

# *The End of European Immigrant Servitude in the United States: An Economic Analysis of Market Collapse, 1772–1835*

FARLEY GRUBB

Europeans stopped using servitude to finance passage to America sometime in the early nineteenth century, but exactly when and why immigrant servitude disappeared is a mystery. Hypotheses abound, but no consensus has emerged nor have scholars tested hypotheses. In this study, quantitative evidence for the final sixty years of immigrant servitude establishes when and why it disappeared. Servitude did not end because of insufficient demand, legal restrictions, or declines in passage fares. It ended because superior methods of financing migration developed. Chance historical events, however, determined the exact timing of the end.

**I**n North America, organized markets for European immigrant servants flourished for two centuries. The resilience of these markets is quite remarkable. They survived the turbulent events of the seventeenth and eighteenth centuries, including frequent and severe interruptions to transatlantic trade caused by wars and depressions, competition in America from slave and native-born free labor, and the change in legal sovereignty caused by the American Revolution. During the eighteenth century, roughly one-half of the Europeans landing in British North America paid for their passage by selling contracts on their future labor.<sup>1</sup> Sometime between 1800 and 1830, however, organized markets for European immigrant servants disappeared.

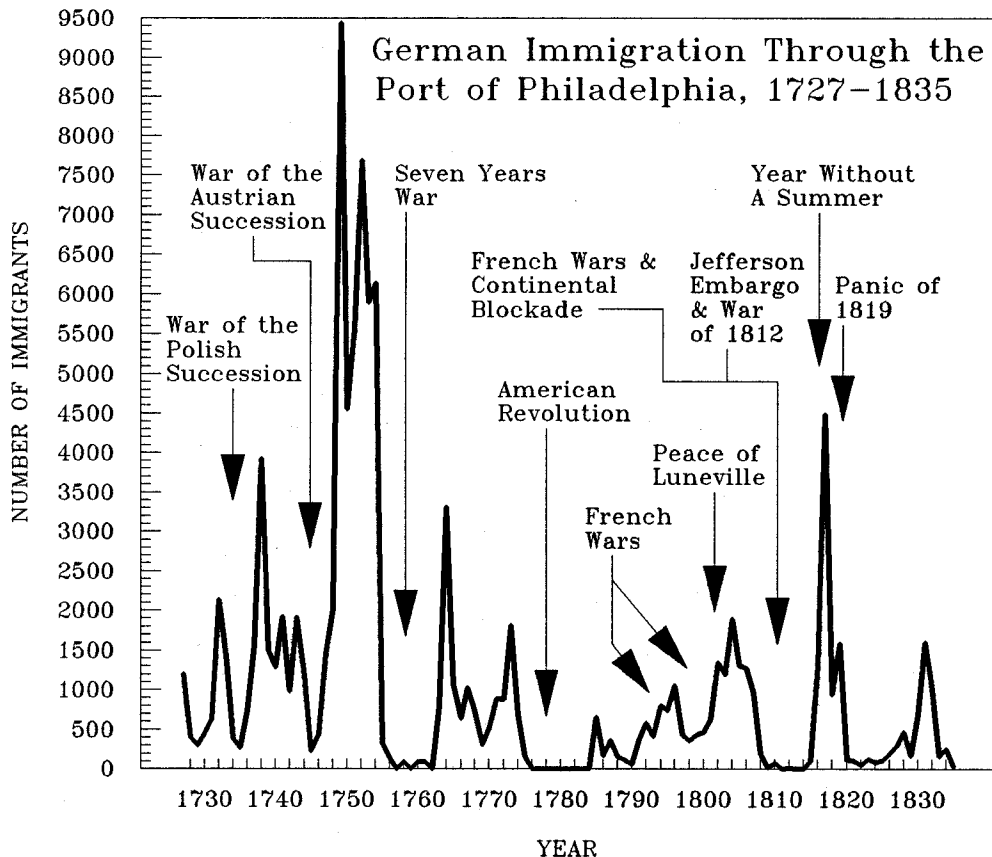
Although there were some instances of European immigrant servitude after 1830, they were few in number and not of sufficient volume to

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<sup>1</sup> See Grubb, "Incidence," pp. 316–39. For recent discussions of the general magnitude and importance of colonial immigrant servitude, see Bailyn, *Voyagers*, pp. 85–352; Dunn, "Servants," pp. 157–94; Engerman, "Servants," pp. 263–94; Galenson, *White Servitude*; Gemery, "Markets," pp. 33–54; and Grubb, "Long-Run Trend," pp. 167–240. For the classic studies of immigrant servitude, see Geiser, *Redemptioners*; Herrick, *White Servitude*; McCormac, *White Servitude*; Morris, *Government*; and Smith, *Colonists*.





Oct 22. 1767

# His Indenture

Witnesseth, That

*Consent of her Father & in Consideration of Twenty seven pounds p<sup>ce</sup> by her Master Samuel Pleasants for her passage from Holland*

as also for other good Causes, *she* the said *Mary* hath bound and put *her* self, and by those Presents doth bind and put *her* self Servant to the said *Samuel* to serve *him* in *his* Executors and Assigns, from the Day of the

Date hereof, for and during the Term of *Five Years* *thence next ensuing.*  
During all which Term, the said Servant *her* said *Master* in *his* Executors, or Assigns,

faithfully shall serve, and that honestly and obediently in all Things, as a good and dutiful Servant ought to do.  
AND the said *Masters* *her* Executors and Assigns, during the Term, shall find and provide for the said *Servant* sufficient Meat, Drink, *Apparel* Washing and Lodging,

*freedom Dies*

And for the true Performance hereof, both Parties bind themselves firmly unto each other by these Presents.  
In Witness whereof they have hereunto interchangably set their Hands and Seals, Dated the *Twenty second* Day of *October* in the *Seventh* Year of his Majesty's Reign; and in the Year of our Lord, one Thousand, seven Hundred and Sixty-*Seven*

Signed sealed and delivered  
in the Presence of

*James Mayor*

*Mary Elizabeth Baues*





1785

Philadelphia ff.

This Indenture Witnesseth, That Anna Margareta Sahlin with the consent of her father hath put her self servant to Samuel Coates for the consideration of Twenty Pounds 6/4 paid to Stewart & Nesbit for her freight from Amsterdam,

as also for other good Causes she the said Anna Margareta Sahlin hath bound and put her self, and by these Presents doth bind and put her self Servant to the said Samuel Coates <sup>to</sup> serve him or his Executors and Assigns from the Day of the Date hereof, for and during the full Term of Seven years

from thence next ensuing. During all which Term the said Servant her said Master or his Executors or Assigns faithfully shall serve, and that honestly and obediently in all Things, as a good and dutiful Servant ought to do.

AND the said Samuel Coates or his Executors and Assigns, during the said Term shall find and provide for the said Servant sufficient Meat, Drink,

Apparel Washing and Lodging, and at the Expiration of her Term he shall give said Servant Two compleat Suits of Cloath One whereof to be New.

And for the true Performance hereof, both the said Parties bind themselves firmly unto each other by these Present. IN WITNESS whereof, they have hereunto interchangeably set their Hands and Seals. Dated the first Day of September Annoque Domini 1785.

Bound before me

Severus Farmer  
Registrar

Sam Coates.





PASSENGER LIST OF THE SHIP "ELIZABETH,"  
WHICH ARRIVED AT PHILADELPHIA IN 1819.

[Copied from the original in the Library of the Historical Society of  
Pennsylvania.]

We the undersigned : I, M. Adams, Captain of the Ship Elizabeth on one part, and we the passengers on the other part do obligate ourselves—

*First*, We the passengers to take our passage with the above mentioned Capt. Adams to Philadelphia in North America, and to conduct ourselves as good passengers ought to do, quiet and orderly, and to be satisfied with the food mentioned at foot as per agreement with the Captain, and with regard to water and other provisions, to follow the Captain's directions as he shall find necessary through long passage or other circumstances.

*Second*. We agree to take our passage on the following conditions, viz. to pay

For those who are able to pay in Amsterdam for each person man or woman 180 fr.

Children under four years of age are free—

From four to twelve years to pay 90 fr.

From twelve years and older to pay 180 fr.

For those who are not able to pay here or only in part, the passage to be

Children under four years of age free

From four to twelve years 95 fr.

From twelve years and older 190 fr. and 200 fr. as specified.

Those who have to pay their passage in America shall be obliged to do so in ten days after their arrival. No passenger shall be allowed to leave the vessel in America without leave from the Captain and in particular those as have not paid their passage money. Should any one of the passengers die on the voyage, the family of such person shall be

obliged to pay his passage, if such decease took place on more than half the distance of the voyage, but should the person die this side half the distance, the loss of the passage shall fall to the Captain.

In return I, M. Adams obligate myself to carry these passengers to Philadelphia, to accommodate them with the necessary comfort and give them daily the here below mentioned proportion of victuals—children not to receive anything.

Sunday—one pound Beef and half pound Rice,

Monday—one pound Flour,

Tuesday—one half pound Pork with pease,

Wednesday—one pound Beef and barley,

Thursday—like Tuesday,

Friday—like Monday,

Saturday—like Wednesday,

One pound Butter, one pound Cheese, six pounds Bread, per week.

One glass Gin and three quarter gallons Water per day.

There shall also be on board a sufficiency of Vinegar to cleanse the vessel and for the refreshing the passengers. To all this we bind ourselves with our persons and property.

Witness VAN OLIVIER & Co.

AMSTERDAM, 4 May, 1819.

Names	Number of Persons	Freight	Passage Money	Paid here	To be Paid in Philada
George Michael Huetter, .....	6	5 fr.	900 fr.	900 fr.	
Henry Roedel, .....	10	9	1620.	1620.	
Michael Idler, .....	6	6	720.	720.	
Magdalena Strählin, .....	1	1	180.	180.	
Frederick Walber (?) .....	4	3	540.	540.	
John Frederick Betzold, .....	1	1	180	100	80 fr.
John Frederick Speiser, .....	1	1	190	50	140
Francis Krucker, .....	1	1	190	60	130
John Henry Wilk, .....	1	1	190	30	160
Henry Luttell, .....	1	1	200	21	179
John Andrew Ammon, .....	1	1	170	170	
V. P. Myersott (?) .....	1	1	150	150	
Xavier Streuber (?) .....	1	1	160	160	

**TABLE 3**  
**AVERAGE RATES OF RETURN PER VOYAGE FOR FINANCING GERMAN**  
**REDEMPTIONER IMMIGRATION, 1802-1819**  
(in percentages)

	Ships			
	<i>Belvidere</i> (1802)	<i>Commerce</i> (1803)	<i>Pennsylvania</i> (1803)	<i>Elizabeth</i> (1819)
Average rate of return from quoted fares	25.0%	15.4%	20.5%	11.1%
Average actual rate of return	10.7 (2.6)		14.6 (2.1)	11.5 (0.9)
Average actual rate of return on redemptioners migrating alone	13.3 <sup>a</sup> (2.6)		16.2 <sup>b</sup> (1.8)	12.2 <sup>c</sup> (0.8)
Average actual rate of return on redemptioners migrating in family groups	5.4 <sup>a</sup> (2.0)		11.5 <sup>b</sup> (2.6)	7.1 <sup>a</sup> (0.1)
Family members among all redemptioners	32.9		33.3	13.4
Total passengers aboard	82	202	24	120



While existing eyewitness descriptions of the redemption auction lack detail, they offer a consistent outline of the bargaining process. For example, Pastor Muhlenberg described the auction in a letter sent to Germany in 1769:

The ship becomes the market-place. The buyers make their choice among the arrivals and bargain with them for a certain number of years and days. They then take them to the merchant, pay their passage and their other debts and receive from the government authorities a written document, which makes the newcomer their property for a definite period. Young and unmarried persons of both sexes are sold first . . . Married people, widows, and the infirmed are dull sale.<sup>21</sup>

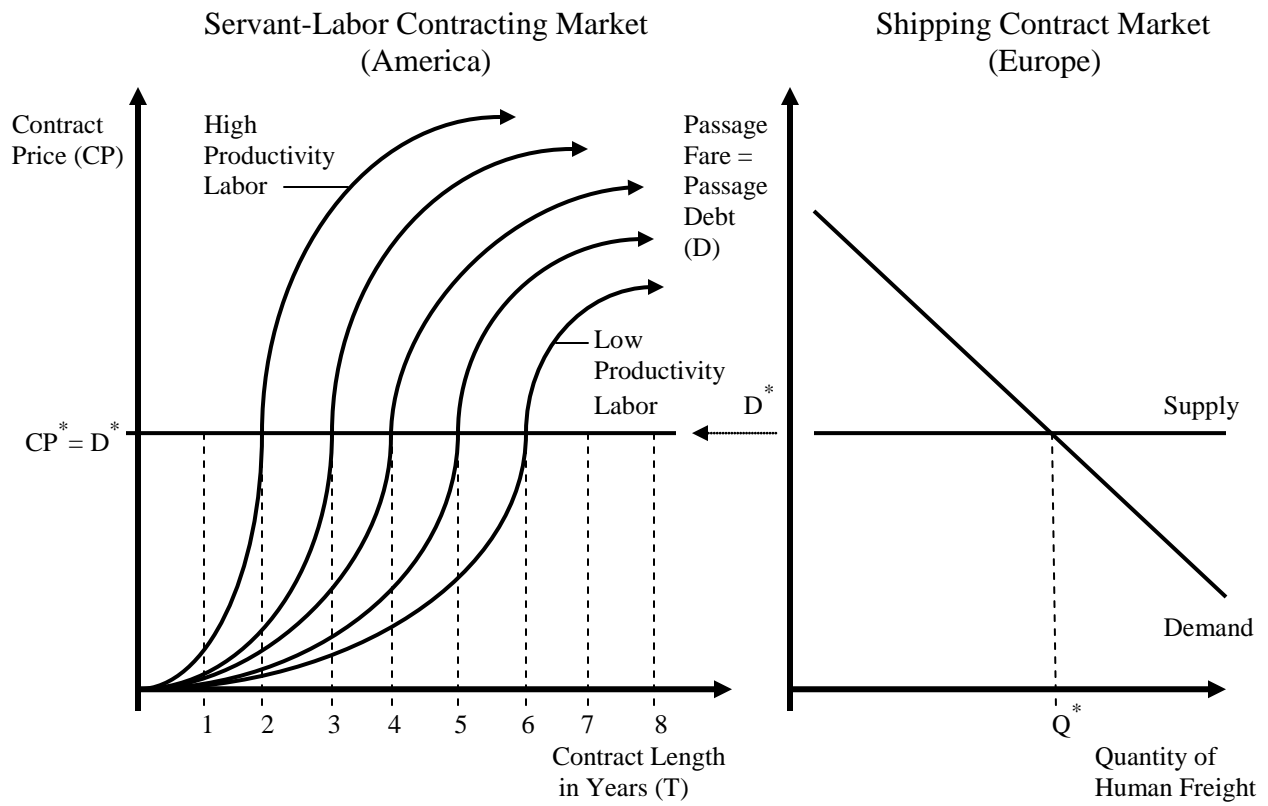


Figure 12.2 The enhanced market model of adult German redemptioner servitude.

*Table 1. Contract Length Versus Contract Price By Age:  
German Redemptioner Immigrants in Pennsylvania, 1787-1804*

<i>Age</i>	<i>Contracts Sold for PA Pounds</i>			<i>Contracts Sold for U.S. Dollars</i>		
	<i>N</i>	<i>Average Years</i>	<i>Average Price</i>	<i>N</i>	<i>Average Years</i>	<i>Average Price</i>
10	3	10.50	21.92	1	11.00	75.00
11	7	8.75	25.16	7	8.17	57.71
12	8	6.60	24.41	3	5.33	73.33
13	5	6.26	24.28	6	5.79	79.50
14	2	4.25	23.63	4	6.04	70.63
15	2	4.75	28.00	8	5.68	70.25
16	6	4.33	29.88	5	3.45	71.20
17	3	5.08	30.50	2	3.50	68.50
18	12	3.82	25.07	11	3.52	71.89
19	7	3.86	23.07	7	3.38	68.99
20	10	3.50	21.37	16	3.28	71.73
21+	75	3.71	20.22	153	3.28	68.12
	155			234		

*Notes:* Children under age 10 were charged half-fare, and those under age 4 were shipped free. Few children under age 10 were in the sample. Occasionally redemptioners paid part of the fare in cash and sold themselves for the balance or borrowed sums in addition to the passage fare to cover pre-embarkation expenses, and sold themselves for a price that covered this larger debt [see Grubb, 1986, 1987a, 1988a].

*Source:* "Book A of Redemptioners."



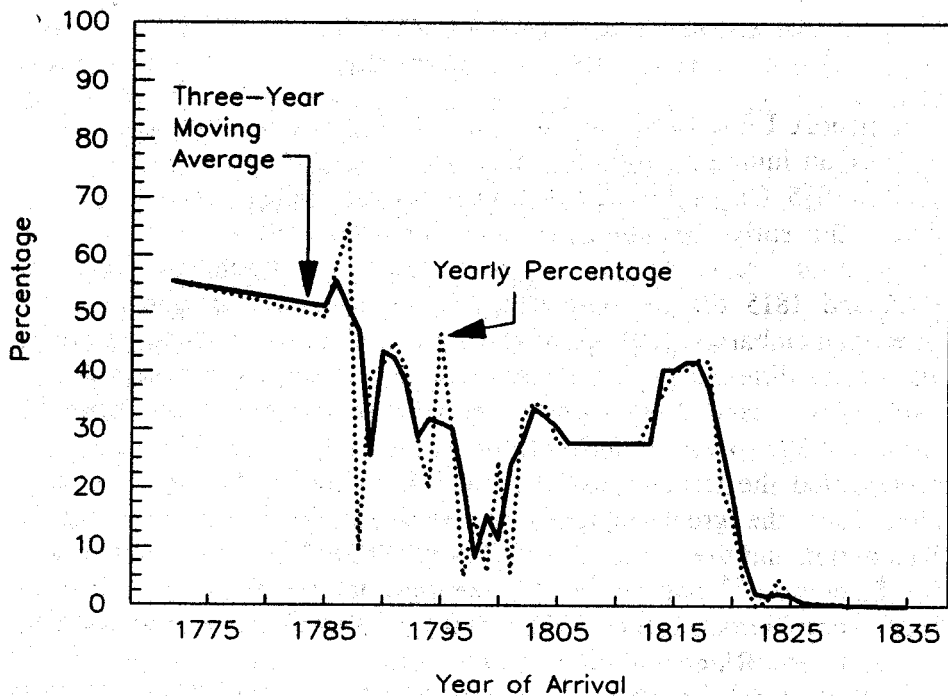
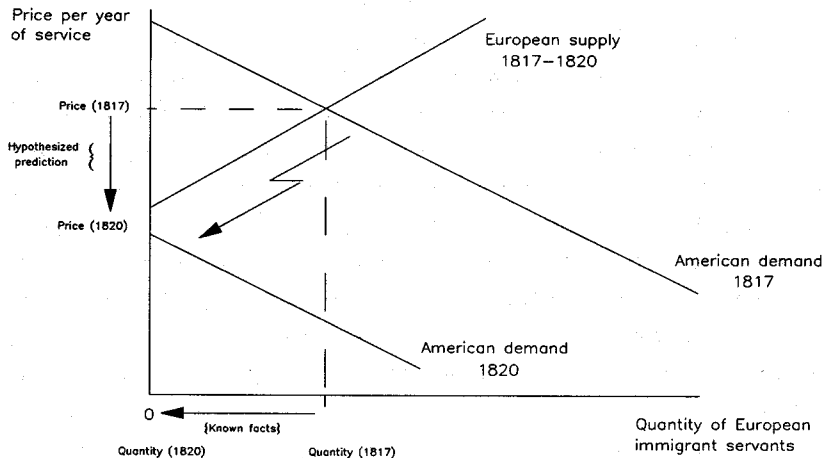


FIGURE 1

PERCENTAGE OF SERVANTS AMONG GERMAN IMMIGRANTS TO PENNSYLVANIA,  
1772-1835

*Note:* The three-year moving average is weighted by the number of observations per year. Breaks in the data are connected by straight lines.

*Source:* Appendix Table 1.



**Figure 1** The demand hypothesis of the end of European immigrant servitude

Notes: The demand hypothesis accepts the fall in the quantity of servants as fact and predicts that the price of servants must fall as a consequence. As shown in Table 1 and the text, this prediction fails. Therefore, any demand-driven hypothesis of the end of servitude lacks merit.

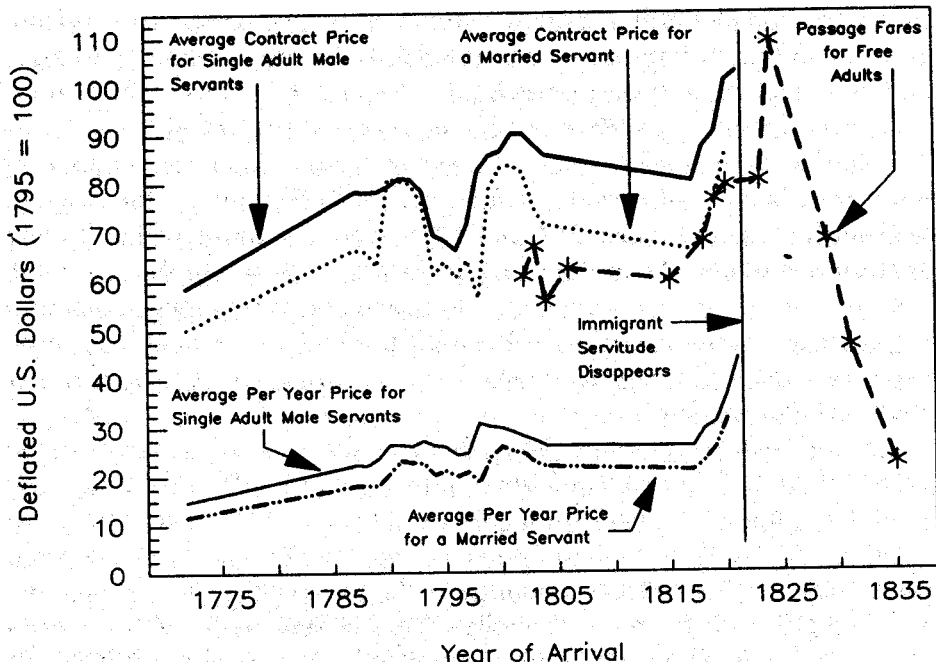


FIGURE 2

ADULT PASSAGE FARES, CONTRACT PRICES, AND PER-YEAR CONTRACT PRICES, 1772-1835

*Notes:* All series except for passage fares are three-year moving averages weighted by the number of observations per year. Breaks in the data are connected by straight lines. Passage-fare data points are indicated with markers and include the cost of meals. Contract prices include any contracted cash payments made to the servant during or upon completion of the contract. Contract prices typically exceeded passage fares of comparable free adult immigrants because they included a risk premium and sometimes additional migration expenses other than the passage fare, see note 24 and note 36. The average per-year price of service divides average contract price by average contract length for each year for each group, respectively.

*Source:* Appendix Table 1.



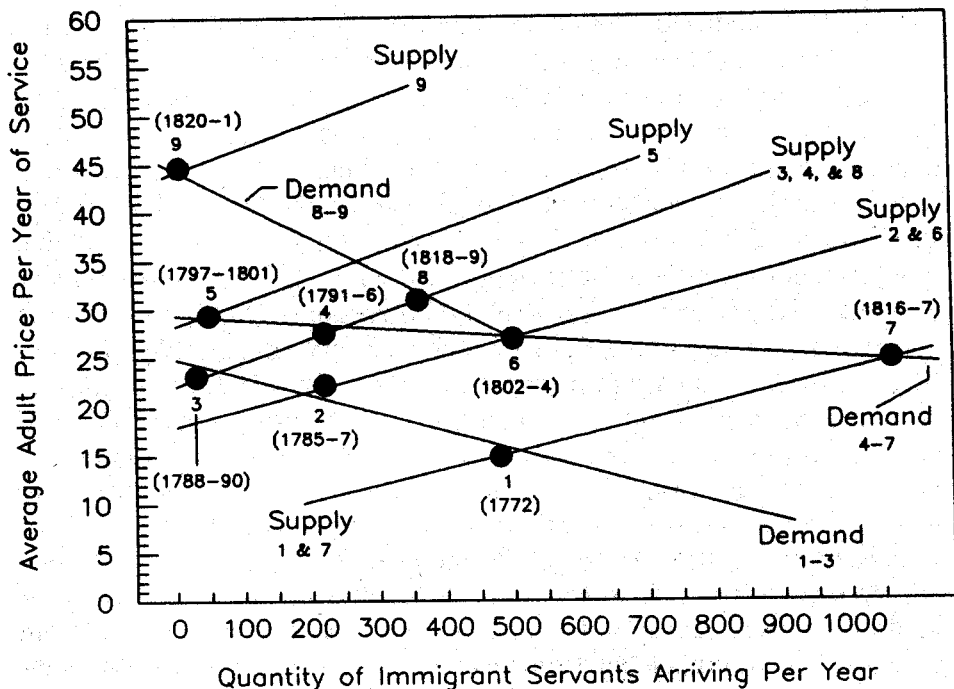


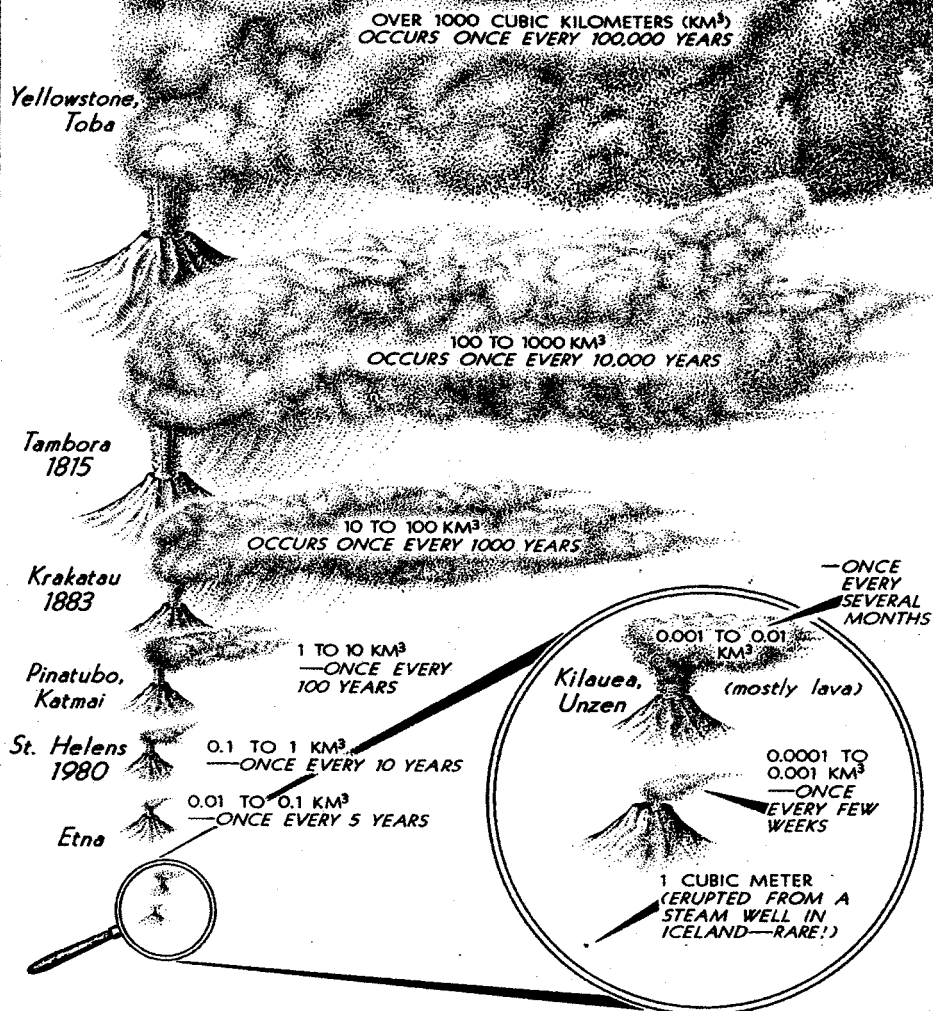
FIGURE 3

### THE SUPPLY AND DEMAND FOR GERMAN SERVANTS IN THE PHILADELPHIA MARKET, 1772-1821

*Notes:* See the text for discussion of the figure's construction. Market equilibriums are indicated with markers and numbered from 1 through 9 in sequence from 1772 through 1821. The model uses the minimum number of linear supply and demand curves required to generate the given equilibrium points. The average per-year adult contract price was constructed by dividing the average contract price by the average contract length for adult-male servants for each year and then taking the average of this number for the interval of years indicated at each equilibrium point, weighted by the total number of German servants arriving each year. Contract prices are in deflated U.S. dollars (1795 = 100). The 1816-1817 quantity excludes the 300 servants who arrived in Wilmington, Delaware, who are included in Appendix Table 1.

*Source:* Appendix Table 1.

## EXAMPLES



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Fig. 2-5. The energy or magnitude of an eruption is difficult to assess, but volcanologists often gauge it by the amount of erupted magma, which is determined by measuring the total volume of erupted lava and volcanic ash. Magnitudes shown in this diagram are from actual eruptions and are measured in increments of 10—from 0.000000001 cubic kilometer (1 cubic meter) to over 1,000 cubic kilometers—a difference of twelve orders of magnitude. The small magnitude eruptions occur much more often than the large ones—a fortunate inverse correlation for the earth and its living creatures. Eruptions with 0.001 to 0.01 cubic kilometers of material occur on the earth every few months. In stark contrast, eruptions of over 1,000 cubic kilometers of ash occur only once every 100,000 years. The frequencies of eruptions for the different volumes shown here are simplified estimates.

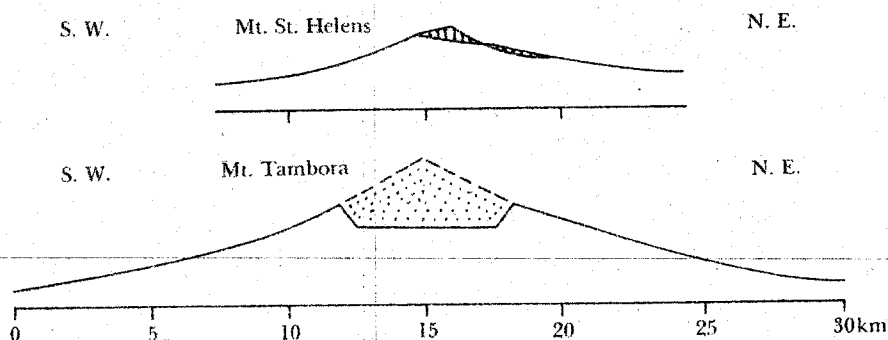
## SOME MAJOR ERUPTIONS FOR COMPARISON

Year	Name	Country	Explosive Rank	Volume Ejected (cubic km.)
1470 B.C.	Santorini	Greece	2	10
79 A.D.	Vesuvius	Italy	3	1
1815	Tambora	Indonesia	1	100
1883	Krakatoa	Indonesia	2	10
1963	Agung	Indonesia	4	0.1
1980	St. Helens	U.S.A.	3	1

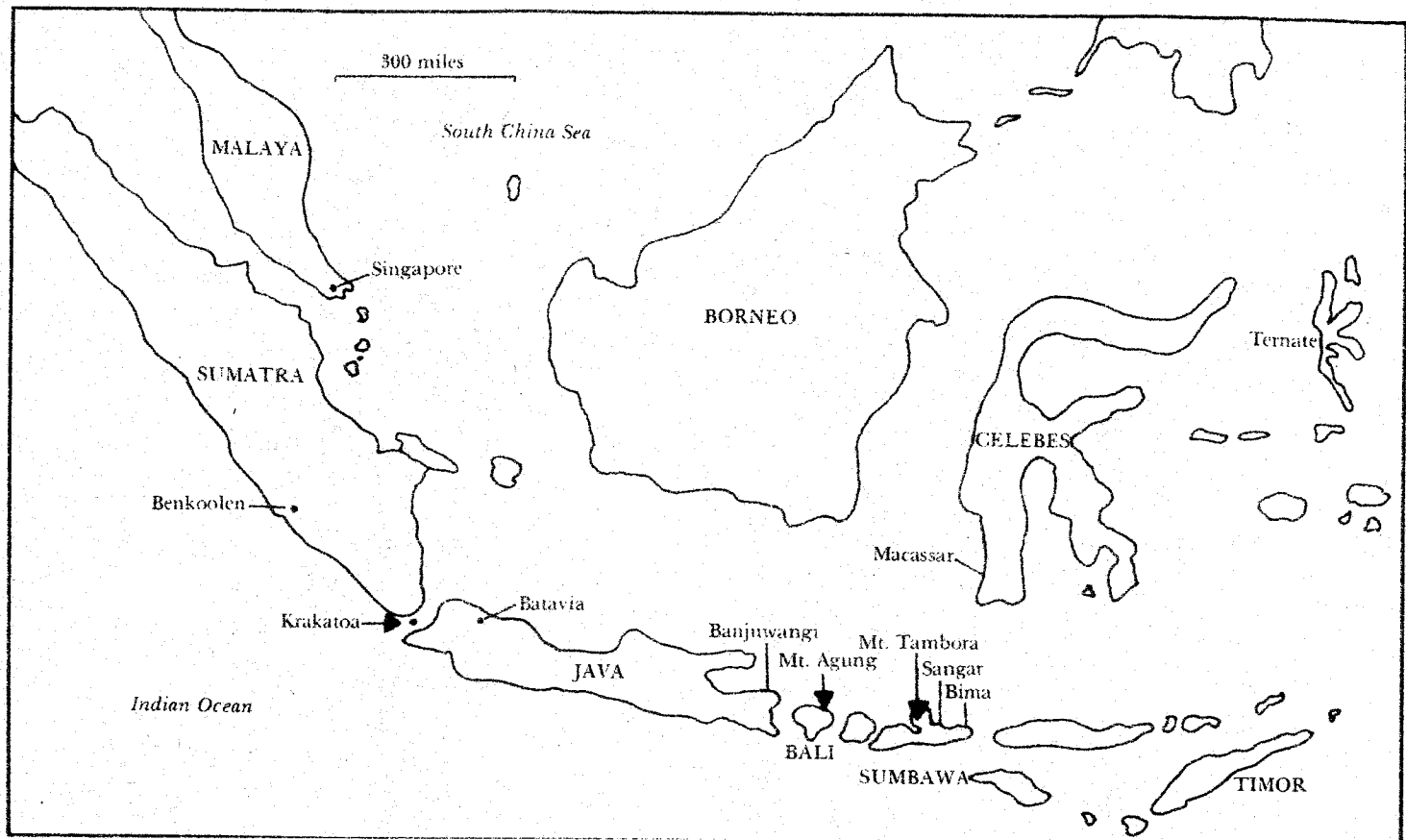
**Our "EXPLOSIVE RANK" = 8 – (Volcanic Explosivity Index)**

*Santorini's explosion gave rise to the ancient legend of Atlantis. Vesuvius buried Pompeii. Tambora, however, ranks as the most explosive volcano in the past 10,000 years, according to a ranking by the Smithsonian Institution. Krakatoa was the first volcano subjected to serious scientific study and is known to have reduced direct sunlight by 15 to 20 percent. Agung is a modern volcano whose meteorological effects are well documented. Mount St. Helens seemed to have no marked meteorological effects at all.*

*A section view of Mount Tambora (seen NE to SW) and Mount St. Helens, drawn in scale, showing the comparative loss of mountaintop during their eruptions.*







## The Year without a Summer

The eruption of Mount Tambora in April 1815, believed to be the largest of the last ten thousand years, is an example of how difficult it is to identify the

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causes of climatic changes, for this eruption occurred during a time of visible sunspot activity and during a cold period that had started in 1811 and ended in 1817. The eruption exacerbated the global cooling that had been initiated as a result of another cause. The atmospheric effects of Mount Tambora's eruption also demonstrate that the earth is a holistic system—the cold period caused famine and economic disruption in the northern hemisphere, thousands of miles from Tambora Volcano, which is in the southern hemisphere.

Mount Tambora's eruption took place on the island of Sumbawa, Indonesia. The noise was heard 2,000 kilometers from the volcano, and the ash that fell on Java, 483 kilometers away, was several centimeters thick. About 12,000 inhabitants of Sumbgasa perished as a direct result of the eruption and 44,000 people died on the neighboring island of Lombok, primarily from famine resulting from the destruction of crops by falling ash. Circumstantial evidence suggests that the enormous aerosol volume sent into the atmosphere by the eruption caused anomalous summer weather the following year. In the northern hemisphere, parts of western North America, eastern Europe, and Japan had average or above-average temperatures, but there was remarkable cold over much of eastern North America, western Europe, and China. The southward flow of freezing Arctic air in one region was offset by poleward flow of tropical air in another.

In addition to the recorded events of the time, tree rings indicate that reduced temperatures followed the eruption, and the acidity of ice layers in the Greenland and Antarctica ice caps are evidence for abundant sulfur in an upper troposphere aerosol layer. In eastern Hudson Bay, Canada, the mean daily temperature in midsummer 1816 was reduced by about 5 to 6°C. In New England, on June 6–11, July 9, August 21, and August 30, 1816, there were snowfalls and killing frosts that destroyed all but the hardiest grains and vegetables. The greatest loss stemmed from the failure of the corn crop, mainly because it was used as fodder for cattle, hogs, and chickens. The failure of Canada's wheat crop resulted in a shortage of bread and milk. In New York, soup kitchens were opened to feed the starving. The cost of wheat, grains, and flour rose sharply in New England, Canada, and western Europe. At the same time the cost of beef and pork went down as cattle and pigs were slaughtered because farmers couldn't afford to feed them. Sea ice obstructed ships in the Atlantic shipping lanes, and glaciers advanced in the mountainous regions.

A medical account printed in 1817 by Dr. Thomas D. Mitchell blamed the thermal deficit on volcanic dust in the atmosphere:

What rendered it more astonishing in its diurnal variation, was its coexistence with mist or vapour equally dense and diaphanous all over the horizon. It had nothing of the nature of a humid fog. It was like that smoking vapour which overspread Europe about thirty years ago [during the Laki Fissure, Iceland eruption in 1783]. The learned, who made experiments to ascertain its nature, could only state its

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remarkable dryness. . . . While the human eye could thus, during the long days, gaze on the great luminary of nature [the sun], . . . deprived of its dazzling splendour and radiance; then the numerous dark spots were discovered on its face, without the help of telescopic or obscured glasses; these among the multitude became the theme of popular apprehension of a calamitous sign in heaven, and others thought to have found a visible cause of the long refrigeration of our atmosphere. (quoted in Post, *Subsistence Crisis*, p. 25)

Other atmospheric phenomena occurred because of volcanic dust in the atmosphere, including a red, blue, or green sun and moon, richly colored twilights, dimming of the sun at the horizon, and colored snow. There was a great Hungarian blizzard in 1816 that produced brown or flesh-colored snow, the people of Taranto in southern Italy were alarmed by red and yellow snow, and snowfalls in April and May 1816 in Maryland were tinted brown, bluish, and red.

Europe had an even more disastrous summer than North America. July 1816 was the coldest July in 192 years in the English Lancashire plain, and the mean summer temperature in 1816 at Geneva, Switzerland, was the lowest since 1753, ruining that season's harvests and leading to famine throughout the country. Summer wheat could not be replanted because there was no seed in Switzerland's granaries, and pigs had to be slaughtered because there was no fodder. People were forced to eat potatoes, a food source looked down upon as food for peasants, but nevertheless, by August the potatoes were gone. By mid-1817, the price of grain in Switzerland had tripled, Zurich was overrun by beggars, and parish records registered many deaths from starvation. In Sorrel, Iceland, moss and cats were eaten.

Partly from the political ferment stemming from Napoleon's defeat at Waterloo in 1815 and partly as an outgrowth of the cold summer, poor harvest, and subsequently high food prices in 1816, there were riots in France. Rioting and crime increased in the winter of 1816–1817 as prices continued to rise and grain supplies dwindled. In villages across France, the people battled authorities for the meager grain supplies. Farmers carrying wheat to market in villages along the Loire Valley required protection by soldiers and police. So many food-related crimes were being committed each day by December 1816, that overwhelmed authorities had to practically ignore them.

Mount Tambora's eruption had a strong domino effect. The difficulties of the European governments with their waves of social and political unrest were the end point of a connected sequence of events that began with the disruption of weather patterns by volcanic dust and aerosols in 1815. Anomalous weather patterns of 1816 caused a sharp decrease in agricultural productivity, especially of grains, with the resulting scarcity and high price of food. These effects set in motion inflation, unemployment, famine, disease, political unrest, and riots.

the dust cloud from the great 1815 Tambora eruption lasted less than two years, and its effects upon the environment, though harmful to people, were short-lived.

description is all we have and it has some merit. He wrote on Oct. 12, 1817 (Fearon 1818, 149-52). [Note: The W. Odlin mentioned in the quotation was one of the larger purchasers and resellers of servants recorded in the contract register transcribed here.]

A practice which has been often referred to in connection with this country, naturally excited my attention. It is that of individuals emigrating from Europe without money, and paying for their passage by binding themselves to the captain, who receives the produce of their labor for a certain number of years.

Seeing the following advertisement in the newspapers, put in by the captain and owners of the vessel referred to, I visited the ship, in company with a boot-maker of this city:

### "THE PASSENGERS

"On board the brig Bubona, from Amsterdam, and  
"who are willing to engage themselves for a limited  
"time, to defray the expenses of their passage, consist  
"of persons of the following occupations, besides wo-  
"men and children, viz. 13 farmers, 2 bakers, 2 butch-  
"ers, 8 weavers, 3 taylors, 1 gardener, 3 masons,  
"1 mill-sawyer, 1 white-smith, 2 shoe-makers, 3 ca-  
"binet-makers, 1 coal-burner, 1 barber, 1 carpenter,  
"1 stocking-weaver, 1 cooper, 1 wheelwright, 1 brewer,  
"1 locksmith. ---Apply on board of the Bubona, op-  
"posite Callowhill-street, in the river Delaware, or to  
"W. Odlin and Co. No. 38, South Wharves. Oct. 2.

As we ascended the side of this hulk, a most revolting scene of want and misery presented itself. The eye involuntarily turned for some relief from the horrible picture of human suffering, which this living sepulchre afforded. Mr. \_\_\_\_\_ enquired if there were any shoemakers on board. The captain advanced: his appearance bespoke his office; he is an American, tall, determined, and with an eye that flashes with Algerine cruelty. He called in the Dutch language for shoe-makers, and never can I forget the scene which followed. The poor fellows came running up with unspeakable delight, no doubt anticipating a relief from their

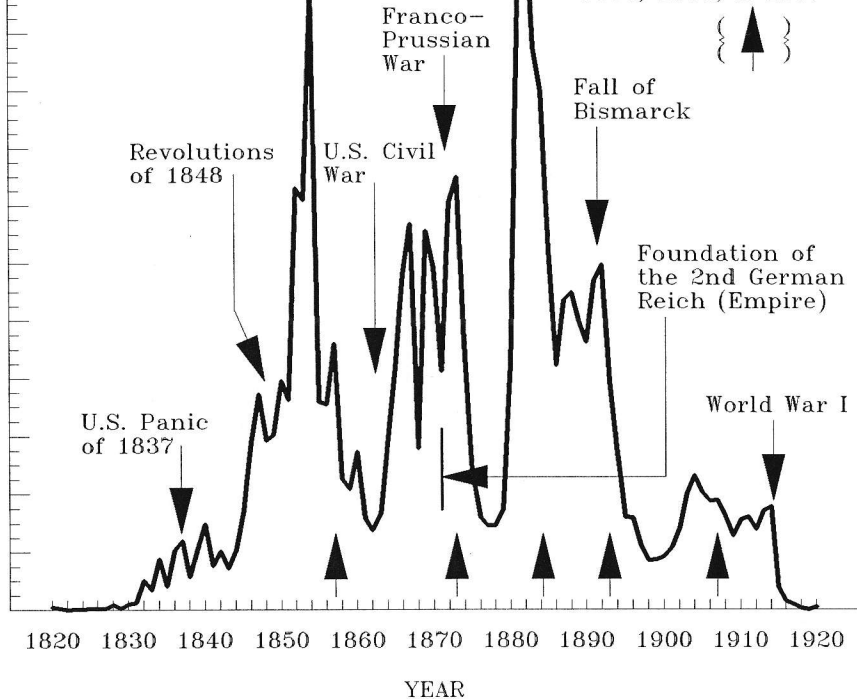
loathsome dungeon. Their clothes, if rags deserve that denomination, actually perfumed the air. Some were without shirts, others had this article of dress, but of a quality as coarse as the worst packing cloth. I enquired of several if they could speak English. They smiled, and gabbled, "No Engly, no Engly, ---one Engly talk ship." The deck was filthy. The cooking, washing, and necessary departments were close together. Such is the mercenary barbarity of the Americans who are engaged in this trade, that they crammed into one of those vessels 500 passengers, 80 of whom died on the passage. The price for women is about 70 dollars, men 80 dollars, boys 60 dollars. When they saw at our departure that we had not purchased, their countenances fell to that standard of stupid gloom which seemed to place them a link below rational beings. From my heart I execrated the *European cause* of their removal, which is thus daily compelling men to quit the land of their fathers, to become voluntary exiles in a foreign clime: ---yet Americans can think and write such sentiments as the following: "We rejoice with the patriotic Hollanders at the return of the illustrious house of Orange to their first magistracy, and do not wonder at their *enthusiastic joy* upon the occasion, when they remember that this ancient family have been always the gallants and zealous defenders of *the rights and liberties of the Dutch people.*"

# German Immigration to the U.S., 1820-1920

Some Major U.S. Financial Panics: 1837, 1857, 1873, 1884, 1893, & 1907

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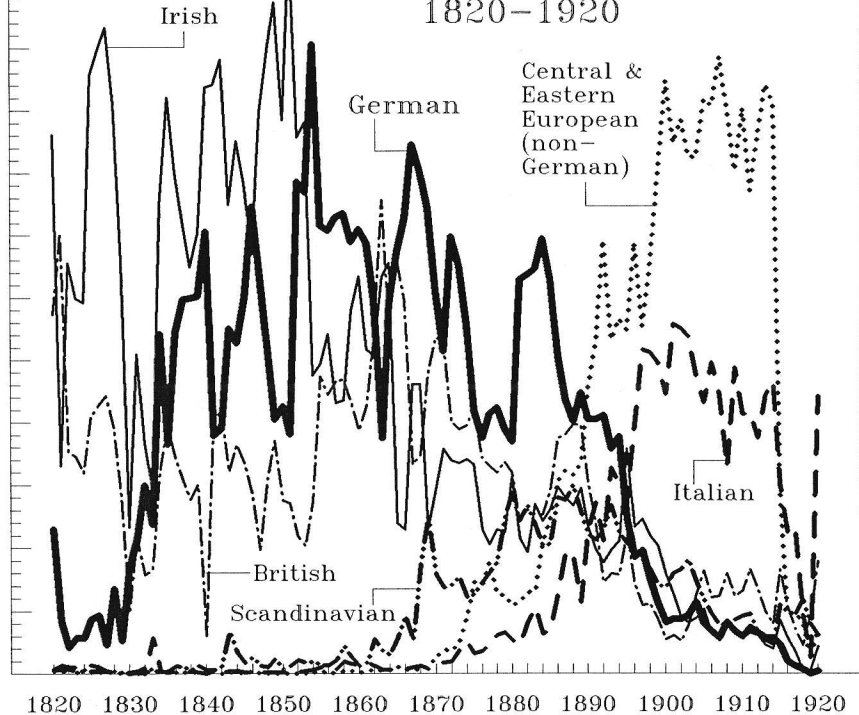
NUMBER OF IMMIGRANTS





PERCENTAGE OF TOTAL U.S. IMMIGRATION

# U.S. Immigration Ethnic Shares 1820-1920



YEAR

# U.S. Decennial Censuses: Foreign-born Percentages

