About Industrialization, Immigration, and Urbanization

Immigration

The greatest period of immigration to America occurred between 1880 and 1920, when approximately twenty-three million immigrants arrived. By 1914, one-third of all Americans either were immigrants themselves or had at least one parent who was an immigrant. These later immigrants came from different parts of Europe than the earlier immigrants. The "Old Immigrants," who arrived from about 1820 to 1860, came mainly from northern and western Europe. The "New Immigrants," who arrived from about 1870 to 1920, were primarily from southern and eastern Europe. European immigrants largely came into Ellis Island in New York Harbor. A very limited number of immigrants were allowed into the United States from Asia at this time because of racial prejudice. Asian immigrants came through Angel Island, located near San Francisco.

Immigrants who settled in cities often had a hard time making a living in the factories and sweatshops. Farm families found life on the Great Plains, far from the nearest neighbor, lonely and at times dangerous, when blizzards, floods, illness, or serious accidents struck. Still, for many of these immigrants, their new lives seemed better than their lives back home. Some Americans were helpful and friendly to the newly arrived immigrants. But as the numbers of new immigrants grew, others whose families had lived in the United States for generations were not happy with the arrival of so many new foreigners. This resulted in the rise of nativism and the anti-immigrant, anti-Catholic "Know-Nothing" movement. The Know-Nothing party began as a secret organization and later evolved into the American Party. The goal of the Know-Nothing party was to restrict immigration, but it also supported measures to limit the rights of foreign-born people in the United States. The party peaked in the 1850s, but its sentiments and influence lingered for years.

Scandinavian Americans

Settlers from the Scandinavian countries of Norway, Finland, Sweden, and Denmark brought a deep religious tradition, a distinctive cuisine, and a strong literary and linguistic tradition to America. The Scandinavians were generally Lutherans. The Lutheran Church required that all children learn to read and write. Because of this focus on literacy and education, the Scandinavian immigrants arrived in America literate in their native languages. In their new communities, they set up newspapers and publishing houses and established primary, secondary, and postsecondary schools. Cooperatively owned farms, dairies, and stores were commonplace in the Scandinavian settlements of the Upper Midwest. This focus on helping others carried over into the Scandinavian immigrants' interest in social activism.

German Americans

By 1790, up to one hundred thousand Germans had immigrated to America. The largest wave of German immigration occurred in the 1880s, when nearly 1.5 million people left Germany. Germans made a huge impact on the history of the United States. German settlers designed and built the Conestoga wagon, which was used to carry goods between rural areas and cities in the eighteenth century. German newspapers and publishing houses popped up in the colonies, and a German printer was the first to print a Bible in America. Germans also introduced the custom of decorating a tree at Christmas. America's Santa Claus was popularized by German immigrants, along with the Easter bunny and Easter eggs, and a German immigrant established the first kindergarten in America. German immigration increased in the mid-1800s after the Revolutions of 1848 failed to democratize Europe and contributed to social and political unrest.

Irish Americans

Irish immigration during the mid-1800s was driven by a blight that destroyed Ireland's potato crop, a staple food in the Irish diet at this time. The famine caused a million deaths due to starvation and malnutrition. The Irish immigrants who came to America often came from rural areas. Because they were for the most part unskilled, Irish laborers entered the American workforce at the bottom of the job pool. They worked hard, and over time, the Irish organized themselves into a powerful political force. Irish political machines made the most impact in major American cities in the 1900s. There was corruption among the powerful people organizing these political forces, but the Irish influence also did a lot of good. Irish politicians made it possible for Irish workers to get and keep jobs, helped Irish immigrants become naturalized citizens, and created and promoted social services to take care of their supporters.

Chinese Americans

The earliest Chinese immigrants came to America during the 1780s, but only in small numbers. It wasn't until the gold rush in California in 1849 that a larger migration occurred. Many Chinese heard about *gam saan*, "gold mountain," and wanted to see whether they, too, could find gold. In the thirty years after 1849, more than three hundred thousand Chinese people came to the United States, mostly the western part of the country, especially California. They worked mostly in gold mines and surrounding communities. A smaller number worked on farms or in fishing villages.

Gold Mountain ended up being a disappointment for many Chinese immigrants. The work was hard, if they could find it. They faced hostile treatment and struggled to make enough money to eat. White miners felt threatened by the presence of Chinese workers and demanded that the California legislature take action. In May 1852, the California legislature passed the Foreign Miners' Tax, requiring that every miner who was not an American citizen pay a monthly fee. Chinese immigrants were the main target of this tax.

Chinese miners soon looked for work elsewhere, and many found work with the railroads. During the peak time of railroad construction, Central Pacific Railroad employed more than twelve thousand Chinese immigrants—about 90 percent of Central Pacific's workforce. The completion of the transcontinental railroad in 1869 prompted many Chinese railroad workers to become farm laborers. Others headed east, to plantations in the South or to booming towns in the Midwest and on the East Coast.

The Chinese Exclusion Act

The Chinese Exclusion Act of 1882 prohibited Chinese laborers from entering the country. The act was the first major legislation to suspend immigration for a specific nationality. It was the result of blatant racial hostility from white Americans. The act originally lasted for ten years and was extended another ten years in 1892. This extension required people of Chinese origin to carry identification papers or be deported. It also made it difficult for those who were not teachers, students, diplomats, or tourists to get into the country. The act was extended once more in 1902, making it nearly impossible for any Chinese immigrant to enter the United States. The act was finally repealed in 1943, when a quota similar to those used for other nationalities was established for Chinese immigration.

Industrialization

The First Industrial Revolution started in Great Britain in the mid-1700s and spread quickly to other parts of the world. The steam engine, developed by the Scottish inventor James Watt in the 1760s, led to a period of innovation and rapid development of new technology and machines. The Second Industrial Revolution in the United States began after the Civil War ended in 1865 and lasted through the early 1900s. This period was

characterized by rapid industrial growth spurred by mechanization, assembly lines, and mass production; technological innovation; and the expansion of railroads. Increased consumption of raw materials and natural resources—especially coal, iron, and timber—also occurred during this time.

Industrialization fundamentally changed the way Americans worked. Factory and sweatshop workers, including children, worked as many as sixteen hours a day doing repetitive tasks. Wages were low, especially for women and children, and working conditions were poor, if not dangerous. Pollutants generated by the machinery created a variety of health concerns, and accidents were commonplace.

Railroads

Transportation improvements were a major driver of the Second Industrial Revolution. Prior to 1862, railroads were usually limited to small, local lines. This changed with the passage of the Pacific Railway Act and the construction of the first transcontinental railroad, completed in 1869. Between 1871 and 1900, railroad construction boomed, and total miles of track grew from forty-five thousand miles (72,420 km) to about two hundred thousand miles (321,868 km).

Railroads had a profound impact on consumers and producers alike. In addition to making travel faster and safer, they also opened new markets for large businesses, resulting in increased competition and lower prices for consumers. Railroads were also major consumers of raw materials and helped spur growth in the coal, steel, and oil industries.

The benefits of the railroads were not enjoyed equally. Tycoons like Cornelius Vanderbilt built railroad monopolies that had the power to charge astronomical rates. Discriminatory practices often resulted in higher rates for small businesses and farmers, while major corporations enjoyed lower prices. Collusion between rail lines was also common. Railroads also had a significant impact on Native American populations. Native peoples were forced from their ancestral lands to make way for new rail lines. The railroads also facilitated the mass slaughter and near extinction of the American bison, which further eroded Native American cultures and traditional ways of life.

Technological Innovations

Skyscrapers

Skyscrapers were first invented in the 1880s, though these buildings are often considered small by today's standards. The term *skyscraper* originally applied to ten- to twenty-story buildings. Today, the word is generally used to describe buildings with forty or more stories. A number of factors contributed to the literal rise of skyscrapers. From a geographic standpoint, the organization of cities such as New York had long been determined, and the average size of a plot of land in the city was restrictive. Businesses had one of two options: set up shop outside the city or find a way to make use of the space available. Many businesses, wishing to remain in the heart of the city, opted for the latter option. The invention of passenger elevators in 1857 also contributed to the advent of skyscrapers. Now that occupants were not forced to climb multiple flights of stairs, buildings taller than four floors made more sense.

The earliest skyscrapers relied on a heavy masonry base comprising thick walls. The base was crucial to supporting the load of the floors and roof above. However, this design was limiting. The base could only support a limited number of stories, and the thick walls infringed upon the available interior space of the building, limiting the size of rooms on the lower floors. It was not until the adoption of the Bessemer process that skyscrapers really took off. Steel, an iron and carbon alloy, is significantly lighter than iron. It is also stronger, making it an ideal building material, especially for tall structures. Throughout the late 1800s and the 1900s, skyscrapers grew across the country, especially in major cities like New York, Philadelphia, and Chicago.

The exteriors of the buildings exhibit varied architectural details, reflecting when they were built. Over time, skyscrapers were used for both commercial and residential space.

Telephones

Alexander Graham Bell was a Scottish immigrant, educator of the deaf, and inventor. He began working on new ways to transmit telegraph signals. At the time, two messages could be transmitted successfully on a single telegraph line. Thomas Alva Edison, backed by Western Union, later expanded this to four messages per line. Alexander Graham Bell helped develop the harmonic telegraph, which could transmit as many as ten messages per line. However, the technology proved less functional in practice than in a lab.

Bell later shifted his attention to transmitting voices instead of signals. On February 14, 1876, he submitted his patent for the telephone. His submission came just hours ahead of a submission for a similar device by his competitor, Elisha Gray. Bell received the patent rather than Gray and made the first successful telephone call on March 10, 1876, to his assistant in the next room. He made the first long-distance call in August of the same year. The Bell Telephone Company was established in 1877 and later became a part of the American Telegraph and Telephone Company—a company that still exists today as AT&T. Telephone technology spread quickly. According to the U.S. Census Bureau, the average number of daily calls grew from 234,000 in 1890 to more than a million in 1900.

Electricity

Electricity was another significant innovation that changed the way people lived and worked. Thomas Edison played an important role in the development of direct current (DC) electricity. Direct current runs in a single direction, from the energy source to the object receiving power. With funding from John Pierpont Morgan, Edison opened the first electrical generating station in New York City's financial district in 1882. The Pearl Street Station provided power to residences and businesses within a half-mile radius.

Direct current had limitations, namely the inability to easily increase or decrease its voltage, or electrical pressure. Nikola Tesla, a Serbian American inventor, addressed this concern with alternating current (AC) electricity. Unlike direct current, alternating current has the ability to reverse direction. In the United States, the standard number of reversals is sixty times per second. Tesla went on to design AC motors that were used in a variety of applications. Alternating current was later championed by George Westinghouse and was used to light the city of Buffalo, New York, in 1896. Alternating current is the primary form of electricity used today.

Urbanization

The widespread development of factories led to a shift in the ways that people lived and worked. Great waves of people migrated from rural areas to cities where factory jobs were available. Millions of immigrants also settled in urban centers. With the increase in urban populations came a corresponding increase in urban social problems, such as poverty, homelessness, child labor, and crime.

Tenements

Urbanization increased the demand for housing. Tenements helped answer the question of where recent immigrants to the country's growing cities would live. Many immigrants landed in New York City's Lower East Side, where former single-family homes were subdivided into multifamily properties. New tenements were designed to maximize space. Built close together, these buildings had five to seven stories and were twenty-five feet (7.62 m) wide and one hundred feet (30.48 m) deep. The buildings had limited air circulation, and most of

their rooms received little to no natural light. Close quarters, insufficient plumbing, and a lack of fire escapes enabled the rapid spread of diseases like cholera and increased the risk of disastrous fires.

Political Machines

Cities were ill-prepared for the massive number of immigrants that arrived in the United States during the 1800s and early 1900s. Limited housing and poor infrastructure were compounded by the inability to effectively assist immigrant populations as they entered the country. Through the mid- to late 1800s, political machines in cities such as New York evolved to meet this demand. The standard political machine operated with a clear hierarchy: the political boss reigned at the top, while individuals at various levels worked to organize supporters in smaller sections of the city. Organizers reached out to immigrants and helped them find jobs and housing in exchange for their political support.

Tammany Hall is perhaps the most notorious political machine in U.S. history. Established in New York City in 1789, Tammany Hall dedicated its efforts to electing Democrats to office and helping urban poor and immigrants. Local ward leaders also provided assistance to individuals facing legal troubles and gave gifts of food around the holidays. These actions won political support from the city's downtrodden.

William Tweed, commonly referred to as Boss Tweed, was one of the most powerful leaders in Tammany Hall's long history. In 1870, Tweed managed to gain control over New York City's treasury and proceeded to siphon as much as $200 million from the city's coffers. Tweed's reign was eventually toppled by Thomas Nast's editorial cartoons in *Harper's Weekly*, articles in the *New York Times*, and the legal efforts of reformer Samuel J. Tilden.

Big Business

Free-market capitalism and a laissez-faire approach to economic regulation created the necessary preconditions for the Second Industrial Revolution in the United States. Businesses and industries grew unfettered in the absence of federal regulation of wages, hours, and working conditions. At the same time, the changing nature of corporations, namely decreased government oversight of their formation, offered significant protections to entrepreneurs and industrialists. During the late 1800s and early 1900s, big businesses grew even larger through mergers and takeovers.

Captains of industry such as John D. Rockefeller and Andrew Carnegie expanded their control through the use of trusts and monopolies. A trust was, in essence, a group of companies acting together as one. These companies, bound by a legal agreement, often worked to reduce—or threatened to reduce—competition in an industry. A monopoly exists when a person or business exercises complete control over a resource, industry, or market. During the 1800s and 1900s, two distinct types of monopolies developed. In a vertical monopoly, the person or business controls the entire supply chain of an industry. This is sometimes called vertical integration. Andrew Carnegie used this business practice to dominate the steel industry. In a horizontal monopoly, or horizontal integration, the person or business controls one step of the supply chain or production process for an entire industry. This is what John D. Rockefeller did by acquiring and controlling American oil refineries. Today, both vertical and horizontal integration are illegal business practices.

The Gilded Age and Philanthropy

Aptly nicknamed the "Gilded Age" by American writer Mark Twain, the late 1800s marked a period of immense socioeconomic change. Industrialization and mass production meant that a growing number of Americans had access to unprecedented conveniences. So-called captains of industry, such as Andrew Carnegie and John D. Rockefeller, grew exceedingly rich due to their unrivaled foresight and business acumen. However, beneath this rosy picture, this gilded façade, existed a far grimmer reality for the majority of people living in

the United States. While people like Carnegie and Rockefeller brought in millions of dollars annually, many American families struggled to make ends meet after toiling for twelve hours a day, six days a week. In addition to the long workdays, workers faced innumerable challenges, including hazardous conditions and low wages, leading some to recast the "captains of industry" as "robber barons" who benefited at the expense of others. In light of the immense socioeconomic gap, people like Andrew Carnegie and John D. Rockefeller committed large percentages of their vast fortunes to help improve society.

Andrew Carnegie

Andrew Carnegie donated more than $350 million to charity, the majority of that figure to beneficiaries in the United States. Among his charitable foundations are the Carnegie Institute of Pittsburgh (1896), the Carnegie Institution of Washington (1902), the Carnegie Endowment for International Peace (1910), and the Carnegie Corporation of New York (1911), which works for "the advancement and diffusion of knowledge and understanding among the people of the United States."

Carnegie's legacy also includes a network of libraries. In the late nineteenth and early twentieth centuries, the steel magnate paid for the establishment of more than 1,600 libraries of varying sizes across the United States. Many of these libraries still exist today.

John D. Rockefeller

Philanthropy was John D. Rockefeller's full-time occupation beginning in 1897. Rockefeller was responsible for the founding of the University of Chicago (1892); he donated more than $30 million to the institution before the end of his life. Rockefeller was also responsible for starting the General Education Board (1902) and the Rockefeller Foundation (1913). He donated more than half a billion dollars to various organizations and institutions before his death in 1937.

Workers Organize

Labor organizing in North America dates back to the mid-1700s. The first recorded strike occurred in 1768 in the New York colony. The first trade union in the United States, the Federal Society of Journeymen Cordwainers, was established in 1794 in Philadelphia.

Generally, such organizations were exclusive to skilled workers. However, two major unions of the mid-1800s—the National Labor Union and the Knights of Labor—attracted unskilled laborers. At the same time, these organizations lobbied for radical social reforms. The Knights of Labor, however, suffered from poor leadership, failed strikes, and state repression of labor activism after a bomb went off during a workers' protest in Haymarket Square in Chicago, Illinois, on May 4, 1886.

In December 1886, cigar maker Samuel Gompers and the leaders of other craft unions led a small-scale rebellion against the Knights of Labor and formed their own trade union, the American Federation of Labor (AFL). Gompers advocated for a more moderate approach to change. Instead of demanding radical reforms, Gompers promoted "voluntarism," or affecting change by putting the economic squeeze on companies through boycotts and strikes. Gompers's focus was on "bread and butter" issues: shorter workdays and workweeks, higher wages, and safer working conditions. Under Gompers's leadership, the AFL became immensely powerful. Between 1880 and 1900, workers led some twenty thousand strikes, more than half of which were considered successful. The AFL, however, was not a union for every worker. Instead, it was almost exclusively for skilled laborers. The AFL was also divided along racial and gender lines, as were most professions and trades at the time.