

# Economic C23-1

## Lecture 9

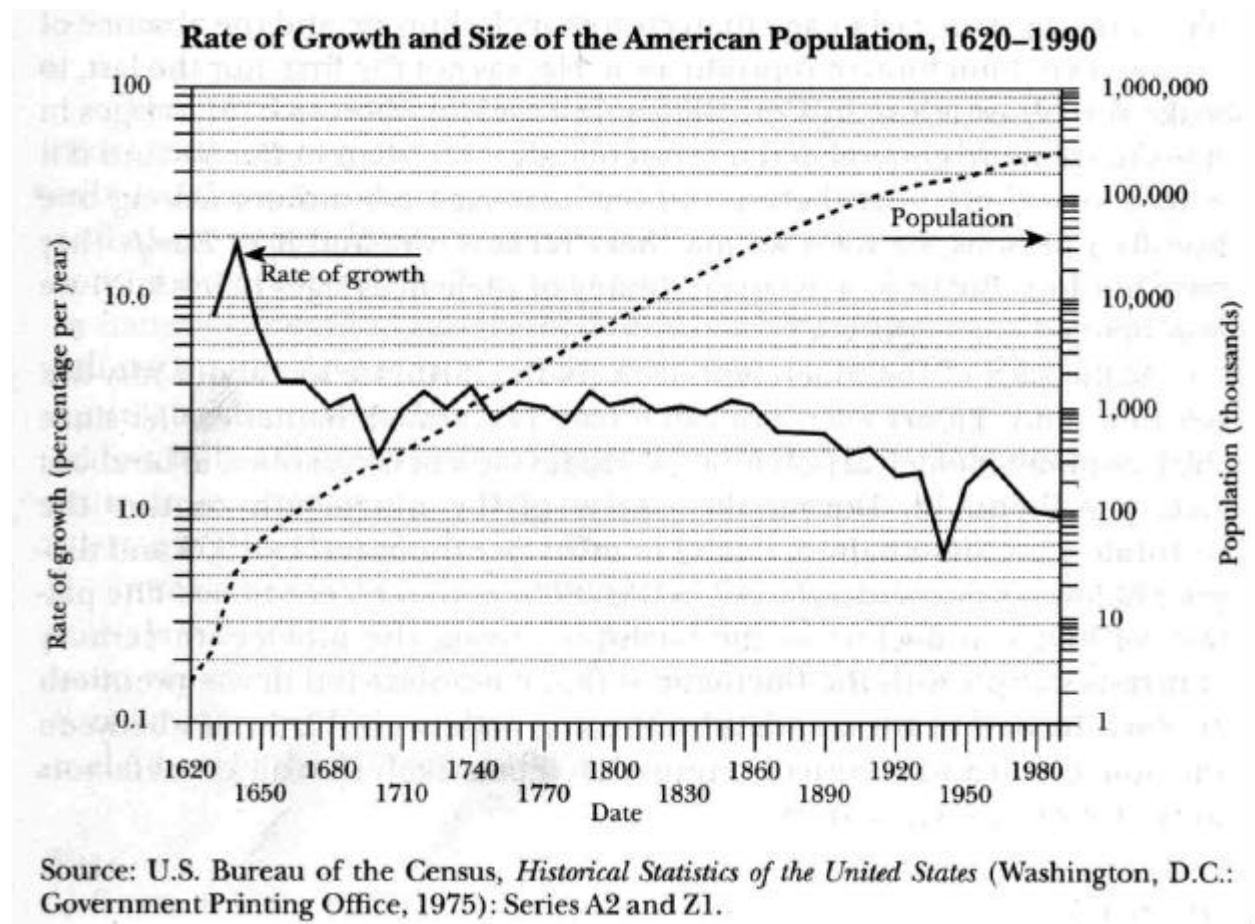
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### Population Growth and Redistribution

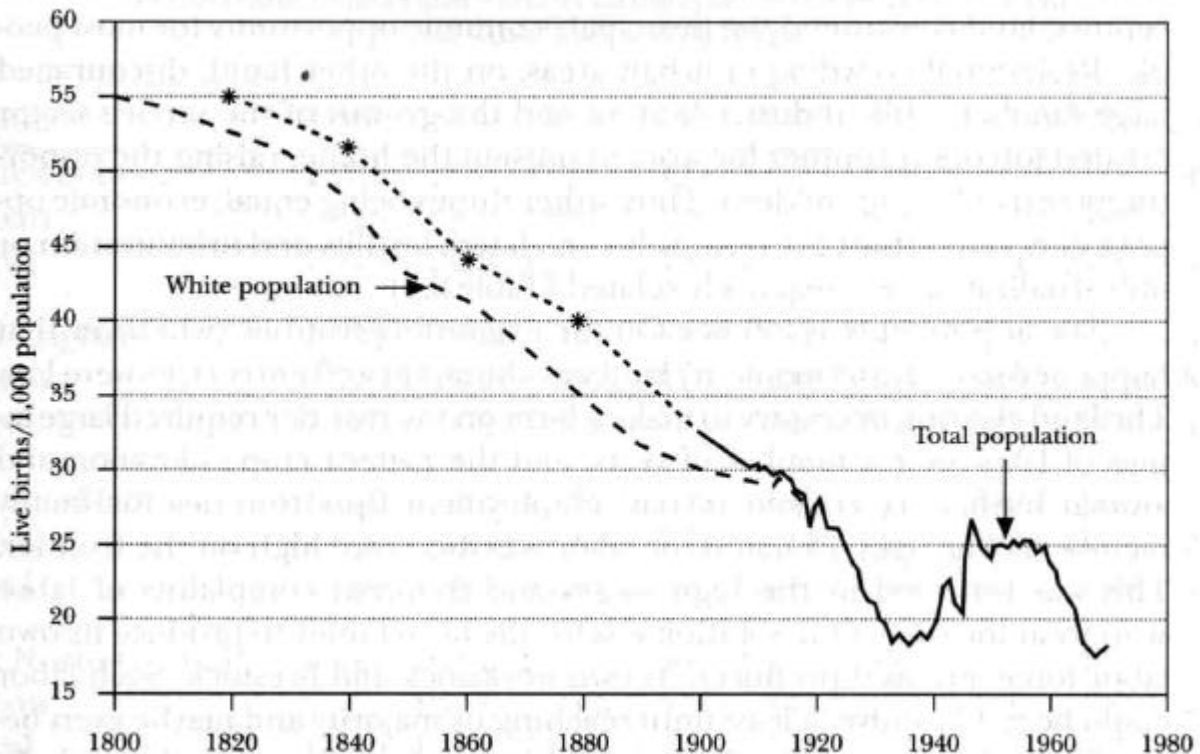
$$p^* = (b^* - d^*) + (i^* - m^*)$$

where  $b^*$  is the birthrate  
 $d^*$  is the deathrate  
 $i^*$  is the immigration rate  
 $m^*$  is the migration rate

We'll say a little about each (except  $m^*$ )



## The Birthrate, 1800–1970



Source: U.S. Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C.: Government Printing Office, 1975): Series B5 and B6.

## I. Birth

**The birthrate has been falling from as far back as we have records: rate falls by half in 19<sup>th</sup> c.**

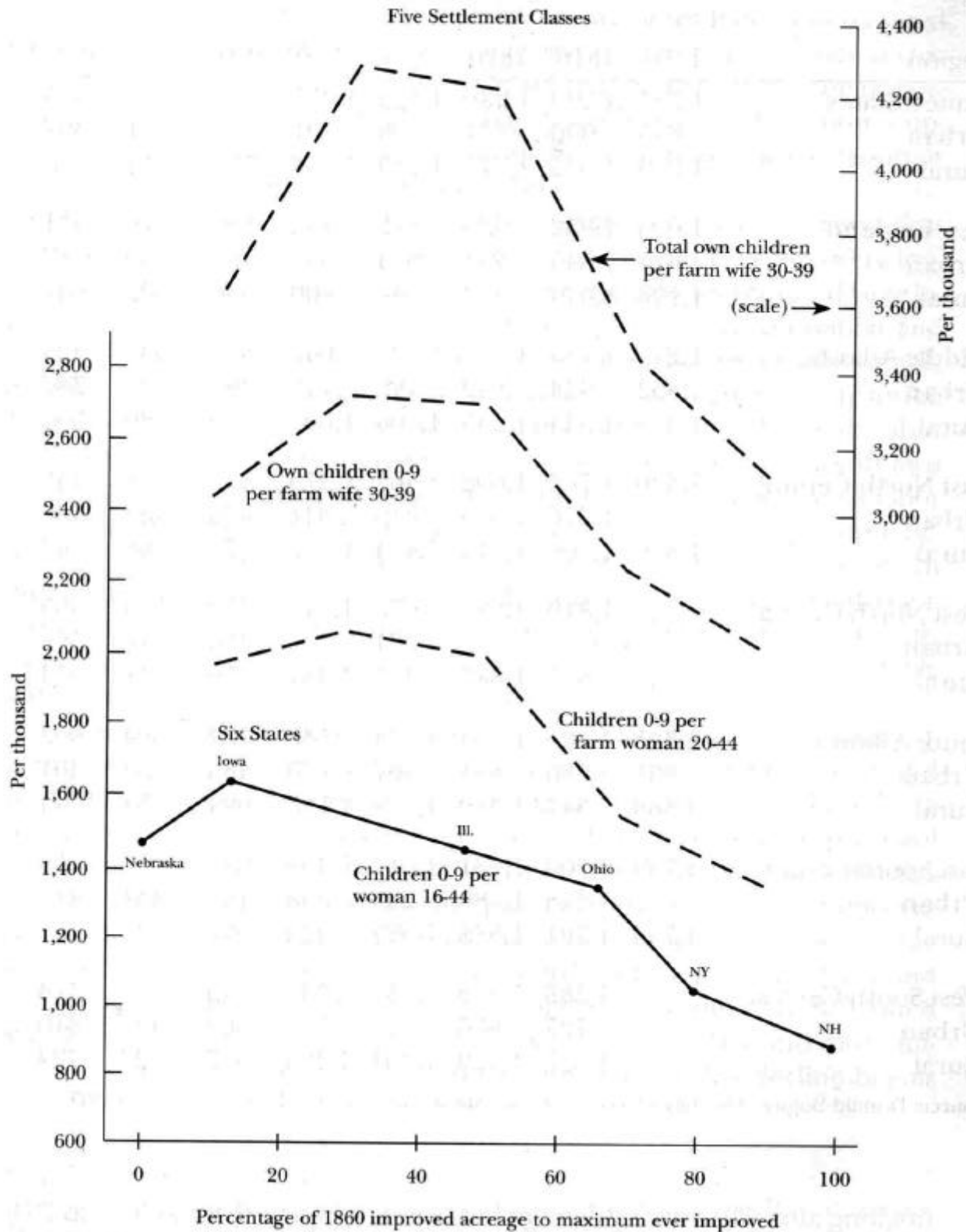
**why? Key to most explanations is access to land (in cities, on farms)**

**-> bequest model of fertility**

**Evidence?**

**Problems?**

### Child-Woman Ratio and Stage of Settlement for Five Settlement Classes and Six States, 1860



## **II. Death**

**How to explain the pattern?**

**Better medical care?**

**Better medical knowledge?**

**Reduced disease virulence?**

**Improvements in hygiene?**

**Better sanitation?**

**All these were offered as explanations for declining crude death rates (deaths/pop.) From 1700 through 1900**

<b>1700</b>	<b>40 per thousand</b>
<b>1850</b>	<b>23</b>
<b>1900</b>	<b>17</b>

**Problems: the cohort data show a different story; none of these explanations has support**

# **The Antebellum Paradox**

**Possible explanations for rising mortality (declining life expectance) at age 10) even as GNP was rising**

- 1. urban disamenities**
- 2. greater market integration**

**Diseases  
Choices**

- 3. greater inequality**

**Evidence: height**

# III. Immigration

## Sources

## Rates

## Reasons

# The patterns of immigrant adjustment

## 1. settlement

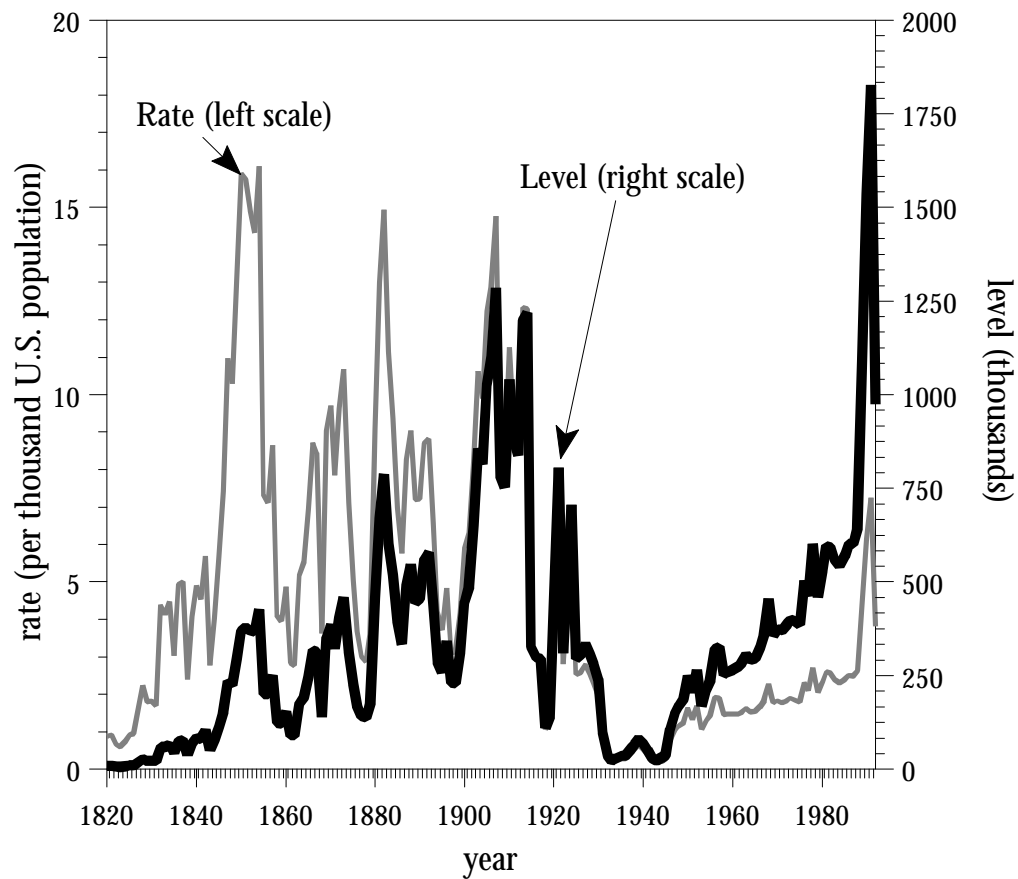


Figure 1-4. Immigration to the U.S. (rates and levels), 1820-1992. Source. U.S. Census Bureau, *Historical Statistics*, series C 89, A 6; U.S. Census Bureau, *Statistical Abstract*.



Figure 1-5. Percentage of 1840-50 arrivals at New York located in New York by years since arrival in the U.S. and origin. *Note.* See text for estimating procedures. *Source.* 1840-50 immigrants linked from passenger ship lists to 1850 and 1860 census manuscript schedules.

- 2. occupational attainment**
- 3. wealth accumulation**

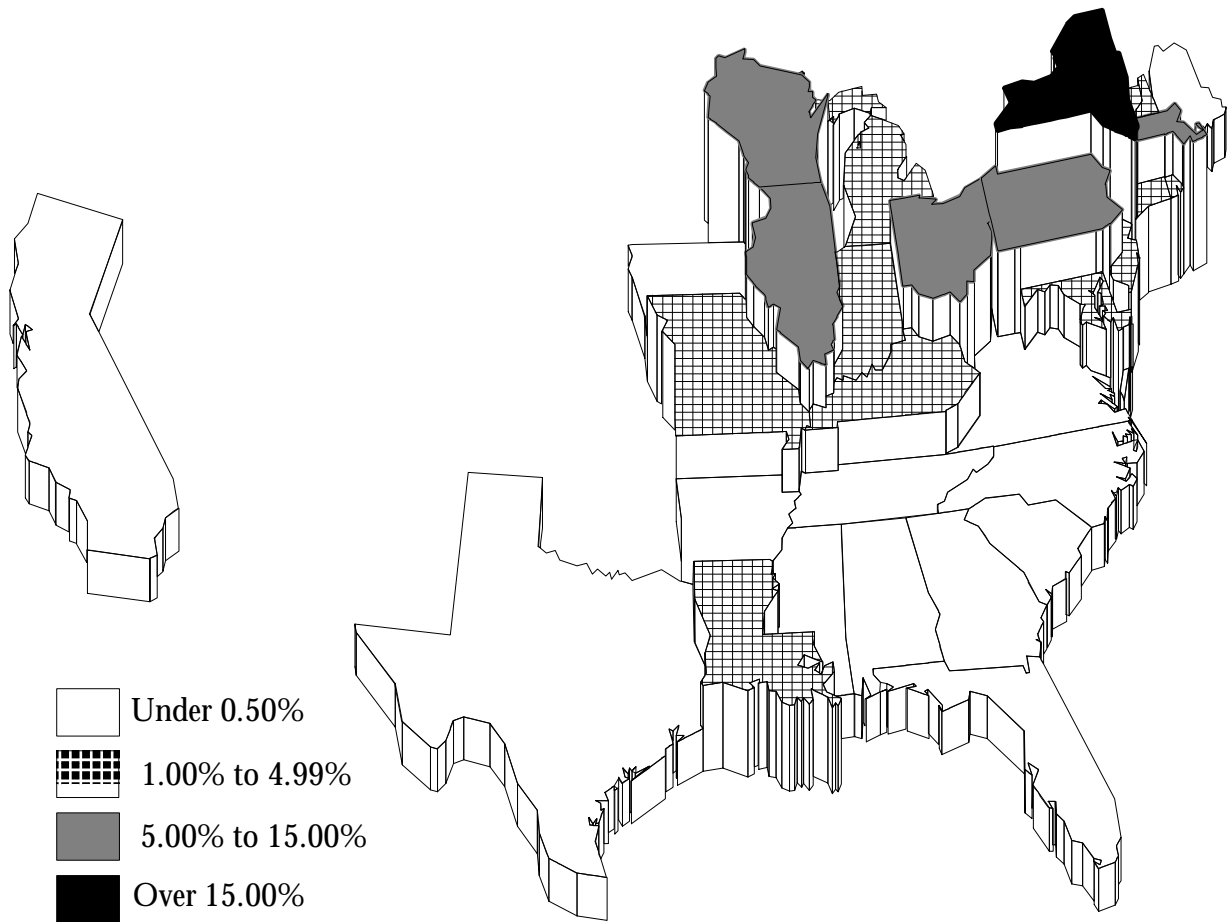


Figure 1-6. Distribution of immigrants by state (1850). *Source.* 1840-50 immigrants linked from passenger ship lists to 1850 census manuscript schedules.



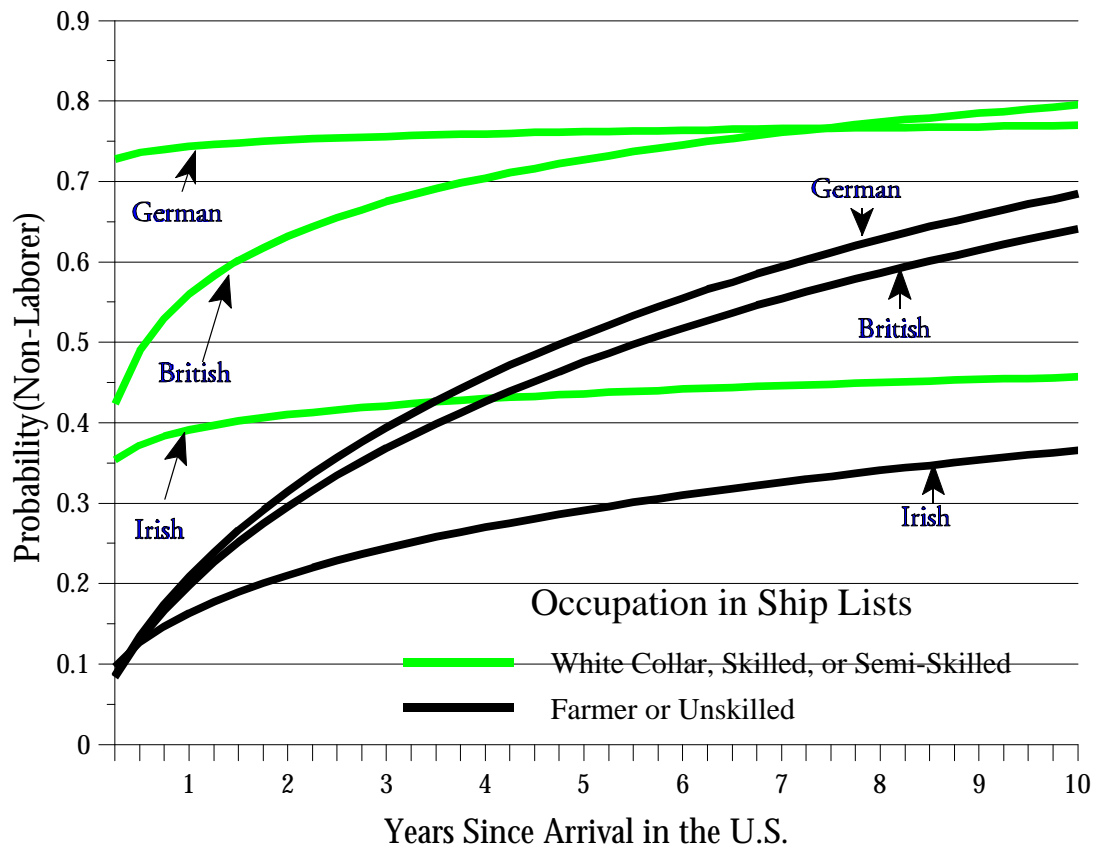


Figure 1-7. Probability of attaining an occupation other than "unskilled" by time since arrival. Note. Assuming a Weibull hazard function.

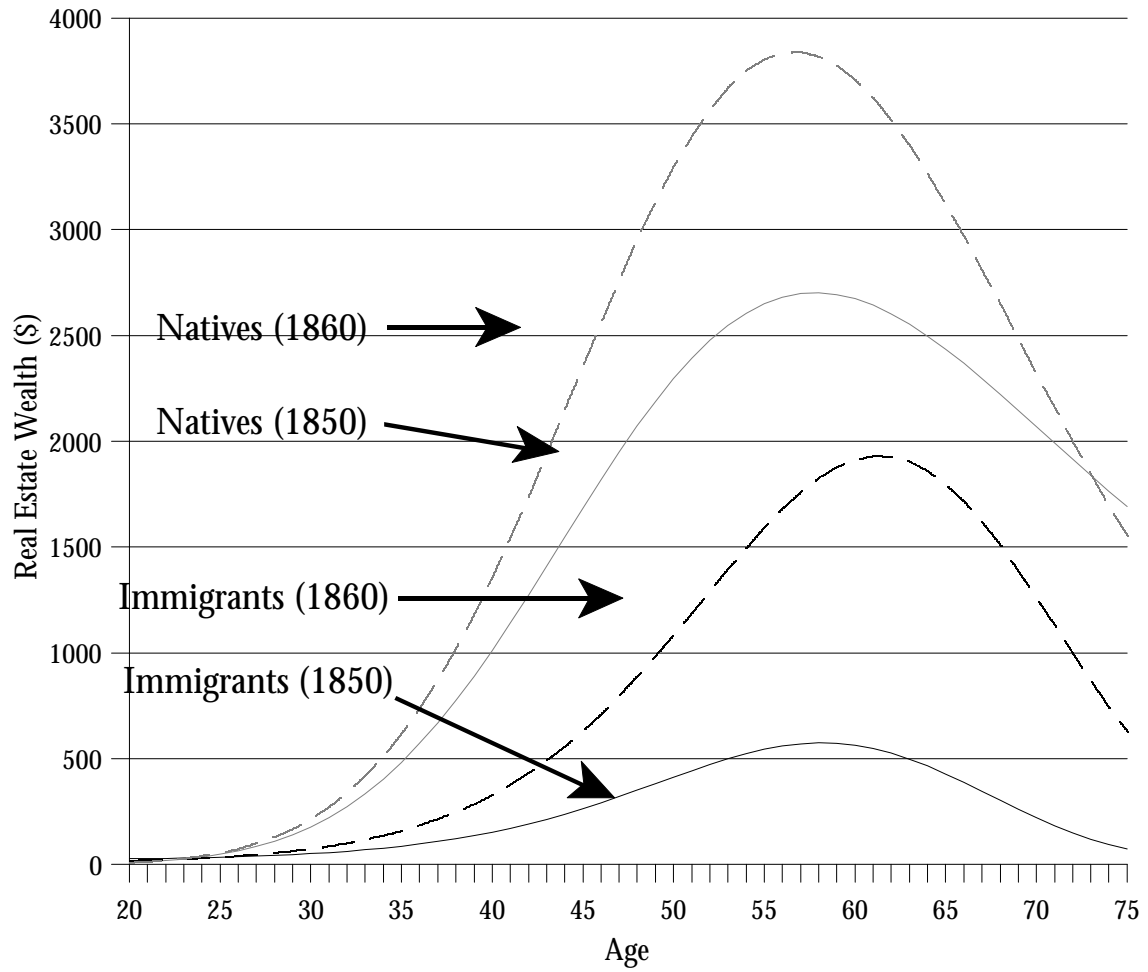


Figure 1-8. Estimated real estate wealth by age for natives and immigrants, 1850 and 1860.