

Chapter 4: Fertility

1. What features defined the European Marriage Pattern?
 1. A late average age of first marriage for women (24-26)
 2. Many women never marry: (10-25%)
 3. Low illegitimacy rates (3-4% of births)
 4. High rates of marital fertility
2. When and where did this pattern apply?

Northwestern Europe, from at least 1540 on (west of line from Leningrad to Trieste)
3. What features defined the East Asian marriage pattern?
 1. Early first marriage for women (19 average)
 2. Almost all women marry: (99%)
 3. Illegitimacy rates do not matter since almost all fertile women married.
 4. Low rates of marital fertility
4. Do modern hunter-gatherer fertility patterns resemble more the East Asian or European patterns?

East Asian
5. Three types of explanation have been offered for the European Marriage pattern. What are they? What are the weaknesses of each of these explanations?
 1. Individual choice to control fertility (why do men also marry late, why do many women never marry?)
 2. Community controls on fertility (late marriage also by people in cities such as London with no possibility of such controls)
 3. Accident of inheritance system. Children have to wait to inherit property and marry till parents die or retire (even the landless poor marry at a late age, and marry at low rates).
6. On average was fertility higher in Western Europe, China, Japan, or hunter gatherer societies?

Total fertility rates:
Western Europe (5) ≈ Japan (5) ≈ China(5) > hunter gatherer(4.5)
7. What is the definition of the Total Fertility Rate (TFR)? What was a typical TFR for pre-industrial societies?
 1. TFR is average number of children that would be born to a woman who survives to end of reproductive span (taken as 45 or 50).
 2. Typical TFR is 5
8. Which two European countries had the highest fertilities before 1800? What might explain that pattern in these cases?
 1. Belgium and France
 2. Widespread use of wetnurses for newborns in the cities
9. Who are the Hutterites, and why do they matter to pre-industrial demography?

Hutterites are communal Anabaptists of German origin with good health but early marriage and no fertility limitation within marriage. They provide a reference on the maximum possibilities of unrestricted fertility.

10. Egyptian women in the Roman Empire period married young and had relatively high marital fertilities compared even to Europe. What kept overall fertility in line with European and Asian levels?

In Roman Egypt widows did not remarry. Furthermore, divorce was possible in Roman Egypt, and divorced women also did not remarry.

11. What does the aggregate data about yearly incomes and birth rates suggest is the slope of the birth schedule in pre-industrial England from 1540 to 1800? What is the problem in inferring the slope from such data?

1. The slope of the birth schedule in pre-industrial England from 1540 to 1800 was quite flat.

2. The birth rate schedule was shifting up and down over time, because of changes in the average age of marriage and of the percent marrying that seem to be unrelated to income.

12. What happens to birth rates in pre-industrial England and France in years of bad harvests (and hence low incomes)?

Birth rates showed little response to yearly shocks to income (more so in France, but still very limited)

13. If the birth rate schedule is flat, and the death rate schedule is also flat, what happens to the Malthusian model? Will birth rates and death rates determine living standards?

When both birth rate and death rate are flat, the Malthusian equilibrium in real income, birth and death rates no longer exists. Instead population would either grow or decline without limit, and incomes would also either grow or decline without limits.

14. How do we know the birth rate is strongly linked to wealth in cross-section in pre-industrial England?

We can estimate wealth from wills, then match men to their children's births in parish registers.

15. What peculiar feature of fertility across wealth classes causes this strong link? Why is it hard to rationalize?

The wives of rich men continued to have children longer within the marriage than for poor men. If this was the result of better health among the wives of the rich, then we would expect closer birth spacing in rich families. But birth spacing is the same for rich and poor. If it was the result of poorer families trying to limit family size, again we would expect to see longer birth intervals for the later children of the poor because of contraceptive failures. But there is no sign of this.