

# Growth of the City: Industrialization

by Sophia

## WHAT'S COVERED

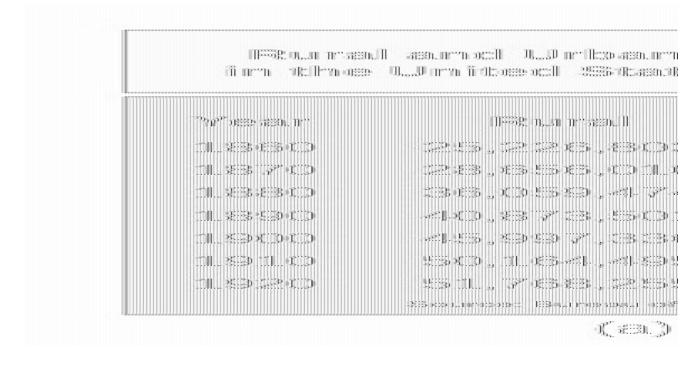
Along with industrialization, urbanization transformed the United States during the Gilded Age. The millions who moved from the countryside—or from across the oceans—to the cities, encountered new technologies that made city life appealing. These technologies enabled many of the factories in which they worked to run 24 hours a day, 7 days a week. Cities developed unique characteristics based on the industry that spurred their growth, but all of them suffered from problems related to rapid expansion. These problems, which were usually rooted in class inequity or racial/ethnic divisions, stimulated the social reform efforts that would later be associated with the Progressive Era.

This tutorial examines the relationship between city growth and social reform during the late 19th century, in three parts:

## 1. The Growth of the City

The expansion of the railway network and the massive migration of labor—which together initiated a transformative period of economic and industrial growth during the Gilded Age—contributed to the growth of American cities, especially those in the Northeast and Midwest.

Refer to the table below, which charts changes in rural and urban population in the U.S. between 1860 and 1920. It indicates increases in six major cities between 1860 and 1900.



The population of the United States grew rapidly during the Gilded Age (a). Much of this growth took place in urban areas (defined by the U.S. Census Bureau as containing 2,500 people or more). New York and Chicago exemplified this trend. A city of 1.2 million in 1860, New York's population grew to 3.4 million by 1900. Chicago was America's second-largest city in 1900: a remarkable feat, considering that it had fewer than 110,000 people in 1860.

Several innovations enabled American cities to become centers of commerce and population.

## 1a. Coal-Powered Electricity

On the production side, plentiful supplies of coal in Appalachia and the Rocky Mountains fueled commercial coal-fired power plants. On the consumption side, **Nikola Tesla** invented the alternating current (AC) system, and **Thomas Edison** invented the incandescent light bulb. Together, these developments revolutionized the ways in which Americans used energy. Electric lights enabled factories to operate around the clock. Electric street lamps kept cities well-lit through the night.

## 2 PEOPLE TO KNOW

#### Nikola Tesla

Inventor who made important discoveries concerning alternating-current electricity.

#### **Thomas Edison**

American inventor who developed the incandescent light bulb, among other inventions.

## 1b. Improvements in Communication

Coal-powered electricity also transformed how Americans communicated. The telephone, patented by **Alexander Graham Bell** in 1876, rapidly replaced the telegraph as the preferred form of communication. By enabling instant communication over greater distances at any time, telephone networks made "urban sprawl" possible. Just as electric lights enabled continuous factory production, the telephone initiated a system for order placement and fulfillment that outpaced the mail-order system.

## PEOPLE TO KNOW

 $\ensuremath{\textcircled{O}}$  2023 SOPHIA Learning, LLC. SOPHIA is a registered trademark of SOPHIA Learning, LLC.

#### Alexander Graham Bell

Inventor of the telephone.

## ⑦ DID YOU KNOW

By 1900, over 1.5 million telephones were in use in the U.S.

## 1c. Advancements in Transportation Infrastructure

Before the 1880s, the most common form of transportation in cities was the omnibus: a large, horse-drawn carriage that ran on tracks (for a smooth ride). The horses that pulled the omnibuses required food, care, and adequate rest. Their manure was an important pollution problem.

In 1887, **Frank Sprague** invented the electric trolley, which was a large wagon that ran on tracks (like the omnibus), powered by electricity instead of horses. Electric trolleys ran day and night, like the factories, providing workers with reliable transportation no matter what shift they worked.

## 2 PEOPLE TO KNOW

#### Frank Sprague

Inventor of the electric trolley, which transformed public transportation in America's growing cities. As urban populations grew, city planners adopted new infrastructure strategies. They built trolley tracks above street level, creating elevated trains, or L-trains, in New York (1868), Boston (1887), and Chicago (1892). Subsequently, as skyscrapers soared ever higher, another form of transportation grew underground: the subways.

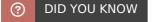




(a)

(b)

Although trolleys were far more efficient than horse-drawn carriages, they were frequently involved in accidents, as shown in this 1895 illustration from Leslie's Weekly (a). To escape the overcrowded streets, trolleys moved underground, as at the Public Gardens Portal in Boston (b). Three different lines met at this location to enter the Tremont Street Subway, the oldest subway tunnel in the United States, which opened on September 1, 1897.



Boston's subway system began operating in 1897, followed by systems in New York and other cities.

## 1d. Skyscrapers

Growing cities needed a way to meet ever-increasing demands for space. Adjacent municipalities and geographic limitations (e.g., rivers, coastlines) sometimes prevented horizontal expansion. City dwellers also needed to be close to urban centers in order to access their workplaces, stores, and so forth.

The first skyscraper—the 10-story Home Insurance Building—was completed in Chicago in 1885 (pictured below). Although it was possible to build a taller building, due to new steel construction techniques, another invention was required to make taller buildings viable: the elevator. The need was met in 1889, when the Otis Elevator Company, led by inventor **James Otis**, installed the first electric elevator.

## 2 PEOPLE TO KNOW

#### James Otis

Installed the first electric elevator, enabling the construction of skyscrapers in American cities.

#### **Additional Resource**

Here's a short PBS video clip from the Ken Burns Brooklyn Bridge documentary to learn more about this great technological advancement during the industrial age.



The Home Insurance Building in Chicago, considered the first modern skyscraper in the United States.

## 2. The Challenges of Urban Life

Beneath the glamor of urban advances were important problems: congestion and pollution.

Living conditions for most working-class urban dwellers were atrocious. In the absence of local, state, or federal regulations, many lived in crowded tenement houses and cramped apartments with poor ventilation and substandard plumbing and sanitation. Residents threw their garbage outside, where it decomposed or was eaten by scavenging animals.

## OID YOU KNOW

Wild pigs roamed the streets of New York, consuming trash, until around 1900. Running water (or any access to clean water) was not available in many locations. The combination of poor sanitation and impure water allowed disease to spread in many cities. Typhoid, cholera, and other disease epidemics occurred. Memphis experienced waves of cholera (1873), followed by yellow fever (1878 and 1879), resulting in 10,000 deaths.

Poor living conditions and disease took a toll on city children.

ightarrow EXAMPLE More than half of the children born in Chicago in 1882 died before they reached the age of five.

→ EXAMPLE In 1890, almost 25% of all children born in American cities died within a year. By the late 1880s, a number of cities introduced sewage pumping systems to provide efficient waste management. This improvement was slow to reach working-class neighborhoods, which were overcrowded and unsanitary. Working-class districts contributed the largest share of the death toll when disease epidemics swept through cities.

## 3. Urban Life and Social Reform

The glittering lights, towering skyscrapers, and dilapidated working-class neighborhoods of American cities provided the context for the first social reform efforts of the late 19th century.

Churches and religious organizations were among the most important institutions that provided relief to urban, working-class residents. Church leaders were motivated to reform city life by the **social gospel**.

## TERM TO KNOW

## Social Gospel

The belief that churches should be as concerned about the conditions of people in the secular world as they were with their afterlife.

The social gospel stated that all Christians should be as concerned with the living and working conditions of city dwellers as they were with their salvation. Congregationalist pastor Washington Gladden and Baptist clergyman **Walter Rauschenbusch** were among the foremost advocates of the social gospel. Both urged their congregations to pay attention to social ills and to work with people of all classes to better society.

## PEOPLE TO KNOW

#### Walter Rauschenbusch

Baptist clergyman who was one of the most notable advocates of the social gospel in the late 19th century.

Rauschenbusch outlined the role of Christian churches in modern America as follows:

## Walter Rauschenbusch, Baptist Clergyman

"The chief purpose of the Christian Church in the past has been the salvation of individuals. But the most pressing task of the present is not individualistic. Our business is to make over an antiquated and immoral economic system; to get rid of laws, customs, maxims, and philosophies inherited from an evil and despotic past; to create just and brotherly relations between great groups and classes of society; and thus to lay a social foundation on which modern men individually can live and work in a fashion that will not outrage all the better elements in them. Our inherited Christian faith dealt with

## THINK ABOUT IT

Why do you think Rauschenbusch felt it necessary to argue that "our present task deals with society" and to ask church members to look beyond their individual salvation?

Rauschenbusch, Gladden, and other proponents of the social gospel highlighted the work that Jesus did on behalf of the poor. They repeated his mantra, "love thy neighbor," and insisted that all Americans must work together to help the masses.

Along with the social gospel, the settlement house movement provided relief to city inhabitants.

### TERM TO KNOW

#### Settlement House Movement

An early social reform movement, largely spearheaded by women, which sought to offer services such as childcare and free health care to help the urban working poor.

Pioneering women like **Jane Addams** in Chicago and **Lillian Wald** in New York led this secular movement, which was based on concepts provided by social reformers in England. They created settlement houses in cities to assist the working class, particularly working-class women. Their services included child day care, evening classes, libraries, gym facilities, and free health care.

#### 2 PEOPLE TO KNOW

#### Jane Addams

Leader of the settlement house movement in the United States and founder of Hull House in Chicago.

#### Lillian Wald

Founder of the Henry Street settlement house in New York City.

## ⑦ DID YOU KNOW

Addams opened Hull House (pictured below) in Chicago in 1889. Six years later, Lillian Wald opened her Henry Street Settlement in New York.



Children standing outside of Hull House, ca. 1907

The settlement house movement not only provided assistance to working-class women, but it also offered employment to women who had earned college degrees in social work. By living in settlement houses and interacting with working-class women, the graduates experienced a "living classroom," in which they applied what they'd learned and formed their own ideas about self-improvement. Female settlement house workers ultimately created a political agenda to solve urban social ills. It included fair housing laws, child labor regulations, and workers' compensation reform.

Jane Addams recalled the role that settlement houses played in American cities as follows:

## Jane Addams, Founder of Hull House

"The Settlement [house] casts side none of those things which cultivated men have come to consider reasonable and goodly, but it insists that those belong as well to that great body of people who, because of toilsome and underpaid labor, are unable to procure them for themselves. Added to this is a profound conviction that the common stock of intellectual enjoyment should not be difficult of access because of the economic position of him who would approach it, that those 'best results of civilization' upon which depend the finer and freer aspects of living must be incorporated into our common life and have free mobility through all elements of society if we would have our democracy

### THINK ABOUT IT

- 1. What was the importance of settlement houses to members of the working class?
- 2. What was the importance of settlement houses to members of the middle and upper classes?

A group of journalists and writers, collectively known as **muckrakers**, provided another important component of urban social reform movements.

## TERM TO KNOW

#### **Muckrakers**

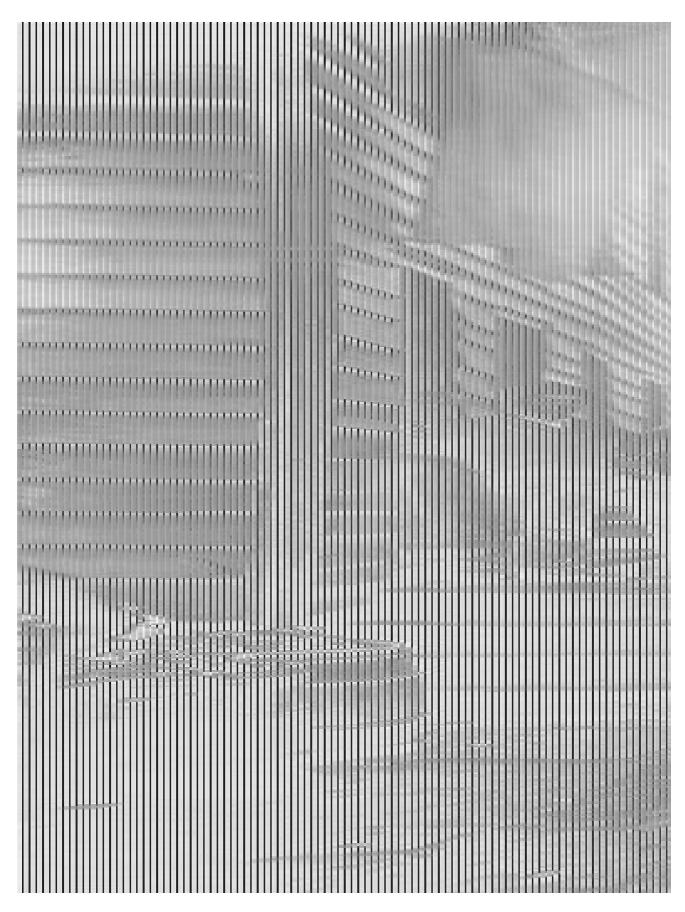
Investigative journalists and authors who wrote about social ills, from child labor to the corrupt practices of big businesses, and urged the public to take action.

## ⑦ DID YOU KNOW

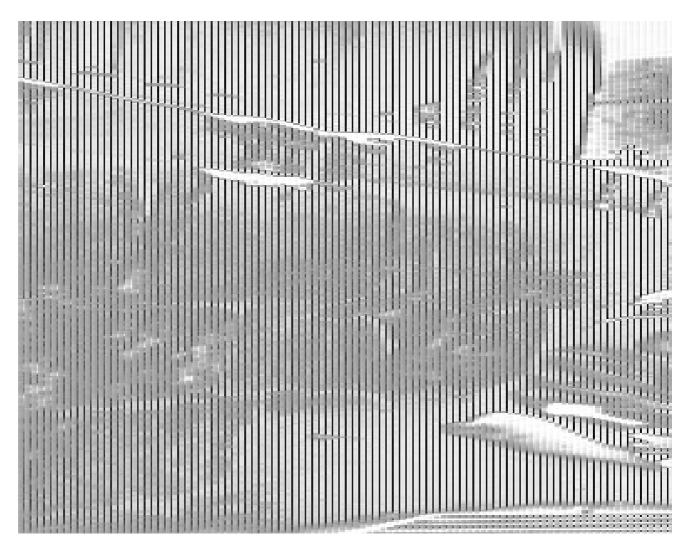
Unhappy with the way in which investigative journalists forced social reform agendas into national politics, President Theodore Roosevelt was the first person to call them "muckrakers." The name is a reference to an ill-spirited character obsessed with filth in *The Pilgrim's Progress*, a 1678 Christian allegory written by John Bunyan.

Jacob Riis, a Danish immigrant who moved to New York City in the late 19th century and became a police reporter, was among the most notable muckrakers. He spent much of his time reporting on the slums and tenements of New York. Appalled by what he found there, Riis spread the word by delivering lectures and writing a book: *How the Other Half Lives*, published in 1890.

Riis used photographs effectively to make his points, as evidenced by the two provided below:



59 1/2 Mulberry Street, otherwise known as "Bandit's Roost" in the infamous Five Points neighborhood of Manhattan's Lower East Side. Riis took this photograph in 1888.



This 1890 photograph, taken by Riis, shows a group of children sleeping near Mulberry Street.

## 1 THINK ABOUT IT

- 1. When you examine the photographs above, what are your strongest impressions?
- 2. Who is the intended audience for these photographs? What reactions does Riis seek to elicit from his audience?

Riis and a group of amateur photographers moved through the various slums of New York City, laboriously setting up their tripods and mixing the explosive chemicals (the precursors of flash bulbs) that were used to create enough light to take the photographs. When they were published, these photographs, along with Riis' text, shocked readers and made him a well-known journalist. By exposing the injustices that were part of urban, working-class life, Riis's work challenged his audience to solve them.

## BRAINSTORM

Compare the ideas, motivations, and methods of the social gospel, settlement house movement, and muckrakers. What problems did they identify, and how did they propose to solve them? In what ways were their efforts similar to—and different from—each other?



Urbanization spread rapidly during the late 19th century, due to a number of factors. Increased energy production (and consumption), combined with new inventions including the incandescent light bulb, the electric streetcar, and the electric elevator, transformed factory work and city life. However, most American cities were unable to cope with the rapid influx of new residents. Living conditions for the working class were horrid. In this context, some of the first social reform efforts emerged. The social gospel, the settlement house movement, and the muckrakers exposed the problems that afflicted urban residents and provided relief. Despite their efforts, conditions for most urban workers in Gilded Age America remained brutal.

Source: This tutorial curated and/or authored by Matthew Pearce, Ph.D with content adapted from Openstax "U.S. History". access for free at openstax.org/details/books/us-history LICENSE: CREATIVE COMMONS ATTRIBUTION 4.0 INTERNATIONAL

#### REFERENCES

Rauschenbush, W. (1921). Christianizing the social order. Retrieved March 14, 2017, from bit.ly/2npoSCa

## TERMS TO KNOW

#### Muckrakers

Investigative journalists and authors who wrote about social ills, from child labor to the corrupt business practices of big businesses, and urged the public to take action.

#### **Settlement House Movement**

An early social reform movement, largely spearheaded by women, which sought to offer services such as childcare and free health care to help the urban working poor.

#### Social Gospel

The belief that churches should be as concerned about the conditions of people in the secular world as they were with their afterlife.

### PEOPLE TO KNOW

#### Alexander Graham Bell

Inventor of the telephone.

#### Frank Sprague

Inventor of the electric trolley, which transformed public transportation in America's growing cities.

#### **James Otis**

Installed the first electric elevator, enabling the construction of skyscrapers in American cities.

#### Jane Addams

Leader of the settlement house movement in the United States and founder of Hull House in Chicago.

#### Lillian Wald

Founder of the Henry Street settlement house in New York City.

#### Nikola Tesla

Inventor who made important discoveries concerning alternating-current electricity.

## **Thomas Edison**

American inventor who developed the incandescent light bulb, among other inventions.

#### Walter Rauschenbusch

Baptist clergyman who was one of the most notable advocates of the social gospel in the late 19th century.