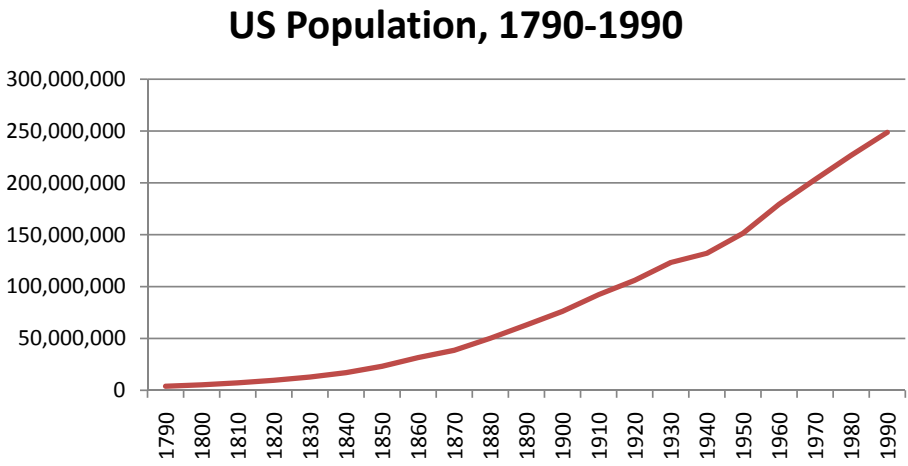
Population Growth and Redistribution

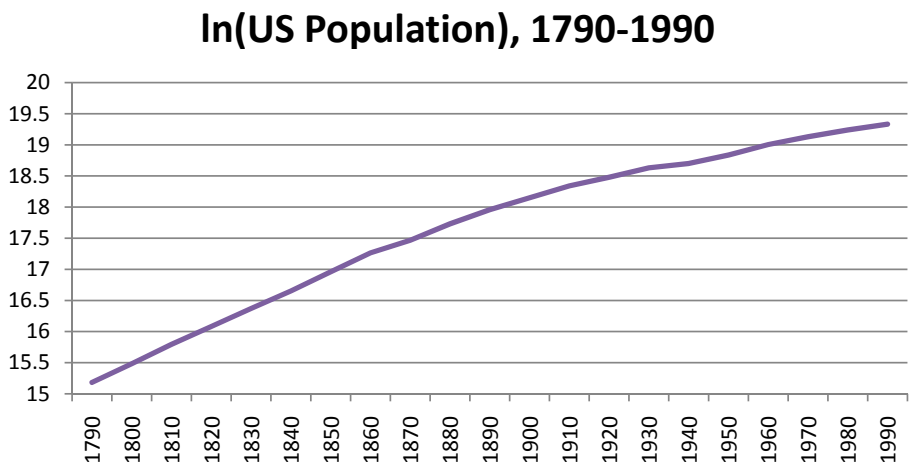
- We've spent the last couple of weeks focused on the forced migration of black slaves and long run impacts of slavery on those individuals and their children
- It's time now to broaden our focus and think about changes in the rest of the population
- There will be a fair amount of overlap in the questions being asked:
  - What role did economics play in population change?
  - How did health, the nature of work, and economic growth all relate to each other?
  - How was the growth of different populations central to overall economic development?
- We'll first focus on natural population growth, then on immigration and then finally tie all that back into some of the themes that emerged from our section on slavery

Population Growth and Redistribution

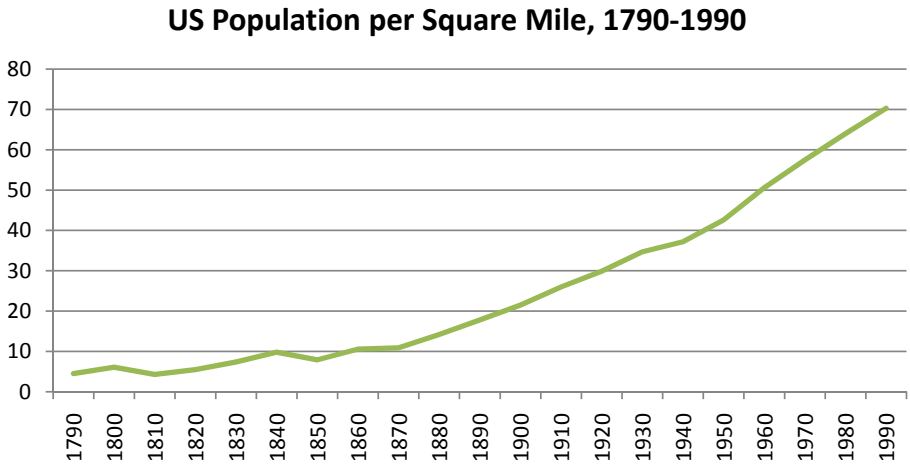
Population Growth in the United States



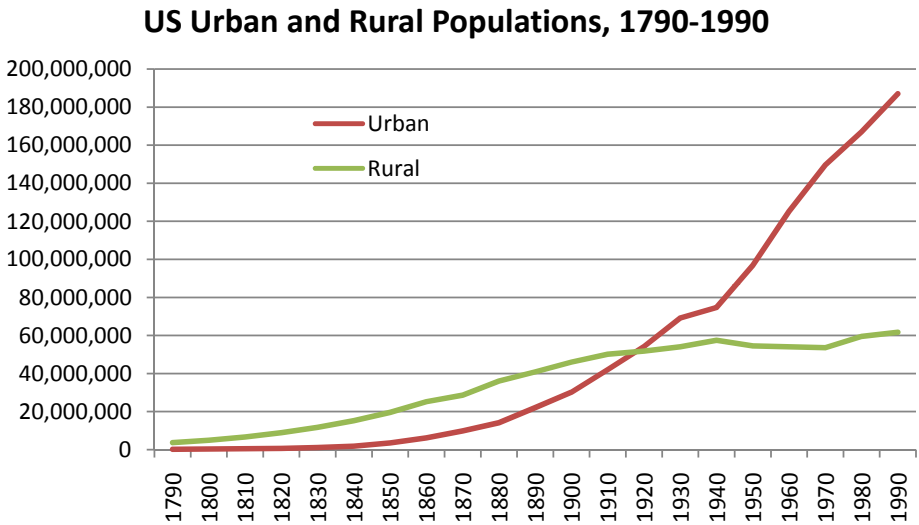
Population Growth in the United States



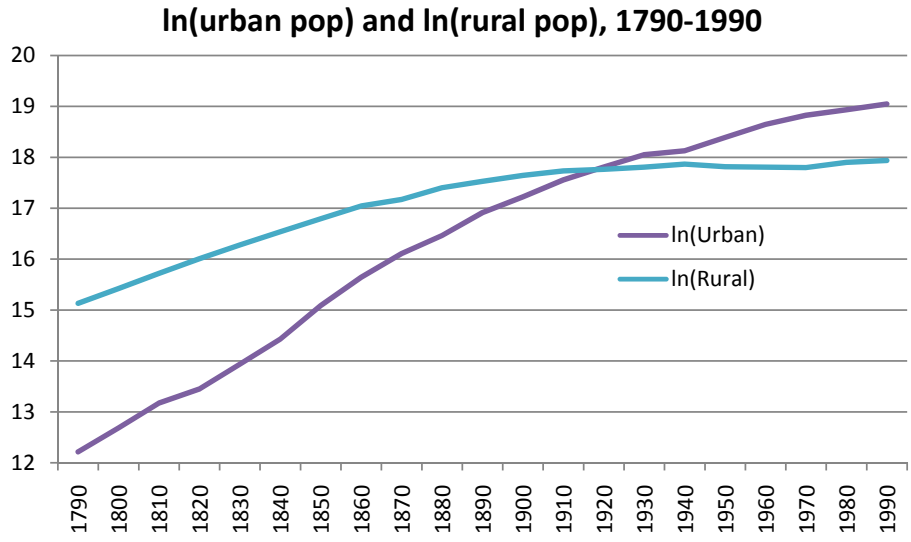
Population Growth in the United States



Population Growth in the United States



Population Growth in the United States



Why Study Population Growth?

- Population growth has been one of the main forces driving the growth of the economy
- Patterns of population growth over time and across space can tell us a lot about economic conditions and how people respond to them
- Aspects of population growth, including birthrates and death rates, give us important measures of welfare
- Understanding how population growth has influenced the past gives us a sense of what to expect in the future for the US and other countries

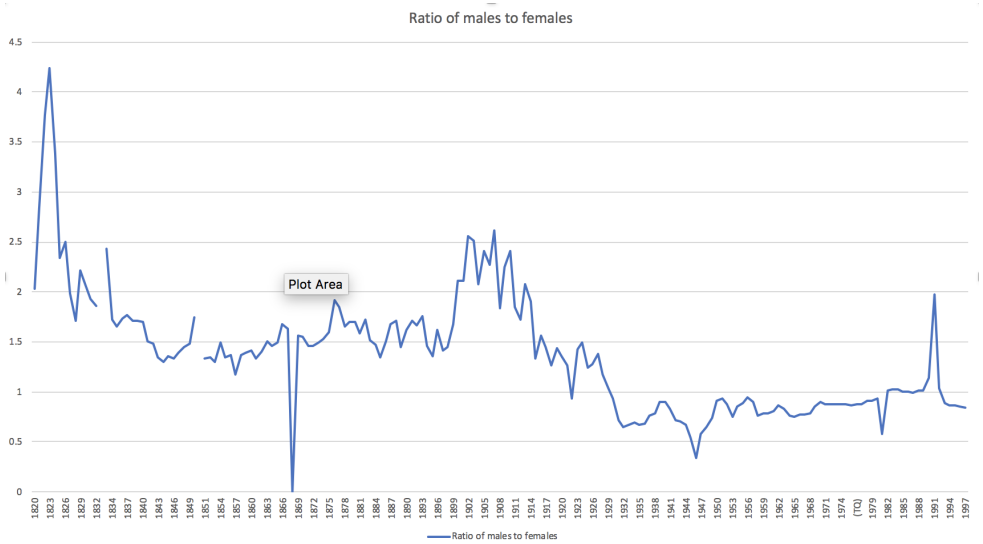
The Basics of Population Growth

- At the most basic level, population growth comes down to the birthrate and death rate for an economy
- The population will grow if the number of people born each year exceeds the number of people that die
- The bigger the gap between the birthrate and the death rate, the faster the population growth
- Anything that increases the birthrate (changes in marriage patterns, changes in fertility decisions, etc.) will tend to speed up population growth
- Anything that decreases the death rate (better nutrition, less war, etc.) will also tend to speed up population growth

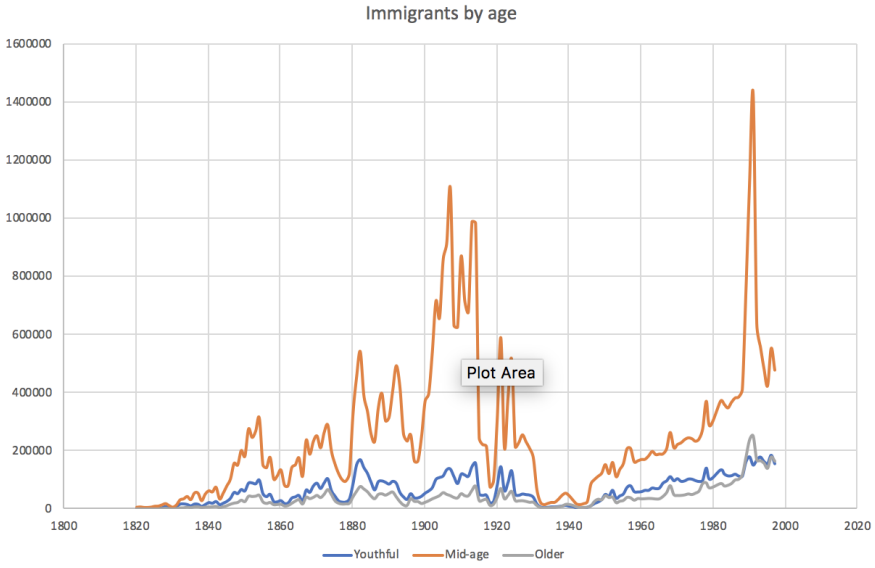
Immigration and Population Growth

- For a closed economy, population growth is purely a function of birth and death rates
- However, most countries have either a net flow of people into the country or out of the country
- Immigration levels will influence population
- Immigration is going to have different effects on population change than simple birth and death rates:
  - The gender ratio of immigrants isn't necessarily 1 to 1
  - The age distribution of immigrants will alter the age profile of the population differently than changes in birthrates and death rates
  - Immigrants may differ in characteristics and social norms compared to the native born population

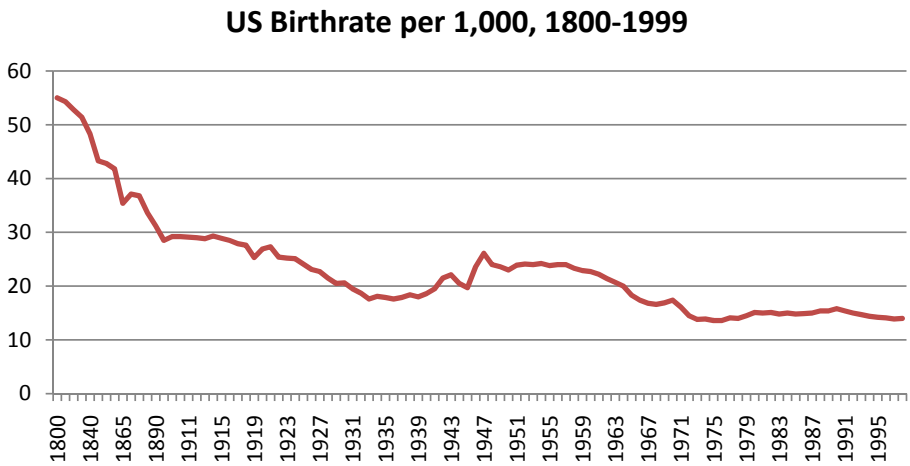
Immigration and Population Growth



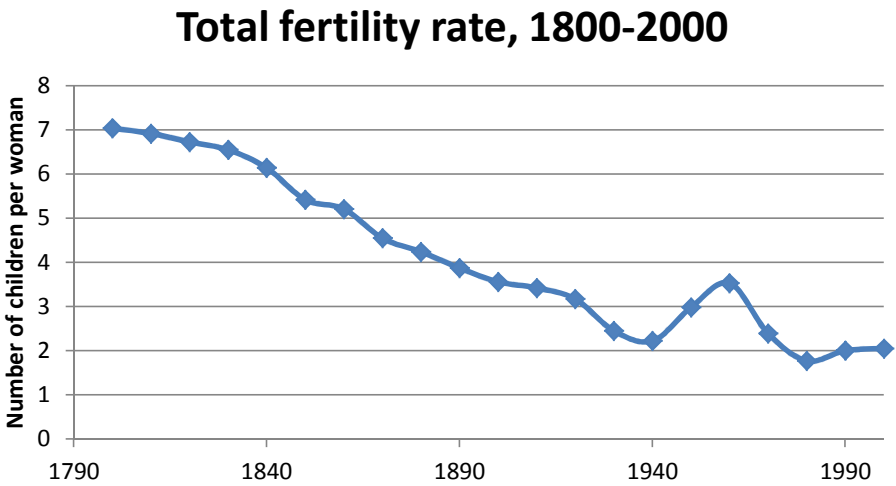
Immigration and Population Growth



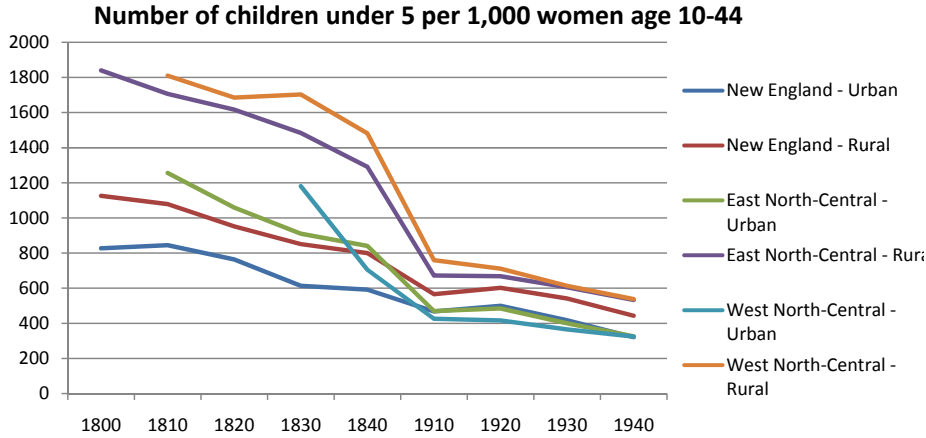
The American Birthrate



The American Fertility Rate



The American Fertility Rate - Regional Differences



Why are fertility rates higher in rural areas and the frontier?

- A common explanation is that on the expanding frontier, the abundance of land meant that there was plenty of economic opportunity if you could provide enough labor
- Children could provide valuable labor on the farm
- In addition, the greater land wealth of farmers made them more likely to have several children if providing inheritances matters to parents (target bequest model)
- An alternative to this idea of a target bequest model is a strategic bequest model in which parents want their children to take care of them when they are older

Children as a Source of Labor

Were children valuable on the farm?

Contributions to Farm Family Income, 1860

Family Group	Northeast	Midwest	Frontier
Children, 0-6	($20.82)	$8.59	($6.41)
Children, 7-12	$22.81	$27.76	$27.12
Teenage females	$22.95	$39.75	$17.53
Teenage males	$111.03	$47.45	$49.03
Adult women	$154.08	$70.25	$147.28
Adult men	$294.77	$186.44	$193.66

Children and the Target Bequest Model

ESTATE PROPORTIONS BY BIRTH ORDER

First born	Mean	Standard deviation
Two-children families ($N = 31$)		
X_1/W_1	0.491	0.052
X_2/W_2	0.498	0.048
X_3/W_3	0.495	0.047
Three-children families ($N = 30$)		
Complete ordering ($N = 19$)		
X_1/W_1	0.329	0.127
X_2/W_2	0.342	0.090
X_3/W_3	0.339	0.091
Second born		
X_1/W_1	0.317	0.069
X_2/W_2	0.312	0.067
X_3/W_3	0.310	0.066

Children and the Strategic Bequest Model

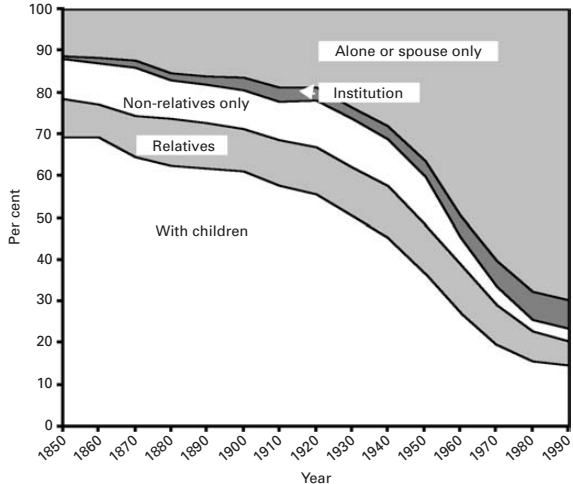


FIGURE 1. Distribution of living arrangements of white individuals and couples aged 65 or older, United States, 1850–1990. (Source: S. Ruggles, M. Sobek et al., *Integrated Public Use Microdata Series: Version 2.0*, Minneapolis, Historical Census Projects, University of Minnesota, 1997, hereafter IPUMS [available at http://ipums.org].)

Children and the Strategic Bequest Model

FDR signing the Social Security Act of 1935

Children and the Strategic Bequest Model

Ernest Ackerman

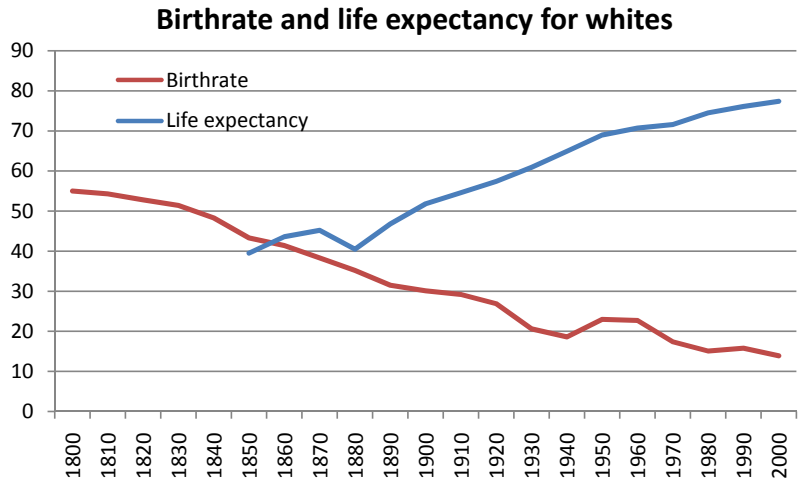
Children and the Strategic Bequest Model

Wellington R. Burt

Alternative Explanations of Fertility Decline

- Rising cost of children due to urbanization
- Growth of incomes and nonagricultural employment
- Increased value of education
- Rising female employment
- Child labor laws and compulsory education
- Declining infant and child mortality
- Changing attitudes toward large families and contraception (and improved contraception)

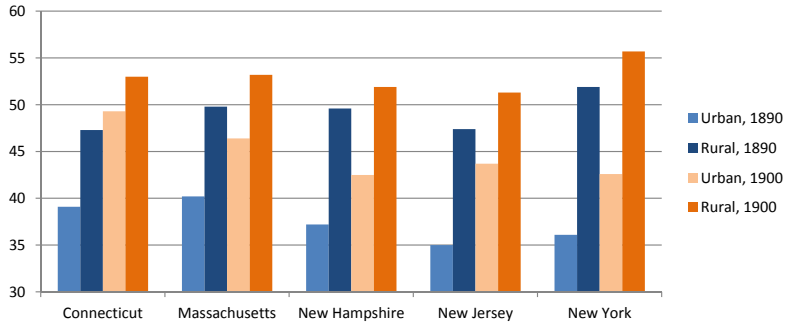
The Decline in American Death Rates



The Decline in American Death Rates

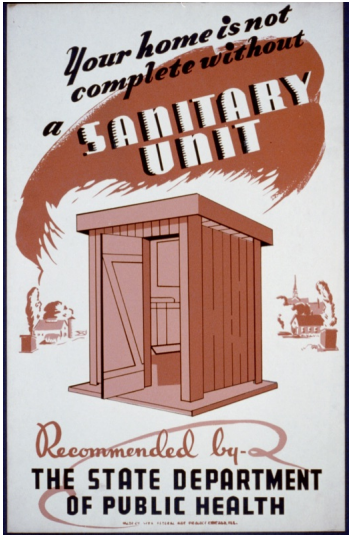
- Despite rising incomes in the early 1800s, life expectancies were actually falling but eventually death rates fell dramatically
- The drop in birthrates was a result of decisions over family size, the drop in death rates was not a result of preferences over deaths
- Death rates are a function of health, nutrition, disease, and the likelihood of dying an unnatural death
- Medical science was improving, basic hygiene practices were spreading, sanitation was improving
- All of these factors above increased life expectancies
- Working in the opposite direction was urbanization

Urban-Rural Differences in Life Expectancy



Improvements in Public Health

Improvements in Public Health

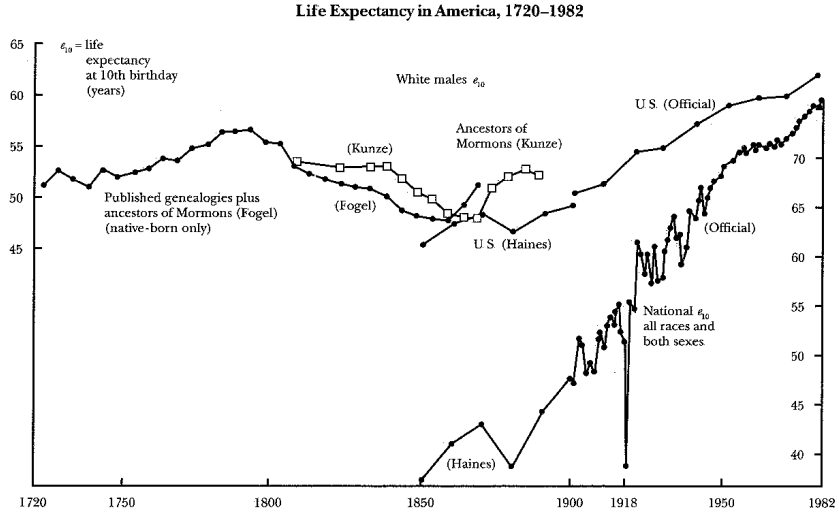


Improvements in Public Health

Slogans promoted by the Ohio State Board of Health:

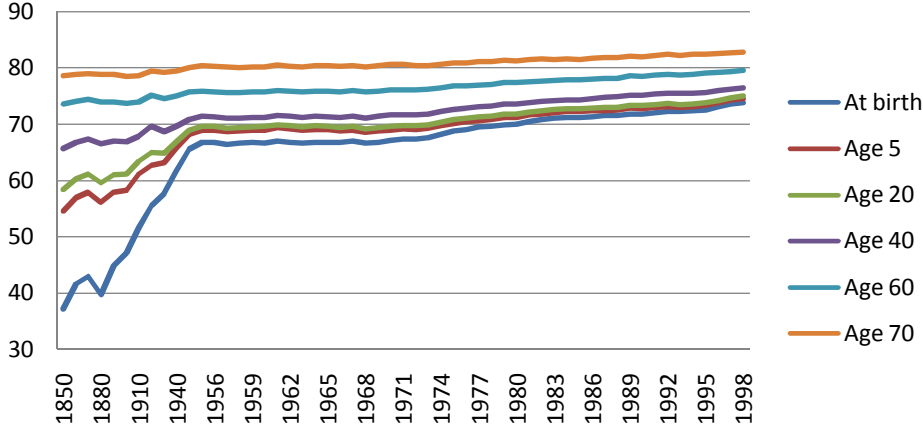
- "Treat your body to an occasional bath. It may not be entitled to it, but it will repay you with better service."
- "A fly in the milk may mean a member of the family in the grave."
- "There is less danger in vaccinating a person than in cutting his corn."

The Decline in American Death Rates



Source: Peter Lindert, "Comment," in National Bureau of Economic Research, *Long Term Factors in American Economic Growth*,, vol 51, ed Stanley L Engerman and Robert E Gallman (Chicago: University of Chicago Press, 1986): 530

The Decline in American Death Rates



Life expectancy for American males

The Decline in American Death Rates

Leading Causes of Death in the United States, 1900

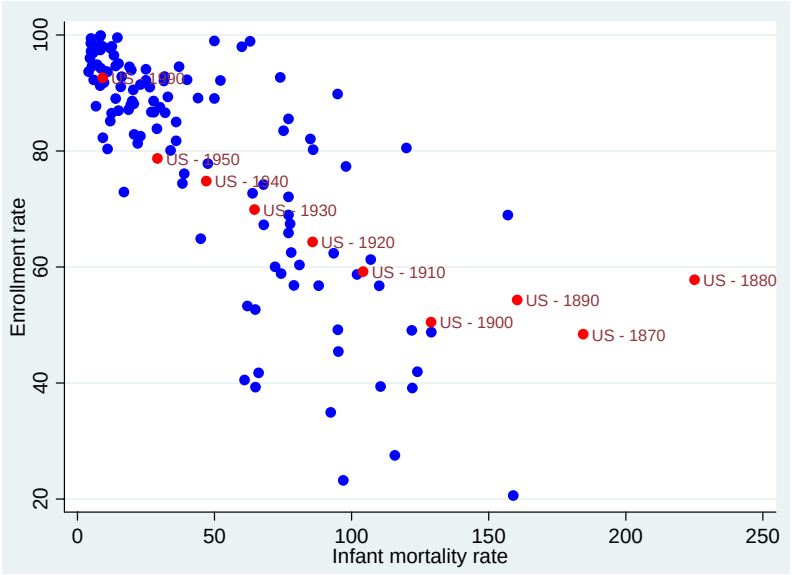
Rank	Cause	Rate per 100,000 people
1	Pneumonia and influenza	202.2
2	Tuberculosis	194.4
3	Diarrhea, enteritis, and ulceration of the intestines	142.7
4	Diseases of the heart	137.4
5	Intracranial lesions of vascular origin	106.9
6	Nephritis	88.6
7	Accidents	72.3
8	Cancer and other malignant tumors	64
9	Senility	50.2
10	Diptheria	40.3

The Decline in American Death Rates

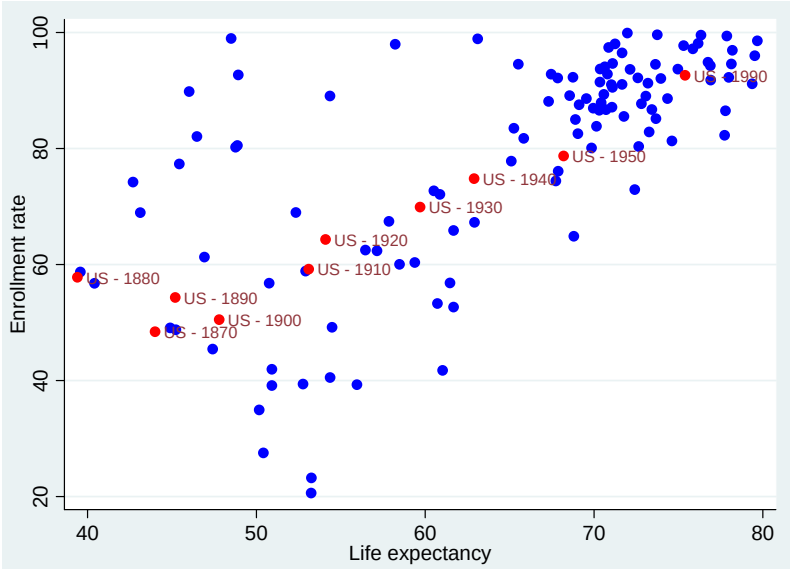
Leading Causes of Death in the United States, 1998

Rank	Cause	Rate per 100,000 people
1	Diseases of heart	268.2
2	Malignant neoplasms	200.3
3	Cerebrovacular diseases	58.6
4	Chronic obstructive pulmonary diases	41.7
5	Accidents	36.2
6	Pneumonia and influenza	34
7	Diabetes	24
8	Suicide	11.3
9	Nephritis	9.7
10	Chronic liver disease	9.3

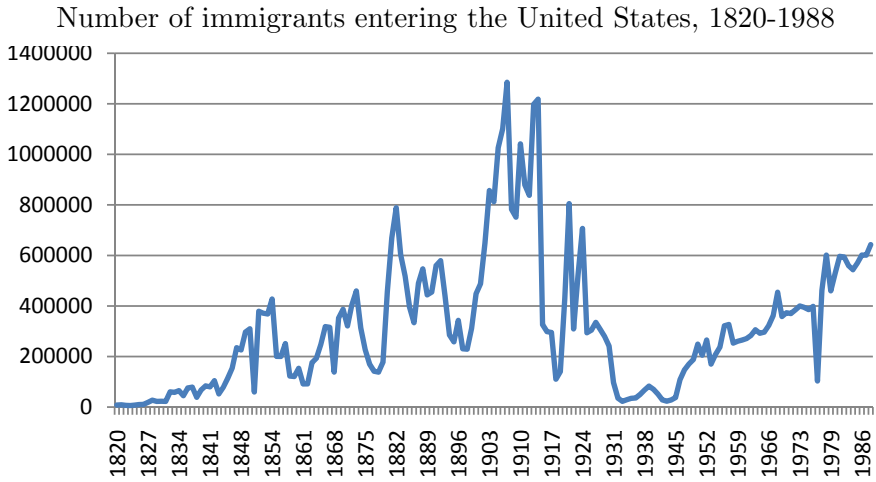
Putting American Health in Perspective



Putting American Health in Perspective

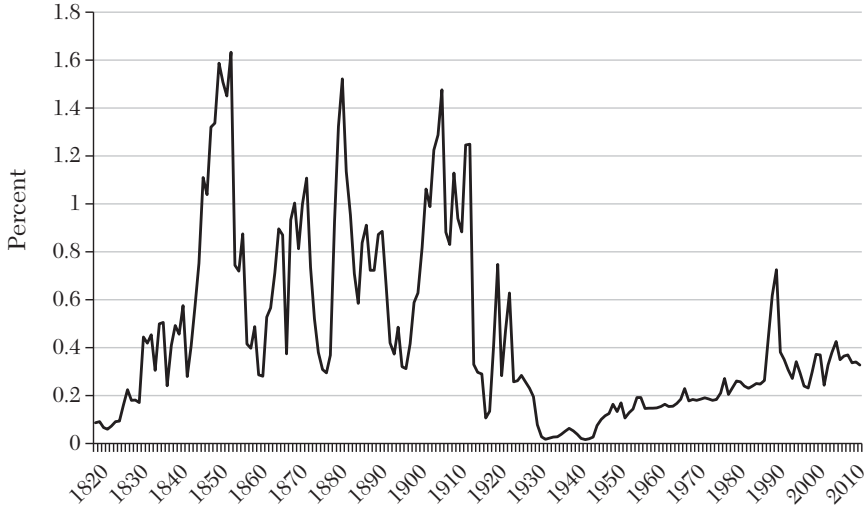


Immigration and the Demographics of the United States

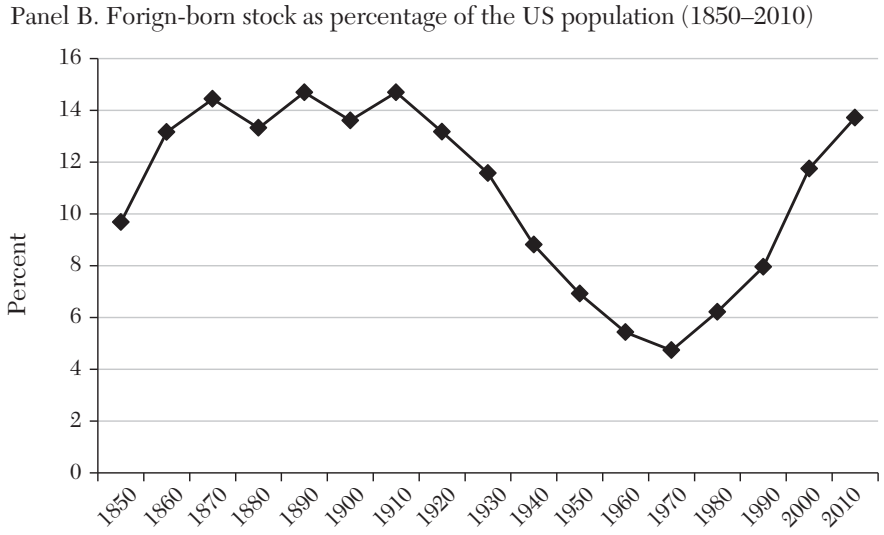


Immigration Over Time

Panel A. Forign-born flow as percentage of the US population (1820–2010)



Immigration Over Time

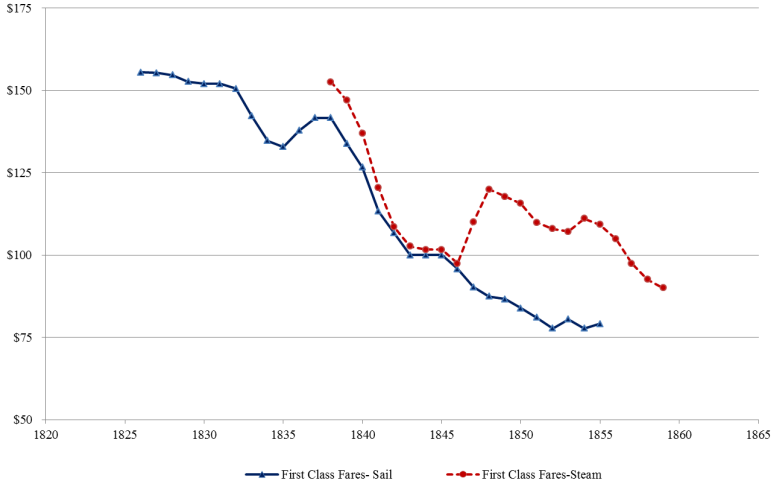


A Timeline of Immigration Policy

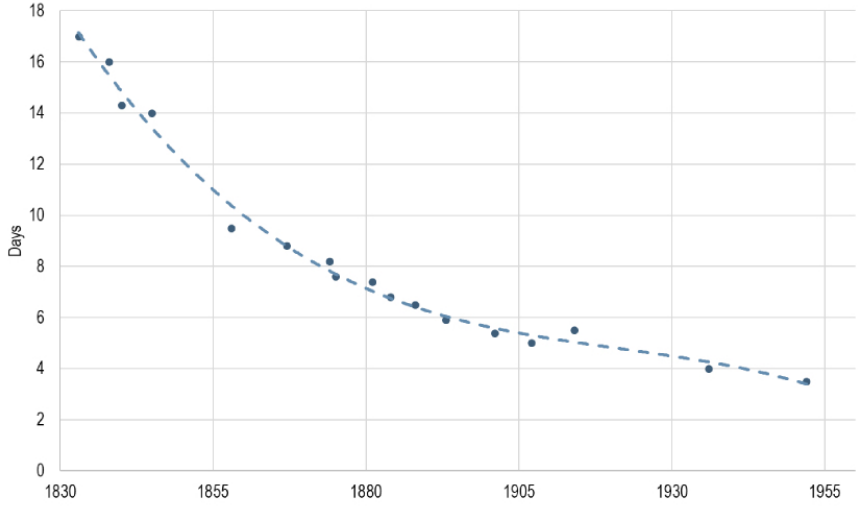
Early 1800s - No Major Restrictions

Migration in the Nineteenth Century

Figure 8
Advertised First Class Fares on Sailing and Steam Ships
3 year averages 1826-1859



Migration in the Nineteenth Century



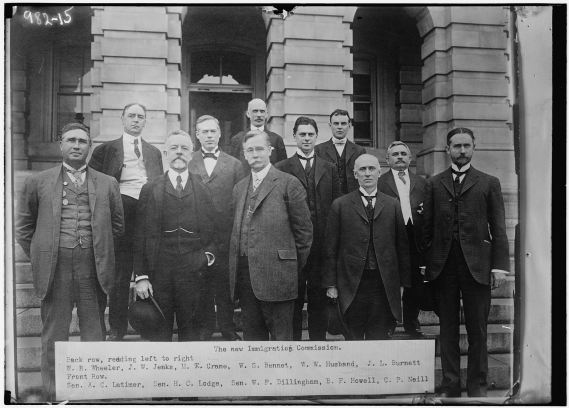
Ocean liner Atlantic Ocean crossing times

Migration in the Nineteenth Century

A Timeline of Immigration Policy

1882 - Chinese Exclusion Act

A Timeline of Immigration Policy



1907 - Dillingham Commission

The Immigration Act of 1917

Sec. 3. That the following classes of aliens shall be excluded from admission into the United States: All idiots, imeciles, feeble-minded persons, epileptics, insane persons...persons of constitutional psychopathic inferiority; persons with chronic alcoholism; paupers; professional beggars; vagrants; persons afflicted with tuberculosis...

The Immigration Act of 1917

...persons who have been convicted of or admit having committed a felony or other crime or misdemeanor involving moral turpitude; polygamists; anarchists...[persons] who advocate or teach unlawful destruction of property; ...persons coming to the United States for the purpose of prostitution or for any other immoral purpose...

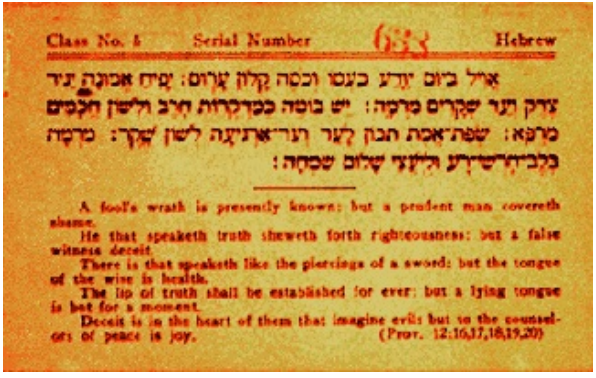
The Immigration Act of 1917

...[The provision] shall not apply to the persons of the following status or occupations: Government officers, ministers or religious teachers, missionaries, lawyers, physicians, chemists, civil engineers, teachers, students, authors, artists, merchants, and travelers for curiosity or pleasure...

The Immigration Act of 1917

All aliens over sixteen years of age, physically capable of reading, who can not read the English language, or some other language or dialect, including Hebrew or Yiddish...That for the purpose of ascertaining whether aliens can read the immigrant inspectors shall be furnished with slips of uniform size...each containing not less than thirty nor more than forty words in ordinary use, printed in plainly legible type of some one of the various languages or dialects of immigrants.

The Immigration Act of 1917


Class No. 5 Serial Number 6832 Hebrew

אויל ביום יודע כעסו וכסה קלון ערום: עדים אמונה יגיד
צדק ועד שקרים מרמה: יש בוטה כמדקרות חרב ולשון חכמים
מרפא: שפת־אמת תכון לעד ועד־אחיעה לשון שקר: מרמה
בלב־חרשי־רע ויועצי שלום שמחה:

A fool's wrath is presently known: but a prudent man covereth shame.

He that speaketh truth sheweth forth righteousness: but a false witness deceit.

There is that speaketh like the pierclngs of a sword: but the tongue of the wise is health.

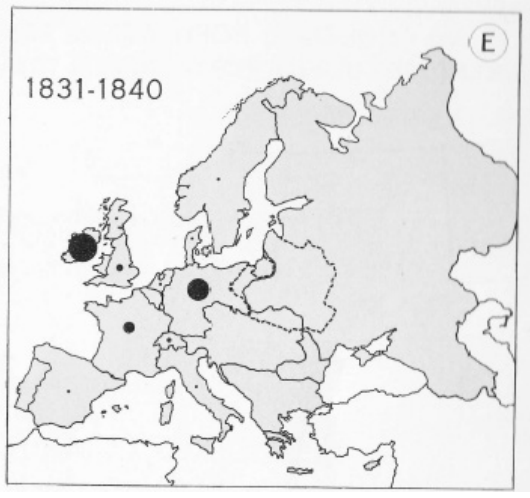
The lip of truth shall be established for ever: but a lying tongue is but for a moment.

Deceit is in the heart of them that imagine evils but to the counsellors of peace is joy. (Prov. 12:16,17,18,19,20)

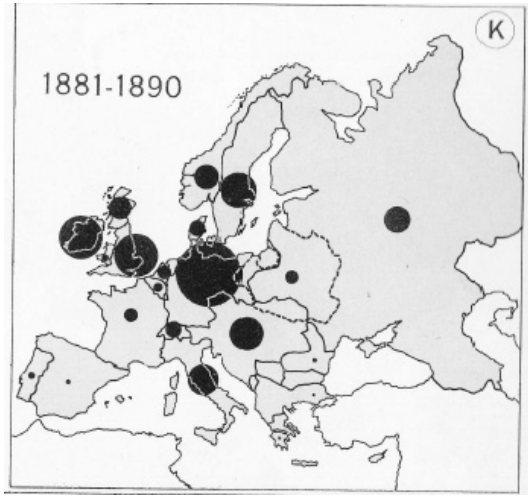
Quota Act and National Origins Act - 1920s

1920s - Quota Act and National Origins Act

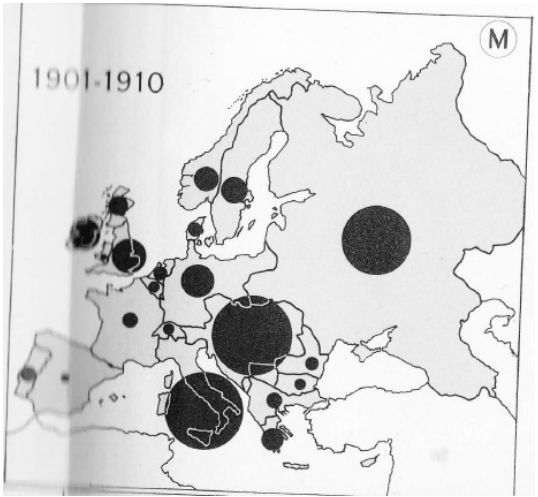
Quota Act and National Origins Act - 1920s



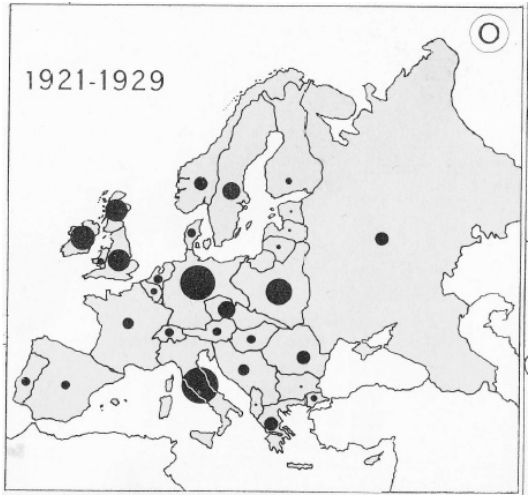
Quota Act and National Origins Act - 1920s



Quota Act and National Origins Act - 1920s



Quota Act and National Origins Act - 1920s



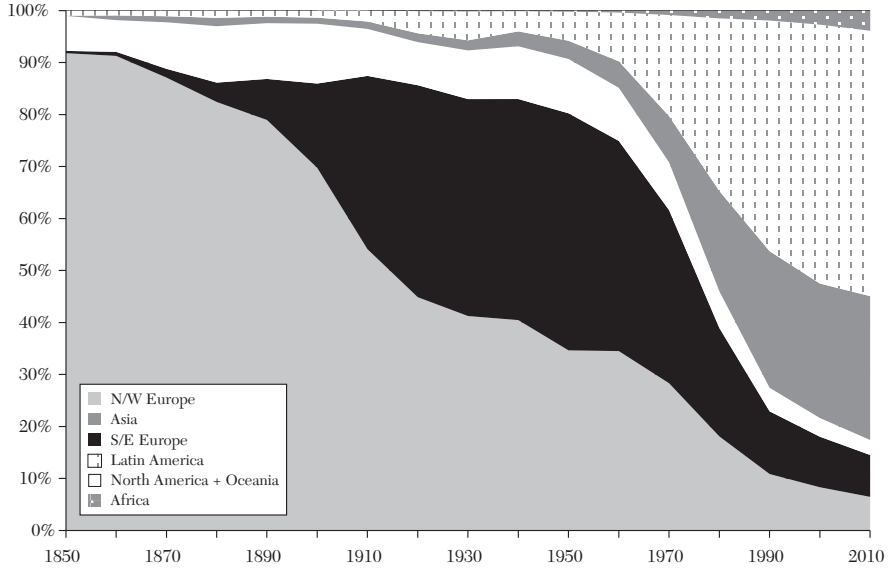
Immigration and Nationality Act - 1965

Immigration Act of 1990

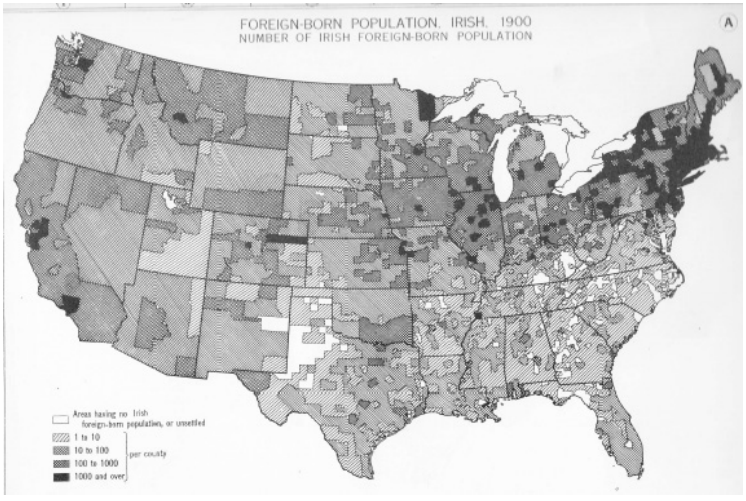
The Forces of Immigration

- Push factors - conditions in a person's home country encouraging emigration
  - Bad economic conditions, military conflict, religious persecution, natural disasters, ...
- Pull factors - conditions in the destination country attracting immigrants
  - Economic opportunity, religious/political freedom, presence of social networks, ...

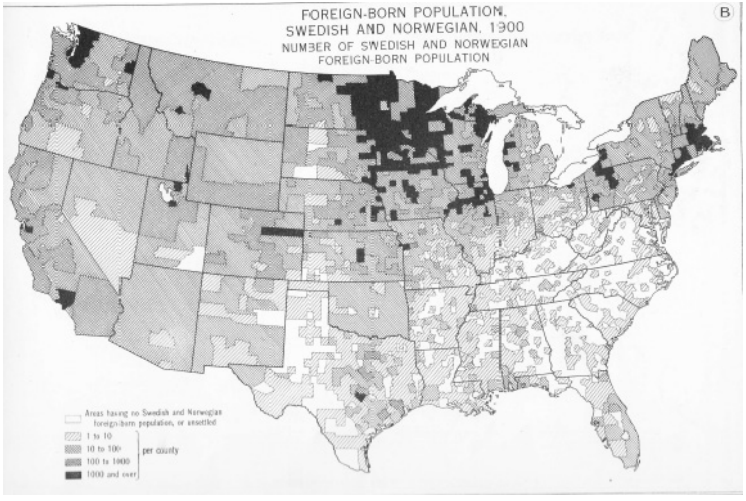
Immigration Over Time



Destinations of European Migrants



Destinations of European Migrants



The Economic Impacts of Immigrants

- So levels of immigration were incredibly large historically
- Many of these immigrants were pushed by poor economic conditions in their home countries
- Many were pulled by the promise of good economic conditions in the United States
- But what influence did the immigrants themselves have on economic conditions?
- Clearly they increased the size of the labor force, but that isn't the only way they impact the economy

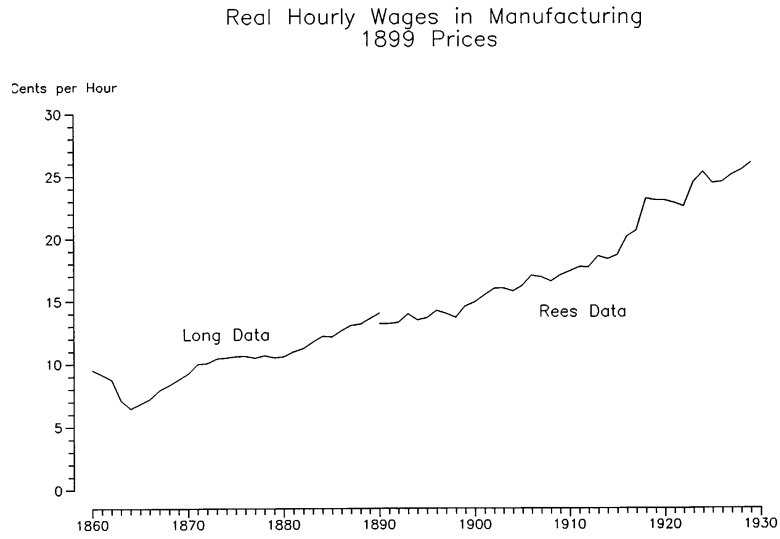
Immigration and the Capital-Labor Ratio

- Immigrants add to the stock of labor in the US but not the stock of physical capital
- This would imply that immigrants lead to a decrease in the capital-labor ratio
- Less capital per worker makes capital relatively more productive/valuable and labor relatively less productive/valuable
- So we could see the price of capital rise and the price of labor fall

Immigration and the Capital-Labor Ratio

- In the late 20th century economy, estimates put the gain to native capital owners at 2% of GDP and the loss to native workers at 1.9% of GDP
- Why might this be different historically?
  - Immigrants were often capital owners (self-employed farmers, shop owners, or manufacturers)
  - Workers owned capital assets through insurance policies (basically pension funds)
- In practice, it seems that the influx of immigrants did not lead to lower capital per worker

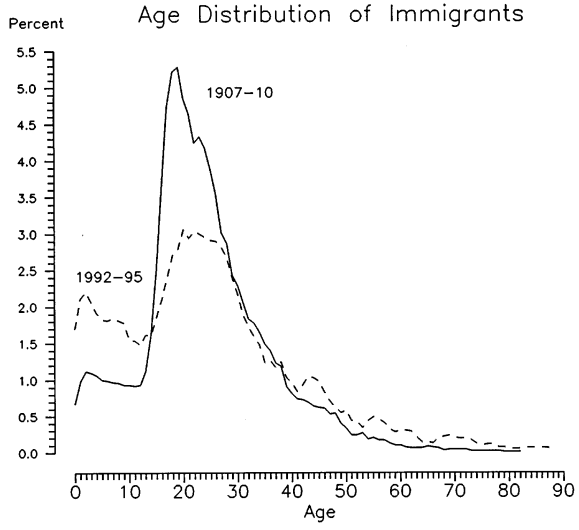
Immigration and the Capital-Labor Ratio



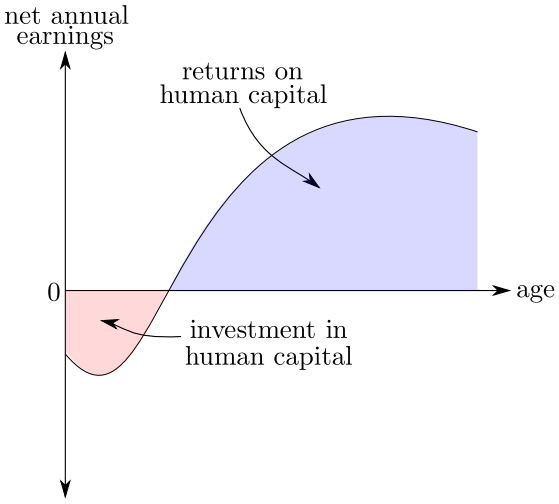
Immigration and the Human Capital Stock

- Immigrants weren't just additional workers identical to domestic workers
- They were typically young adults who had already made investments in human capital
- They also had a higher labor force participation rate
- These characteristics increased their contribution to American economic growth

Immigration and the Human Capital Stock



Immigration and the Human Capital Stock



Immigration and the Human Capital Stock

- Other countries took care of the costly investment in human capital (the costs of caring for and educating children)
- America received the benefits of that investment without having to pay for it
- Neal and Uselding (1972) calculated the benefits of being able to use those resources that would have been needed for human capital investment on physical capital investment instead
- By their estimates, immigration contributed as much as 9% of the capital stock in 1850 and up to 42% by 1912
- Now a different question, how did the immigrants themselves fare?

Immigrant Outcomes

- To think about how immigrants fared, we can't just look at comparing immigrant wages to those of natives (or something similar)
- The problem is that differences in immigrant and native outcomes will differ for several reasons, each with different implications:
  - Differences in characteristics between the typical immigrant and typical native worker
  - The process of assimilation (as economists use the word)
  - Discrimination
- Let's start with the first one, who decides to immigrate (and stay)?

Immigrant Outcomes

- To understand immigrant outcomes, it is important to identify whether the typical immigrant is negatively or positively *selected*
- Is the US generally drawing unskilled workers with little human capital from other countries?
- Or are the best and brightest, the overachievers, coming to the US?
- This selection issue is often evaluated through a Roy model, dating back to Roy's original paper "Some Throughs on the Distribution of Earnings" and extended to immigration by Borjas in 1987
- Keywords for Roy's paper: hunting, rabbits, fishers, occupations, productivity, trout, logarithms, communities, industrial productivity, relative prices

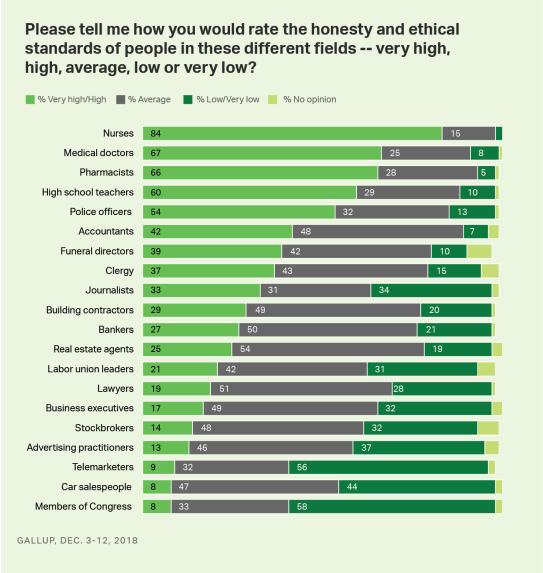
Immigrant Outcomes

- The basic things that will determine immigrant selection are the mean earnings in both countries and the returns to skill in each country
- Highly skilled workers will prefer countries with higher returns to skill
- Low skilled workers will prefer countries with more compressed wage distributions
- Everyone prefers higher average wages
- We'll save the details for Econ 451 with Professor McHenry (or Econ 449 with me), for now we'll focus on empirical evidence of selection, focusing on Abramitzky, Boustan and Eriksson (2014)

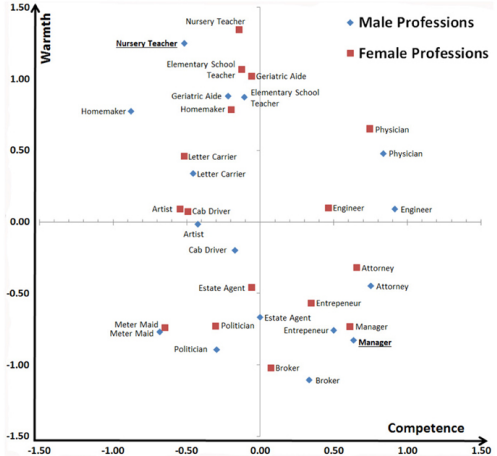
Immigrant Outcomes

- You all have some familiarity with Abramitzky, Boustan and Eriksson (2014)
- Given that, let's dig a bit deeper on the data
- They rely on linked census data: immigrants and native born workers matched across multiple censuses
- They also rely on the occupational earnings score rather than a direct measure of income
- Let's dig into both of these issues with a couple of polls: pollev.com/jmparman

Immigrant Outcomes in the Age of Mass Migration

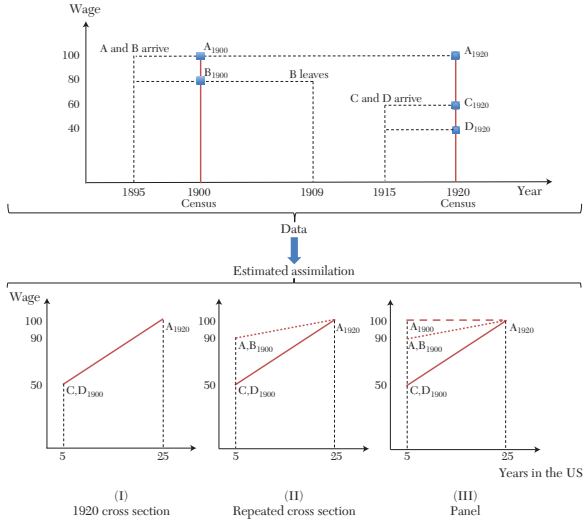


Immigrant Outcomes in the Age of Mass Migration



From Imhoff et al. (2013) "Warmth and competence in your face! Visual encoding of stereotype content"

Immigrant Outcomes in the Age of Mass Migration



Immigrant Outcomes in the Age of Mass Migration

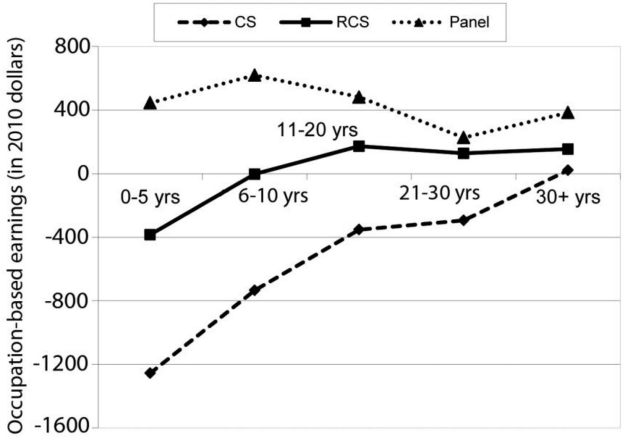


Fig. 2.
—Convergence in occupation score between immigrants and native-born workers by time spent in the United States, cross-sectional and panel data, 1900–1920. The graph plots coefficients for years spent in the United States indicators in equation (1). Note that for the panel line, we subtract the native-born dummy from the years in the United States indicators (because the omitted category in that regression is natives in the panel sample). See table 4 for coefficients and standard errors.

Immigrant Outcomes in the Age of Mass Migration

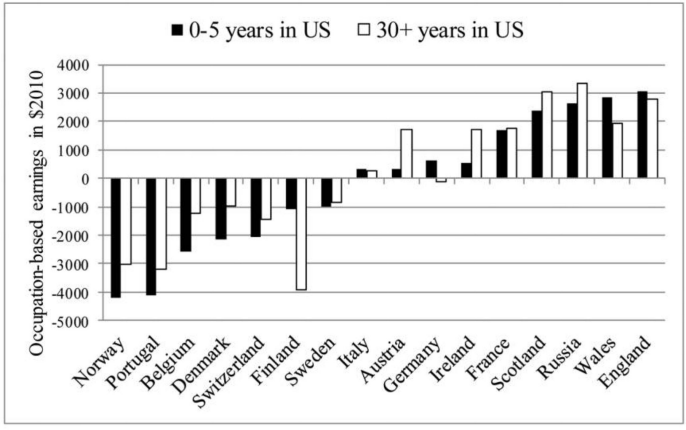


Fig. 3.
—Earnings gap between the native- and foreign-born in the panel sample: natives versus immigrants upon first arrival (0–5 years in the United States) and after time in the United States (30+ years in the United States), by country of origin. The graph reports co-efficients on the interaction between country-of-origin fixed effects and dummy variables for being in the United States for 0–5 years or for 30+ years from regression of equation (1) in the panel sample. All coefficients for the 0–5 year interaction are significant except those for Austria, Germany, Ireland, Italy, and Sweden. None of the differences between the 0–5 year and 30+

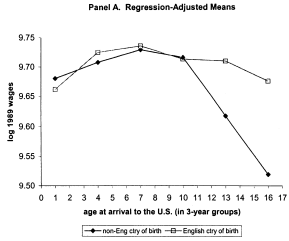
Immigrant Outcomes

- So what do we take away from Abramitzky, Boustan and Eriksson?
- First, cross-sectional data hides a lot about immigrant outcomes
- Selection into return migration and trends in cohort quality matter quite a bit
- Using panel data shows there is far less convergence than we thought
- Second, that doesn't mean that all immigrants fair poorly
- Some immigrants groups did well upon arrival and continued to do well, others did poorly and continued to do poorly (think back to our Roy model discussion)
- There's still a lot of interest in assimilation in the economics literature

English Fluency and Assimilation

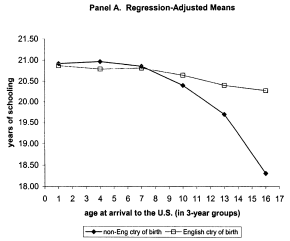
English Fluency and Assimilation

FIGURE 2.—LOG ANNUAL WAGES BY AGE AT ARRIVAL



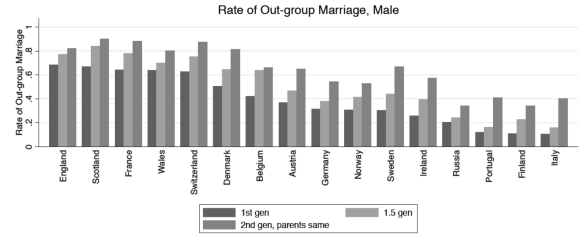
Notes: Data from 1990 IPUMS weighted by IPUMS weights. Sample size is 47,422 (composed of individuals who arrived in the United States by age 17 between 1960 and 1974 and are currently aged 25 to 38). Means have been regression-adjusted for age, race, Hispanic, and female dummies.

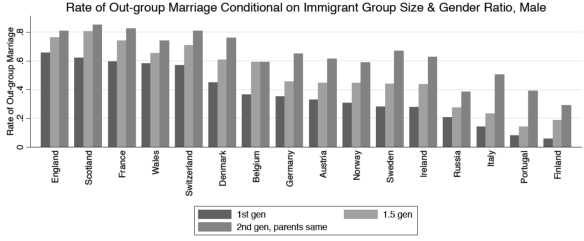
FIGURE 3.—YEARS OF SCHOOLING BY AGE AT ARRIVAL



Notes: Data from 1990 IPUMS weighted by IPUMS weights. Sample size is 65,214 (composed of individuals who arrived in the United States by age 17 between 1960 and 1974 and are currently aged 25 to 38). Means have been regression-adjusted for age, race, Hispanic, and female dummies.

Marriage and Assimilation



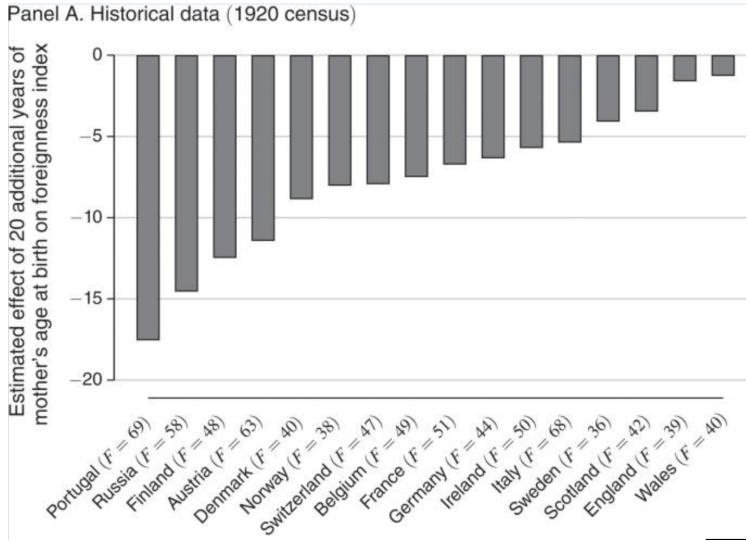


Abramitzky, Boustan and Eriksson (2017)

Names and Assimilation

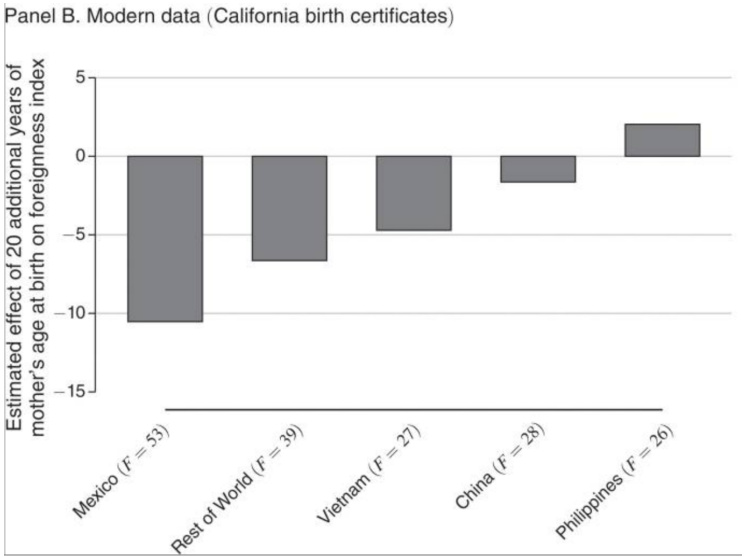
Frederick Austerlitz

Names and Assimilation



Abramitzky, Boustan and Eriksson (2020)

Names and Assimilation



Abramitzky, Boustan and Eriksson (2020)

Outcomes for Non-European Immigrants

- Abramitzky, Boustan and Eriksson are focused on European migration
- This is hardly representative of all immigration experiences
- For contrast, let's take a look at Kosack and Ward (2020) and Carter (2011)
- These two papers will give us some insight into the very different experiences of Mexican and Chinese migrants
- Let's begin with Carter, looking at the impacts of the Chinese Exclusion Act

Impacts of the Chinese Exclusion Act

Industrial Distribution of Chinese Employment by Region, 1870-1930

	Total	Northeast	Midwest	South	West
		1870			
Restaurants	0.2	--	--	--	0.2
Laundries	11.0	--	--	--	11.0
Food stores	1.3	--	--	--	1.3
All else	87.5	--	--	--	87.5
		1880			
Restaurants	0.4	0.0	0.0	0.0	0.4
Laundries	13.9	100.0	100.0	0.0	11.9
Food stores	1.6	0.0	0.0	0.0	1.6
All else	84.1	0.0	0.0	100.0	86.1
		1900			
Restaurants	0.5	0.0	0.0	0.0	0.6
Laundries	34.1	81.6	100.0	85.7	16.9
Food stores	3.4	0.0	0.0	7.1	4.2
All else	62.0	18.4	0.0	7.3	78.3
		1910			
Restaurants	7.4	9.2	11.1	8.5	5.6
Laundries	20.9	60.2	66.7	31.9	7.4
Food stores	6.2	0.0	0.0	31.9	12.7
All else	65.5	30.6	22.2	27.7	74.3
		1920			
Restaurants	17.3	32.8	47.8	22.2	12.2
Laundries	22.1	55.5	39.1	44.4	11.5
Food stores	7.4	5.5	0.0	7.4	7.0
All else	53.2	6.2	13.1	26.0	69.3
		1930			
Restaurants	27.7	42.0	32.4	34.4	15.6
Laundries	24.7	42.0	50.0	21.9	6.6
Food stores	8.8	0.6	0.0	28.1	13.2
All else	38.8	15.4	17.6	15.6	64.6

Impacts of the Chinese Exclusion Act

Distribution of the Chinese-American Population, 1870-1960

Year	Percentage of counties with one or more Chinese residents	Median number of Chinese residents in a county with Chinese residents
1870	10.9	19
1880	18.8	1
1890	37.8	4
1900	45.7	4
1910	40.8	5
1920	44.9	4
--	--	--
1960	42	7

Mexican Americans during the Age of Mass Migration

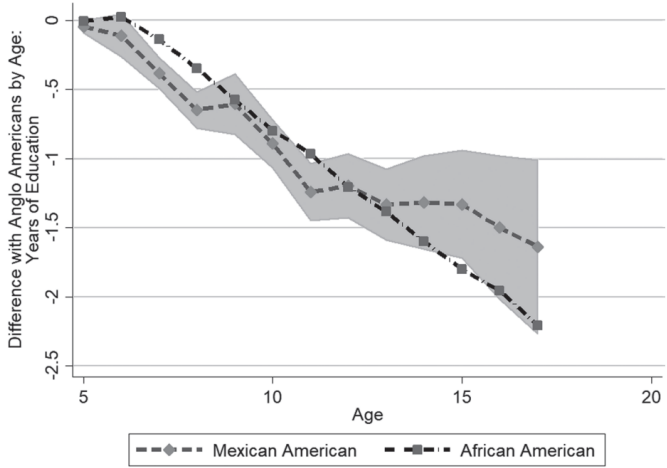


FIGURE 4
EDUCATIONAL GAPS PERSISTED FOR "FOURTH-GENERATION" MEXICAN AMERICANS IN 1940

Mexican Americans during the Age of Mass Migration

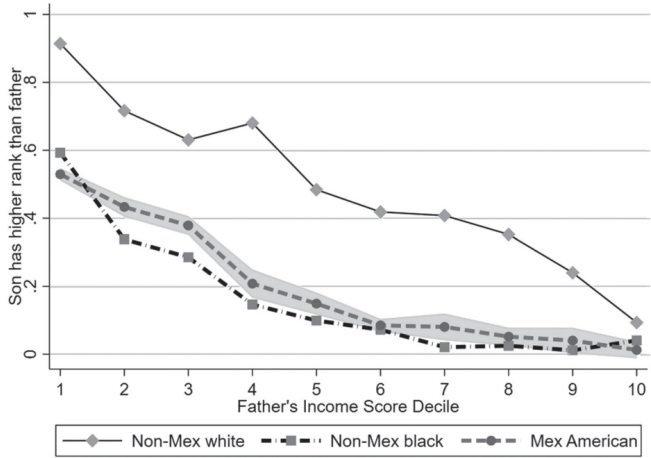


FIGURE 5
MEXICAN AMERICAN UPWARD RANK MOBILITY BETWEEN 1910 AND 1940

Mexican Americans during the Age of Mass Migration

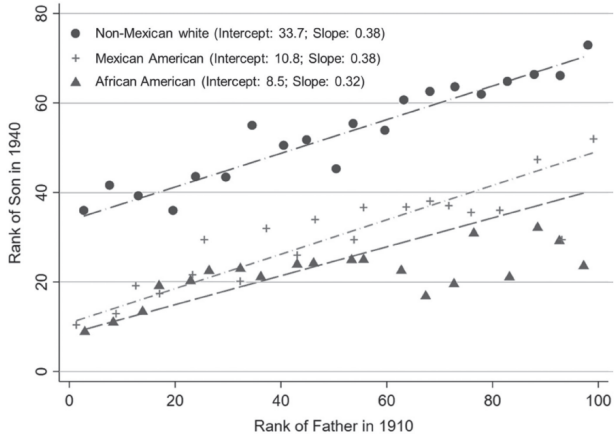
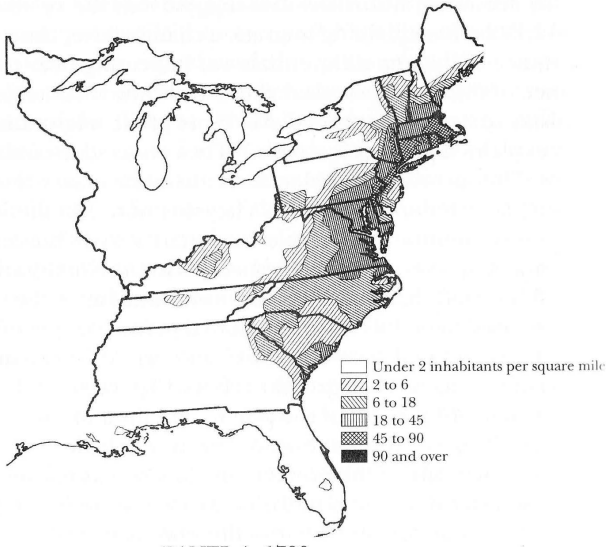


FIGURE 6
RANK-RANK MOBILITY BETWEEN 1910 AND 1940

Internal Migration

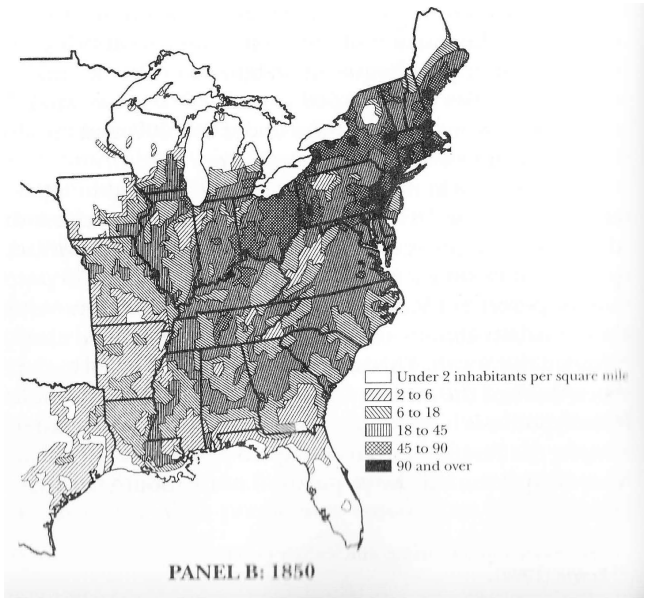
Internal Migration

Internal Migration

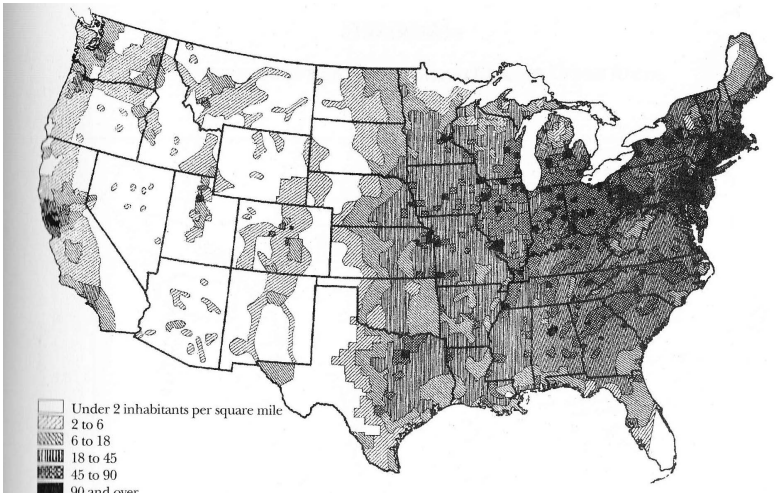


PANEL A: 1790

Internal Migration

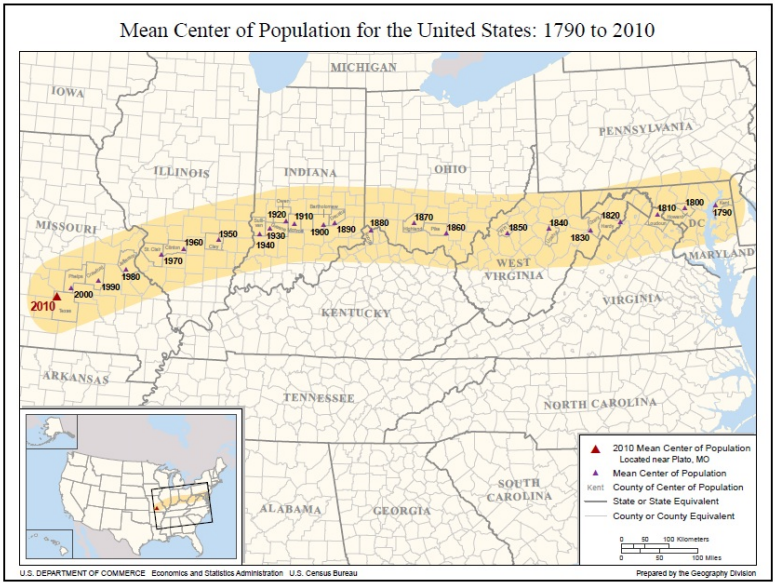


Internal Migration

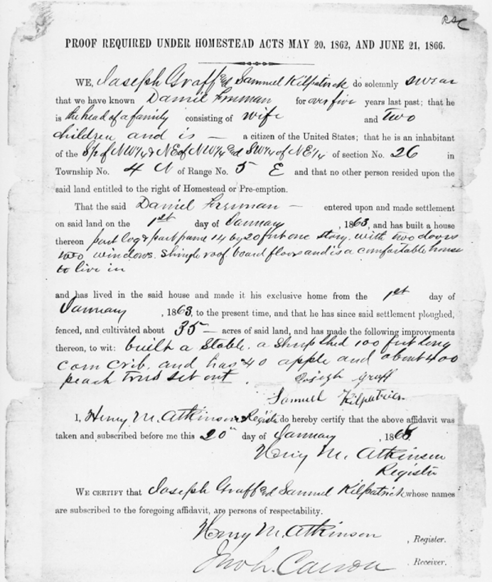


PANEL C: 1900

Internal Migration



Internal Migration



PROOF REQUIRED UNDER HOMESTEAD ACTS MAY 20, 1862, AND JUNE 21, 1866.

WE, Joseph Graff and Samuel Kilpatrick do solemnly swear that we have known Daniel Freeman for over five years last past; that he is the head of a family consisting of wife and two children and is — a citizen of the United States; that he is an inhabitant of the S½ of NW¼ & NE of NW¼ and SW¼ of NE¼ of section No. 26 in Township No. 4 N of Range No. 5 E and that no other person resided upon the said land entitled to the right of Homestead or Pre-emption.

That the said Daniel Freeman — entered upon and made settlement on said land on the 1st day of January, 1863, and has built a house thereon part log & part frame 14 by 20 feet one story, with two doors two windows. Shingle roof. board floors and is a comfortable house to live in

and has lived in the said house and made it his exclusive home from the 1st day of January, 1863, to the present time, and that he has since said settlement ploughed, fenced, and cultivated about 35 — acres of said land, and has made the following improvements thereon, to wit: built a Stable, a Sheep shed 100 feet long corn crib, and has 40 apple and about 400 peach trees set out.

Joseph Graff
Samuel Kilpatrick

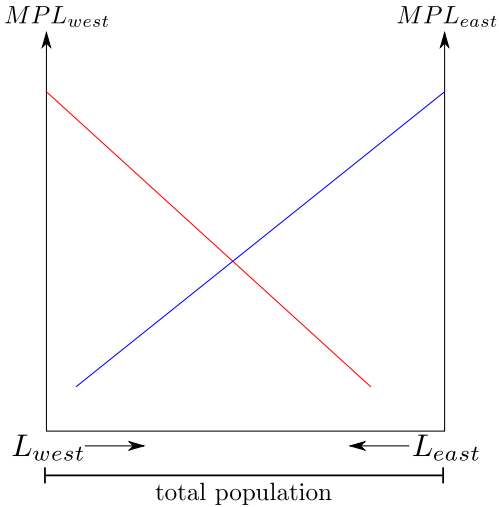
I, Henry M. Atkinson Register do hereby certify that the above affidavit was taken and subscribed before me this 20th day of January, 1868

Henry M. Atkinson
Register

WE CERTIFY that Joseph Graff and Samuel Kilpatrick whose names are subscribed to the foregoing affidavit, are persons of respectability.

Henry M. Atkinson, *Register.*
Jno. L. Carson, *Receiver.*

Why Encourage Westward Migration?



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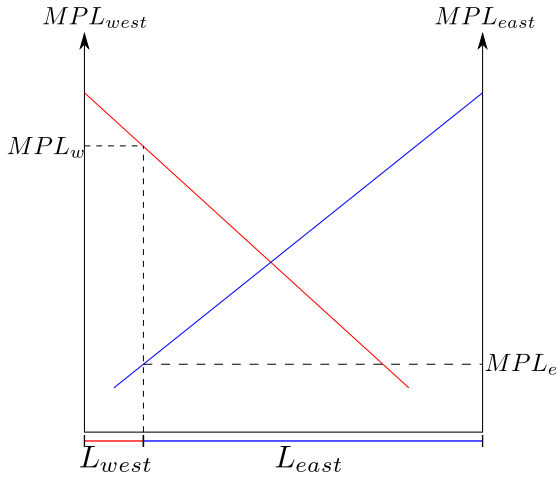

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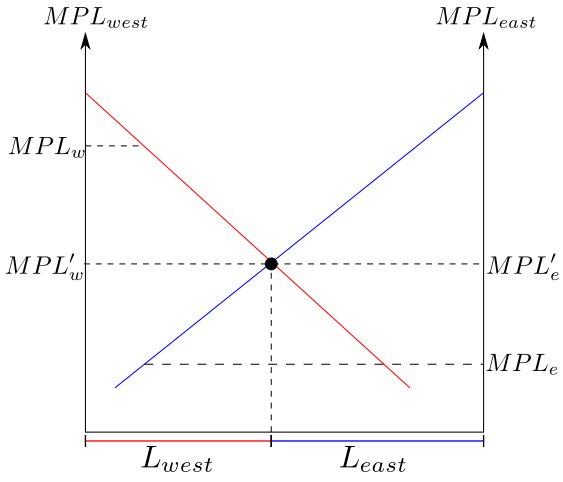

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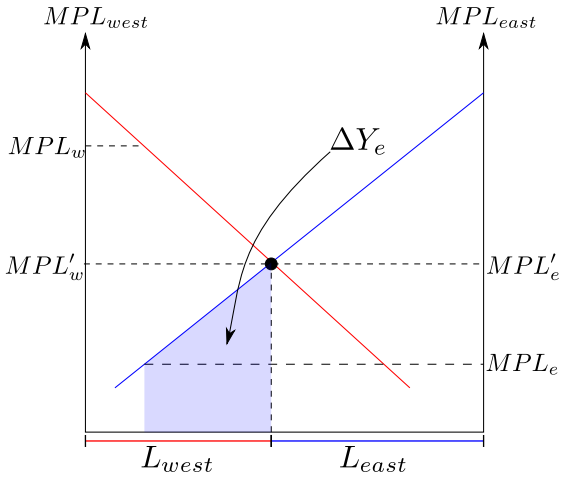

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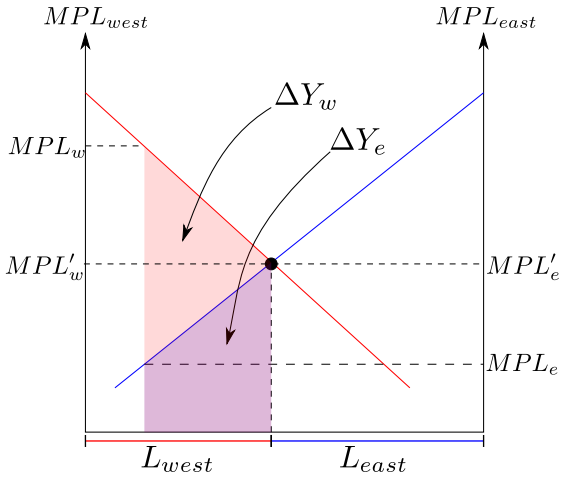

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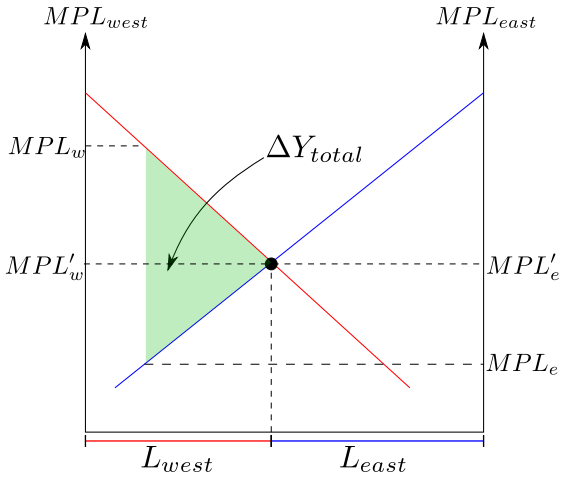
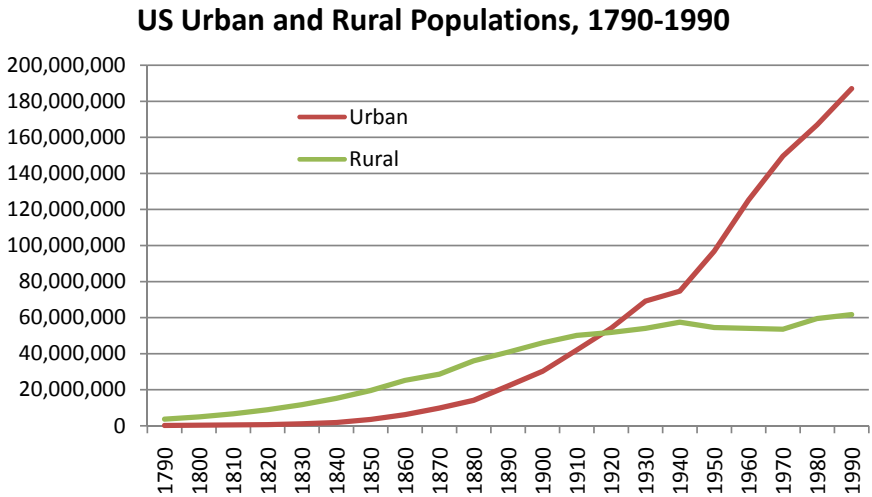


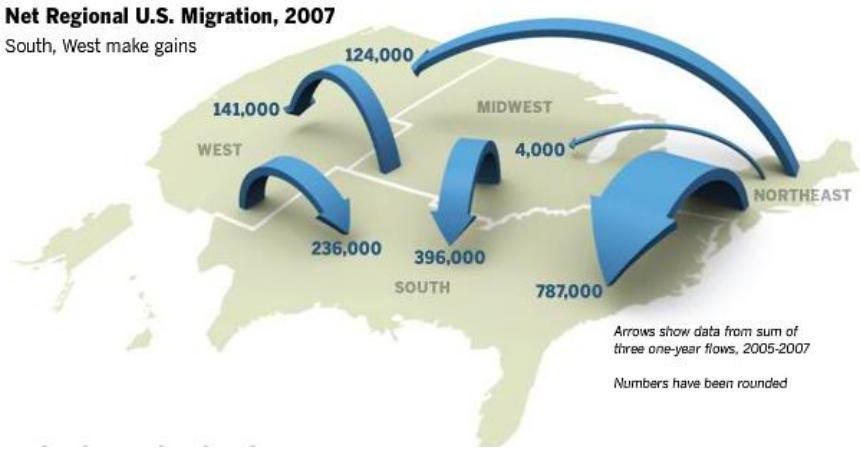
Internal Migration



Historical Internal Migration

- The biggest trend in internal migration was the spread of the population westward
- The spread west was encouraged by the availability of land, higher potential incomes, and government programs (for example, the Homestead Act)
- In addition to the trend of people moving west, a strong trend in internal migration has been rural to urban migration
- Internal migration in general was driven by job opportunities, higher incomes, land availability, distance, and the similarity of new locations to old ones
- Over time, income and job opportunities have become more important in explaining migration flows, land availability has explained less and less

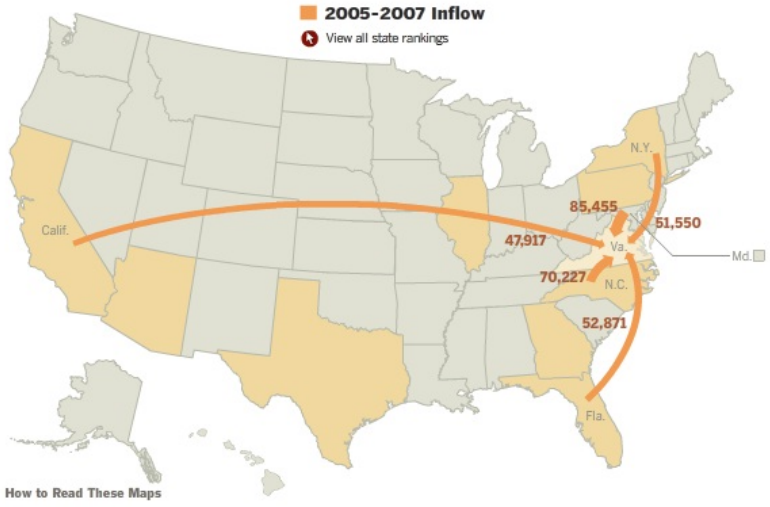
Internal Migration



Internal Migration

Generated from http://www.pewsocialtrends.org/2008/12/17/u-s-migration-flows/

Internal Migration



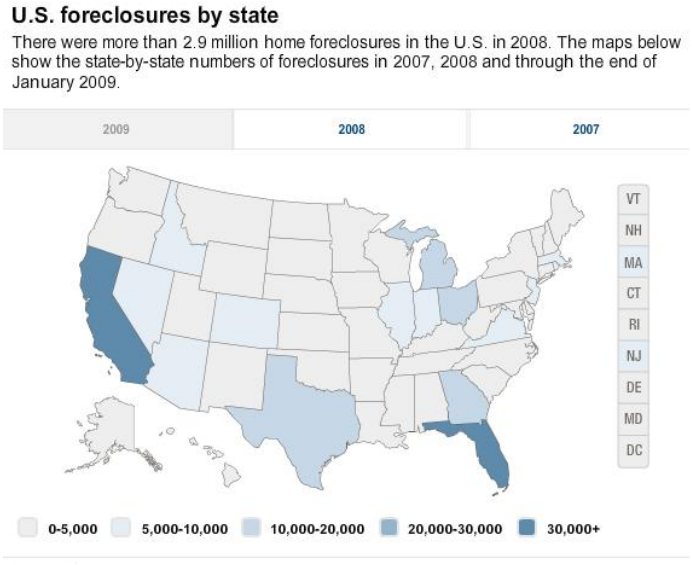
Generated from http://www.pewsocialtrends.org/2008/12/17/u-s-migration-flows/

Modern Internal Migration

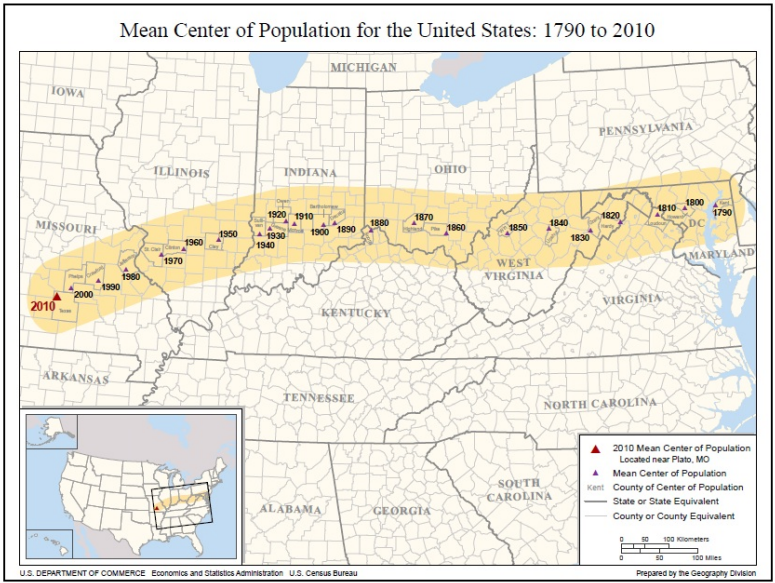
- There is still a significant amount of internal migration in the United States
- People move for jobs, for education, cost of living considerations, etc.
- The historical flow of people out of rural areas has continued (to the extent that a new Homestead Act has been proposed)
- Internal migration has serious consequences for local economies (issues of brain drain, housing bubbles, etc.)

States with greatest inflow of people

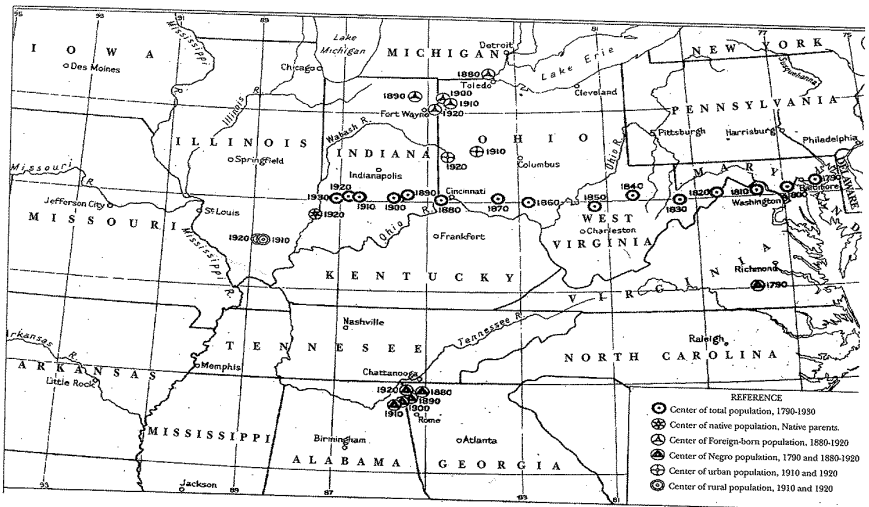
Foreclosures by state, 2009



Race and Internal Migration

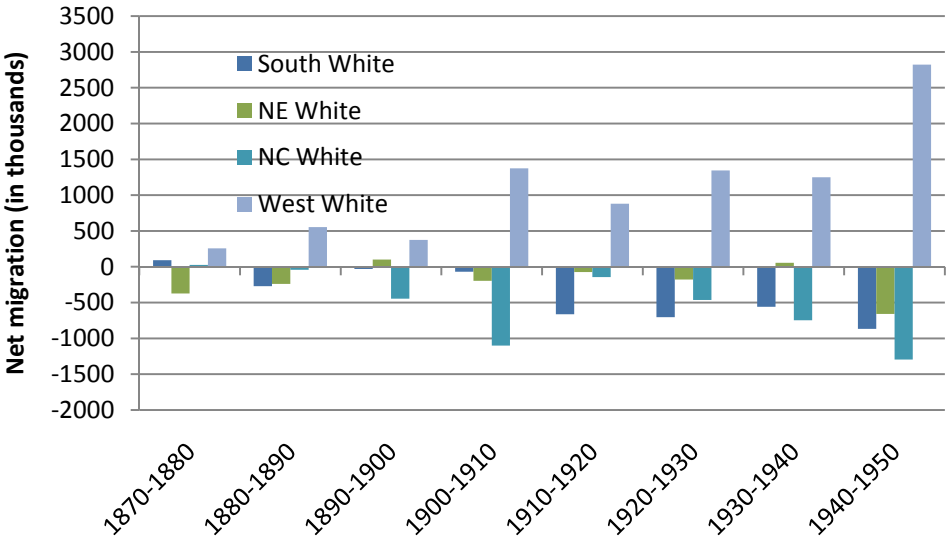


Race and Internal Migration

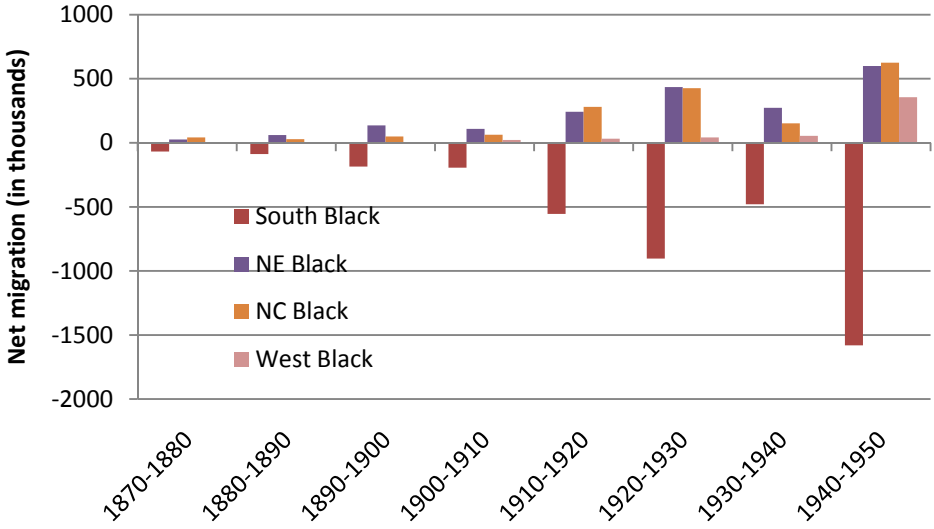


Charles O. Paullin, *Atlas of the Historical Geography of the United States* (Washington, D.C.: Carnegie Institution, 1932): Plate 80, Panel A.

Internal Migration of the White Population



Internal Migration of the Black Population



Race and Internal Migration

- Once again, the economic history of the black population looks quite different than that of the white population
- The black population went through a dramatic period of internal migration known as the Great Migration
- After emancipation, black individuals did not immediately leave the South despite poor economic conditions
- Between 1870 and 1910, only 535,000 black individuals left the South
- Between 1910 and 1940, 3.5 million black individuals left the South
- In 1900, 4.3% of black individuals born in the South lived outside of the South, by 1950 it's 20.4%

Why Was Black Migration Delayed?

Relative Wage Levels by Region, 1870-1898

	1870-74	1875-79	1880-84	1885-89	1890-94	1895-98
Northeast	100	100	100	100	100	100
Midwest	122.5	128	126.3	121.8	121.2	120.5
West	146.2	147.5	131.8	129.6	122.6	122.9
South	97.2	102	97.2	96.5	96.9	96.3

Why Was Black Migration Delayed?

Relative Wage Levels by City 1870-1898

	1870-74	1875-79	1880-84	1885-89	1890-94	1895-98
New York	100	100	100	100	100	100
Chicago	123.1	118.7	117.5	120	123	126.9
Philadelphia	94.7	92	84.4	86.1	85.9	86.2
Richmond	85.6	87.9	81.2	81	81.7	80.6

Why Was Black Migration Delayed?

Term of Occupancy of Share Tenants, 1910

	South Atlantic		East South Central	
Years on farm	White	Black	White	Black
Less than 1	37.9%	33.9%	45.6%	39.9%
1 year	17.8	17.4	17.8	15.9
2-4 years	28.1	31.5	24.8	28.1
5-9 years	10.0	10.5	7.5	9.7
10 years and over	6.2	6.6	4.1	6.2

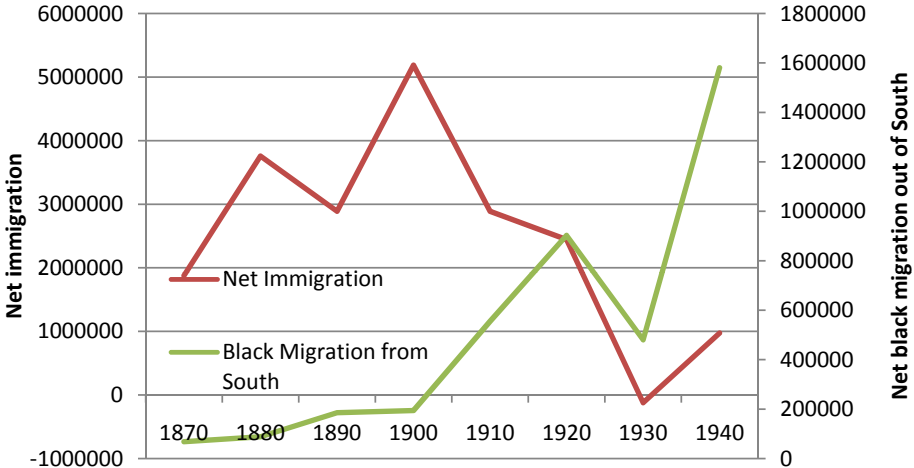
Why Was Black Migration Delayed?

- It doesn't look like Southern blacks were particularly averse to moving
- There is evidence of a fair amount of movement within the South
- Average wages and job opportunities certainly seemed better in the Northern cities
- Eventually, blacks would move to take advantage of those economic opportunities
- So why the 50 year delay?

Why Was Black Migration Delayed?

- One possible explanation is the influence of immigration
- From emancipation up until the early 20th century, there were large flows of immigrants into Northern cities
- More immigrants could do two things to the economic prospects of blacks:
  - Drive down wages by increasing overall labor supply
  - Decrease the probability of getting a job if white Europeans were preferred by employers to blacks
- When the flow of immigrants declines, the levels of black migration rise

Why Was Black Migration Delayed?



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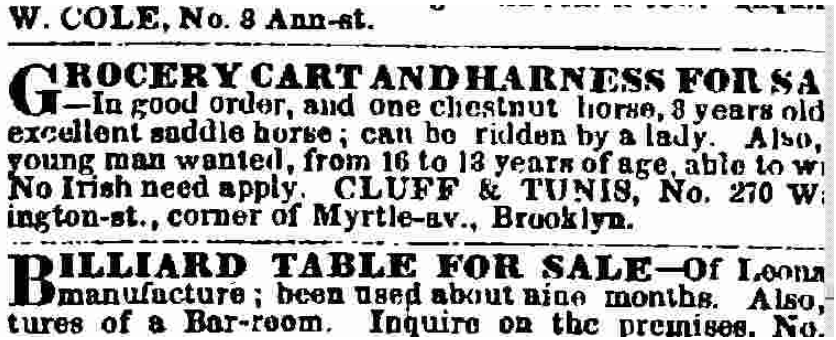


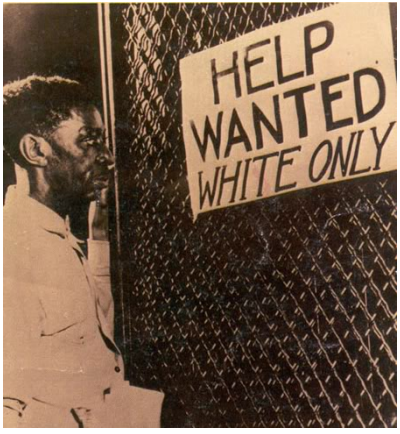
W. COLE, No. 8 Ann-st.

GROCERY CART AND HARNESS FOR SA
—In good order, and one chestnut horse, 8 years old
excellent saddle horse; can be ridden by a lady. Also,
young man wanted, from 16 to 18 years of age, able to w
No Irish need apply. CLUFF & TUNIS, No. 270 W
ington-st., corner of Myrtle-av., Brooklyn.

BILLIARD TABLE FOR SALE—Of Leona
manufacture; been used about nine months. Also,
tures of a Bar-room. Inquire on the premises. No.

Classified ad in The New York Times, March 25, 1854

Why Was Black Migration Delayed?



Why Was Black Migration Delayed?

may be located not less than eight (8) feet from any such side lot line. For the purposes of such measurements as are contained in this paragraph (c), State Highway No. 31, leading from Williamsburg to Jamestown, shall be considered as a side lot line.

(d) No noxious or offensive trade or activity shall be carried on upon any lot, nor shall anything be done thereon which may be or become an annoyance or nuisance to the neighborhood.

(e) No persons of any race other than the white or Caucasian race, shall use or occupy any building or any lot, except that this covenant shall not prevent occupancy by domestic servants of a different race domiciled with an owner or tenant.

(f) No trailer, basement, tent, shack, garage, barn, or other outbuilding erected in the tract shall at any time be used as a residence, temporarily or permanently, nor shall any structure of a temporary character be used as a residence, except that a servants' room and bath is permitted over detached garages.

(g) No dwelling costing less than $6,000 shall be permitted on any lot having a frontage on Lake Powell, and no dwelling costing less than $5,000 shall be permitted on any other lot shown on said plat plan above mentioned. The ground floor area of the main structure, exclusive of one-story open porches and garages, shall be no less than 900 square feet in the case of a one-story structure, nor less than 600 square feet in the case of a one and one-half, two, or two and one-half - story structure.

Outcomes During the Great Migration

- How did the Great Migration impact black outcomes?
- We've got a similar problem to the Age of Mass Migration
- A cross-section will give us biased results due to selection into migration
- We can take the same approach to this problem as Abramitzky, Bouston and Eriksson – linking across censuses
- Let's take a look at Collins and Wanamaker (2014)

Outcomes During the Great Migration

TABLE 3—1910 CHARACTERISTICS OF MALES IN LINKED DATASET, BY SUBSEQUENT INTERREGIONAL MIGRATION STATUS

	Nonmigrants (total $N = 4{,}361$)	Migrants (total $N = 1{,}104$)	p-value of difference
Personal characteristics			
Attending school (age 5–20)	47.6	51.2	0.11
Literate (age 10–40)	65.1	68.4	0.08
Owner-occupied housing	21.7	25.1	0.01
Mean age in 1910	17.3	15.7	0.01
1910 city population			
Not in city	75.8	69.4	0.01
City population <=25,000	15.4	19.8	0.01
City population > 25,000	8.9	10.8	0.05
Latitude (county)	33.4	34.1	0.01
Longitude (county)	86.6	84.9	0.01
Distance to Chicago or Philadelphia (min.)	578.2	510.3	0.01
Job characteristics (ages 21–40)			
Farmer	38.9	26.3	0.01
Farm laborer	18.2	16.7	0.52
Operative	7.0	9.0	0.20
Nonagricultural laborer	27.5	37.0	0.01
Employed	93.5	93.5	0.98
Class of worker, wage or salary employee	58.9	72.8	0.01

Outcomes During the Great Migration

TABLE 4—1910 LOG EARNINGS SCORE DIFFERENCES BETWEEN SUBSEQUENT MIGRANTS AND NONMIGRANTS

	(1)	(2)	(3)
Panel A. Earnings score based on Lebergott (1928)			
Nominal	0.126	0.0468	0.0221
	(0.0249)	(0.0198)	(0.0225)
Real	0.115	0.0443	0.0230
	(0.0238)	(0.0200)	(0.0227)
Panel B. Earnings score based on IPUMS (1960)			
Nominal	0.152	0.0519	0.0160
	(0.0287)	(0.0228)	(0.0264)
Real	0.142	0.0495	0.0169
	(0.0277)	(0.0230)	(0.0265)
Controls for personal, household and county characteristics in 1910	No	Yes	Yes
1910 County fixed effects	No	No	Yes
Observations	2,079	2,079	2,079

Outcomes During the Great Migration

TABLE 7—LOG EARNINGS SCORE DIFFERENTIALS IN 1930 BY MIGRANT STATUS

	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Panel A. Earnings score based on Lebergott (1928)							
Nominal	0.891	0.869	0.860	0.788	0.789	0.878	0.832
	(0.00981)	(0.0100)	(0.0124)	(0.0795)	(0.0982)	(0.0177)	(0.0273)
Real	0.685	0.667	0.661	0.604	0.595	0.680	0.636
	(0.00950)	(0.00968)	(0.0119)	(0.0759)	(0.0935)	(0.0167)	(0.0268)
Panel B. Earnings score based on IPUMS (1960)							
Nominal	0.900	0.873	0.860	0.788	0.786	0.889	0.829
	(0.0135)	(0.0138)	(0.0166)	(0.0996)	(0.121)	(0.0249)	(0.0345)
Real	0.694	0.671	0.661	0.604	0.592	0.691	0.633
	(0.0133)	(0.0136)	(0.0161)	(0.0993)	(0.121)	(0.0243)	(0.0342)
Controls for personal, household, and county characteristics in 1910	No	Yes	Yes	Yes	Yes	Yes	Yes
1910 County fixed effects	No	No	Yes	Yes	No	No	No
1910 Household fixed effects	No	No	No	No	Yes	No	No
Differenced dependent variable (1930–1910)	No	No	No	No	No	No	Yes
Observations	5,055	5,055	5,055	403	403	1,935	1,935

Outcomes During the Great Migration

- Collins and Wanamaker find big returns to migration for black men during the Great Migration
- These returns remain large even after controlling for positive selection into migration
- This helped partially close black-white gaps but large gaps remained: the black-white earnings score ratio increased from 0.44 in 1910 to 0.47 in 1930
- Even after moving north, black workers faced discrimination in housing markets, labor markets, schools, and a range of other dimensions

That's a Wrap

- Let's use Collins and Wanamaker to help wrap up the class
- First, it highlights many of the key dimensions of America's economic growth we've discussed:
  - Overall growth depended on the availability of land, labor and capital
  - Reducing constraints on mobility was a key to development
  - Those constraints are complex and relate to credit, transportation, and formal and informal institutions
  - Substantial similarities and differences across regions and groups

That's a Wrap

- Let's use Collins and Wanamaker to help wrap up the class
- Second, it highlights some of the data and econometrics issues we've seen throughout the course:
  - Measurement of well being is tough
  - Economic history is evolving as data and techniques continue to improve
  - We need to think hard about why people make the choices they make
  - We need to think hard about who's choices we get to observe

That's a Wrap

Good luck with finals, I hope you have a Daphne-level break.

Announcements

- Empirical project and the second referee report are due at the end of this week
- However, there will be **no late penalties for any work submitted by the start of the exam period (December 11th, 9am)**
- Hopefully that helps you better manage your time
- Feel free to email me questions or drafts of referee reports or empirical projects
- We'll wrap up the section on long term impacts of slavery and start in on demographic change and migration today
- Final required readings: Logan (2018) on Reconstruction, Abramitzky, Boustan and Eriksson (2019) on the Age of Mass Migration and Collins and Wanamaker (2014) on the Great Migration

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- On Thursday, after wrapping up the migration material we'll review for the final (basics: covers everything from transportation on, same format as midterm)

Announcements

- Get those second referee reports and the empirical project submitted
- I'm trying to clear out grading every two days, if you submit by Saturday you'll know your grades going into the final
- Final exam will cover transportation lectures on including Thanksgiving week videos, papers covered are Berger (2019), Galenson (1981), Logan (2018) and Abramitzky, Boustan and Eriksson (2014)
- Final exam is in this room on Monday from 2pm to 5pm (though exam is written to only take 1 hour 20 minutes)
- You can have any hard copies of slides, readings and notes that you want
- I'll hold plenty of office hours leading up to the final:
  - Today, 11am to 1pm (regular office hours)
  - Sunday, 11am to 1pm
  - Monday, 9am to 11am (I'm in meetings after that up to the exam so I won't be able to answer last second emails)