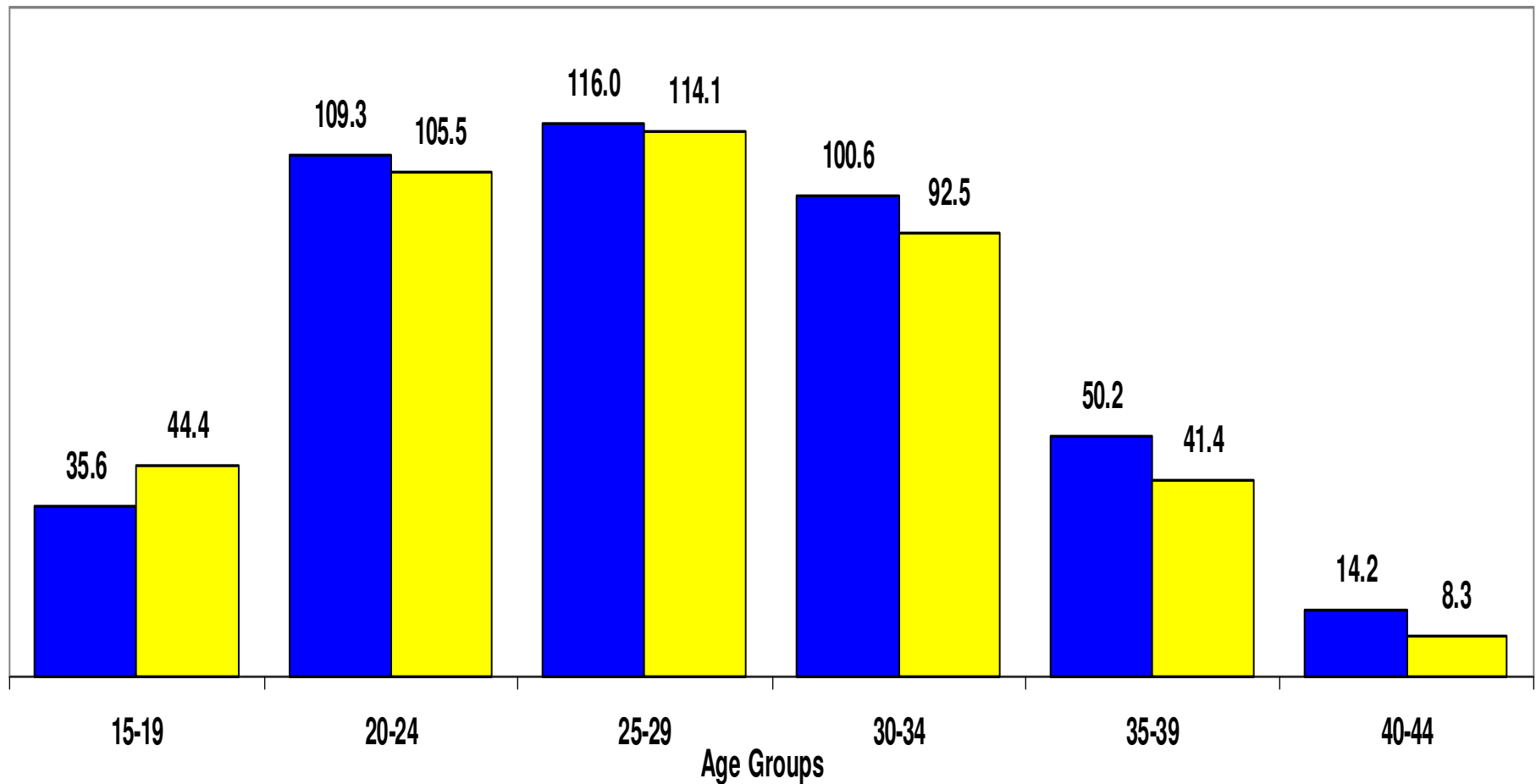
Age -specific fertility rate (per 1000 women) by age group



USA

■ ACS ■ NCHS

Births per 1,000 women 15 to 44 years



Source: U.S. Census Bureau, American Community Survey 2002-2003, Census Supplementary Survey 2000-2001 and National Vital Statistics Reports; Vol. 52, No. 19 and Vol. 53, No.9 Hyattsville, Maryland: NCHS.2004.

Income Differentials

- **“In general fertility tends to be highest for the lowest income groups and to decrease with increasing income levels.”**
- **This applies globally, or on national and sub-national levels.**
- **It is one of the most important factors behind fertility differences between population sub-groups.**

USA Fertility Differentials by Income

| ANNUAL FAMILY INCOME¹ | Number of children ever born per 1000 |
|---|--|
| Under \$20,000 | 2,064 |
| \$20,000 to \$29,999 | 1,960 |
| \$35,000 to \$49,999 | 1,798 |
| \$50,000 to \$74,999 | 1,921 |
| \$75,000 to \$99,999 | 1,819 |
| \$100,000 and over | 1,845 |
| Not ascertained | 1,883 |

Source: <http://www.census.gov/prod/2005pubs/p20-555.pdf>

Educational Differential

- **Education is also inversely related to fertility. A woman's level of education is the best predictor of whether or not she will have full control over her reproductive choices.**
- **Women who get to choose will end up having far fewer births than women who don't or can't make independent child bearing decisions.**

“...beyond the knowledge of contraceptives, education may motivate couples to limit family size because of their greater awareness of the cost and benefits of children”.

USA Educational Differential

| Educational attainment | CEB |
|--|---------------|
| | ('000) |
| Not a high school graduate | 2479 |
| High school graduate | 1943 |
| Associate's degree | 1894 |
| Bachelor's degree | 1721 |
| Graduate or professional degree | 1557 |
| | |
| | |

Source: <http://www.census.gov/prod/2005pubs/p20-555.pdf>

Ethiopia, Educational Differential (2005)

| Level | TFR |
|--------------------|-----|
| No Education | 6.1 |
| | |
| Primary | 5.1 |
| | |
| Secondary & higher | 2 |
| | |

Social and Ethnic Differentials

“Different racial and ethnic groups often have different fertility levels than the national populations of which they are a part.”

Example The US



USA Ethnic/Racial Differential

| Characteristic | CEB ('000) |
|--------------------------------|------------------------|
| | |
| Total women 40 - 44 | 1895 |
| | |
| White alone | 1878 |
| White alone, non-Hispan | 1811 |
| Black alone | 1938 |
| Asian alone | 1923 |
| | |
| Hispanic (any race) | 2301 |

Source: <http://www.census.gov/prod/2005pubs/p20-555.pdf>

Fertility and Family Planning

Key terms:

- **Population policy**
- **“Comstock Law”**
- **KAP - Knowledge Attitude Practice**
- **Family Planning Programs**

- **Issues regarding the need to control population, and the need for family planning, began to have prominence in the early 1960s.**
- **1960 – only India had a program to address population growth, and change its trajectory through family planning programs**
- **“Today, the vast majority of people live in nations that have formulated and adopted national policies to reduce population growth”**
- **Note: The above sentence is not saying that the vast majority of couples in the world are practicing family planning**

Some important facts:

- **There has been a global diffusion of family planning aided by both public and private organizations**
 - **In the 1960s only 18 percent of women of childbearing ages in the developing countries were practicing family planning (TFR > 6 in LDC and 2.7 in DC)**
 - **Today: TFR in LDC ~ 2.9, DC ~ 1.6**
 - **Half of couples in LDC and 70% in DC use “some form of” contraception**
- **Today: about 400,000 conceptions a day half of them unintended**

LDC – less developed countries DC - Developed countries

... more facts

- Population numbers and quality of life in LCD in the 21st century “will depend critically on how quickly the world can satisfy the currently unmet demand for family planning.
 - 137 million women in LDC with unmet need for contraception (year 2003)
 - “Unmet need is especially high in Sub-Saharan Africa
- Governments who provide adequate family planning can reap the benefits of reduced cost of social provisions including expenditures on education and health.
- More than 7 billion dollars spent on FPP annually in LDC, most of it by NGOs
- US has lagged far behind Europe and Japan in contributions
- US contribution tied to abortion politics and party in power

... more facts

- **The number of women and men using contraception has grown more than six fold since the 1960s.**
- **Over 400 million of the estimated 850-880 million couples in the world are now using contraception**
 - **The highest use rate (84%) in East Asia.**
- **Fertility is declining in many African countries despite economic stagnation (or even deterioration)**
- **The rapid increase in contraceptive use is primarily the result of in sterilizations (the most widely used form of contraception – one couple sterilized in 45% of cases) as well as the use of the pill and IUD**
- **Female sterilization outnumbers male sterilization by a factor of three to one**

... more facts

- **“Family planning programs cannot take all the credit for fertility declines but in many places they have had an impact”. Other factors include improvements in literacy and the status of women.**
- **Proportions of contraceptive methods used vary regionally**
- **The need for condoms to combat AIDS is having fertility impacts**
- **China’s one-child policy has reduced fertility considerably**
- **Improved communication crucial in the spread of family planning knowledge and acceptance.**

Population policies and programs:

Note: the terms policy and program are not the same (cannot be used interchangeably)

- **Policy:** “A national population policy is an official government policy that is specifically designed to affect the size and growth rate of a population, the distribution of a population, or its composition.”
- This is a government's intentional plan (often through legislation) to control one or more demographic variables and, thereby, alter the natural course of population events.
- **Program:** Refers to “...the various means and measures that must be utilized in order to achieve the objectives of the population policy”

Explicit Population Policies vs. Indirect demographic effects of Socioeconomic policies

“Explicit population policies are aimed at changing selected demographic variables.

However, these demographic variables may also be influenced indirectly by other economic and social policies including tax laws (income tax deduction for children, for example), public education, welfare, health, and various development programs.”

Objectives of population policy

- **Most policies (esp. in LDCs) have been conceived to decrease population growth**
 - **The focus is especially on fertility (government policies designed to reduce mortality are virtually universal)**
 - **Government immigration policies are also common**
- **A few countries restrict access to contraceptives**
- **“The development of population policy is usually slow and is often fraught with difficulties; fertility decisions are personal and private, though their social consequences are easy to see.”**

Objectives of.....

The Population Council: eight steps in the sequential development of a population policy (text P. 195)

- 1. Government interest in population trends**
- 2. A pronouncement by a public official**
- 3. Establishment of a commission**
- 4. Surveys to determine the extent of knowledge, attitude, and practice of contraception (KAP surveys) and course work in demography at the university level**
- 5. Allocation of a new or increased budget for family planning**
- 6. Announcement of specific demographic targets**
- 7. A family planning office of government**
- 8. Integration of all previously existing population-related activities and programs**

ABOUT THE POPULATION COUNCIL

“The Population Council, an international, nonprofit, nongovernmental organization, seeks to improve the well-being and reproductive health of current and future generations around the world and to help achieve a humane, equitable, and sustainable balance between people and resources.”

<http://www.popcouncil.org/about/index.html>

Family Planning Programs

“With a continual lowering of the world’s death rate, the only humane path to slowing population growth is to lower fertility”

Fertility rates declining almost everywhere

History:

- **Francis Place (1822): “....workers could receive higher wages and better working conditions if only they could limit the supply of laborers available”**
- **“Comstock Law” – USA 1873 – “...forbade the dissemination by mail of information about birth control....”**
- **US - similar laws were passed by the states “and the importation of such literature was outlawed in 1890”**

Historycontd.

- **US: Comstock Law repealed due to the efforts of Margaret Sanger (1916)**
- **Margaret Sanger opens America's first birth control clinic in Brooklyn, New York (1916)**
 - Similar clinic by Marie Atopes in England (1921)**
 - **AMA endorsement – mid 1930s**
 - **After WWII**
 - **The International Planned Parenthood (IPPF)**
 - **The Population Commission (UN)**
- **The Population Council (John D. Rockefeller 3rd)**

More detailed chronology text p. 197

Margaret Sanger



http://en.wikipedia.org/wiki/Margaret_Sanger

Mary Stopes



Source: http://www.telegraph.co.uk/opinion/graphics/2008/08/27/a_mariestopes.jpg

Family planning successes and failures (20th century)

Read text:

p. 205 : India

P. 206 : South Korea and Thailand

P: 207/10 Europe: too successful ?