Unit 5: Changing America – Part 1

1820-1860

Impact of immigration, expansion, industrialization, technology, and foreign events on the US
Analyze the graphs, photos and maps. Then, copy and answer questions.

Our focus is 1820-1860...
1. What advantages does increased immigration bring to America?

2. What challenges does it create?
3. From which region are people most likely to move West? Why?
Migration

The Mean Center means it is the middle of the country in average number of people.

4. Ever since 1790 until today, which direction is the mean center moving?
Migration

5. What challenges would the people face while moving West?

Q-Bone Diagram

Underlying causes

Immediate causes

Event

Territorial Expansion (1783-1860)

Immediate effects

Long-term effects

Short-term causes

Long-term causes

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Push vs. Pull in Immigration

**Push Factors**
- few services
- lack of job opportunities
- unhappy life
- poor transport links
- natural disasters
- wars
- shortage of food

**Pull Factors**
- access to services
- better job opportunities
- more entertainment facilities
- better transport links
- improved living conditions
- hope for a better way of life
- family links
Push vs. Pull in Immigration

- **PUSH Factors**
  - LEAVE
    - Poverty
    - Fear
    - Disasters
    - Unemployment

- **PULL Factors**
  - FIND
    - Safety
    - Opportunity
    - Stability
    - Freedom
# HW: Immigrant Experience

<table>
<thead>
<tr>
<th>Immigrant</th>
<th>Country of Origin and Year emigrated</th>
<th>Reason for emigrating to the US</th>
<th>Struggle or sacrifice made in the US</th>
<th>Foreign event that motivated emigration</th>
<th>Push or Pull?</th>
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<tbody>
<tr>
<td>Abigail</td>
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<td>Franz</td>
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<td>Heinrich</td>
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<td>Chou Jing Yi</td>
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<tr>
<td>My name is Abigail Taylor. My husband Simon and I are both from Birmingham, England. Though we have been loyal subjects of the King, we no longer feel safe in our country. Just last month, rioters burned down our home and the little store we ran. We want to move to America where Protestant Dissenters like us are safe to practice our religion in peace. (1791)</td>
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<td>My name is Daire McCormack, and I am a potato farmer in Ireland. This past year has been horrible for me. Almost all of my potatoes were lost to a disease which made them turn black and rotten. I do not have enough food to feed my family or to sell potatoes at the markets. My family will have to leave Ireland to find a place where I can feed my family. (1845)</td>
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<td>My name is Franz Hecker, and I am from Baden in Germany. I came to the U.S. in despair after we failed to create a democratic Germany with our March Revolution. Seeing King Frederick William IV crowned again was bad enough, but when the army crushed the uprisings in support of the constitution, I knew I had to leave. It seemed as if we might succeed in creating a democratically elected government, but it was not to be. (1848)</td>
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<td>My name is Marcel Durand, and I am from Paris, France. I have been reading stories in the newspaper for weeks about how the Americans have found gold in the mountains of California. I am heading to California to strike it rich! (1849)</td>
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<tr>
<td>My name is Santiago Muñoz, and I was born in Alta California, Mexico. After the Mexican-American War, Alta California was given to the U.S. and eventually became the state of California. I was given the choice of remaining a Mexican citizen or becoming a U.S. citizen. I decided to become a U.S. citizen so that I could stay on the land my family has farmed for generations. (1850)</td>
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<td>My name is Mattias Nilsson, and I am from Småland in Sweden. I have heard that the U.S. government is giving away rich farmland to anyone who wants it. I am sick of struggling with stony soil and poor crops. My friends who have already arrived in America say that it is easy to build a good life there. I cannot wait to join them. (1862)</td>
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<td>My name is Heinrich Braun, and I am from Hamburg, Germany. I was thrilled when Otto von Bismarck finally unified our country – no longer would the Germans be scattered and weak! However, shortly afterwards, Bismarck decided that Catholics were not truly German. He passed laws that discriminated against us and took over our schools. I left for the United States, where I have found a farming town full of German Catholics. Now I can raise my children in my faith. (1871)</td>
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<td>My name is Chou Jing Yi. I came to the United States from China last year to join my husband who has been working on the new railroads being built all over the West. I’m glad I came when I did – I heard that Congress just passed a law excluding future Chinese immigrants from coming to the country. I’m sad that we don’t seem to be welcome here, but we are building a good life for ourselves anyway. (1881)</td>
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Industrialization & Technology

- 1807: Robert Fulton builds first successful steamboat
- 1813: Francis Cabot Lowell founds Boston Manufacturing Company
- 1819: Bank panic leads to depression
- 1825: Erie Canal opens
- 1831: Cyrus McCormick invents mechanical reaper; Mohawk and Hudson Railroad begins service
- 1838: Samuel Morse first demonstrates the telegraph
- 1841: P. T. Barnum’s American Museum opens in New York City
“Scavenger Hunt” – Text, Module 13:1-2 (Summarizing and comprehending what you read)

13-1
In the 1700’s, people of America and Europe were mostly ________________, and they made most things by _______________. Growing populations created an increased ________________ for goods so they needed to be produced more _________________. With the Industrial Revolution, goods would be made by ________________ instead. These first machines would be powered by ________________.

The first industry to convert to machine power was the ________________ or cloth industry. ________________ saw this success in Great Britain and applied these new processes and use of machines in manufacturing too. The first person to design textile mills in America (although it was illegal to take these designs out of Great Britain) was ________________. The US region of the ________________ was where manufacturing grew because of the abundance of money (capital) and ________________ that powered these machines. The South, meanwhile, concentrated on ________________ instead.
Eli Whitney showed that in order to produce large numbers of goods (called _________  _______________)
machines needed to have ______________________________  _______________, in order to make them
easier to assemble or fix. Now is was also possible for workers to use any part to build his _________
because they were exactly the same! This led to the __________________________  _____  __________________
where each worker did only a specific task and the next worker on the ________________________ line did the
next task, etc... until the product was put together.

But still the use of machines was slow in growing in the US. According to Secretary of the Treasury Albert
________________________, the reason why was that most people still preferred __________________, due to the
abundance of land, the price of labor (workers) was too ________________, and there was not enough
______________ (money to invest in machines). But after the years of trade embargos, blockades and the
War of ______________, Americans began to spend more on US made goods. The high __________________
encouraged banks and others to invest more money in manufacturing. They also urged northern politicians to
support __________________  __________________ to protect American companies.
The other problem that made the expansion of manufacturing more difficult was the high cost of labor. Samuel ____________ and others solved this by putting ________________ to work! (They were cheaper to pay than adults). Slater also lured families away from their farms by building ________________, a company store and providing them with ________________ to buy at the store.

THINK ON YOUR OWN:
What advantages did mills have over family owned farms?

What disadvantages did they have?
Compare and contrast the two systems:

**Venn Diagram**

Rhode Island System

Lowell System
List some of the difficulties of mill life:

Sarah Bagley said that most mill girls would rather __________________________. Their economic needs forced them to work at mills – she compared this to _______________________! To fight these problems, workers created __________________________ _______________________. These unions sometimes called __________________________ to make companies improve working conditions – but most of these were __________________________. One of the main issues these unions fought for was to __________________________.

Summaries:

Conditions needed to stimulate the growth of manufacturing:
1.
2.
3.
4.

Advantages of manufacturing:
1.
2.
3.
4.

New problems created by manufacturing:
Q-Bone Diagram

**Immediate causes**

**Event**
- Industrial Revolution 1820-1900

**Immediate effects**

**Long-term effects**

**Underlying causes**

**Long-term causes**

**Short-term causes**
- Growth of machines, factories, and mass production; usually in cities

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Industrialization & Technology

Railroads, 1850 and 1860

INDUSTRY AND AGRICULTURE IN THE NORTH AND SOUTH, 1860
Industrialization & Technology
Scavenger Hunt - Changes in Technology:
List the invention in the appropriate column and the year it was invented
(Skim through each lesson of Module 13)

<table>
<thead>
<tr>
<th>Production/manufacture</th>
<th>Communication</th>
<th>Transportation</th>
<th>Home convenience</th>
<th>Agriculture</th>
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Steam Engine

An engine that used steam to perform work.
Industrialization & Technology
Industrialization & Technology
Industrialization & Technology
## Industrialization & Technology

### Key inventions and transportation of the Industrial Revolution

<table>
<thead>
<tr>
<th>Person</th>
<th>Invention(s)</th>
<th>Importance</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eli Whitney</td>
<td>Cotton gin</td>
<td>Revolutionized the way cotton was harvested in the South</td>
<td>1793-1798</td>
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<tr>
<td></td>
<td>Interchangeable parts</td>
<td>Revolutionized manufacturing industry in the North</td>
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<tr>
<td>Robert Fulton</td>
<td>Steam Engine</td>
<td>Used compressed steam to power a motor, more power than a team of horses and could pull heavier loads</td>
<td>1807</td>
</tr>
<tr>
<td>Francis Cabot</td>
<td>Textile mill</td>
<td>Large factories that produced more cloth built in the north where fast-moving rivers</td>
<td>1813</td>
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<tr>
<td>Lowell</td>
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</tbody>
</table>
## Industrialization & Technology

<table>
<thead>
<tr>
<th>Name</th>
<th>Invention/Invention</th>
<th>Description</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Cooper</td>
<td>Locomotive – <em>Tom Thumb</em></td>
<td>Railroads soon became the main form of transportation</td>
<td>1830</td>
</tr>
<tr>
<td>Cyrus McCormick John Manny</td>
<td>The Reaper</td>
<td>A Machine that could harvest four times as much grain as people working by hand</td>
<td>1832</td>
</tr>
<tr>
<td>Samuel F.B. Morse</td>
<td>Telegraph, Co-inventor of Morse Code</td>
<td>Long-distance transmission of messages in minutes using electricity</td>
<td>1835</td>
</tr>
<tr>
<td>John Deere</td>
<td>Steel plow</td>
<td>Added a steel blade that could cut through tough soil</td>
<td>1837</td>
</tr>
<tr>
<td>Elias Howe</td>
<td>Sewing machine</td>
<td>Vastly improved the efficiency of fabric &amp; clothing industry</td>
<td>1845</td>
</tr>
<tr>
<td>William Kelly</td>
<td>“Air-blowing” process in iron</td>
<td>Converted molten iron into steel.</td>
<td>1847</td>
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<tr>
<td>Isaac Singer</td>
<td>Sewing machine</td>
<td>Improves and markets Howe’s Sewing Machine</td>
<td>1851</td>
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<tr>
<td>Leavenworth &amp; Pike’s Peak Express Company</td>
<td>The Pony Express</td>
<td>Mail carriers who traveled on horseback along a trail 2,999 miles long</td>
<td>1859-1861</td>
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<tr>
<td>Name</td>
<td>Invention/Inventions</td>
<td>Description</td>
<td>Year</td>
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<tr>
<td>William Le Baron Jenney</td>
<td>Skyscraper, Designed fortifications during Civil War</td>
<td>Enabled construction of tall, multi-story buildings for office and commercial use</td>
<td>1861-1885</td>
</tr>
<tr>
<td>Cyrus Field</td>
<td>Transatlantic Cable</td>
<td>Connected countries with U.S.</td>
<td>1866</td>
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<tr>
<td>Alexander Graham Bell</td>
<td>Telephone</td>
<td>Improved communication</td>
<td>1876</td>
</tr>
<tr>
<td>Thomas Alva Edison</td>
<td>Phonograph, telephone, Incandescent light bulb</td>
<td>Music, Electric lighting in homes</td>
<td>1877-1898</td>
</tr>
<tr>
<td>Nikola Tesla</td>
<td>Induction Electric Motor</td>
<td>Motors for small machines</td>
<td>1888</td>
</tr>
<tr>
<td>Orville &amp; Wilbur Wright</td>
<td>First Airplane</td>
<td>Man could fly!</td>
<td>1903</td>
</tr>
<tr>
<td>Henry Ford</td>
<td>Model T Ford, Assembly line</td>
<td>Improved transportation</td>
<td>1908 -1913</td>
</tr>
</tbody>
</table>
## Industrialization & Technology

<table>
<thead>
<tr>
<th>Date</th>
<th>Inventor</th>
<th>Process or Machine</th>
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<tbody>
<tr>
<td>1830s</td>
<td>Samuel F. B. Morse</td>
<td>Telegraph (1835)</td>
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<td>Morse code (1838)</td>
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<td>1850s</td>
<td>Henry Bessemer</td>
<td>Bessemer process</td>
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<tr>
<td></td>
<td>William Kelly</td>
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<td>1853</td>
<td>Elisha Otis</td>
<td>Mechanized passenger elevator</td>
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<td>1867</td>
<td>Christopher Sholes</td>
<td>Typewriter</td>
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<tr>
<td>1876</td>
<td>Alexander Graham Bell</td>
<td>Telephone</td>
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<tr>
<td>1877</td>
<td>Thomas Alva Edison</td>
<td>Phonograph</td>
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<tr>
<td>1879</td>
<td>Edison and Lewis Latimer</td>
<td>Lightbulb</td>
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<tr>
<td>1869</td>
<td>George Westinghouse</td>
<td>Compressed-air brake</td>
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<tr>
<td>1886</td>
<td>Westinghouse and Nikola Tesla</td>
<td>High-voltage alternating electric current (AC)</td>
</tr>
<tr>
<td>1893</td>
<td>Charles and Frank Duryea</td>
<td>First practical motorcar in the United States</td>
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<tr>
<td>1903</td>
<td>Wilbur and Orville Wright</td>
<td>First powered piloted plane flight</td>
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</table>
Industrialization & Technology
Entrepreneurs

SAMUEL SLATER – Englishman who brings the secrets of textile mills to America from England in 1789
SAMUEL SLATER

• Skilled British mechanic
• It was illegal for skilled mechanics to leave England with machine plans
• Immigrated to the US after carefully memorizing the designs of textile mills
• He was responsible for having new and improved textile mills constructed in America
Textile Mills

- Samuel Slater – “Rhode Island System”
  - First to use steam-driven power looms
  - Relyed on sole proprietorship or partnership form of ownership initially.
  - Relyed on family for labor – with growth had to hire professional managers.
  - Vertically integrated operations forward and backward.

Industrialization & Technology
Entrepreneurs
Industrialization & Technology
Entrepreneurs

THE RHODE ISLAND SYSTEM

- Rhode Island System started by Samuel Slater
- Bring unskilled workers to his textile mills
THE RHODE ISLAND SYSTEM

➤ They did simple tasks and were paid cheaply

Industrialization & Technology
Entrepreneurs
Families in the Factory

- **Rhode Island System**
- Families hired for one set wage – *more labor for the $$.*
- Everyone was okay with this because on farms all family members helped.
- Housing and entire towns often built around the mill to make it appealing to families.
- Store credit and payment plans develop at company stores.
Lowell System

• **Francis Cabot Lowell** created a new system of mill manufacturing in 1814, called the **Lowell system**.

• The Lowell system involved
  • Employing young, unmarried women, who were housed in boardinghouses
  • Providing clean factories and free-time activities for its employees
  • Having mills that included both spinning thread and weaving in the same plant
Industrialization & Technology
Entrepreneurs

Eli Whitney
Early Life

Eli Whitney was born December 8th 1765 in Westborough Massachusetts. His mother died when he was only 11 years of age so he was under the care of his father for the better part of his childhood. Whitney's mechanical genius began to be displayed at the age of 14 when he ran a nail production operation out of his father’s barn during the American Revolution.

Among working on his nail operation he worked as a blacksmith and was one of the leading maker’s of ladies’ hatpins in his county.

“He had an instinctive understanding of mechanisms. It was a medium in which he could improvise and create in exactly the same way that a poet handles words or a painter uses color.”
Early life (continued)

Whitney's wished to attend college but was unable to due to the objection of his parents. A wish to attend a school such as Yale, when not studying law or theology, was absurd. He instead worked as a school teacher and a farmer. Whitney studied at Leicester Academy while working and saving money. Eventually he saved enough money and entered the class of 1789 at Yale.

After receiving his degree, Whitney took a job as a teacher in South Carolina because he could not find a job that appropriated his talents. He ended up living with Mrs. Greene, a Revolutionary war widow of general Nathanael Greene, after turning down his teaching job. The pay that Whitney committed to was not going to be met, so he lived with Mrs. Greene while reading law.
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Entrepreneur

Invention of the Cotton Gin

Whilst listening to conversations among Mrs. Greene and neighbors, Whitney learned of the lack of a cash crops in the south. The amount of labor required to harvest green seed variety cotton was preposterous. It was at this point that Mrs. Greene spoke up and nominated Whitney to find a solution to one of the biggest problems of the South.

"Gentlemen," said Mrs. Greene, "apply to my young friend, Mr. Whitney. He can make anything."
Benefits

Whitney’s invention had sparked the morale of the South. They now had a cash crop that would have dramatic effects on their economy. The United States no longer had to have an enormous dependency on foreign cotton.

Whitney’s Cotton Gin design has been one that has changed little in the past two hundred years, showing his mechanical genius and understanding. Present day Cotton Gin’s have become larger to account for an increase in demand of cotton since the early 19th century.
Industrialization & Technology
Entrepreneurs

Separating cotton by hand
https://www.youtube.com/watch?v=YE0VxWctegU

Separating by cotton gin
https://www.youtube.com/watch?v=gZAK65N4ruc
Eli Whitney

- Cotton was becoming too unprofitable
- One slave could only clean one pound of cotton a day
- He invented a cotton gin (engine)
- Now one slave could clean 50 pounds a day
Interchangeable Parts

- Who invented interchangeable parts and in what year? Eli Whitney
- How did interchangeable parts work and what was the purpose of those parts? They were identical parts that could be quickly put together to make a complete product. Their purpose was to allow them to be manufactured by less skilled labor and allow for easier repair.
- What affect did the invention of interchangeable parts have on manufacturing and industry in the United States? It opened the way for producing many different kinds of goods on a mass scale that reduced prices.
- How would life be different in the United States if interchangeable parts had not been invented? The manufacturing process would be slower and prices would be higher.
Interchangeable Parts

parts which can be produced with countless identical spares, making replacement or substitution easy

Whitney mass produced guns using interchangeable parts.
Industrialization & Technology

Other Entrepreneurs

John D. Rockefeller (1863)

November 23, 1897 — Inventor Andrew Jackson Beard patents the design for the "Jenny" railroad car coupler helping to revolutionize the railroad.
Industrialization & Technology:
Why are Entrepreneurs important? What qualities do they have? (Note: Which qualities were repeated the most on each list?)

The Successful Entrepreneur

- opportunistic
- dedicated
- passionate
- self-confident
Industrialization & Technology:
Why are Entrepreneurs important? What qualities do they have?

1. Create a Routine
2. Keep the Mornings for the Toughest Projects
3. Workout & Meditate
4. Give a Head Start to Tomorrow Today
5. Schedule Time for Revenue Generating Activities
6. Track Your Progress
7. Refresh Yourself with Quality Family Time
8. Encourage Team to Provide Solution Not Problems
9. Segregate Each Day for Separate Business Activity
10. Continue Learning
Industrialization & Technology:
Why are Entrepreneurs important? What qualities do they have?

10 Work-Life Balance Habits of Successful Entrepreneurs

1. Set Working Hours
2. Unplug When You’re Not Working
3. Schedule One Admin Day Per Week
4. Take At Least One Day Off Per Week
5. Schedule Social & Family Time
6. Schedule “Me” Time
7. Schedule Meal Times
8. Have a Dedicated Work Space
9. Cross One Item Off Your To do List Without Doing It
10. Adjust & Readjust
10 DAILY HABITS OF MOST SUCCESSFUL ENTREPRENEURS

1. Create a routine
2. Keep the mornings for the toughest projects
3. Give a head start to tomorrow today
4. Work out & meditate
5. Schedule time for revenue generating activities
6. Track your progress
7. Encourage team to provide solution not problems
8. Refresh yourself with quality family time
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Why are Entrepreneurs important? What qualities do they have?
Industrialization & Technology:
Why are Entrepreneurs important? What qualities do they have?

Successful and Unsuccessful Entrepreneurs

- **Successful**
  - Creative and Innovative
  - Position themselves in shifting or new markets
  - Create new products
  - Create new processes
  - Create new delivery

- **Unsuccessful**
  - Poor Managers
  - Low work ethic
  - Inefficient
  - Failure to plan and prepare
  - Poor money managers
Industrialization & Technology:
Why are Entrepreneurs important? What qualities do they have?

The Power of Entrepreneurial Thinking

- What makes a successful entrepreneur?
  - Seeing opportunity where others don’t
  - Innovation: better, faster, cheaper, easier
  - “Fire in the Belly”
  - Willingness to take risks
  - Extreme work ethic
Industrialization & Technology

The Industrial Revolution: Cause and Effect

Immediate Effects
- Rise of factories
- Changes in transportation and communication
- Urbanization
- New methods of production
- Rise of urban working class
- Growth of reform movements

Causes
- Increased agricultural productivity
- Growing population
- New sources of energy, such as steam and coal
- Growing demand for textiles and other mass-produced goods
- Improved technology
- Available natural resources, labor, and money
- Strong, stable governments promoted economic growth

Long-Term Effects
- Growth of labor unions
- Inexpensive new products
- Spread of industrialization
- Rise of big business
- Expansion of public education
- Expansion of middle class
- Competition for world trade among industrialized nations
- Progress in medical care
Industrialization & Technology

- Early industrial espionage brought textile machines to the U.S.

(Check out the story of Samuel Slater)

- Cotton gin
  - Made cotton production profitable
  - Provided raw material for textile factories
Industrialization & Technology
List the most important products of each region

<table>
<thead>
<tr>
<th>Midwest</th>
<th>South</th>
<th>Northeast</th>
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</table>
Q-Bone Diagram

Underlying causes

Immediate causes

Immediate effects

Long-term effects

Event

Industrial Revolution 1820-1900

Growth of machines, factories, and mass production; usually in cities

Short-term causes

Long-term causes
IMPACT:

Industrialization & Technology

**U.S. Divorce Rate**
(number of divorces per 1,000 population)
IMPACT:
Industrialization & Technology
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Industrialization & Technology
Q-Bone Diagram

**Event**

**Industrial Revolution**

1820-1900

Immediate causes

- Growth of machines, factories, and mass production; usually in cities

Immediate effects

Long-term effects

Underlying causes

Long-term causes

Immediate causes

Short-term causes
Q-Bone Diagram

**Immediate causes**

- England’s Industrial revolution
- Supreme Court cases support property rights and contracts
- The need to transport goods to markets (transportation revolution)

**Immediate effects**

- Goods transported & made faster, cheaper, and greater amounts
- Increase in population and transportation in Northern cities
- Poor working conditions in factories

**Long-term effects**

- Urban lifestyle; increase in divorce rate
- Women and children enter the workforce
- Growth of immigration
- Overcrowded cities create many problems
- Creation of labor unions to fight for worker’s rights and better conditions

**Event**

- Industrial Revolution 1820-1900

**Underlying causes**

- Immigrants provide a cheap source of labor
- Abundance of minerals in the US
- New England’s poor agriculture, but many rivers
- Entrepreneurs
- Supreme Court cases support property rights and contracts

**Equipment**

- Samuel Slater’s mill
- New inventions (technology)
- New sources of energy: steam, oil, electric

**Short-term causes**

- Growth of machines, factories, and mass production; usually in cities

**Long-term causes**

- Abundance of minerals in the US
- Entrepreneurs
- Supreme Court cases support property rights and contracts
- The need to transport goods to markets (transportation revolution)

*p.89*
<table>
<thead>
<tr>
<th>Group/Region</th>
<th>Immigration</th>
<th>Territorial expansion</th>
<th>Industrialization</th>
<th>Technology</th>
<th>Foreign events</th>
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<tr>
<td>Women</td>
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Forces for Change pp.90-91
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<tr>
<th>Change</th>
<th>Social reform</th>
<th>Religious revival/change</th>
<th>Philosophical schools</th>
<th>Women’s suffrage</th>
<th>Abolition</th>
<th>Multicultural interaction</th>
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<tr>
<th>Description</th>
<th>People impacted</th>
<th>Region impacted</th>
<th>Changes sought or achieved</th>
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