

- Essential Question:
 - What factors led to the rise of the American Industrial Revolution from 1870 to 1900?

- CPUSH Agenda for Unit 7.2:
 - Industrialization and Big Business notes

During the Gilded Age, the United States experienced an industrial revolution



Products manufactured in 20 largest cities

- | | |
|-----------------------------------|------------------------------|
| Clothing | Printing and publishing |
| Flour milling | Textiles |
| Food and beverage processing | Tobacco processing |
| Foundry and machine shop products | Slaughtering and meatpacking |
| Iron and steel | Mixed or other |

Natural resources

- | | |
|----------|---|
| Coal | Oil (petroleum) |
| Copper | Silver |
| Gold | Timber |
| Iron ore | States with 25% or more of employees in manufacturing |

Stacked cannon balls,
possibly a view of an
arsenal yard in
Washington, D.C. (NARA)



The **Civil War** stimulated
mass-production
techniques that were
used after the war to
make industrial goods

Grounds of the destroyed arsenal with scattered shot and shell in Richmond, Virginia, in 1865



The Civil War stimulated mass-production techniques that were used after the war to make industrial goods

Industrial goods like **iron, steel, and railroads** were needed to rebuild the **nation** after the war and build America's new cities

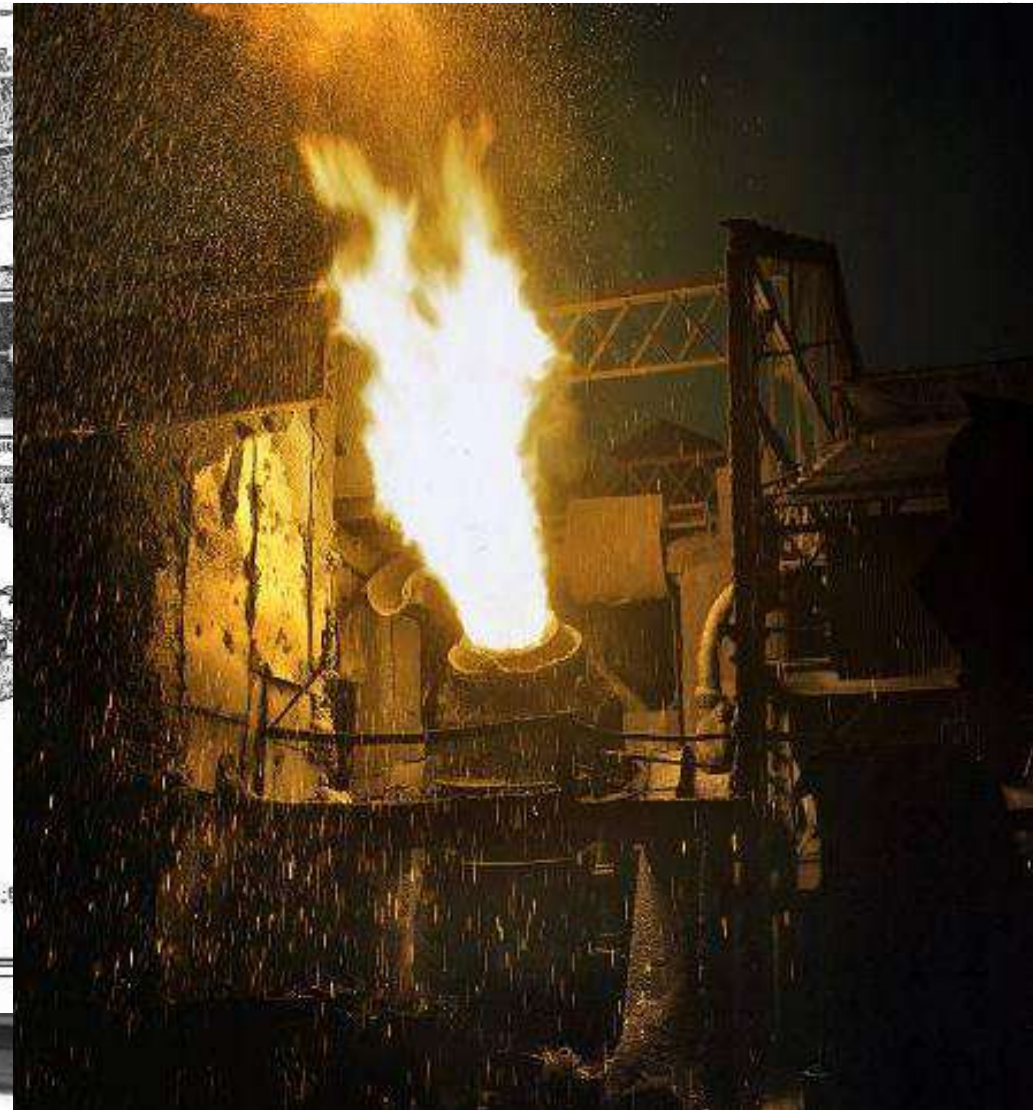
America's industrial revolution began as a wave of inventions

Cash registers, typewriters adding machines, made businesses more efficient

Alexander Graham Bell's telephone revolutionized communication

The Bessemer process created a **cheap way to transform iron into stronger, lighter steel**

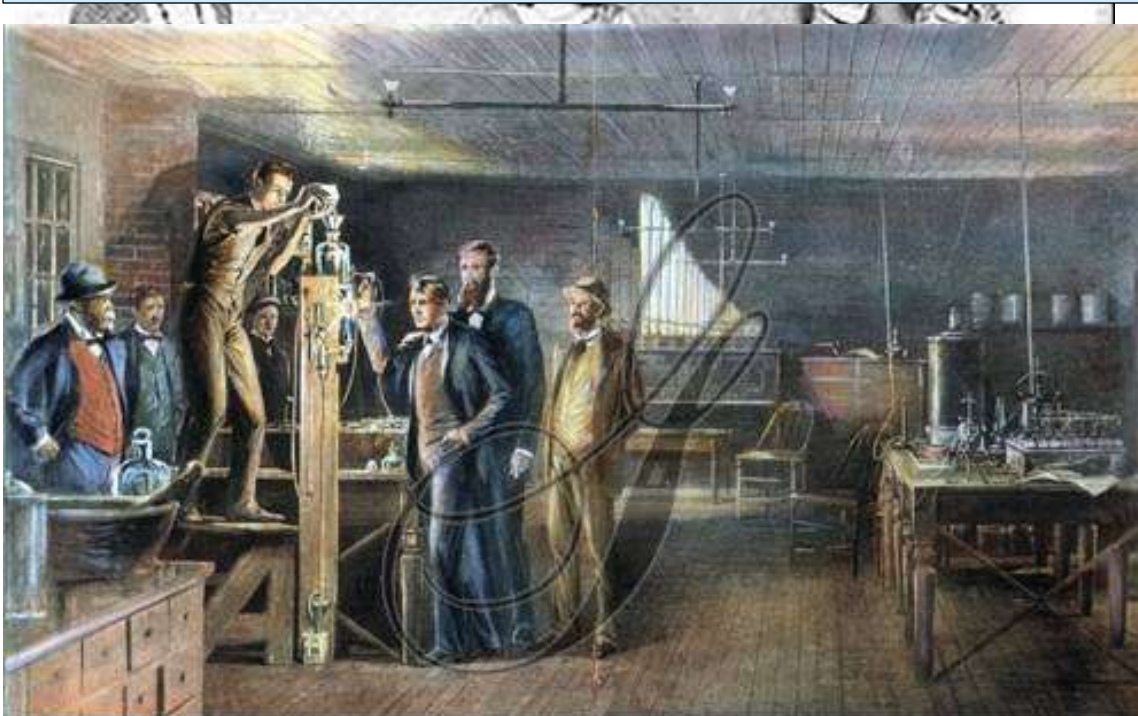
New inventions allowed for improved industrialization



Thomas Edison (the “Wizard of Menlo Park”) was the **greatest inventor of the 1800s**

In his New York research lab, he invented the 1st ? ? , and ?

His **most influential invention** was the **1st electric light bulb**



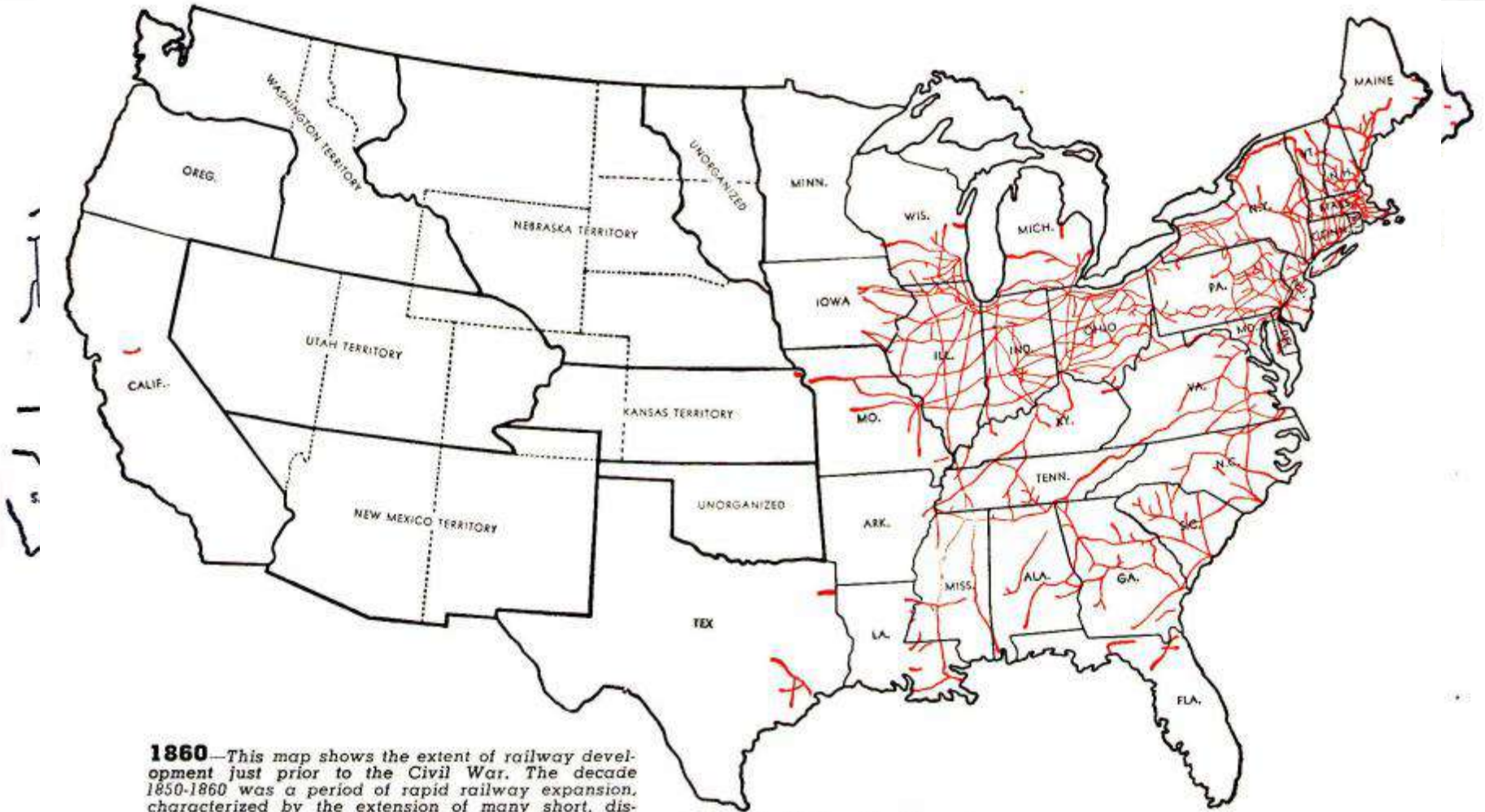
Thomas Edison (2.51)



The railroad was America's first "big business"

Railroad construction grew in the years before the Civil War...

...But, tracks were owned by different companies and were not standardized

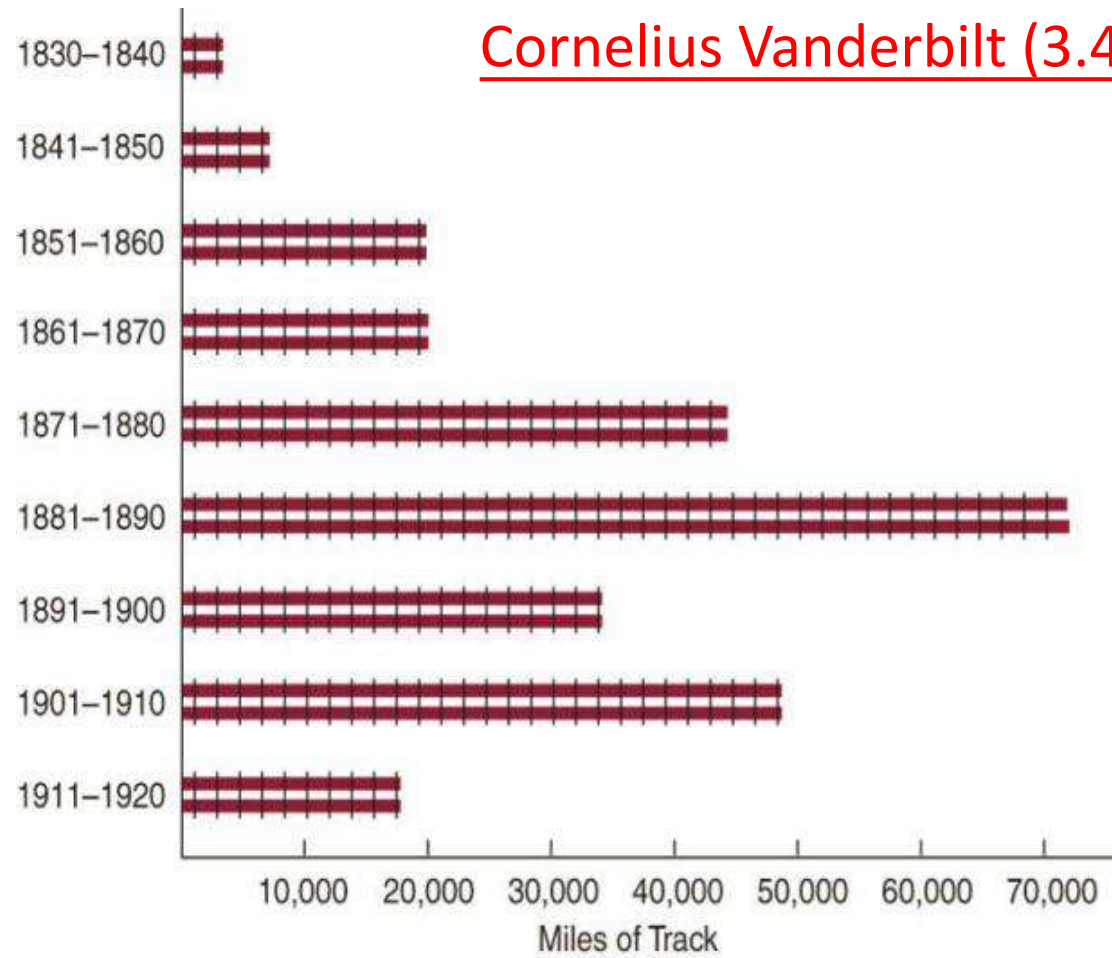


1860—This map shows the extent of railway development just prior to the Civil War. The decade 1850-1860 was a period of rapid railway expansion, characterized by the extension of many short, dis-

During the Gilded Age, railroad construction boomed, led by tycoons like Cornelius Vanderbilt and Jay Gould

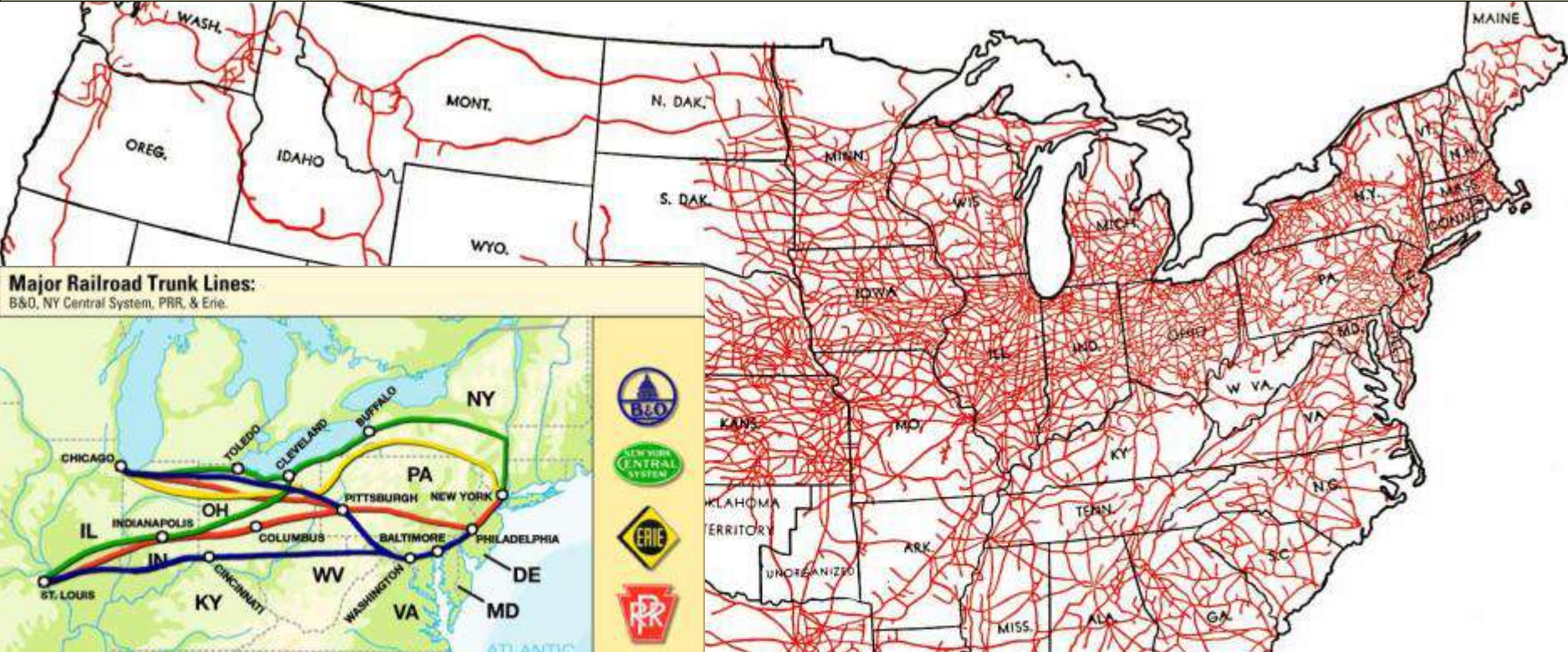
Large companies bought small railroads, standardized gauges and schedules, and pooled cars

Cornelius Vanderbilt (3.47)



Railroad expansion led to a boom in the economy

Railroads connected the East, South, and West and allowed for national trade and regional specialization



Eastern railroads were connected to the West by 4 great trunk lines

The 1st transcontinental railroad was finished in 1869

Railroads stimulated demand for coal, oil, iron, and steel

Chinese workers were recruited to America to build the railroad...

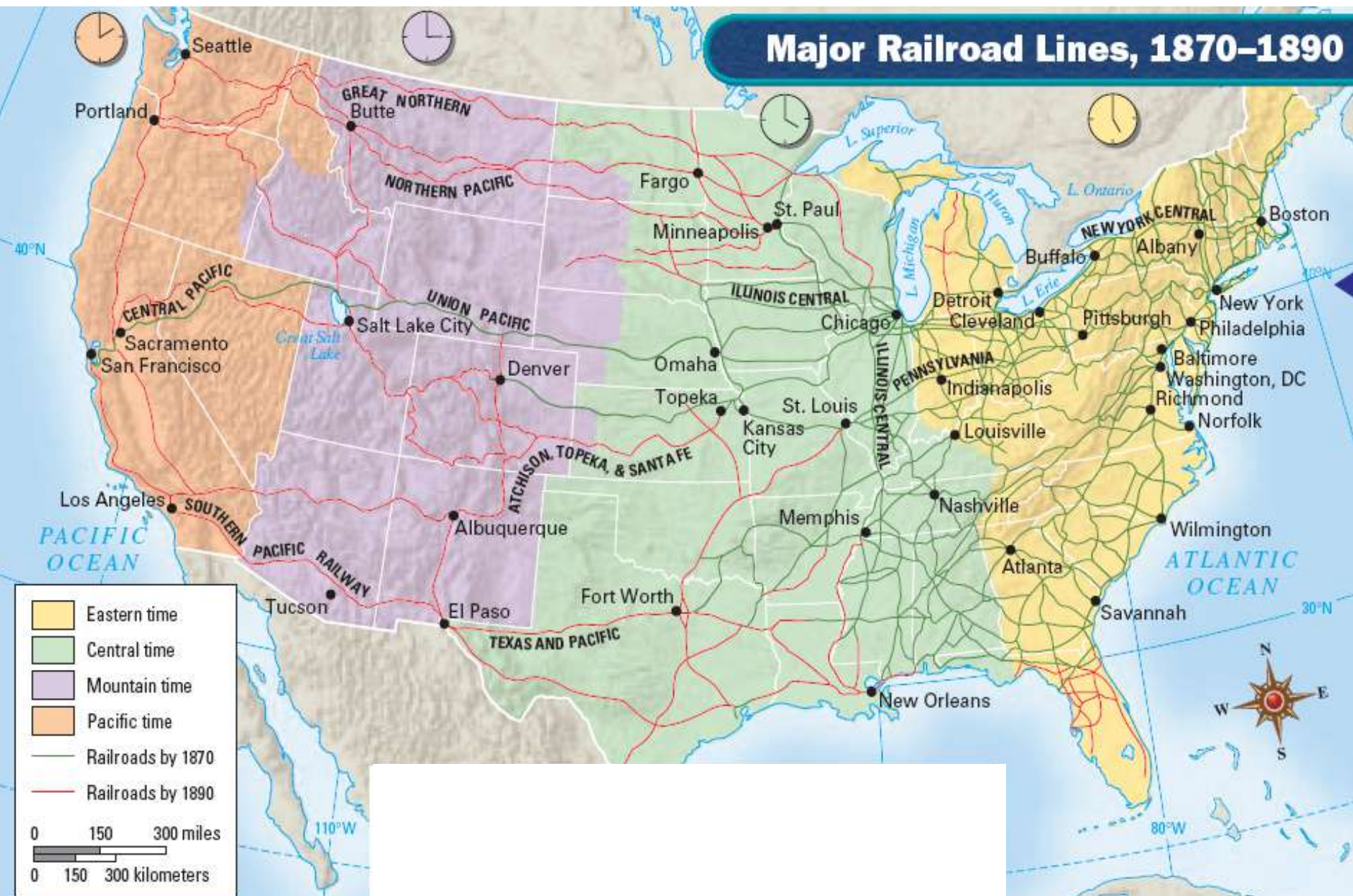
...But, Congress passed the Chinese Exclusion Act in 1882 which ended Chinese immigration to America

HIP! HURRAH!
CHINESE EXCLUDED
—The—
Democratic Chinese Exclusion Bill
Has Been Signed by
OUR DEMOCRATIC PRESIDENT
Hip! Hurrah! The White Man is on Top.
Let every DEMOCRAT and all other GOOD Citizens turn out and Ratify this
DEMOCRATIC MEASURE
At the
HORTON HOUSE PLAZA
This Wednesday Evening at 8 O'clock.
To-Night
Speeches will be made by Leading Democratic Orators.
COME OUT AND RATIFY!
Come Everybody!
NO MORE CHINESE!
By Order of
Democratic County Central Committee.

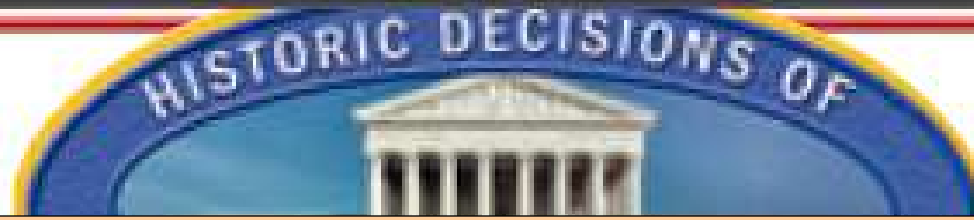


To avoid this same thing, Japan signed a Gentleman's Agreement, limiting immigration to US

Major Railroad Lines, 1870–1890



PLESSY V. FERGUSON



In 1896, Plessy v. Ferguson created the “**Separate but Equal**” clause, **upholding many of the Jim Crow Laws**

PLESSY v. FERGUSON (1896)

ORIGINS OF THE CASE In 1892, Homer Plessy took a seat in the “Whites Only” car of a train and refused to move. He was arrested, tried, and convicted in the District Court of New Orleans for breaking Louisiana’s segregation law. Plessy appealed, claiming that he had been denied equal protection under the law. The Supreme Court handed down its decision on May 18, 1896.

THE RULING The Court ruled that separate-but-equal facilities for blacks and whites did not violate the Constitution.

arguments in the 1954 case of *Brown v. Board of Education*.
(Continued on other side)

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- CPUSH Agenda for Unit 7.3:
 - Industrialization and Big Business notes

Industrialization led to a demand for iron and steel

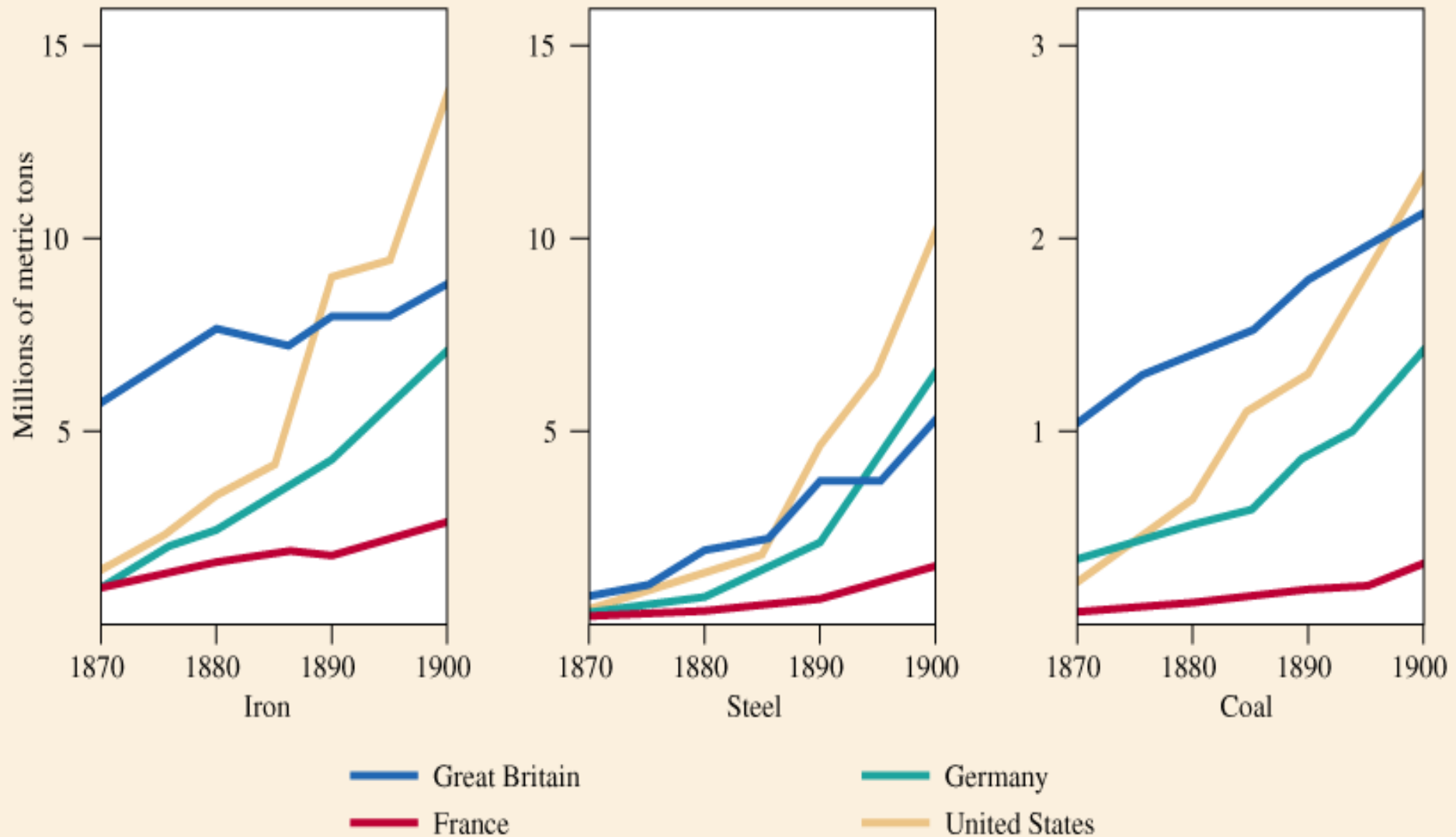
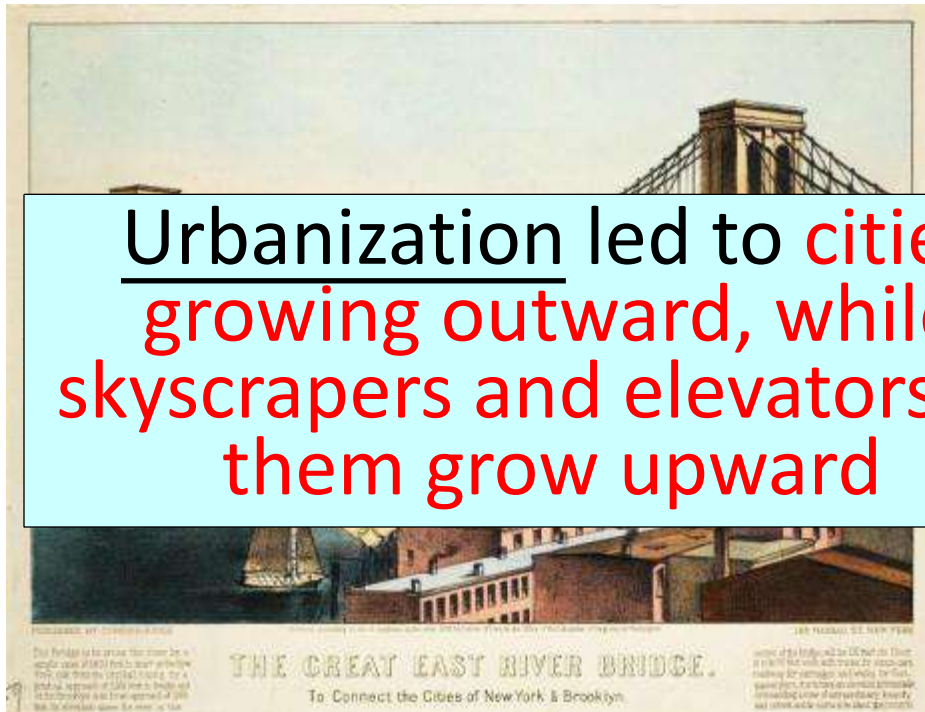


Figure 17.3 Iron, Steel, and Coal Production 1870–1900

Steel led to skyscrapers, longer bridges, stronger railroads, and heavier machinery



Urbanization led to cities growing outward, while skyscrapers and elevators let them grow upward



VIEW LOOKING SOUTHWEST, CITY HALL IN FOREGROUND
WOOLWORTH BUILDING, NEW YORK, CASS GILBERT, F.A.I.A., ARCHITECT

Captains of Industry or Robber Barons



JP Morgan



John D. Rockefeller

Rockefeller

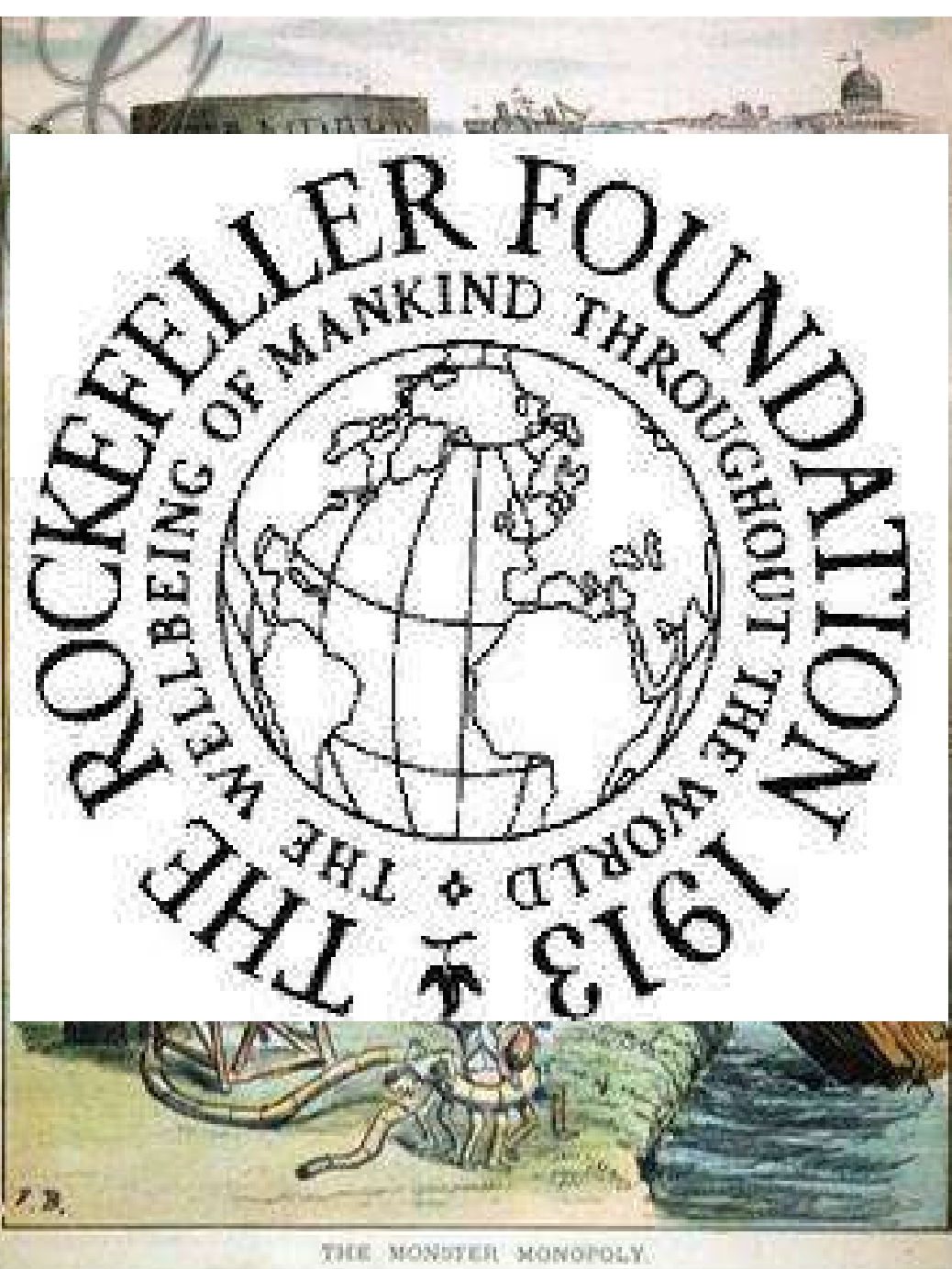
The iron and steel industries were dominated by Andrew Carnegie

Carnegie converted his mills to the Bessemer process and made the highest quality steel at the lowest price

Carnegie Steel Company produced more steel than all the steel factories in Great Britain combined

Carnegie **best represented the American dream** by rising from poor immigrant to richest man in the world





Rockefeller took advantage of his workers and used his fortune to influence the national gov't...

...but Rockefeller gave away \$500 million to charities, created the Rockefeller Foundation, and founded the University of Chicago

Industrialization led to a demand for financing so banking became a significant part of the Gilded Age



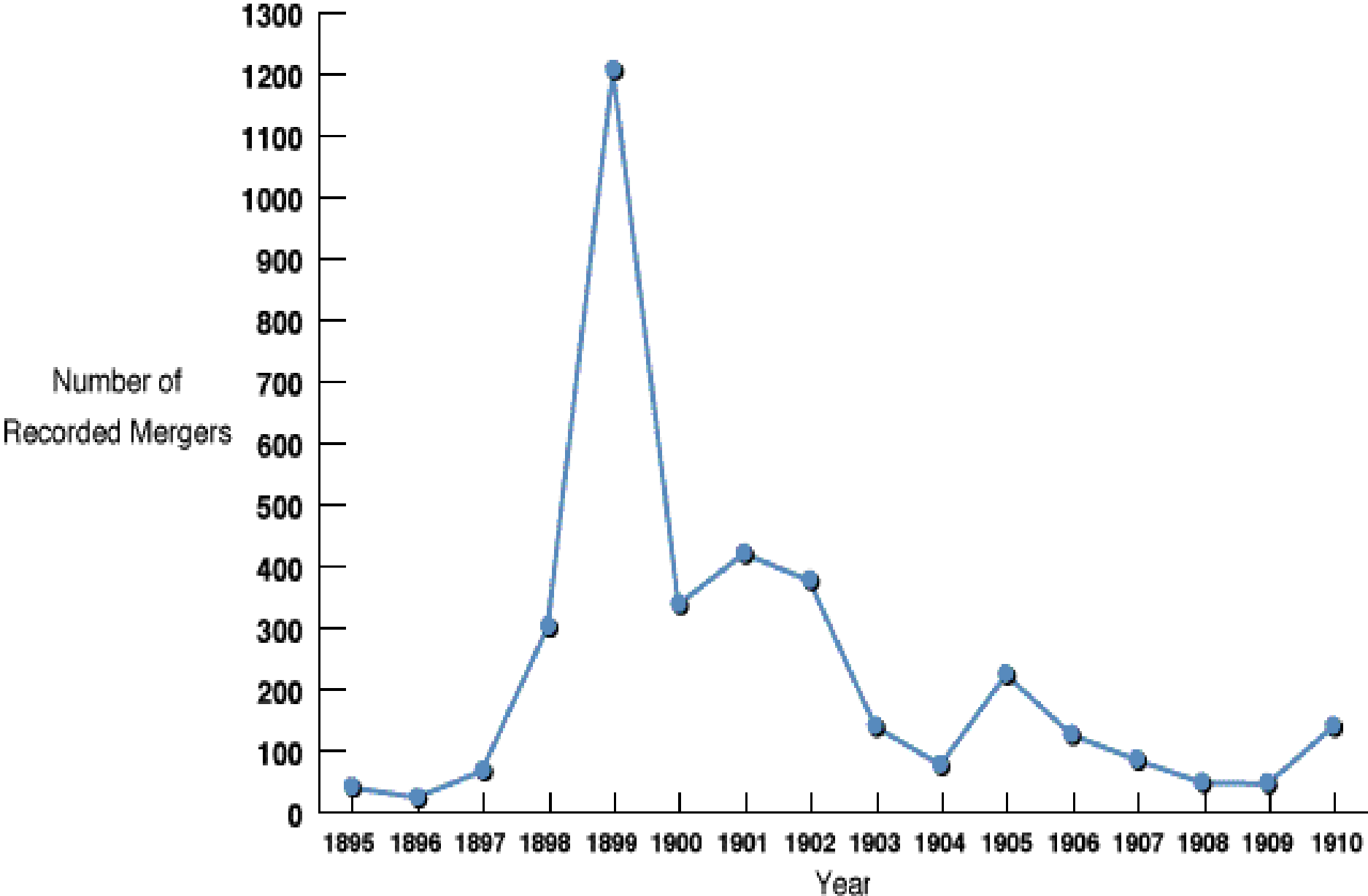
American finance and railroad was dominated by JP Morgan

He was so influential that he **bailed out the railroad industry** when companies were in trouble

He helped ease an economic depression during the Panic of 1907






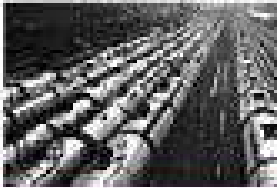
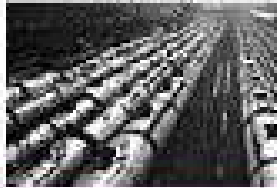
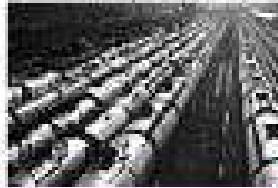








JP Morgan (3.08)

Corporations used mergers to increase profits












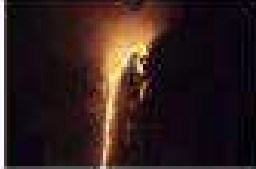






Companies like **Standard Oil** used horizontal integration to **buy similar companies to reduce competition**

Horizontal Integration

General Stages of oil production	Companies			
	Company A	Company B	Company C	Company D
Drilling				
Transportation				
Refining				
Sales & Distribution				

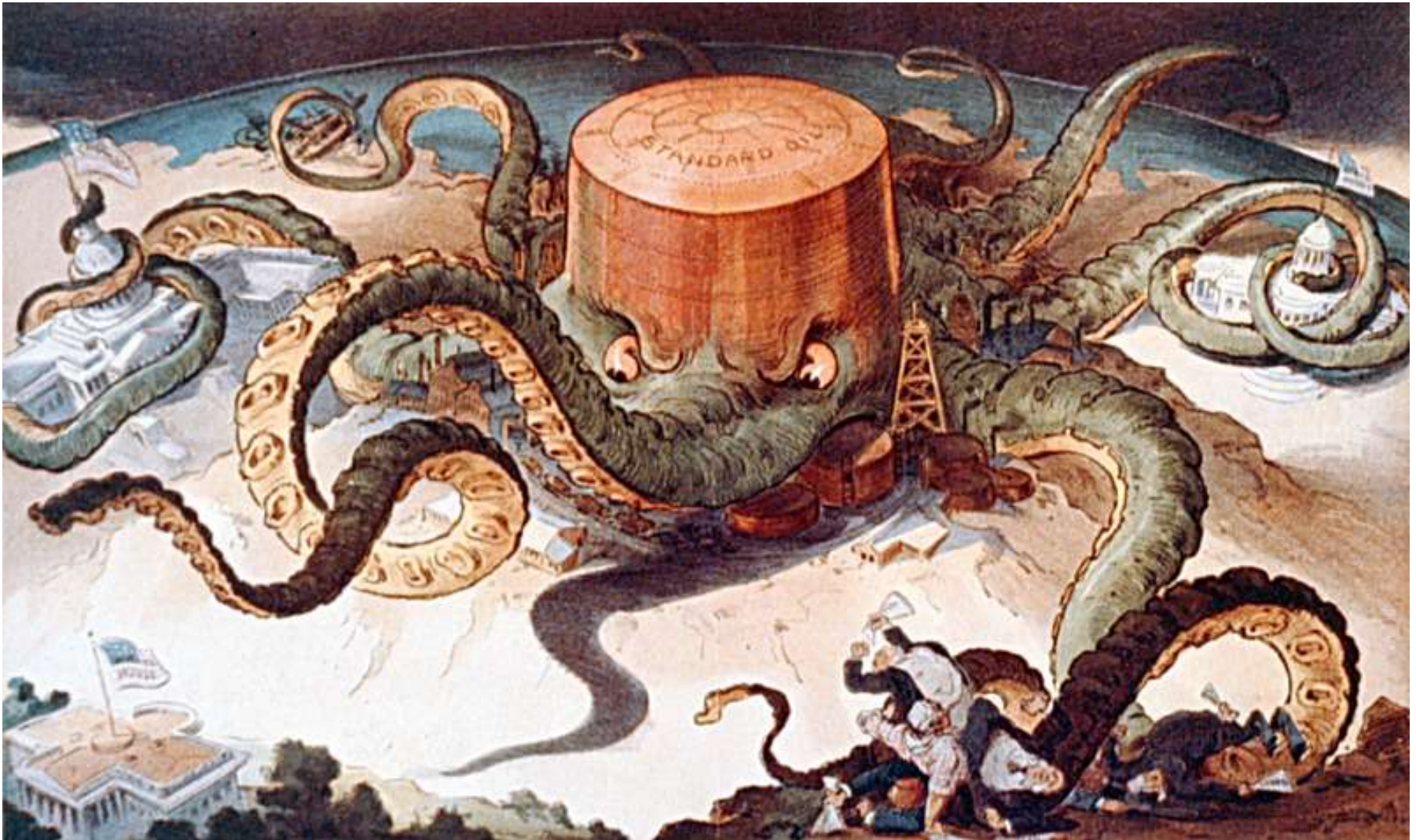
Companies like **Carnegie Steel** used vertical integration to **buy companies** in order to gain materials needed to make or deliver their products

Vertical Integration

General Stages of steel production	Companies			
	Company A	Carnegie Steel	Company B	Company C
Mining				
Transportation				
Smelting				
Refining & Rolling				

Corporate mergers led to giant companies called monopolies that controlled the majority of an industry...

Because most monopolies were run by boards of trustees, monopolies became known as "trusts"



Monopolists justified their wealth in a variety of ways

The “Gospel of Wealth” argued that it is God's will for some men to gain great wealth so they could serve the public

Social Darwinism taught that **natural competition weeds out the weak and allows the strong to survive**



The government used laissez faire policies toward big business...

...the **lack of regulation allowed businesses to become very powerful and exploitive**

Andrew Carnegie

J Pierpont Morgan

Conclusions

- America was changed by the Industrial Revolution:
 - The United States led the world in industry, innovation, and wealth
 - Laissez-faire gov't policies and new business tactics led to monopolies
 - But the gap between the wealthy monopolists and their poor immigrant workers grew wider

Were the industrial capitalists of the Gilded Age
“robber barons” or “captains of industry”?
Weigh their positive and negative effects

