

## VISUAL 26.1

# ECONOMIC GROWTH IN THE UNITED STATES, 1870-1900

The U.S. economy expanded rapidly between 1870 and 1900.

- At the end of the Civil War, Americans produced approximately \$531 worth of goods and services (Gross National Product, or GNP) per person.
- By 1900, this amount doubled.
- Transportation advancements between 1870 and 1900 played an important role by advancing the size of the U.S. marketplace.
  - ✓ Transportation costs fell. It became cheaper to move things and people from one place to another.
  - ✓ Speed of delivery increased. Things and people moved more quickly from one place to another.

VISUAL 26.2

**MAIN LINE RAILROAD TRACK IN OPERATION IN THE UNITED STATES, 1870-1900**

<b>Year</b>	<b>Miles of Track</b>	<b>Percentage Increase Over a Five-Year Period</b>
1870	53,000	
1875	74,000	40
1880	93,000	26
1885	128,000	38
1890	167,000	30
1895	180,000	8
1900	207,000	15

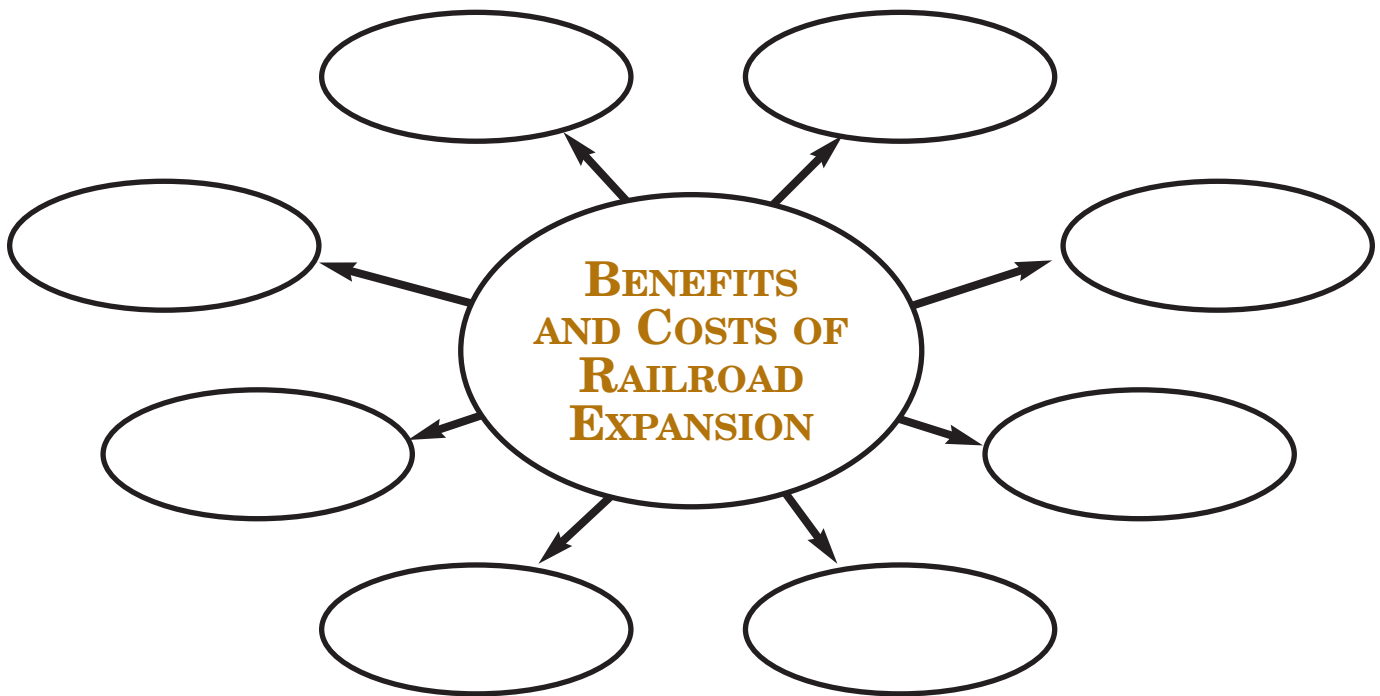
**QUESTIONS FOR DISCUSSION**

- A. Did the railroad network expand or contract between 1870 and 1900?
  
- B. By what percentage did the miles of track servicing the U.S. economy increase between 1870 and 1900?

Source: Adapted from U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (U.S. Government Printing Office: Washington, D.C., 1960), Part II, Series Q287, page 321.

VISUAL 26.3

**BENEFITS AND COSTS OF RAILROAD EXPANSION  
FOR DIFFERENT MARKET AGENTS: RAILROAD  
INDUSTRIALISTS, OTHER INDUSTRIALISTS,  
CONSUMERS, FARMERS AND GOVERNMENT**



VISUAL 26.4

**VALUE OF FARM GROSS OUTPUT AND PRODUCT IN CONSTANT (1910-14) DOLLARS, 1870 - 1900**

Year	Gross output total as measured in constant (1910-14) dollars <i>(The numbers below represent millions of dollars.)</i>	Farm gross product, including improvements and manufactures <i>(This statistic is a measure of agricultural output. The numbers below represent millions of dollars.)</i>
1870	2,694	2,597
1880	4,129	3,906
1890	4,990	4,638
1900	6,409	5,837

Source: Adapted from U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (U.S. Government Printing Office: Washington, D.C., 1975), Part I, Series K240-250, page 482.

## VISUAL 26.5

### PRE-CIVIL WAR TRANSPORTATION

In the period before the Civil War, waterways and turnpikes provided efficient transportation for people, goods and services.

- Shipping cost by water — through canals — was often lower than the cost of shipping by railroads.
- Most railroad lines ran north and south, and many were located in close proximity to rivers and canals.
- At this time, railroad lines were small. They were privately owned and they used non-standardized technology.
- Customers faced relatively high transportation costs when using railroads.

It is plausible that extending the system of public roads — turnpikes — and canals could have helped the United States economy to expand after the Civil War even if the railroad network not been developed.


 VISUAL 26.6**THE OPPORTUNITY COST OF RAILROADS**

One way to measure the opportunity cost of developing the railroads is to compare the impact of railroads, as they existed, to the second-best alternative.

The second-best alternative to railroads at the time was the expansion of waterways and roads that existed before the Civil War.

**HOW TO MEASURE THE IMPACT OF RAILROADS**

The net contribution of railroads to the U.S. economy during industrialization can be determined by two steps:

- 
- Estimate the value of total output (Gross National Product or GNP) produced in the presence of railroads
  - Subtract the estimated GNP produced in the hypothesized presence of the second-best alternative — waterways and turnpikes.

## VISUAL 26.7

### ESTIMATING THE CONTRIBUTION OF RAILROADS TO ECONOMIC GROWTH

- Economic historians Albert Fishlow and Robert Fogel estimated that railroads boosted GNP in 1859 (Fishlow) and in 1890 (Fogel) by no more than 5 percent.
- They concluded that industrialization would have proceeded in the absence of railroads.
- According to this line of analysis, railroads were important, late in the nineteenth century, but they were not an indispensable form of transportation.