Get every one in the picture

Age-specific fertility rates

Data analysis and Report writing workshop for Civil registration and vital statistics data.

UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

Adapted from Pacific Community's Data analysis and report writing Workshop for the North Pacific

Age-specific fertility rates

- When assessing fertility, it is helpful to know the fertility of females at particular age groups.
- **Age-specific fertility rates (ASFRs)** are the number of births occurring to mothers of a certain age group per 1,000 women in that age group in a given period of time.
- ASFR's are usually calculated for women aged 15-49 in each 5-year age group.
- The advantage of ASFRs is that they are not affected by differences in the age distribution among women of childbearing ages.

Question:

Which country has higher fertility?

Age group	ASFRs	
	Country A	Country B
15-19	70.3	27.2
20-24	203.3	135.5
25-29	193.3	207.4
30-34	136.8	189
35-39	60.2	106.9
40-44	22.3	48.9
45-49	1.4	15.5

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Hint:

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Total	**687.6**	**730.4**

Answer:

ASFRs are not affected by population structure.
Higher ASFRs = higher fertility

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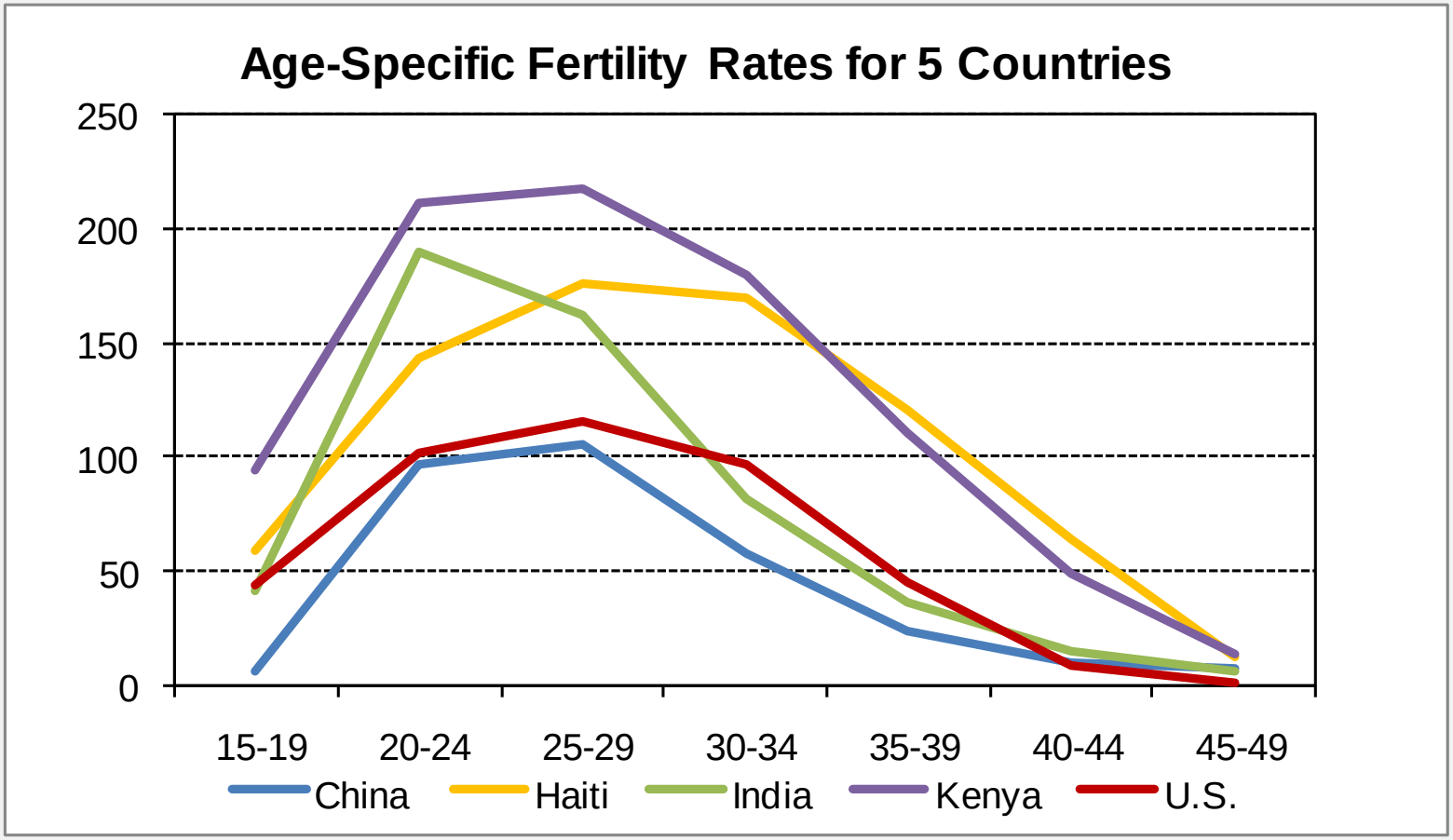
ASFRs follow a standard pattern

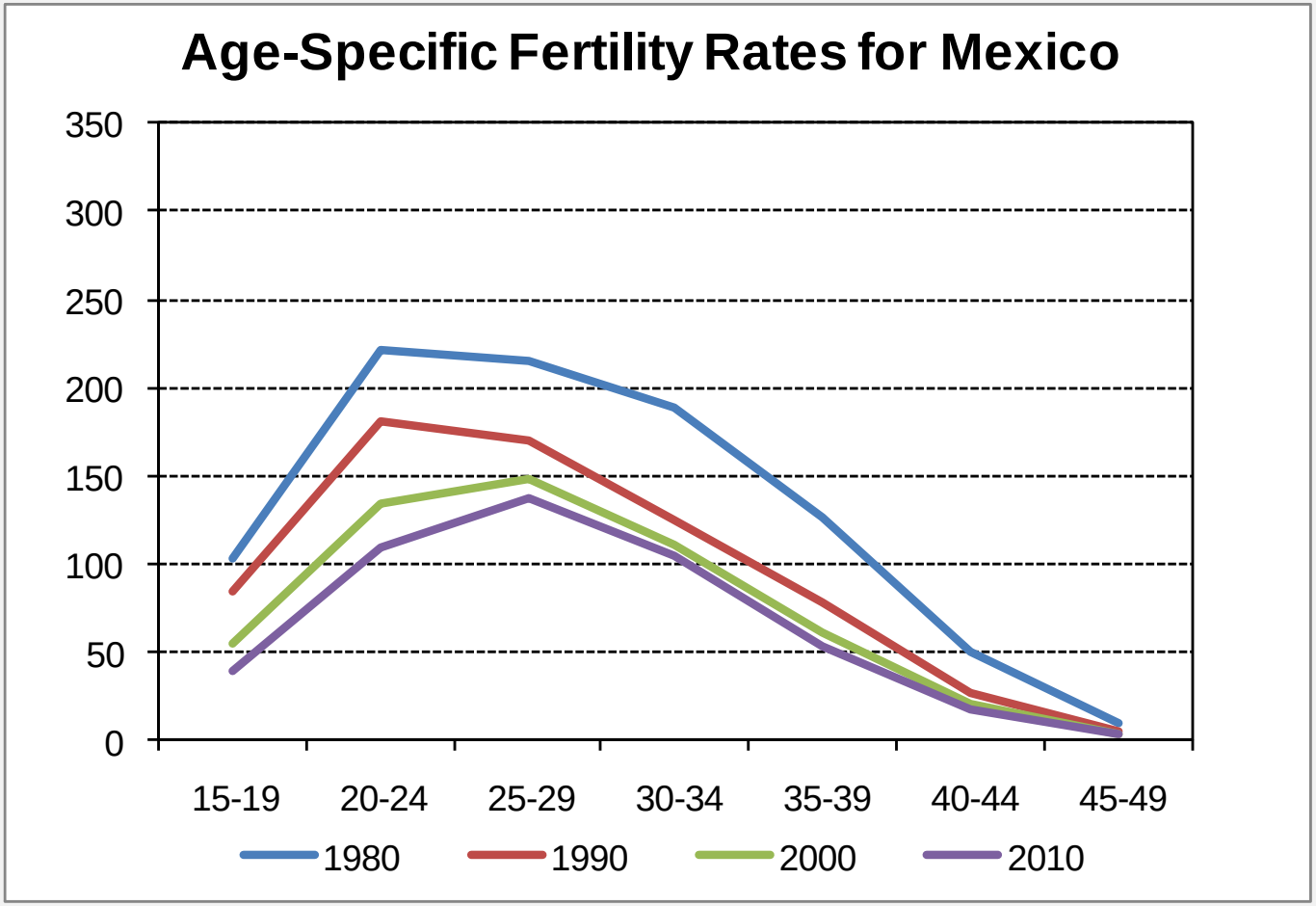
- ASFRs start from zero at very young ages where women are not yet able to bear children,
- Rise until they peak usually sometime in women’s 20s.
- Decline back to zero somewhere around 50 years of age.
- Variations in the pattern occur due to factors such as age at marriage, the prevalence of contraceptive use, etc.

ASFR Comparisons across 5 countries



Source: U.S. Census Bureau's International Data Base

ASFRs in Mexico over Time



Source: U.S. Census Bureau's International Data Base

Calculating ASFRs

Table IV-1. Age-Specific Fertility Rates and Total Fertility Rate for Chile: 1983

Age of women	Female population	Number of births	Fertility rate
(1)	(2)	(3)	(4) = (3)/(2) x 1,000
15-19	593,262	36,784	62.0
20-24	587,076	81,213	138.3
25-29	505,362	65,236	129.1
30-34	424,186	37,506	88.4
35-39	385,749	17,532	45.4
40-44	325,105	4,929	15.2
45-49	266,575	512	1.9
		Sum =	480.4
		Sum x 5 / 1,000 =	2.4

The total fertility rate in Chile in 1983 was 2.4 births per woman.

Source: U.S. Census Bureau's *Population Analysis with Microcomputer s Volume I Presentation of Techniques*

Teenage fertility rate

- The **teenage fertility rate,** or adolescent birth rate, refers to the number of births in a given period of time to females aged 15–19, divided by the number of all 15 – 19 year old females at the period midpoint.
- Equal to the ASFR for 15-19 year olds.
- Adolescent birth rates are a key indicator in measuring the progress of SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages
  - Indicator 3.7.2: Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group
- Adolescent births rates in 2018 were:
  - 44 for the World
  - 33 for South-East Asia
  - 50 for less developed regions (2010-2015), and
  - 19 for more developed regions (201—2015)

Exercise

- Calculate ASFRs for your test data.
  - Should you use adjusted or unadjusted counts of births by mother's age?
  - In which age group does fertility peak?
  - Describe the pattern you see
  - How does adolescent fertility compare to the rest of the world?
- Repeat this with your country data and if possible describe how fertility has changed over time.
  - Has the age where fertility peaks changed?
  - What about teenage fertility?