## Railroads



First steam locomotive
Steam power also had a spectacular impact on land travel. In 1801, British engineer Richard Trevithick put a steam engine on wheels. Three years later he built the world's first steam locomotive. But it took many more years before steam locomotives were actually used as a means of transport.


In 1829, two locomotives were imported to the U.S. from England, but they were found to be too heavy for American tracks. More suitable locomotives would have to be produced domestically. One of the first engines to be built in the U.S., the Best Friend of Charleston, traveled 30 miles an hour without freight or up to 21 miles an hour with four loaded cars. As for railroad tracks, they were not new. Primitive wood and iron tracks had been used before for mining operations. Men or horses pushed carts along the tracks.

Unlike steamboats, steam locomotives didn't depend on the location and condition of waterways. More direct routes from place to place were possible. They could carry people and freight anywhere engineers could set rail. They also offered year-round service. Many canals and rivers were useless in the winter when the water froze.

The first railroads and tracks were financed by local governments and private investors in towns and cities along waterways. They were often built to provide links where a canal was impractical. These shortdistance lines helped communities tap potential markets in the surrounding countryside. Extension and connection of these lines soon provided uninterrupted transportation over longer distances.

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Railroads of the North and South 1850-60

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## Railroad lines were east of what major geographic feature? The Mississippi River

Where were most of these rail lines, in the north or the south? About two-thirds of the tracks were in the North, with the remaining third in the South.


Homesteaders traveling West via wagon

Rails west of the Mississippi soon followed. In 1848, gold was discovered in California. Then gold and silver were also found in Colorado and Nevada. These events were followed by the passage of the Homestead Act of 1862 in which the federal government offered 160 acres of undeveloped land in the west free to any family head or person who was 21 years of age, provided the person lived on the land for five years and built a house. The promise of gold and new lands for homesteading created a demand for easier access to the West.


Union Pacific workers cutting through Weber Canyon, Utah


Central Pacific workers laying rail in Nevada

The U.S. Government realized it needed to get involved and help fund a transcontinental rail line that would connect the east and west coasts. Building the railroad was an expensive venture and private banks, fearing it would take rail companies a long time to pay off their debts, were reluctant to loan money to the companies. In 1862, Congress gave two companies, the Union Pacific and the Central Pacific Railroads, the right to lay down tracks along with a 30 -year government loan for each mile of track constructed. The companies were also given millions of acres of public land along the line that they could sell to make the money required to lay rails. The first continental railroad stretched across two-thirds of the continent from Omaha, Nebraska to Sacramento, California.


Driving of the golden spike at Promontory Summit, Utah, May 10, 1869

When the transcontinental railroad was completed at Promontory Point, Utah in 1869, the U.S. had a rail line linking the Atlantic to the Pacific Ocean. Instead of six weeks travel across the West in a stagecoach, the coast to coast journey could now be made in five or six days.


Four more transcontinental lines followed with help from the federal government.

- The Atchison, Topeka and Santa Fe Railway connected Atchison, Kansas with the Southern Pacific Railroad at Deming, New Mexico to offer a second link to Los Angeles, California in 1882.
- The Southern Pacific Railroad linked New Orleans, Louisiana (and the Gulf of Mexico) to Los Angeles in 1883
- The Northern Pacific Railway, also completed in 1883 , linked Chicago, Illinois with Seattle, Washington
- The Great Northern Railroad stretched from St. Paul, Minnesota to Seattle in 1893

Did you notice the last line was finished in 1893, the same year Katharine Bates wrote "America the Beautiful"?


Between 1865 and 1890 rail lines west of the Mississippi increased from 3,272 miles of track to 72,463 miles. People could travel in relative comfort and safety in record times. Goods were transportable anywhere. The cost of shipping a ton of freight for one mile was two cents, at least double the cost of shipping via water but dependable access to new places and speed often made it worth the difference.

This map shows the land the federal government gave to the railways as an incentive to build these transcontinental lines.

