The Gilded Age: Rise of Industry & Big Business
1865-1900
Origins of the Term: Mark Twain’s *The Gilded Age* (1873)
GUIDING QUESTION

Why did the United States become an industrial power in the period 1865 and 1900?

How did this economic growth also cause problems?
QUESTION TO CONSIDER

Has capitalism been good or bad for the United States?
Causes of Rapid Industrialization
Rise to Industrial Supremacy

Percent of World Industrial Output

<table>
<thead>
<tr>
<th>Year</th>
<th>Great Britain</th>
<th>United States</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>32</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>1896–1900</td>
<td>20</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>1913</td>
<td>14</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>1926–1929</td>
<td>9</td>
<td>42</td>
<td>12</td>
</tr>
</tbody>
</table>
Causes of Rapid Industrialization

1. abundant supply of raw materials
2. abundant labor supply - migration, immigration
3. new technology - innovations that raise productivity

- Patents - US granted 36K total patents prior to 1860, 440K from 1860-1890
Causes of Rapid Industrialization

4. abundant capital
5. talented businessmen (entrepreneurs)
6. new types of business organization
7. growing markets - expansion of population and settled area (West, cities)
8. business-friendly governments - laissez-faire, but: subsidies, tariffs
9. steam revolution of 1830s-1850s - railroads
Industrial Production, 1919
OLD INDUSTRIES TRANSFORMED, NEW INDUSTRIES BORN OUT OF NEW TECHNOLOGY & INNOVATION
Railroad Network 1870s
1. RAILROADS

Dramatic expansion key factor in industrial development:

- First big business in the U.S.
  - Corporations, stock
  - New methods of management
  - “pools” (*cartels*)

- Key to opening the West
- Aided the development of other industries
Railroads Create Great Wealth

Cornelius Vanderbilt

Jay Gould
2. **STEEL**

- **Bessemer-Kelly Process**

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Molten Pig Iron is poured into a tilted converter, which is then returned to a vertical position. Air from the trunnion is blown through holes into the molten iron. As oxygen burns out impurities in the iron, flames shoot from the converter mouth. After 15 minutes, the flames cease, air is shut off, and the converter is tipped to pour off steel.
2. STEEL & Carnegie

- Andrew Carnegie
- mass production
- economies of scale
- “vertical integration”

Labor?
Iron and Steel Production, 1900
Iron & Steel Production 1875-1915
International Steel Production, 1880 & 1914

Millions of tons

1880
1914

Germany
France
Great Britain
Russia
United States
3. OIL & Rockefeller

- George Bissell
- Edwin Drake

Oil Field, Western PA, 1860s
3. OIL

John D. Rockefeller

- Standard Oil Co.
- horizontal integration

- Production of raw materials (oil is pumped out of the ground)
- Transportation of raw materials (crude oil moves to refineries)
- Processing (refineries transform crude oil into kerosene, lubricating oil and paraffin)
- Transportation (finished products go to retail stores)
- Sale to consumer
3. OIL & Rockefeller

- trust
- monopoly
- holding company
- Problem of the “trusts”
4. ELECTRICITY & Edison

Thomas Edison in his Menlo Park, NJ Lab
The Phonograph (1877)

The Ediphone or Dictaphone

Edison:
- innovator
- businessman
- Age of technology

The Motion Picture Camera
5. The AUTOMOBILE, Ford & Mass Production

- Henry Ford
- “Fordism”
- Taylorism

1913 Ford Model T

The Moving Assembly Line
Ford & Mass Production

“Taylorism”

Frederick W. Taylor

*The Principles of Scientific Management* (1911)

Model T Prices & Sales, 1909-1923
6. Consolidation

- J.P. Morgan
- consolidation
  - holding companies
  - corporate mergers

Number of corporate mergers, 1895-1910
## Industrial Consolidation: Iron & Steel Firms

<table>
<thead>
<tr>
<th></th>
<th>1870</th>
<th>1900</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of firms</td>
<td>808</td>
<td>669</td>
</tr>
<tr>
<td>No. of employees</td>
<td>78,000</td>
<td>272,000</td>
</tr>
<tr>
<td>Output (tons)</td>
<td>3,200,000</td>
<td>29,500,000</td>
</tr>
<tr>
<td>Capital invested</td>
<td>$121,000,000</td>
<td>$590,000,000</td>
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</tbody>
</table>
Wall Street: 1867 & 1900
Wealth Concentration Held by Top 1% of Households
DEFENDING & CRITICIZING THE NEW INDUSTRIAL CAPITALIST CULTURE
“The Protectors of Our Industries”
The “Bosses” of the Senate
GUIDING QUESTION

How did proponents justify the extremes of wealth and poverty in the United States in the late 19th and early 20th centuries?

How did critics explain the extremes and what, if anything, did they propose to do about it?

- Herbert Spencer / William Graham Sumner
- Andrew Carnegie, *The Gospel of Wealth*
- Horatio Alger
- Booker T. Washington
- Henry George, *Progress and Poverty*
- Eugene V. Debs
DEFENSES OF THE NEW INDUSTRIAL CAPITALISM

- *laissez-faire*
  - Adam Smith
- *social darwinism*
  - Herbert Spencer
  - “survival of the fittest”
- Andrew Carnegie
  - *The Gospel of Wealth*
- Russell Conwell
  - “Acres of Diamonds”
- Horatio Alger
  - Protestant work ethic
Defenses of Industrial Capitalism
Social Darwinism

“The growth of a large business is merely the survival of the fittest.”

- John D. Rockefeller
CRITICISMS OF INDUSTRIAL CAPITALISM

- Socialist Labor Party
  - Eugene Debs
- Henry George, *Progress and Poverty*
- Edward Bellamy, *Looking Backward*
- business cycle
- recessions and panics