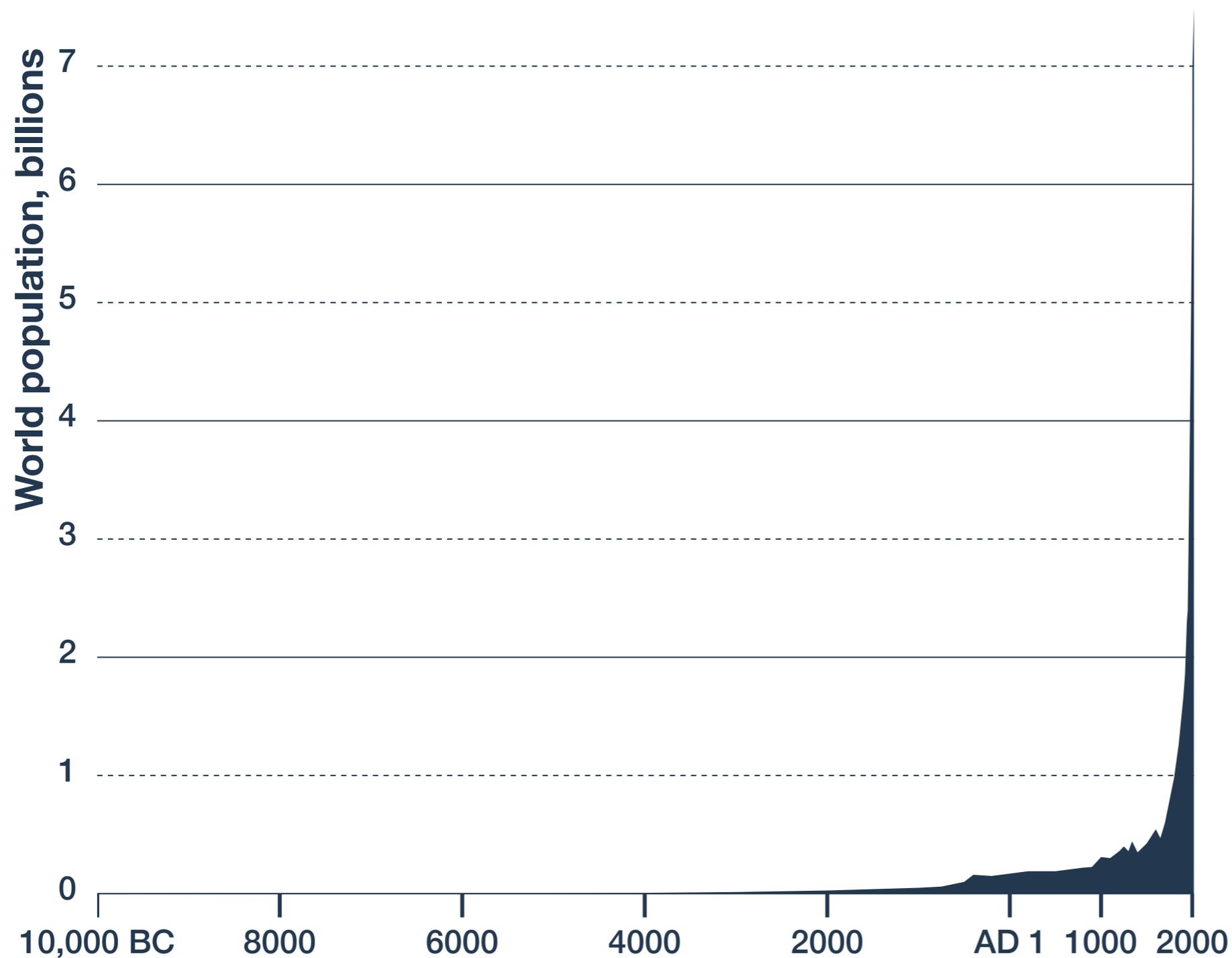


Agenda

1. Studying Populations
2. Demographic theories

Demographic Theories

Demographic theories



Global population

- ⋮ Increased from about 1.6 billion in 1900 to about 6 billion in 2000
- ⋮ 7 billion in 2012
- ⋮ Continuous growth since 14th century

Source: [Wikimedia Commons \(multiple data sources\)](#)

Demographic theories

Malthusian theory (18th–19th century)

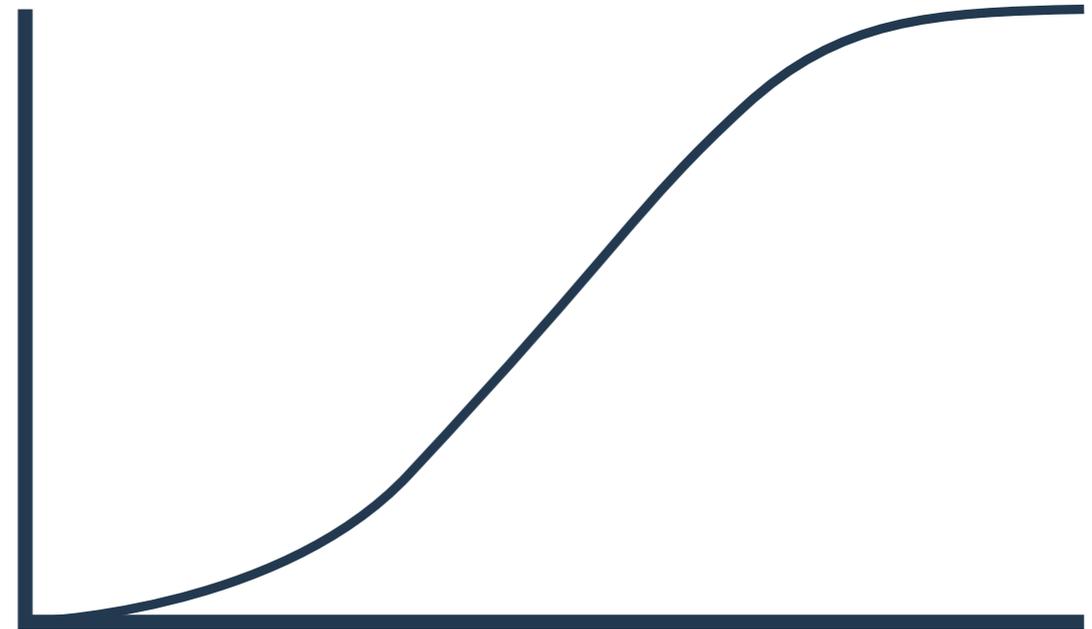
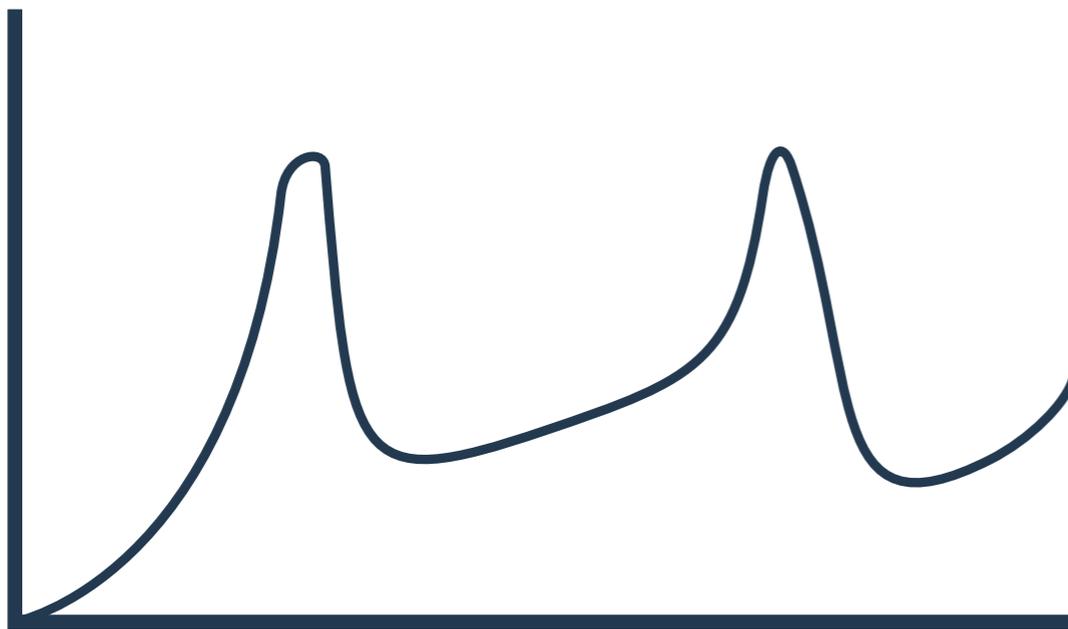
- Based on Thomas Robert Malthus' ideas about the capacity of the earth for human populations
 - Food, violence, and disease create “positive checks” on population
 - Low fertility provides “preventive checks”
 - Predicted a cycle of growth and decline of human population



Demographic theories

Similar theories are common

- **Ecological theories of resource limitations**
Formal models of populations in resource-scarce environments
- **Either cyclic (as in Malthus' theory) or predict slow decline in population growth**
“Sigmoid” or “logistic” growth
- ***Still*, global population continues to grow**
Though growth rate peaked in the early 1960s



Demographic theories

Demographic transition theory

- By far the most widespread theory of population change in social sciences
- Aims to explain the empirical observation that birth and death rates have both dropped significantly over the past few hundred years
- **Major claim:**
Changes associated with industrialization and modernization caused subsequent changes in mortality and fertility

Demographic transition in four “stages”

Demographic transition

The four stages of demographic transition theory:

Stage 1



- ∴ Birth and death rates are high, life expectancy is short
 - ∴ Minimal population growth
 - ∴ Ubiquitous throughout most of human history
- Transition out of stage 1 began in some places in 18th century

Stage 2



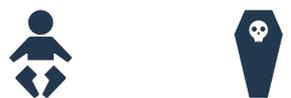
- ∴ Death rates begin to drop, life expectancy begins to increase
 - ∴ Birth rates are still high
 - ∴ Population growth accelerates
 - ∴ Many nations display this pattern
- E.g. many sub-Saharan African nations

Stage 3



- ∴ Birth rate begins to drop
 - ∴ Mortality rate remains low
 - ∴ Rate of population growth slows
 - ∴ Identified by significant drop in growth
- E.g. many Central American nations

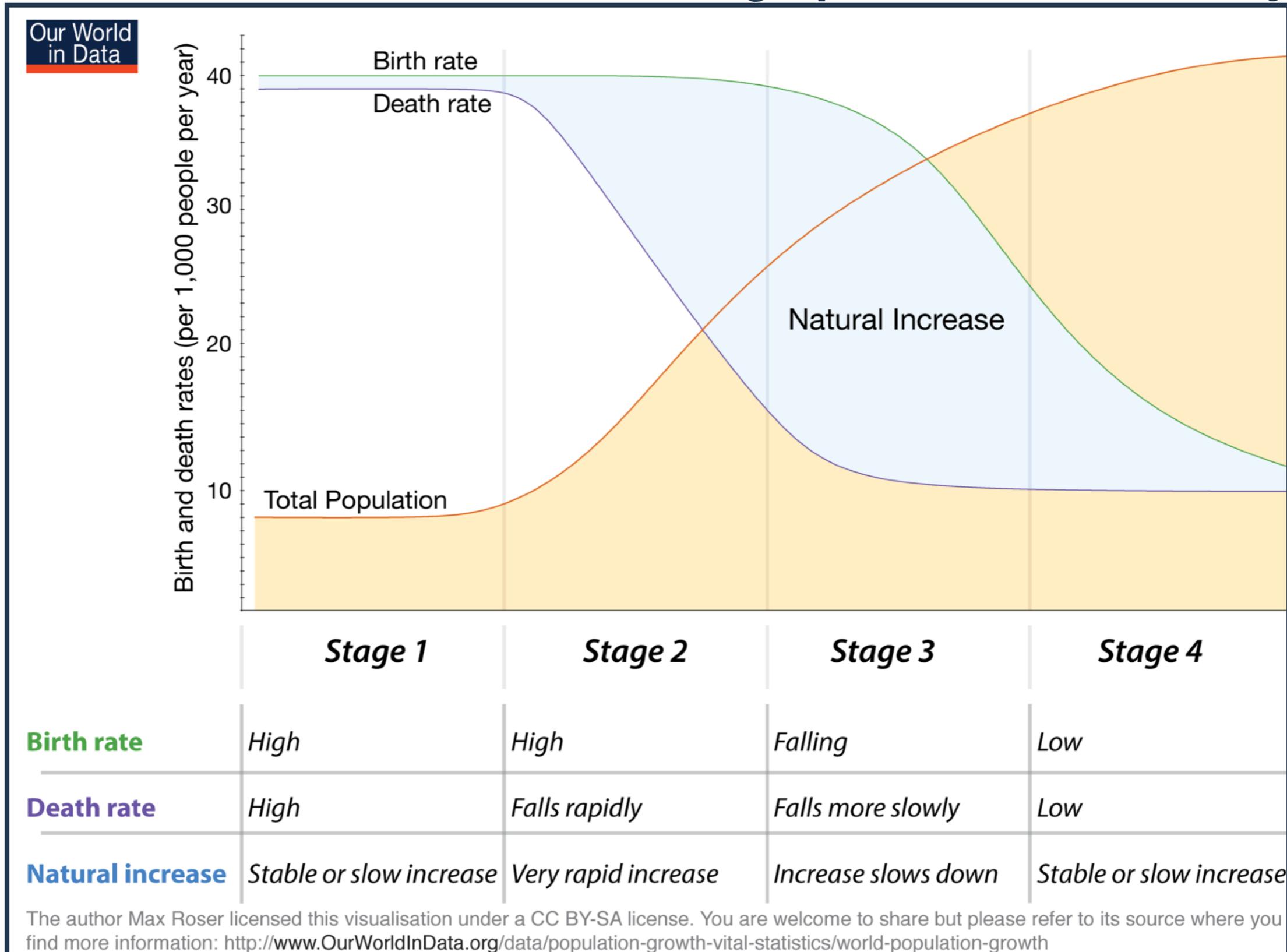
Stage 4



- ∴ Birth and death rates both low
 - ∴ Balanced rates mean only a slow population increase, or even a steady or decreasing population size
 - ∴ Identified by low birth rate (<2.5%)
- E.g. many European and North and South American nations

Demographic transition

Demographic transition theory



Demographic transition

Theoretical mechanisms for ...



... decrease in mortality

- ∴ Industrialization
Increased access to food and other resources
- ∴ Civic and scientific advances
Sanitation, medicine, infrastructure
- ∴ Economic modernization



... decrease in fertility

- ∴ Decrease in childhood mortality leads to decreased “demand” for children
Lag in fertility and mortality transitions
- ∴ Urbanization
Changing role of children in family life
- ∴ Increases in employment and education
Employment for women normalized, contraception widespread

Demographic change in Québec

Demography and society

- Although demographic theories are primarily concerned with changes in population size, they are inextricably linked with theories of culture, norms, politics, and institutions.
- Differences in social environment can explain demographic differences between places.

