
History 1301
U.S. to 1877

Chapter 10

~

America's Economic
Revolution

Changing America:

- American industrial revolution was due to advances in transportation, communications, manufacturing & new systems of business organization.
 -
 -
 - Transportation linked NE, MA, and Mid-west to become “The North”
 - Internal market spurred by cheap land and food, meant higher wages, more technology isolated from European industrial powers
 - Erie Canal proposed 1808 / began 1817 / opened 1825 – “Clockwise Nation” as Great Lakes took over water routes from Mississippi
- Demographics:
 - Population 1790 - 4M / 1820 – 10M / 1840 -17M
 -
 -
 -
 - More people lived in towns and cities:
 - 26% of US was living in towns of 2500 or more 14% increase (South was 6% up to 10%) NYC 1840 – 321K / 1860 – 800K
 - Uneconomic NE farming forces people to cities & west
 -
 - Rural growth 2.9X to “Urban” 14.5X
 - 1.9 M workers to 11M (20% were in Northern factories)
 - Immigrant boom spawned political resistance and ethnic settlement
 - Rich get richer – 1800 10% controlled 45% / 1860 70%

Transportation Revolution:

- Turnpike age: (\$10K per mile)
 -
 -
- Canal Age: 1820 – 1830s rapid building boom for cheaper transportation costs (\$25K per mile)
 - Quick way to beat Mississippi / Overland route
 -
 - Cut transportation costs by 90%
 - Canals in Indiana and Ohio to feed lakes and Erie brought Midwest products to eastern seaboard fast and cheap
 -
- Rail Roads began in 1830s but took off in 1840s (\$35k per mile)
 - 1830 first RR - Baltimore and Ohio by 1836 1K miles of track by 1860 – 27K miles of track – 25 – 30 mph average
 -
 - Required massive amounts of capital – gov't funding in forms of public land grants (\$300M in land in 1850)
 - 1830 NYC – Chicago 3 weeks / 1850s – two days 4X more efficient than canals
 -
- Telegraph:
 - 1835 Morse developed system / 1843 First commercial use / 1846 fed NYC newspapers
 - 1860 50K miles of wire
 - Fast communications and made RR more effective

Commerce and Industry:

- Business Evolution to drive and support revolution
 -
 -
- New forms of organization Incorporation – 1800 limited to public works efforts
 - 1822 – NY, “Special Partnership” laws limited liability to amount of investment
 -
 - Bankruptcy Laws of 1840s
 -
- Factory method
 - War of 1812 – industry in households or workshops
 - Concentration of process to leverage of high cost labor and high yield (but high cost) machinery
 - Available low cost energy – water then coal
 -
 - On-site professional management different than ownership
 - - Rhode Island system
 - Waltham system
 - Fall River System -- wage ties only
 - Immigrant workers
 - » **1820s – 129K immigrants**
 - » **1830s – 540K**
 - » **1840s – 1.5 M**
 - » **1850 – 2.8M**

Industrialization:

- Economy of scale
 - Growth of the Factory System
 - 1840 \$483M from factories / 1860 \$2B
 -
 - Lowell – Ma – State’s second largest city – 10K employees & 1M yards of cloth a week
 - - Cost effective on investment
 -
 - Machine Tools or tools that make tools – advances in machine tools
 - High skill / increasing rate of change, volatility of business operational environment.
 -
- Pig Iron production (foundation for steel production)
~ 1810 54K tons / 1820 540K
- Coal replaced water & wood
 -
 - Requires expensive deep mining operations and railroad to markets & lots of cheap labor
- Invention
 - Patent system holdover from England
 -
 - 1839 – Charles Goodyear – Vulcanization of Rubber
 - 1846 – Elias Howe – Sowing machine / Singer

New Society:

- Urban growth:
 - Western cities grew rapidly – boom conditions
 - Growth of urban middle class
 -
 - Urban housing became differentiation in evolution of ethnic & class “neighborhoods” around 1820
 -
 -
 - Police and urban services 1820 – 1840s
 -
 -
 - Immigrant slums
 - Rigorous racial segregation
- Wealth rules:
 - 45% of the industrialized value in 10% of people
 - Owning more important than doing “Idle Rich”
 -
- Rich:
 - Northern – money grows money
 - Anonymous investment allows owners to be totally free of “Noblesse oblige” constraints
 - Technology or transportation innovation / Investments
 - Western Land
 - ~~South – concentration of land or move west for more of the same~~

New Society II:

- Middle Classes:
 - Skilled wage earners / professions
 -
 -
 -
 - Household possessions and technology (ice boxes)
 - Fashion and formal, complex dress requirements
 - Food / Health crazes
 - Fewer Children – “Child Centered Family”
 - 1860 average 3 children to middle class homes
 -
 -
 - Protestant / Self-denial / Results of hard work
 - Temperance
 - Job centered life - Male
 -
 -
 - Home centered life - Female
 - Few professions – nursing / teaching but little outside
 - Women “Superior” to men in “Domestic Virtue”
 -
 - Cult of domesticity (even on farms)
 - Respectability & Control
 - Provide a civilized refuge and raise virtuous children
 - Chief consumer / Household technology
 - Children's Character not occupation

New Society III:

- Working Classes:
 - Upper echelon
 - Holding on to lagging technology
 -
 - Fearful of competition – Nativist
 - Political control / system – Tammany Hall
 -
 -
 - Lower echelon
 -
 - Widows, orphans and free Blacks
 - Blacks are objects of intense and complete segregation
 - Immigrant fed
 - Economic times destroyed combination power
 - Fearful of female labor
- Northern Agriculture
 - Market based
 - Labor shortage drove intense use of technology
 - Cheap labor
- Leisure:
 -
 -
 -
 - Sports
 - Boxing / Horse Racing
 - Spectacle – PT Barnum & Freak -shows
 -