

Trace the emergence of the U.S. as an Industrial power

1. America's geographical influence during Industrialization

I. Geography

A. Between Europe and China

1. allowed for increased and favorable trade with other nations
2. gave America an economic advantage for imported goods
3. had West and East potential for ports to import and export goods
4. increased investment from foreign markets due to the location of America and the diversity of the economy
5. quickly established America as a leader in the global trading market

B. Nationally

1. railroads aided in easy transport and were the major contributors to east-west business expansion, connecting many large cities
2. with advancing equipment, farming became more efficient and allowed for more investments in industry
3. had diverse land(i.e. mountains, oceans, lakes, rivers, plains) which made it easy to create a large and thriving economy

http://brfencing.org/h202lectures/Welcome_files/American%20Industry.pdf

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II. Resources

A. Minerals and Petroleum

1. had many resources that were easily accessible including: fresh water, coal, timber, iron, and copper which allowed for a quicker and cheaper rise to industrialization
2. began to exploit petroleum, originally for lamps and stoves, that would later fuel economic expansion westward and increased job opportunities in states like Pennsylvania
3. some cities, such as Denver, were created due to the mining industry near the Rocky Mountains so transportation would become faster and more efficient and more people could move there to work in the mines

B. Water

1. had a substantial amount of freshwater that citizens moved to which promoted the geographical expansion of the economy
2. many major cities were near water (i.e. New York, Boston, Philadelphia, San Francisco and Chicago) which aided them becoming the largest and most thriving cities in America
3. created faster and more efficient transportation routes for trade

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http://school.discoveryeducation.com/teachersguides/pdf/socialstudies/ul/the_american_industrial_revolution_tg.pdf

2. Federal Policies Impact on Industry

I. Federal Government Policies

A. Taxes

1. State and federal governments kept taxes and spending low.
2. Governments did not impose costly regulations on industry.

B. Free Enterprise

1. Entrepreneurs - people who risk their capital in organizing and running a business.
2. Laissez-faire - the ability of businesses to operate without government control.

C. Homestead Act of 1862

1. Provided a legal method for settlers to acquire clear title to property in the West.
2. A homesteader could claim up to 160 acres of public land and could receive a title to that land after living there for five years.
3. Settlers became more willing to move to the Plains.

D. Pacific Railway Act / Transcontinental Railroad

1. Provided for the construction of the transcontinental railroad by two corporations, the Union Pacific and the Central Pacific railroad companies.
2. Railroads helped increase the size of markets for many products.
 - a) Gave businesses the opportunity to have a faster and cheaper way to transport their goods to and from the facilities.
3. Federal government gave land grants to many railroad companies.
 - a) Railroads would sell the land to settlers/businesses to raise the money needed to build the railroad.

II. Tariffs

- A. Created to protect American industry from foreign competition.
- B. Helped American companies in the US, but hurt those trying to sell goods overseas.
- C. Other countries raised their tariffs against American goods.
- D. Tariffs hurt farmers who sold products to Europe. This ended up speeding industrialization because many Americans decided to leave their farms and work in factories.

<http://www.history.com/topics/industrial-revolution>

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3. Inventions brought to market because of Industrialization

I. Inventions during the Industrial Revolution

A. Telephone

1. Invented by Alexander Graham Bell in 1874
2. Took two years for him to succeed in transmitting his voice
3. Revolutionized both business and personal communication
4. In 1877, Bell organized the Bell Telephone company, which is now

known as AT&T

B. Lightbulb

1. First lightbulb was build by Humphry Davy in 1806
2. Perfected by Thomas Alva Edison in 1879
3. Edison Electric Illuminating Company launched a new industry in 1882
4. Transformed American society when it began supplying New York City with electric power
5. Edison's companies merged together to form the Edison General Electric Company, now known as GE

C. Telegraph

1. Invented by Samuel F. B. Morse
2. Allowed people to send information from one place to another
3. Also the inventor of Morse Code

D. Radio and Television

1. Guglielmo Marconi was the first to put the idea of radio/television into practice
2. James Clerk Maxwell, Heinrich Hertz, and Nikola Tesla laid out the groundwork for Marconi's idea in the 19th century

II. Other Inventions

A. Ice machine

1. Invented by Thaddeus Lowe
2. Basis of refrigerator

B. Refrigerated railroad car

1. Invented by an engineer hired by Gustavus Swift

C. New inventions and standardization

1. caused clothing and shoe industries to improve
2. prices of food and other products dropped as the US industrialized

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<http://www.history.com/topics/inventions>

4. New Form Businesses and Their Impact on America

I. Corporations and Trusts

A. Corporations

1. large organization owned by many people but recognized as a single entity(owned by a single person) by law
2. owned by multiple people(stockholders) who own small portions of the company called stocks
3. began by operating in a single state or town but later expanded into larger more powerful businesses
4. smaller businesses often could not compete against the corporations because of their lower operation costs
5. caused widespread fear of multiple economic monopolies(when a single company achieves control of an entire market)

B. Trusts

1. multiple corporations or firms working together as an attempt to monopolize market
2. complete power to certain trusts which manipulated the market and prices unfairly
3. no opportunity for competition in that particular market
4. reduces the ability for citizens to create and maintain business in the market
5. occurred mostly in oil companies like Standard Oil in 1882

C. Vertical Integration

1. company that owns many different businesses to support its operations
2. could easily shut down multiple business and places complete economic reliance on the main business that owns the smaller ones

D. Horizontal Integration

1. combining many firms in the same type of industry into one large corporation
2. create many monopolies that dictated the market and made expansion in that market nearly impossible

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http://www.gale.cengage.com/pdf/whitepapers/gdc/Corporations_whtppr.pdf

II. Advantages vs. Disadvantages of New Forms of Business

A. Advantages

1. corporations became very wealthy and provided many jobs
2. often eliminated inefficient companies and increased efficiency in the production and distribution of the products
3. led to strong economic partnerships between business
4. many states made it illegal for one company to own a part of another company unless that particular state legislature granted permission
5. increased restrictions placed on businesses and called for more laws to prevent monopolies

B. Disadvantages

1. created multiple monopolies that completely dominated the market as well as pricing and quality
2. decreased competition because small businesses could not compete with the corporations pricing
3. caused an unfair market for American and foreign buyers of the goods

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https://www.amacad.org/publications/daedalus/spring2013/13_spring_daedalus_GomorSylla.pdf

5. Leading Industrialists of the Era

I. John D. Rockefeller

A. Early Life

1. Born in Richford, New York on July 8, 1839.
2. Moved to Cleveland Ohio with his family in 1853 where he attended high school and briefly studied bookkeeping in college.
3. Found work as an office clerk in a Cleveland commission firm at the age of 16 in 1856,
4. Started his own firm in 1859 and later entered the oil refinery industry in 1863 by investing in a Cleveland refinery.
- 5.

B. Standard Oil

1. Bought out his investment partners in order to take control of the Cleveland refinery by borrowing money
2. Acquired new partners over the years and continued to grow his oil industry. Eventually in 1870, he founded the Standard Oil Company along with his younger brother William, Henry Flager, and other business partners.
3. As president of Standard Oil, he quickly gained a monopoly by buying rival refineries and developing companies for distributing and marketing products around the world. He used combined these companies into the Standard Oil Trust, which controlled 90 percent of the nation's refineries and pipelines.
4. John Rockefeller was criticized for his enormous wealth. He was accused of being a "robber baron" by journalists because he exploited certain economies by employing scientists to build his own oil barrels and finding different uses for his petroleum by-products.

C. Final Years

1. Rockefeller dedicated the rest of his life to philanthropy after entrepreneurship.
2. He donated over half a billion dollars to religious, educational, and scientific causes.

3. He died at age 97 on May 23, 1937 in his winter home at Ormond Beach, Florida.

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<http://www.history.com/topics/john-d-rockefeller>

II. Andrew Carnegie

A. Early Life

1. Born in Dunfermline, Scotland on November 25, 1835.
2. Immigrated to America in 1848 with his family in order to find better economic opportunity. Settled in Allegheny City, Pennsylvania (now part of Pittsburgh).
3. With little schooling, he found work as a bobbin boy in a cotton factory where he made \$1.20 a week.
4. With ambition and hard work, he eventually became the telegraph operator for the superintendent of the Pittsburgh division on the Pennsylvania Railroad. He later succeeded his boss as superintendent.
5. As superintendent of the Pittsburgh division of the PA Railroad, he made profitable investments in coal, iron, and oil companies.
6. He left his post with the railroad in 1865 and continued to expand his railroad-related investments in the rapidly growing railroad industry. He was wealthy by his early 30s.

B. Carnegie Steel Company

1. Carnegie co-founded his first steel company in the early 1870s. he created a steel empire by maximizing profits and minimizing inefficiencies through ownership of factories, raw materials, and transportation infrastructure involved in steel-making.
2. He often regarded himself as a champion of working man. His reputation suffered. Regarded by other people as a robber baron, he exploited his factory workers, which eventually led them to protest. The protests usually ended violently.
3. He finally sold his steel company to J.P. Morgan in 1901, making him the world's richest man.

C. Final Years

1. Like Rockefeller, Carnegie devoted the rest of his life to philanthropy after his industrial career.
2. He gave away \$350 million to science, education, and world peace causes. \$1.1 million was used to build Carnegie Hall in New York City.

3. He died at age 83 in Lenox, Massachusetts.

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<http://www.history.com/topics/andrew-carnegie>

III. J.P. Morgan

A. Early Life

1. Born in Hartford, Connecticut on April 17, 1837.
2. Studied in Europe after graduating from high school in 1854. He returned to New York to begin his finance career.

B. Banking Titan

1. In 1864, Morgan became a partner in the firm Dabney, Morgan and Company, the New York representative of J.S. Morgan and Company
2. Morgan was heavily involved in reorganizing and consolidating a number of financially troubled railroads due to rapid overexpansion and heated competition in the railroad industry. In the process, he gained control of significant portions of these railroads' stock and controlled about a sixth of America's railroad lines.
3. Around the start of the 20th century, Morgan began to shift from railroads to other industries. He started by buying the Carnegie Steel Company from Andrew Carnegie. He also helped establish General Electric, International Harvester, and American Telephone and Telegraph.
4. He was widely known for using his influence to save the U.S. from numerous financial crises since the U.S. had no central bank.
5. He was often denounced as "overpowering" for his economic role in the country, which is why some people gave him the title of robber barons

C. Final Years

1. After his financial career, Morgan devoted a substantial portion of his wealth to his growing art collection.
2. Morgan died at age 75 on March 31, 1913 in Rome, Italy.

<http://www.history.com/topics/john-pierpont-morgan>

<http://www.pbs.org/wgbh/amex/1900/peopleevents/pande10.html>

6. Problems of Industrialization

I. Working Conditions

A. Unhealthy and dangerous working conditions

1. workers breathed in dirt, dust, and fumes
2. workers carried heavy machines that had no safety devices which caused injuries

3. small children were used to fit into small spaces between dangerous machines causing death rates to be quite high in factories
 4. 12 or more hours a day of working in very hot workplaces
- B. Unfair working conditions
1. very low wages for workers in factories; women received a third of a payment
 2. unskilled workers had little job security and were easily replaceable
 3. few break time

II. Living Conditions

A. Unsanitary living conditions

1. spread of disease because of overcrowding and lack of medical care
2. no sanitation codes
3. garbage filled the streets

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<http://www.history.com/topics/industrial-revolution>

7. Opposition to Unions

- I. People such as employers, opposed unionization during the Industrial Revolution
 - A. employers were forced to recognize and negotiate with trade unions because they represented workers with skills that were needed
 - B. some trade unions were involved in crime and violence
 - C. unions in strike disrupted public services
 - D. unionized workers demanded higher wages
- II. Companies used techniques to prevent unions from forming
 - A. Required workers to take oaths or sign contracts promising not to join a union
 - B. Hired detectives to go undercover and identify union organizers
 - C. Workers who tried to organize a union or strike were fired and placed on a “black list” (once blacklisted, a laborer could get a job only by changing residence, trade, or even his or her name)
 - D. Companies used a lockout to break unions. They would lock workers out of the property and refuse to pay them. If union called a strike, employers would hire replacement workers, or strikebreakers (scabs)
- III. Confrontations between owners and government led to violence
 - A. Riot at Haymarket Square in Chicago was originally a labor protest until someone threw a bomb at police, killing eight people.
 - B. Great Railroad strike of 1877 was over a period of 45 days where there were erratic storms of violence in multiple cities against railroads.
 - C. Pullman Strike of 1894 involved rail workers who responded to wage cuts. Army was sent to restore order.
- IV. Trade Unions still prospered even though large-scale industrial unions generally failed

- A. Knights of Labor founded by Uriah Stephens and six other men. KOL believed in creating the “greatest good for the greatest amount of people”
- B. American Federation of Labor was the biggest union in the country
 - 1. Leader Samuel Gompers approach labor relations “plain and simple” unionism, helped unions to become accepted in American Society.
- C. Congress of Industrial Organization was an industrial union that later merged with the AFL.

<http://www.digitalhistory.uh.edu/era.cfm?eraID=9&smtID=4>

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