2 TEACH

Daily Lecture and Discussion Notes 9–3

Reading Check

Answer: general incorporation laws and economies of scale

Creating a Profile Encourage students to use library and Internet resources to learn about a local philanthropist—past or present. Instruct students to prepare a short fact sheet for the person they select. **L1**

FYI

In 1898, although Carnegie Steel's output had risen threefold over the previous few years, the number of workers needed to produce the steel had decreased by 400. The use of electricity to drive automatic machinery was largely responsible for the decline in the workforce.

History and the Humanities

American Art & Architecture: Smoking Room of the John D. Rockefeller House

ECONOMICS

The Role of Corporations Big business would not have been possible without the corporation. A **corporation** is an organization owned by many people but treated by law as though it were a single person. A corporation can own property, pay taxes, make contracts, and sue and be sued. The people who own the corporation are called **stockholders** because they own shares of ownership called **stock.** Issuing stock allows a corporation to raise large amounts of money for big projects while spreading out the financial risk.

Before the 1830s, there were few corporations in the United States because entrepreneurs had to convince a state legislature to issue them a charter. Beginning in the 1830s, however, states began passing general incorporation laws, allowing companies to become corporations and issue stock without charters from the legislature.

Economies of Scale With the money they raised from the sale of stock, corporations could invest in new technologies, hire a large workforce, and purchase many machines, greatly increasing their efficiency. This enabled them to achieve what is called **economies of scale,** in which corporations make goods more cheaply because they produce so much so quickly using large manufacturing facilities.

All businesses have two kinds of costs, fixed costs and operating (or variable) costs. **Fixed costs** are costs a company has to pay, whether or not it is operating. For example, a company would have to pay its loans, mortgages, and taxes, regardless of whether it was operating. **Operating costs** are costs that occur when running a company, such as paying wages and shipping charges and buying raw materials and other supplies.

The small manufacturing companies that had been typical before the Civil War usually had very low fixed costs but very high operating costs. If sales dropped, it was cheaper to shut down and wait for better economic conditions. By comparison, big companies had very high fixed costs because it took so much money to build and maintain a factory. Compared to their fixed costs, big businesses had low operating costs. Wages and transportation costs were such a small part of a corporation's costs that it made sense to keep operating, even in a recession.

In these circumstances, big corporations had several advantages. They could produce goods more cheaply and efficiently. They could continue to operate in poor economic times by cutting prices to increase sales, rather than shutting down. Many were also able to negotiate rebates from the railroads, thus lowering their operating costs even further.

Small businesses with high operating costs found it difficult to compete against large corporations, and many were forced out of business. At the time, many people criticized corporations for cutting prices and negotiating rebates. They believed the corporations were behaving unethically by using their wealth to drive small companies out of business. In many cases, the changing nature of business organization and the new importance of fixed costs that caused competition to become so severe forced many small companies out of business.

Reading Check **Describing** What factors led to the rise of big business in the United States?

The Consolidation of Industry

Many corporate leaders did not like the intense competition that had been forced on them. Although falling prices benefited consumers, they cut into profits. To stop prices from falling, many companies organized **pools,** or agreements to maintain prices at a certain level.

American courts and legislatures were suspicious of pools because they interfered with competition and property rights. As a result, companies that formed pools had no legal protection and could not enforce their agreements in court. Pools generally did not last long. They broke apart whenever one member cut prices to steal the market share from another, which then allowed competition to resume. By the 1870s, competition had reduced many industries to a few large and highly efficient corporations.

Andrew Carnegie and Steel The remarkable life of **Andrew Carnegie** illustrates many of the different factors that led to industrialism and the rise of big business in the United States. He was born in Scotland, the son of a poor hand weaver who emigrated to the United States in 1848. At a young age, Carnegie worked as a bobbin boy in a textile factory earning $1.20 per week. At 14 he became a messenger in a telegraph office, then served as private secretary to Thomas Scott, a superintendent and later president of the Pennsylvania Railroad. Carnegie's energy impressed Scott, and when Scott was promoted, Carnegie succeeded him as superintendent.

As a railroad supervisor, Carnegie knew that he could make a lot of money by investing in companies that served the railroad industry. He bought shares in iron mills and factories that made sleeping cars and

COOPERATIVE LEARNING ACTIVITY

Making a Flowchart Have students work together in small groups to make a flowchart showing how steel is made. Charts should begin with the raw materials (iron ore, limestone, and coal) and end with the finished products, such as slabs, blooms, and billets of steel, that are produced by the steel mill. Some students may do the research while others design and execute the chart. The finished charts may be displayed in your classroom or school library.

Use the rubric for a cooperative group management plan on pages 71–72 in the ***Performance Assessment Activities and Rubrics.***

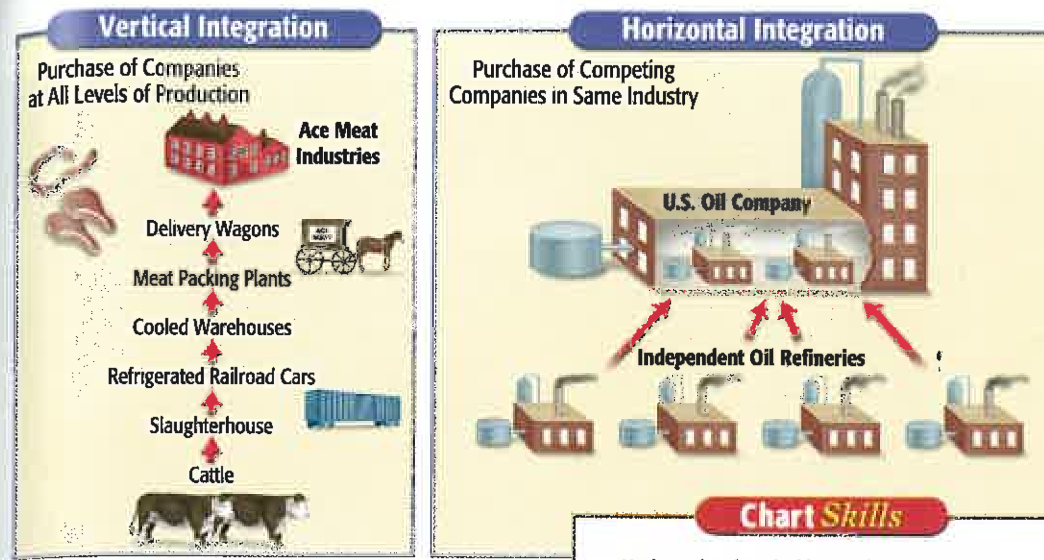

Chart Skills

Horizontal and vertical integration were the two most common business combinations in the late 1800s.

Evaluating Which combination do you think would yield the most efficient business? Why?

locomotives. He also invested in a company that built railroad bridges. In his early 30s, he was earning $50,000 per year, and he decided to quit his job with the railroad to concentrate on his own business affairs.

As part of his business activities, Carnegie frequently traveled to Europe to sell railroad bonds. On one trip, he met the English inventor, Sir Henry Bessemer, who had invented a new process for making high quality steel efficiently and cheaply. After meeting Bessemer, Carnegie decided to concentrate his investments in the steel industry. He opened a steel company in Pittsburgh in 1875 and quickly adapted his steel mills to use the **Bessemer process.** Carnegie often boasted about how cheaply he could produce steel:

> "Two pounds of iron stone mined upon Lake Superior and transported nine hundred miles to Pittsburgh; one pound and one-half of coal mined and manufactured into coke, and transported to Pittsburgh; one-half pound of lime, mined and transported to Pittsburgh; a small amount of manganese ore mined in Virginia and brought to Pittsburgh—and these four pounds of materials manufactured into one pound of steel, for which the consumer pays one cent."
>
> —quoted in *The Growth of the American Republic*

Vertical and Horizontal Integration To increase manufacturing efficiency even further, Carnegie took the next step in building a big business. He did this by beginning the **vertical integration** of the steel industry. A vertically integrated company owns all of the different businesses on which it depends for its operation. Instead of paying companies for coal, lime, and iron, Carnegie's company bought coal mines, limestone quarries, and iron ore fields. Vertical integration saved companies money while enabling big companies to become even bigger.

Successful business leaders like Carnegie also pushed for **horizontal integration,** or combining many firms engaged in the same type of business into one large corporation. Horizontal integration took place frequently as companies competed. When a company began to lose market share, it would often sell out to competitors to create a larger organization. By 1880, for example, a series of buyouts had enabled Rockefeller's Standard Oil to gain control of approximately 90 percent of the oil refining industry in the United States. When a single company achieves control of an entire market, it becomes a **monopoly.** Many Americans feared monopolies because they believed that a company with a monopoly could charge whatever it wanted for its products. Others, however, supported monopolies. They believed that monopolies had to keep prices low because raising prices would encourage competitors to reappear and offer the products for a lower price. In some industries companies had a virtual monopoly in the United States but were competing on a global scale. Standard Oil, for example, came very close to having a monopoly in the United States, but competition with other

MEETING SPECIAL NEEDS

Visual/Spatial Have interested students research how by-products of oil such as kerosene, paint, or paraffin are produced. Ask students to show the process by creating a poster or flowchart that includes drawings and explanatory labels. Display the posters and flowcharts and have students answer questions about the process. **L3**

Refer to ***Inclusion for the High School Social Studies Classroom Strategies and Activities*** in the TCR.

CHAPTER 9
Section 3, 319–323

Guided Reading Activity 9–3

Chart Skills

Answer: Answers may vary. Both could be highly efficient if well managed. Some students may favor vertical integration since they may argue that horizontal integration reduces competition and may lead to less efficient giant business.

Chart Skills Practice

Ask: What potential problems exist if one large business buys all its competitors? *(The resulting monopoly can charge high prices; it has less reason to be highly efficient.)*

Discussing a Topic Have students compare the game of Monopoly with the monopolies built by Rockefeller and other magnates. **L1**

FYI

Much like Standard Oil, the Organization of Petroleum Exporting Countries (OPEC) tries to maintain stability in the oil industry to ensure profits. Since 1970 OPEC has controlled approximately one-third to one-half of the world's oil supply. In 2001 member nations included Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.