The Railroads

Main Idea
After the Civil War, the rapid construction of railroads accelerated the nation’s industrialization and linked the country together.

Key Terms and Names
Pacific Railway Act, Grenville Dodge, Leland Stanford, Cornelius Vanderbilt, time zone, land grant, Jay Gould, Crédit Mobilier, James J. Hill

Guide to Reading

Reading Strategy
Organizing As you read about the development of a nationwide rail network, complete a graphic organizer similar to the one below listing the effects of this rail network on the nation.

Reading Objectives
• Discuss ways in which the railroads spurred industrial growth.
• Analyze how the railroads were financed and how they grew.

Section Theme
Individual Action The railroads provided new ways for some Americans to amass wealth.

Preview of Events
1870
1875
1880
1885
1869 First transcontinental railroad completed
1872 Crédit Mobilier scandal takes place
1873 First direct rail service between New York and Chicago begins
1883 Time zones instituted

An American Story

At Promontory Summit, Utah, on May 10, 1869, hundreds of spectators gathered to watch a historic event. Dignitaries from the East and the West met to hammer gold and silver spikes into the final rails that would join two great railroad lines—the Union Pacific and Central Pacific—and span the entire country.

Telegraph offices around the country stood ready to receive news that the last spike had been driven. When the news arrived, bells pealed across the nation, and even the Liberty Bell was rung. In Chicago a seven-mile procession paraded through the streets, and the pealings of church bells resonated throughout the nation’s small towns. General Grenville Dodge, who had overseen part of the construction, observed:

"The trains pulled up facing each other, each crowded with workmen who sought advantageous positions to witness the ceremonies. . . . The officers and invited guests formed on each side of the track . . . Prayer was offered; a number of spikes were driven in the two adjoining rails . . . and thus the two roads were welded into one great trunk line from the Atlantic to the Pacific."

—quoted in Mine Eyes Have Seen

Linking the Nation

In 1865 the United States had about 35,000 miles of railroad track, almost all of it east of the Mississippi River. After the Civil War, railroad construction expanded dramatically, linking the distant regions of the nation in a transportation network. By 1900 the United States, now a booming industrial power, boasted over 200,000 miles of track.
The railroad boom began in 1862 when President Abraham Lincoln signed the Pacific Railway Act. This act provided for the construction of a transcontinental railroad by two corporations, the Union Pacific and the Central Pacific railroad companies. To encourage rapid construction, the government offered each company land along its right-of-way. Feverish competition between the two companies developed, as each sought to obtain as much public land and money as possible.

**The Union Pacific and Grenville Dodge** Under the direction of engineer Grenville Dodge, a former Union general, the Union Pacific began pushing westward from Omaha, Nebraska, in 1865.

The laborers faced blizzards in the mountains, scorching heat in the desert, and sometimes angry Native Americans. Labor, money, and engineering problems plagued the supervisors of the project. As Dodge observed:

“At one time we were using at least ten thousand animals, and most of the time from eight to ten thousand laborers. . . . To supply one mile of track with material and supplies required about forty cars. . . . Everything—rails, ties, bridging, fastenings, all rail supplies, fuel for locomotives and trains, and supplies for men and animals on the entire work—had to be transported from the Missouri River.”

—quoted in *The Growth of the American Republic*

The railroad workers included Civil War veterans, new immigrants from Ireland recruited especially for the task, frustrated miners and farmers, cooks, adventurers, and ex-convicts. At the height of the project, the Union Pacific employed about 10,000 workers. While most of the laborers camped along the line, about one-fourth of them slept three-deep in bunk beds on rolling boarding cars. Camp life was rough, dirty, and dangerous, with lots of gambling, hard drinking, and fighting.

**The Big Four and the Central Pacific** The Central Pacific Railroad began as the dream of engineer Theodore Dehone Judah, who convinced the California legislature to organize a state railroad convention to support his idea. He sold stock in his fledgling Central Pacific Railroad Company to four Sacramento merchants: grocer Leland Stanford, shop owner Charley Crocker, and hardware store owners Mark Hopkins and Collis P. Huntington.

These so-called “Big Four” eventually made huge fortunes from their investment. Leland Stanford
became governor of California and later served as a United States senator after founding Stanford University in 1885.

Because of a shortage of labor in California, the Central Pacific Railroad hired about 10,000 workers from China. All the equipment—rails, cars, locomotives, and machinery—was shipped from the East, either around Cape Horn at the tip of South America or over the Isthmus of Panama in Central America.

**Reading Check** Evaluating: How did the supply difficulties of the Union and Central Railroads differ?

**Railroads Spur Growth**

The transcontinental railroad was the first of many lines that began to crisscross the nation after the Civil War. This expansion spurred American industrial growth. By linking the nation, railroads helped increase the size of markets for many products. Huge consumers themselves, the railroads also stimulated the economy by spending extraordinary amounts of money on steel, coal, timber, and other necessities.

**Linking Other Lines** In the early 1800s, most railroads had been built to promote specific cities or to serve local needs. By 1865 hundreds of small unconnected lines existed. The challenge for eastern capitalists was to create a single rail transportation system from this maze of small companies.

Railroad consolidation proceeded rapidly from 1865 to 1900. Large rail lines took over about 400 small railroads, and by 1890 the Pennsylvania Railroad was a consolidation of 73 smaller companies. Eventually seven giant systems with terminals in major cities and scores of branches reaching into the countryside controlled most rail traffic.

One of the most famous and successful railroad consolidators was Cornelius Vanderbilt, a former boat captain who had built the largest steamboat fleet in America. By 1869 Vanderbilt had purchased and merged three short New York railroads to form the New York Central, running from New York City to Buffalo. Within four years he had extended his control over lines all the way to Chicago, which enabled him to offer the first direct rail service between New York City and Chicago. In 1871 Vanderbilt began construction of New York’s Grand Central terminal.

**The Benefits of a National System** Before the 1880s each community set its clocks by the sun’s position in the sky at high noon. At noon in Chicago, for example, it was 12:50 P.M. in Washington, D.C., 12:09 P.M. in Louisville, Kentucky, and 11:41 A.M. in St. Paul, Minnesota. Local time interfered with train scheduling and at times even threatened passenger safety. When two trains traveled on the same track, collisions could result from scheduling errors caused by variations in time.

To make rail service safer and more reliable, in 1883 the American Railway Association divided the country into four time zones in regions where the same time was kept. The federal government ratified this change in 1918.

Large integrated railroad systems benefited the nation. They were able to shift cars from one section of the country to another according to seasonal needs and in order to speed long-distance transportation. At the same time, new locomotive technology and the introduction of air brakes enabled railroads to put longer and heavier trains on their lines. The new rail systems, along with more powerful locomotives,
made railroad operation so efficient that the average rate per mile for a ton of freight dropped from two cents in 1860 to three-fourths of a cent in 1900.

The nationwide rail network also helped unite Americans in different regions. Looking back at a quarter century of railroad travel, the *Omaha Daily Republican* observed in 1883 that railroads had “made the people of the country homogeneous, breaking through the peculiarities and provincialisms which marked separate and unmingling sections.” This was, perhaps, an overstatement, but it recognized a significant contribution that railroads made to the nation.

### Reading Check

**Explaining** Why did the American Railway Association divide the country into four time zones?

### The Land Grant System

Building and operating railroad lines, especially across the vast unsettled regions of the West, often required more money than most private investors could raise on their own. To encourage railroad construction, the federal government gave land grants to many railroad companies. Railroads would then sell the land to settlers, real estate companies, and other businesses to raise the money they needed to build the railroad.

In the 1850s, the federal government granted individual states over 28 million acres of public lands to give to the railroads. After the Pacific Railway Acts of 1862 and 1864, the government gave the land directly to the railroad companies.

During the 1850s and 1860s, the federal land grant system awarded railroad companies over 120 million acres of land, an area larger than New England, New York, and Pennsylvania combined. Several railroad companies, including the Union Pacific and the Central Pacific, earned enough money from the government’s generous land grants to cover much of the cost of building their lines.

### Robber Barons

The great wealth many railroad entrepreneurs acquired in the late 1800s led to accusations that they had built their fortunes by swindling investors and...
taxpayers, bribing government officials, and cheating on their contracts and debts. The person with probably the worst reputation for this kind of activity was Jay Gould, who often practiced “insider trading.” He used information he received as a railroad owner to manipulate stock prices to his benefit.

Bribery occurred frequently in this era, partly because the state and federal governments were so deeply entangled in funding the railroads. Railroad investors quickly discovered that they could make more money by acquiring government land grants than by operating the railroad. As a result, many investors bribed members of Congress and the state legislatures to vote for more grants.

The Crédit Mobilier Scandal The corruption in the railroad industry became public in 1872 when the Crédit Mobilier scandal erupted. Crédit Mobilier was a construction company set up by several stockholders of the Union Pacific, including Oakes Ames, a member of Congress. Acting for both the Union Pacific and Crédit Mobilier, the investors signed contracts with themselves. Crédit Mobilier greatly overcharged Union Pacific for the work it did, and since the same investors controlled both companies, the railroad agreed to pay the inflated bills.

By the time the Union Pacific railroad was completed, the investors had made several million dollars, but the railroad itself had used up its federal grants and was almost bankrupt. To convince Congress to give the railroad more grants, Ames gave other members of Congress shares in the Union Pacific at a price well below their market value.

During the election campaign of 1872, a disgruntled associate of Ames sent a letter to the New York Sun listing the members of Congress who had accepted shares. The scandal led to an investigation that implicated several members of Congress, including Speaker of the House James G. Blaine and James Garfield, who later became president. It also revealed that Vice President Schuyler Colfax had accepted stock from the railroad.

The Great Northern The Crédit Mobilier scandal provided sensational newspaper headlines. It created the impression that all railroad entrepreneurs were robber barons—people who loot an industry and give nothing back—but the term was not always deserved.

One railroad entrepreneur who was clearly not a robber baron was James J. Hill. Hill built and operated the Great Northern Railroad from St. Paul, Minnesota, to Everett, Washington, without any federal land grants or subsidies. He built the Great Northern across good land, carefully planning his route to pass by towns in the region. To increase business, he offered low fares to settlers who homesteaded along his route. He then identified American products that were in demand in China, including cotton, textiles, and flour, and arranged to haul those goods to Washington for shipment to Asia. This enabled the railroad to earn money by hauling goods both east and west, instead of simply sending lumber and farm products east and coming back empty, as many other railroads did. Operating without government subsidies or land grants, the Great Northern became the most successful transcontinental railroad and the only one that was not eventually forced into bankruptcy.

Reading Check Describing How was the Great Northern different from other railroads of the time?