

## 1 ■ **The Rise of Industrialism**

- A change in production from hand craftsmanship to machine manufacturing.
  - More goods were being produced by machines.
- By 1880 the value of industrially manufactured goods exceeded that of farm production in the U.S.
- U.S. ranked 1<sup>st</sup> in the world for industrial goods.

## 2 ■ **Key Factors in Industrial Growth**

- Abundant supply of natural resources
  - Coal (PA); Oil (TX, Ok, KS, CA); Iron Ore (near Lake Superior; MN)
- Improved transportation
  - RR; opening of international markets – 2 billion dollars worth of goods annually by 1910
- Population shift from rural to urban
  - Helped fuel factory workforce (immigration)

## 3 ■ **Government Support for Industrialism**

- Gov't aided the industrialization process by helping industries with loans and minimal regulations
- Maintained a laissez-faire approach
- Taxes on personal incomes earned by businessmen were not required until 1913; tariffs on imports were help high to protect domestic industry
- Established no environmental controls on industry

## 4 ■ **The Spirit of Innovation**

- 1860 – 1900 the U.S. Patent Office granted over 676,000 patents.
- MIT became magnets for scientists, engineers, entrepreneurs.

## 5 ■ **Steel is King**

- No single innovation affected technological change more than the development of steel.
- Henry Bessemer – Bessemer process
  - Improved RR track – Transcontinental RR
  - Skyscraper – stronger beams
  - Bridges –hold greater loads

## 6 ■ **Electricity Becomes Widespread**

- Samuel F.B. Morse's telegraph & Alexander G.Bell's telephone connected distant parts of the nation with news and personal communications.
- Escalators, elevators, doors with electrical "eyes", central heating.
- Thomas Edison's work with electrical lighting – incandescent lamp filaments, generators, underground conductors.

## 7 ■ **Machines Increase Production**

- Inventors' attention to machines created a rush of new production methods:
  - Elias Howe – sewing machine
  - Assembly line technique
    - Henry Ford's automobile production plants made single-task assembly lines a profitable production method.

## 8 ■ **Industrial Giants**

- John. D. Rockefeller & Andrew Carnegie consolidated smaller companies and reshaped U.S. business into massive corporations.

- 9 **John D. Rockefeller and Oil**
- Came to control 90% of the oil industry
  - 1863 started oil refinery in Cleveland.
    - 1865 it was the largest in the U.S.
    - 1868 it was the largest in the world
    - 1879 controlled over 90% of the market
  - Attempted to monopolize the oil industry.
    - Monopolies and trusts ensured economic stability and a consistently high quality of goods.
  - Brought order to the oil industry
- 10 **Andrew Carnegie & Steel**
- “the true road to . . . Success in any line is to make yourself master in that line.”
  - Est. strong ties with RR and shipping lines.
  - 1900 produced 1/4<sup>th</sup> of nation’s Bessemer steel.
    - \$40million in profits (he took \$25 million)
  - Horatio Alger (wrote children books celebrating the American Dream) – epitome of rags to riches.
- 11 **“The Gilded Age”**
- Mark Twain labeled this period “the Gilded Age” because the open display of wealth among American elite society seemed like a cheap picture frame – golden on the outside, but rotting on the inside.
- 12 **The Rise of Industrial Trusts**
- Businesses combined competing companies not monstrous firms called trusts.
    - Centralized management; stockholders placed trust in hands of trustees.
  - Rockefeller’s Standard Oil & Trust – used ruthless tactics to eliminate his competition.
    - Dropped prices to drive competitors out of business & then raised them when he gained control.
- 13 **Trust Influence Government Affairs**
- Ran for office; made generous contributions to political candidates, bribed legislators.
    - Called for minimal government regulation unless it benefited them (high tariffs)
- 14 **City Government Corruption**
- Many municipal governments were run by political bosses or machines that catered to industrial interests.
  - Laborers needing a job tended to vote whichever boss promised to promote their application to employers.
    - NYC – Tammany Hall – bosses gave “gifts”
    - George Washington Plunkitt – bought tracts of land.
- 15 **Wealthy Americans Face Criticism**
- Critics – wide gap between rich and poor.
  - So few individuals controlled the majority of America’s natural resources, industries and utilities.
    - 1900 – 4,000 millionaires compared with only of few before the Civil War.
    - Material worth of 1% of the population was greater than that of the other 99% combined.
- 16 **Industrialists Defend Big Business**
- They argued for the profit motive.

- 1889 Carnegie published the "Gospel of Wealth"
  - Wealth was a sign of divine approval, but that a millionaire should be "a trustee for his poorer brethren bringing to their service his superior wisdom, experience, and ability to administer, doing for them better than they would or could do for themselves."
  - Paid for 3,000 libraries and other scientific research.

17  **Industrialization Benefits the Middle Class**

- National wealth and income grew from late 1800s – 1920s.
  - Greater comforts
- 1907 Sears' general catalog known as the "Farmer's Bible" boasted over 3 million consumer goods for rural and urban shoppers.

18  **Life for Average Americans**

- Viewed industrialism through a lens of drudgery and hardship.
- Still used candles, no indoor plumbing or heating, cooked on wood-fed stoves and could not afford a telephone.
- Endured faulty water and sewage systems that failed to prevent pollution, typhoid and cholera.
- Laborers had neither the time nor the money to enjoy the modern social organizations.

19  **Industrial Working Conditions**

- American laborers faced deplorable conditions:
  - 10-12 hr days 6 days per week
  - Unhealthy working conditions
  - Injuries
  - Boredom

20  **Low Pay and Reasons to Stay**

- Most workers were grateful for employment in factories
- Work force had a competing supply of labor, including several million immigrants ready to work cheaply and over one million soldiers returning from the Civil War.
- With the constant threat of being fired, most workers were willing to work for low wages.

21  **Child Labor**

- Approximately 1.75 million children were working in late 1800s.
- Worked up to 15 hours a day.
  - Coal mines, tobacco plants, garment factories
- Usually did dangerous work.

22  **Minority and Immigrant Laborers**

- Nonwhite laborers were forced into mostly unskilled positions with low wages.
- Accepted lowest pay and toughest work schedule.
- Chinese workers in San Fran. 1889 made up 92% of cigar workers paying \$287.
- Mostly white laborers claimed 91% of San Fran's. most skilled workers paying \$588 annually.

23  **Industrialism and Women**

- Rapid expansion required a larger workforce.
- Young single women carved a niche in newly created secretarial and sales positions in city department stores and "white collar" offices.
- 1910, 70% of all Jewish girls 16 yrs older were working.
- Women were usually paid less than men for comparable work.

24  **Labor Unions Emerge**


- As working conditions worsened and income disparity increased, laborers began organizing in unions with the hope that collectively they could influence business.
  - 1897 – 440,000
  - 1904 – 2 million
- Knights of Labor – sought to improve the well-being of skilled and unskilled industrial laborers.
  - Secure an 8-hr workday, income tax, elimination of child labor and equal pay for men and women.

25  **Labor Unions Emerge**

- AFL, represented by Samuel Gompers, scorned this philosophy.
- Wanted higher wages, safer working conditions, the right of the union to represent workers in collective bargaining with employers.
- Invited only skilled white workers.
- After Knights dissolved in late 1880s, turned towards leftist groups called “Wobblies”
  - Abolition of the wage system

26  **Business Response to Labor**

- Had a distinct advantage b/c of laissez-faire government and continual supply of laborers.
- Many viewed socialist labor unions with suspicion.
- During the long strike, newspaper accused Molly Maguires of terrorizing and murdering coal miners who returned to work. In response, the government arrested, jailed, and hanged many supposed terrorists.

27  **Strikes and Violence**

- 1877 in Pitt. – rr workers' were cut while stocks were still paying high dividends to stockholders.
  - Soldiers opened fire on the crowd, killing 25.
  - State militia restored order after \$6 million in damage.
- Workers struck against the Pullman Company's unfair rents and utility costs.
  - Federal troops killed 6 strikers.

28  **Union Victories**

- Labor unions ultimately succeeded in raising the morale of industrial workers.
- 1912 – child labor laws in 38 states had set minimum age restrictions and health standards for industrial workplaces.