

Industrialization

I. How did America's geography and physical location aid rise to a great industrial power? What resources did America possess that allowed for such rapid economic growth? Give specific examples of regions/industries that benefited from the development of these resources.

A. Geography

1. With the US being located in between Europe and China, two of the largest trading centers, their products were able to make a larger profit

2. The following states were locations for oil drilling; later benefitted from oil booms :

- Texas
- Pennsylvania
- Kentucky
- Ohio
- Illinois
- Indiana

3. The Great Plains were the ideal location for agricultural expansion in the US, due to the abundance of natural resources available.

B. Political involvement

1. Railroad networks were made possible by the government's funding of land grants to businesses

C. Benefits from Industrialization

1. New methods for transportation served useful for transporting goods and supplies across the country, such as:

- Railroads - the iron, lumber, glass, and coal industry highly demanded the usage of railroads
- Roads

<http://schoolshistory.org.uk/IndustrialRevolution/workingconditions.htm>

II How did the policies of the federal government affect the process of industrialization? Did such practices as high tariffs help or hurt the American economy during this era? (Think about: transcontinental railroads, homestead acts, canals, and ports built by state and local

governments.)

A. Pacific Railway Act

1. Allowed for the construction of the transcontinental railroad to be done by 2 companies, the Union Pacific and the Central Pacific Railroad companies.
2. Encouraged rapid growth and construction
3. Caused competition between companies as they sought to develop as much of the land as they could (provided by the government) as quickly as possible in order to try and collect the most money.

B. Federal Land Grant System

1. land grants were given by the federal government to help encourage the growth of railroad construction.
2. Many private investors couldn't raise enough money on their own
3. Awarded railroad companies over 120 million acres of land

C. Tariffs

1. The federal government implemented tariffs on items going in and out of the country
2. By placing tariffs on certain items, it allowed businesses and industry to grow in the U.S.
3. Because the government used tariffs, it encouraged people to buy from places inside the U.S.
4. This helped the growth of industries because it caused a demand for products because of the fact that people wanted to buy goods within the country so as not to have to pay tariffs.
5. Tariffs not only allowed for the security of U.S. industries, but also helped raise revenue for the government
6. Disadvantaged many farmers by causing them to lose their overseas markets

D. Homestead Act

1. gave rights to any adult U.S. citizen to acquire 160 acres of land to use for farming
2. Became easily susceptible to fraud
3. Few laborers and farmers could afford the supplies necessary to build a farm, let alone many of the essential tools required to do so.
4. Many railroad companies as a result began trying to acquire this granted land who used it to further expand
5. Much of the land was taken over by cattlemen, miners, and lumberman- once again, this allowed for the expansion of these industries.

sources:

book: text pages 246,247,250

<http://herndonapush.wikispaces.com/The+Tariff+during+the+Gilded+Age>

<http://www.ourdocuments.gov/doc.php?flash=true&doc=31>

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

III. What new inventions were brought to market because of Industrialization? How did these inventions change the lives of ordinary Americans? by Matteo Carella

A. Railroads

1. Railroads during the industrial revolution were very important because they made trade available to people all the way in the west
2. Western traders would gain large amounts of money by trading with the eastern part of the United States.
3. Towns sprang up and markets grew along railroad lines
4. Faster form of transportation for people, raw materials, farm produce, and finished products.
5. Industries grew from the development of railroads because of the high demand for iron, coal, steel, lumber, and glass

6. The only bad thing about railroads was how expensive they were to build.

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<http://www.ushistory.org/us/25b.asp>

B. Reapers

1. The mechanical reaper was invented by Cyrus McCormick.
2. It cut ripe grains like oats, barley, and wheat.
3. It made production 24 times faster than normal.
4. This machine helped the United States become one of the worlds leading exporter of Wheat by the 1880's
5. Wheat was as important in the Great Plains as cotton was in the South
6. The Great Plains was the best area to farm the wheat because of its drought resistant soil.

Text, pg.240

<http://www.timetoast.com/timelines/109339>

C. Telephone

1. Developed and invented by Alexander Graham Bell.
2. Helped business tremendously because it speed up the production of goods all around the country because messages were being relayed way faster than before.
3. Allowed people to talk to each other without waiting months to get a responce.
4. Bell later set up a telephone company that is know known all around the world as AT&T

Text, pg.246

<http://www.studyzone.org/testprep/ss5/b/ecotech19l.cfm>

D. Electric Generator

1. Invented by Michael Faraday
2. Made factories able to be open 24/7 instead of just during the day, which increased the amount of products that were being made
3. This created more jobs for people because now there would be time to work during the night

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<http://www.saburchill.com/history/chapters/IR/054.html>

E. Light Bulb

1. This was invented by Thomas Edison
2. Light Bulbs helped industry and work because it allowed the workers to work longer into the night and also
3. This was also bad for the American working class because it created longer hours for workers
4. This was the first time light was coming from a downward motion, which allowed it to fill out the whole room instead of having candles, and lamps that only created barely any light

Text, pg. 246

<http://www.localhistories.org/industrial.html>

F. Ice Machine/Railroad Refrigerating

1. Thaddeus Lewis invented ice machine
2. Was the main basis of Refrigerating, which allowed people to cool their foods and not spoil it.
3. This was huge when it came to trade because it allowed meats to be traded long distance because it would not spoil which helped our economy grow.
4. Also created jobs for the public because the extracting and handling of ice needed workers, which made job opportunities available.

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<http://www.history-magazine.com/refrig.html>

G. Phonograph

1. Invented by Thomas Edison
2. The phonograph was developed as a result of Thomas Edison's work on two other inventions, the telegraph and the telephone.
3. This was a huge invention because it allowed people to play back what they said or if they have a message waiting for them.

Txt. Pg.246

<http://inventors.about.com/library/inventors/bledisondiscphgraph.htm>

IV. Q: How did the new forms of business combination (corporations, trusts, vertically and horizontally integrated companies) affect industrialization? Were these types of businesses good or bad for America? Were they both?

1. Corporations

- An organization owned by many shareholders, or people who legally own a share in the ownership of a company, but is treated by law as a single person.
- Limited liability protects these shareholders by not holding them accountable for a failed business enterprise they bought stock in.
 - i. People were attracted to the benefits of limited liability and bought stock in corporations, making large amounts of money available to the corporations.
 - Corporations used this money to invest in new technologies and innovations which contributed to economic growth.
- Corporations had positive effects on America
 - i. Economically, corporations lowered prices because they highly efficient and had low operating costs.
 - ii. Socially, corporations created millions of new jobs, allowing the jobless to support their families.
- Corporations also had negative effects
 - i. Many feared that corporations would cut down individual rights in their fight for

monopoly through bribed politicians.

-Resulted in political unrest and the formation of Socialist Labor Party, Anti-Monopoly Party, and the People's Party.

ii. Many small businesses failed because they were unable to compete with the large corporations.

(http://www.gale.cengage.com/pdf/whitepapers/gdc/Corporations_whtppr.pdf,
<http://www.investopedia.com/terms/c/corporation.asp>,
<http://www.ushistoryscene.com/uncategorized/secondindustrialrevolution/> , p. 249 in Text.)

2. Vertical integration

- Vertical integration is when a company owns all the parts it needs for operation, such as the supply, the distribution, the manufacturing, and the retailing.
- One of the most famous examples of vertical integration was Andrew Carnegie and his steel company.

i. Instead of buying the necessary minerals for his steel from companies, Andrew Carnegie bought the mines in which the minerals could be found.

- There are many benefits to vertical integration

i. The manufacturer can control the presentation of the product and the price which it is sold at.

ii. While this is mainly only beneficial to the manufacturer, buying out the supply can destroy whatever competition was using that supply as well.

- However, reduced competition may result in higher prices.

iii. The manufacturer can sell at lower costs by eliminating the middle man who usually raises the price, and selling directly to the consumers.

iv. Vertical integration demanded for better ways for the manufacturer to distribute their product, which resulted in technological advancements such as refrigerated train cars.

v. Tended to be more profitable than horizontal integration, explained below.

(<http://www.strategy-train.eu/index.php?id=138>,
<http://smallbusiness.chron.com/advantages-vertical-integration-strategy-20987.html>,
http://www.gale.cengage.com/pdf/whitepapers/gdc/Corporations_whtppr.pdf, p. 249 in text)

3. Horizontal integration

- Horizontal integration is when similar businesses combine into one larger

business.

- Cut down on competition, as companies could simply buy out their competitors.
- A famous example of this is Standard Oil Company, run by John D. Rockefeller.

i. Standard Oil Company has a monopoly, or complete control over the market, on oil.

- Sparks fear of monopolies, because the company with a monopoly over a product could charge whatever they wanted for it.

i. Many states tried to prevent horizontal integration by outlawing the ability for one company to own stock in another, which lead to the formation of trusts.

- Horizontal integration had positive and negative effects on America.

i. Negative- It allowed for monopolies to form, which could result in raised prices.

Positive- However, until the point a business becomes a monopoly, prices are lowered.

ii. Negative- With multiple companies, a jobless man who is trained for a specific job has many options, with many companies bidding on his employment. With only one employment option, someone who is trained for a specific job has only that option. The price of labor goes down.

(http://www.gale.cengage.com/pdf/whitepapers/gdc/Corporations_whtppr.pdf, p. 249 in text)

4. Trusts

- A legal idea that allows one person to manage another person's property.
- The Standard Oil Company formed the first trust to work around the laws placed against horizontal integration.
- The general public still considered the reduction of competition bad, so Congress passed the Sherman Antitrust Act of 1890.

i. Attempted to increase economic competition.

ii. Made it illegal for trusts to behave like a monopoly.

iii. Unintentionally boosted big business, as it only prevented trusts from behaving like monopolies, and corporations were still free to do so.

- Trusts were good and bad, as they lowered prices up until they become a monopoly, where they raise prices. Fortunately, antimonopoly laws were passed to guard against such a thing.

V. Provide biographies of leading industrialists of this era. These men are often called "robber

barons", were they?

1. John D. Rockefeller

- Had a monopoly on the the Standard Oil Industry
- Grew up with business all around him. He was going from job to job
- Had an aggressive personality that helped make him so successful
- Was testified in court and his that his success was due to his own company
- Believed in social darwinism
- Very often called a robber baron
- Towards the end of his life he was a philanthropist

<http://www.pbs.org/wgbh/americanexperience/features/biography/rockefellers-john/>

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2. Andrew Carnegie

- Scottish immigrant who came to the United States in 1848
- Established a monopoly in the steel industry
- Owned his company which was known as Carnegie Steel Company
- Often called a robber baron because his company was blamed for the Homestead Strike of 1892
 - Where all the steel workers went on strike because the company tried to lower their wages
- Helped a lot with philanthropy - believed in Social Darwinism
- Was not a robber baron, but oftenly was caused one
- Donated money towards Carnegie Melon, hence the name

<http://www.biography.com/people/andrew-carnegie-9238756>

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3. James Piermont (J.P.) Morgan

- Had a monopoly in the Railroad Industry
- He was a robber baron and controlled all railroads in the Northwest New York area
- Invested in the electric industry which helped greatly to his advantage

http://www.fordham.edu/academics/colleges_graduate_s/undergraduate_colleg/fordham_college_at_l/special_programs/honors_program/hudsonfulton_celebra/homepage/biographies/jp_morgan_32212.asp

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4. Thomas Edison

- Made the lightbulb cheap and effective
- An inventor but helped start the electric industry
- Started Edison Electric Illuminating Company in 1882 which is now GE today
- Created a model for modern industrial research
- Was not a robber baron

<http://edison.rutgers.edu/biogrphy.htm>

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5. Cornelius Vanderbilt

- Lived in Manhattan, New York
- Became one of the largest steamship operators
- Also helped in the railroad industry
- Was not a robber baron

<http://www.history.com/topics/cornelius-vanderbilt>

<http://www.stfrancis.edu/content/ba/ghkickul/stuwebs/bbios/biograph/vanderbi.htm>

Often most of these industrialists were called “robber barons” but were not. Just because they own a monopoly does not make them one, it is from their own success. There is speculation as to who was and who was not a robber baron. The top two industrialists are often called them but I think that Andrew Carnegie is one but John D. Rockefeller was not due to evidence that has been found through research.

VI. Workers attempted to organize themselves against these new, large corporations by forming unions. What problems of industrialization were unions trying to solve? What was wrong with industrialization? How were people hurt by the jobs, working conditions, and living conditions of this time?

A. Cons

1. Rise in the standard of living for average american.

2. Machines replace workers --- work is tedious & long
3. Distinct division between the rich and the poor's income (more poor than rich)

B. Working and Living Conditions

1. Workers constantly breathe in toxic fumes
2. Child labor is common, many under the age of 15
3. Machines lack safety devices
 - Workers suffer multiple injuries (ex: Children whom have been injured experienced stunted growth)
4. Work days could last for more than 12 hours a day
5. Housing - poor, no sanitation, lacking ventilation

C. Goal of Unions

1. Improve working conditions for working
2. Earn higher pay
3. Avoid being blacklisted -- "troublemakers"
 - Companies opposed the formation of unions; if workers were caught in a union, they would have to change their residency and name

4. AFL - American Federation of Labor (Successful)

Group focuses on organizing skilled workers

- Closed shops - hiring of only union members
- Only 8 hour workday
- Samuel Gompers; founder of union
- Convince companies to recognize unions
- Grew and held many successful strikes

5. Knights of Labor (Unsuccessful)

Secret organization that organized unskilled workers

- 8 hour workday
- Uriah Smith Stephens and Terence V. Powderly; founders of union group
- Termination of child labor
- Equal pay for equal work
- Unsuccessful mismanagement, strikes, and autocratic structure ultimately led to the downfall group

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<http://edsitement.neh.gov/lesson-plan/industrial-age-america-sweatshops-steel-mills-and-factories#sect-activities>

VII. *Maybe people, including some workers, disliked unions. Why did people oppose unionization? Were these unions successful despite this opposition?*

A) *Marxism*

1. Created by Karl Marx
2. Karl Marx thought that the workers would revolt, seize control of the factories, and overthrow the government.
3. The European Union thought that this would lead to a communist society
4. Because of Marxism people were afraid thus they broke up using the courts, the police, and the army.
5. People felt that strikes were a conspiracy to stop trade.
6. People had the perception that unions treat American institutions.
7. People felt that they were often Marxist.

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http://www.historylearningsite.co.uk/karl_marx.htm

B) *Industrial Unions*

1. All craft workers and common laborers in a particular industry.
2. They thought it would slow down the work force.
3. The companies techniques made them unsuccessful. Some examples of these techniques are they required workers to take oaths or sign contracts promising not to join a union, and they hired detectives to go undercover and identify union organizers.
4. Employers made workers sign contracts to not strike. (Two strikes were the Great Railroad strike of 1877 and the Pullman strike of 1894, involved rail workers who responded to wage cuts.

5. Employers hired detectives to find Union organizers.
6. Employers hired strike breaks to replace employers who refused to work.

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<http://krypton.mnsu.edu/~millep1/econ406/misc/History%20of%20Unions.pdf>