

## 3.1 Invention and Mechanization

How did the development of new technologies change life in the United States?

### Explore

## Industrialization in the United States

How did industrialization in the United States contribute to rapid change?



### Invention and Mechanization: Main Idea Web

As you read pages 1–3, use the Main Idea Web to organize details related to industrialization in the United States, better production methods, and the driving force of transportation.

A major trend in the history of the United States, industrialization was the process by which everyday goods changed from being crafted by the hands of artisans to being mass produced in factories by machines. The process of industrialization fundamentally transformed the American economy. New inventions and advanced machinery made it possible for businesses to efficiently mass produce goods that were demanded by many people. As a result, products became affordable to larger segments of the population. In addition, industrialization led to changes in the way American businesses were organized and operated. Both of these developments had positive and negative consequences.

The industrialization of the United States had its origins in the [Industrial Revolution](#), which began in England during the 1700s. During this period, producers began to use machines such as the steam engine to make textiles, or cloth products.

By the early 1800s, industrialization spread to other countries, including the United States, where textile factories in towns such as Lowell, Massachusetts, began to emerge. After the Civil War, America's industrialization accelerated as a result of new inventions that incorporated steam-engine technology. Steam-powered shovels were used for mining and steam-driven turbine generators produced electricity, which then was used to power even larger factories. As technology improved production methods, factories in major cities in the North and West began to mass produce goods. The country's industrial transformation soon spread to productive enterprises beyond textiles, such as steel and oil.

### Impact on Society

As a result of industrialization, the United States became a more urban nation. In the early 1800s, most

Americans lived in the country's rural areas and small towns, but industrialization changed the population distribution of the United States. Because most new factories were located in cities, many people migrated from rural areas to urban areas for work. As a result, urban populations soared. Philadelphia's population increased from about 120,000 in 1850 to about 845,000 in 1880. In 1850, Chicago had only about 30,000 residents. Twenty years later, its population was more than 500,000. Industrialization also changed the physical size and appearance of American cities. City centers that were once small enough to be navigated by foot were replaced by metropolitan areas with public transportation systems. Cities that once were filled with buildings that were no more than a few stories tall were now dominated by skyscrapers and suspension bridges.

The country's industrial transformation and urbanization also contributed to its increasing diversity. Hoping to find better lives and steady work in American factories, millions of immigrants arrived in the United States in the late 1800s and early 1900s. Many came from eastern and southern European and Asian countries that, in the past, had rarely been sources of American immigration. The arrival of these "new immigrants" created cultural and economic tensions over the meaning of American citizenship.

Industrialization also affected the class structure of the United States and contributed to income inequality. As the industrial companies grew larger and more powerful, a wealthy upper class of business leaders began to dominate American society and politics. A few industrial giants, such as Andrew Carnegie and John D. Rockefeller, attained levels of wealth that at one time seemed unimaginable. Larger businesses also hired managers and other office workers to perform administrative tasks. These white-collar jobs paid more than factory and farm work, and contributed to the emergence of an American middle class. However, unskilled workers, often immigrants, who toiled in factories and in mines often lived in poverty and faced very difficult and often unsafe conditions both at home and at work.

Many factors led to the United States becoming a more industrial nation after the Civil War, including improved methods of getting raw materials and making products.