

The Second Industrial Revolution and Its Consequences

Overview of the Gilded Age

Mark Twain called the late 19th century the "Gilded Age." By this, he meant that the period was glittering on the surface but corrupt underneath. In the popular view, the late 19th century was a period of greed and guile: of rapacious Robber Barons, unscrupulous speculators, and corporate buccaneers, of shady business practices, scandal-plagued politics, and vulgar display.

It is easy to caricature the Gilded Age as an era of corruption, conspicuous consumption, and unfettered capitalism. But it is more useful to think of this as modern America's formative period, when an agrarian society of small producers were transformed into an urban society dominated by industrial corporations.

The late 19th century saw the creation of a modern industrial economy. A national transportation and communication network was created, the corporation became the dominant form of business organization, and a managerial revolution transformed business operations.

An era of intense partisanship, the Gilded Age was also an era of reform. The Civil Service Act sought to curb government corruption by requiring applicants for certain governmental jobs to take a competitive examination. The Interstate Commerce Act sought to end discrimination by railroads against small shippers and the Sherman Antitrust Act outlawed business monopolies.

These were turbulent years that saw labor violence, rising racial tension, militancy among farmers, and discontent among the unemployed. Burdened by heavy debts and falling farm prices, many farmers joined the Populist Party, which called for an increase in the amount of money in circulation, government assistance to help farmers repay loans, tariff reductions, and a graduated income tax.

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In the 1870s, a woman named Myra Bradwell did a most unladylike thing: She applied for a license to practice law.

A Vermont native, she had moved to Illinois in the mid-1850s, and after the ratification in 1868 of the 14th Amendment, which guaranteed all citizens equal protection of the law, she sued to become an attorney. After the Illinois courts rejected her petition, she turned to the U.S. Supreme Court, which, in April 1873, said it was within the power of Illinois to limit membership in the bar to men only. Only one Justice dissented. One Justice wrote:

Man is, or should be, woman's protector of defender. The natural and proper timidity and delicacy which belongs to the female sex evidently unfits it for many of the occupations of civil life.... The paramount destiny and mission of woman are to fulfill the benign offices of wife and mother. This is the law of the Creator. And the rules of civil society must be adapted to the general constitution of things, and cannot be based on exceptional cases.

At first glance, late 19th century America might seem remote and even irrelevant. It was a society without Social Security, Medicare, health insurance, and government regulation, not to mention airplanes, antibiotics, automobiles, computers, radio, and television. The telephone had been invented, but there were only 9 in the entire country.

The government was tiny. There were only about 100,000 federal employees, and only 22,000 if the military and post office were excluded. There was no civil service system and no income tax. Government revenues were mainly raised through taxes on imports, tobacco, and alcohol.

It was a small, predominantly rural society. In 1877, the country's total population was just 47 million, just a sixth of what it is today. Only one city had more than a million people and just three others had as many as half a million.

Today, our birth rate is around the replacement level, but in 1877, 15 percent of married women had 10 or more children, and another 22 percent had between 7 and 9. As a result of the high birth rate, the population was very young. Half the population was twenty or younger; today the average American is over 30.

Perhaps most striking to us was the lack of formal education. Only about three in five children attended school in a typical year, and they only attended about 80 days a year, compared to 180 today. Most left school in their early teens. Only about two-and-a-half percent of the school-aged population graduated from high school. Advanced degrees beyond college were almost unheard of. In 1877, only one Master's degree was conferred in the whole country.

The other startling fact was how poor the average family was. The average income of an urban family in 1877 was \$738, and two thirds of that was spent on food and heating. After clothing and housing were paid for, there was just \$44 left over, to save for old age or to buy a house, to pay for medical care or simply to spend on entertainment. It was a society in which the average unskilled or semi-skilled worker toiled 10 hours a day for about 20 cents an hour. Of every thousand Americans, 939 died without any property to bequeath.

One might well ask: What does a society where women wore corsets and men wore top hats have to say to us? It would be easy to dismiss this era as irrelevant to the problems of our society. But this would be a mistake. In many ways, the late 19th century was an age not radically dissimilar from our own.

We are living through an era of unprecedented technological change. They witnessed the invention of the light bulb, the telephone, and the discovery of germs. Our society is undergoing a communication revolution. Their society did too, with the invention of the telephone and the

laying of the transatlantic telegraph cable and the appearance of the mass circulation newspaper and magazine.

Many think that our society is uniquely affected by globalization. But late 19th century America was also reshaped by global forces. Much as the contemporary United States has been radically reshaped by massive foreign immigration, so was late 19th century America. Late 19th century America became increasingly embroiled in foreign affairs lying well outside its borders. Other similarities include bitter partisanship in politics, disputed elections, deep worries about the corrupting influence of money in politics, and angry debates over morality and women's roles.

Many of the issues that we think of as uniquely modern were hotly debated during the late 19th century: corruption in business and government, ostentatious displays of wealth, the ruthless exploitation of natural resources, the growth of corporate power, and the gulf between the rich and the poor.

Even drugs, which we tend to think of as a modern plague, first became a problem during the late 19th century. By 1900, one in 200 Americans was addicted to opiates or cocaine. Many wounded Civil War veterans returned home addicted to morphine, a pain-killing opiate. The typical user became addicted during medical treatment. By the end of the 19th century, opiates could be legally purchased at corner drugstores. Laudanum, a form of opium, cost 28 cents for a three-ounce bottle from Sears, Roebuck.

In 1885, cocaine was introduced as an elixir for every ailment from depression to hay fever. A label instructed users: "For catarrh and all head disease, snuff very little up the nose 5 times a day until cured...." Advertisements urged mothers to give cranky children a dose of Mrs. Winslow's Soothing Syrup, which was laced with morphine.

By the early 20th century, the human cost of drug addiction had become obvious, and the country enacted laws criminalizing the manufacture and distribution of addictive drugs.

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Labor in the Age of Industrialization

Labor conflict was never more contentious or violent in the United States than during the late 19th and early 20th centuries, when bloody confrontations wracked the railroad, steel, and mining industries. During the early 1880s, there were about 500 strikes a year involving about 150,000 workers. By the 1890, the number had climbed to a thousand a year involving 700,000 workers a year, and by the early 1900s, the number of strikes had climbed to 4,000 annually. Some 500 times government sent in militias or federal troops to put down labor strikes. While most labor clashes took place in the mines and mills of the east and Midwest, bloody incidents involving private police forces, state militias, and federal troops also took place on the New Orleans and San Francisco waterfronts and in the mining districts of Colorado and Idaho.

During the late 19th and early 20th centuries, labor struggles were more acute in the United States than in many European countries. Today, in contrast, labor relations in the United States are more cooperative and less conflict-ridden than elsewhere. The story of how the United States

forged an enduring and workable system of collective bargaining after more than half a century of bitter struggles is one of the most important themes in modern American history.

American Labor in Comparative Perspective

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In 1905, Werner Sombart, a German social democrat who became a Nazi party supporter in the 1930s, asked why the American working class--unlike the workers in every other industrialized country--never produced a genuinely mass-based political party of its own. In Europe, the working class created Labor, Social Democratic, and Socialist parties with massive popular support; in sharp contrast, American workers threw their support to the Democratic and Republican Parties, which were broad-based coalitions that included business, middle-class, and labor interests.

Sombart's explanation was that the political and economic position of the American working class made it much more conservative than its European counterpart. In contrast to Europe, where the working class had to struggle to win the vote, universal manhood suffrage was the practice in the United States. Further, American workers, Sombart insisted, enjoyed a much higher standard of living than their European counterpart and had a much greater chance to rise into the middle class.

Sombart overestimated the economic well being of the American working class. While the average income of industrial workers in the United States were indeed higher than in Europe, between 1860 and 1913, working-class wages, adjusted for inflation, rose more slowly than in Britain, France, Germany, or Sweden. In addition, the American economy between the Civil War and World War I was even more subject to boom and bust cycles than the economies of other industrial countries.

During the late 19th century, the average American worker was jobless for three or four months a year due to illness, inclement weather, or seasonal unemployment.

In the late 19th century, the average income of an urban worker was only about \$400 or \$500 a year, a sum insufficient to support a family. The remainder was made up by wives and especially by older children. Children under the age of 16 contributed about 20 percent of the income. These children worked not because their parents were heartless, but because their earnings were absolutely essential for their family's well-being.

Sources of Worker Unrest

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Many American workers experienced the economic transformations of the late 19th century in terms of a wrenching loss of status. For free white men, pre-Civil War America, more than any previous society, was a society of independent producers and property holders. Farmers, shopkeepers, and craftsmen generally owned the property they worked. About four-fifths of free adult men owned property on the eve of the Civil War. High rates of physical mobility combined

with the availability of western lands to foster a sense that the opportunity to acquire property was available to anyone who had sufficient industry and initiative.

After the Civil War, however, many American workers feared that their status was rapidly eroding. The expanding size of factories made relations between labor and management increasingly impersonal. Mechanization allowed many industries to substitute semi-skilled and unskilled laborers for skilled craft workers. A massive influx of immigrants from southern and eastern Europe saturated labor markets, slowing the growth of working-class incomes.

Echoing earlier debates over slavery, many working men and women feared that the great industrialists were imposing a new form of feudalism in America, which was reducing "freemen" to "wage slaves." They demanded "a fair day's wages for a fair day's work" and an eight-hour work day. Native-born workers, fearing competition from low-wage immigrant workers, sometimes agitated for immigration restriction. Many observers feared that the United States was on the brink of a ruinous class war.

At the end of the 19th century, American workers intensely debated how they could best defend their interests in the face of powerful national corporations. One of the most contentious questions that late 19th century workers debated was whether labor should agitate for higher wages, shorter hours, and better working conditions, or for more fundamental transformations in the nation's economy. Some of the earliest labor organizations called for a "cooperative" rather than a corporate economy, built around worker-controlled producer cooperatives.

Another source of controversy was whether unions should try to organize whole industries (what are called industrial unions) or organize particular skilled crafts (craft unions). Unlike unskilled or semi-skilled craft workers who could be easily replaced by immigrant labor, skilled craft workers, the "aristocracy of labor," had greater power to bargain with employers.

What was at stake in these debates was the very meaning of American democracy in a modern, industrial society. Among the crucial questions was government's role in labor disputes: Would government, at the local, state, and federal levels, align itself with labor or management?

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The Great Railroad Strike

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The total miles of railroad track in the United States increased from just 23 in 1830 to 35,000 by the end of the Civil War to a peak of 254,000 in 1916. By the eve of World War I, railroads employed one out of every 25 American workers. The industry's growth was accompanied by bitter labor disputes. Many of the nation's most famous strikes involved the railroads.

The Great Railroad Strike of 1877 was the country's first major rail strike and witnessed the first general strike in the nation's history. The strikes and the violence it spawned briefly paralyzed the country's commerce and led governors in ten states to mobilize 60,000 militia members to reopen rail traffic. The strike would be broken within a few weeks, but it helped set the stage for later violence in the 1880s and 1890s, including the Haymarket Square bombing in Chicago in 1886, the Homestead Steel Strike near Pittsburgh in 1892, and the Pullman Strike in 1894.

In 1877, northern railroads, still suffering from the Financial Panic of 1873, began cutting salaries and wages. The cutbacks prompted strikes and violence with lasting consequences. In May the Pennsylvania Railroad, the nation's largest railroad company, cut wages by 10 percent

and then, in June, by another 10 percent. Other railroads followed suit. On July 13, the Baltimore & Ohio line cut the wages of all employees making more than a dollar a day by 10 percent. It also slashed the workweek to just two or three days. Forty disgruntled locomotive firemen walked off the job. By the end of the day, workers blockaded freight trains near Baltimore and in West Virginia, allowing only passenger traffic to get through.

Also in July, the Pennsylvania Railroad announced that it would double the length of all eastbound trains from Pittsburgh with no increase in the size of their crews. Railroad employees responded by seizing control of the rail yard switches, blocking the movement of trains.

Soon, violent strikes broke out in Baltimore, Chicago, Kansas City, Pittsburgh, St. Louis, and San Francisco. Governors in Maryland, Pennsylvania, and West Virginia called out their state militias. In Baltimore, Charles A. Malloy, a 20-year-old volunteer in the Maryland National Guard, described the scene: "We met a mob, which blocked the streets. "They came armed with stones and as soon as we came within reach they began to throw at us." Fully armed and with bayonets fixed, the militia fired, killing 10, including a newsboy and a 16-year-old student. The shootings sparked a rampage. Protesters burned a passenger car, sent a locomotive crashing into a side full of freight cars, and cut fire hoses. At the height of the melee, 14,000 rioters took to the streets. Maryland's governor telegraphed President Rutherford Hayes and asked for troops to protect Baltimore.

"The strike," an anonymous Baltimore merchant wrote, "is not a revolution of fanatics willing to fight for an idea. It is a revolt of working men against low prices of labor, which have not been accomplished with corresponding low prices of food, clothing and house rent."

In Pittsburgh, where the local militia sympathized with the rail workers, the governor called in National Guard troops from Philadelphia. The troops fired into a crowd, killing more than 20 civilians, including women and at least three children. A newspaper headline read:

Shot in Cold Blood by the Roughts of Philadelphia. The Lexington of the Labor Conflict at Hand. The Slaughter of Innocents.

An angry crowd forced the Philadelphia troops to retreat to a roundhouse in the railroad complex, and set engines, buildings, and equipment ablaze. Fires raced through parts of the city, destroying 39 buildings, 104 engines, 46 passenger cars, and over 1,200 freight cars. The Pennsylvania Railroad claimed losses of more than \$4 million in Pittsburgh.

When the National Guard was at last able to evacuate the roundhouse, it was harassed by strikers and rioters. A legislative report said that the National Guard forces "were fired at from second floor windows, from the corners of the streets...they were also fired at from a police station, where eight or ten policemen were in uniform." Militia and federal troops opened the railroad in Pittsburgh and Reading, Pa. was occupied by U.S. Army troops.

It appears that some 40 people were killed in the violence in Pittsburgh. Across the country more than a hundred died, including eleven in Baltimore and a dozen in Reading, Pa. By the end of

July, most strike activity was over. But labor strikes in the rail yards recurred from 1884 to 1886 and from 1888 to 1889 and again in 1894.

Native-born Americans tended to blame the labor violence on foreign agitators. "It was evident," said the *Annals of the Great Strikes in the United States*, published in 1877, "that there were agencies at work outside the workingmen's strike. The people engaged in these riots were not railroad strikers. The Internationalists had something to do with creating scenes of bloodshed.... The scenes...in the city of Baltimore were not unlike those which characterized the events in the city of Paris during the reign of the Commune in 1870."

The Origins of American Trade Unionism

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It took American labor longer than industrialists to successfully organize on a national basis. By the 1820s, craft workers in the Northeast had organized the first unions to protest the increased use of unskilled and semi-skilled workers in the production process. But these were local organizations. It was not until 1834 that the first national organization of wage earners, the National Trades' Union, was formed. By 1836, the organization claimed 300,000 members, but it rapidly lost membership during the financial panic of 1837.

In 1852, printers' locals in 12 cities organized the National Typographic Union, which fought for a common wage scale and restrictions on the use of apprentices. It was one of five national unions formed in the 1850s. Another 21 national unions were organized in the 1860s. By the early 1870s, about 300,000 workers were organization, making up about nine percent of the industrial labor force. But during the financial depression from 1873 to 1878, membership in labor organizations fell to just 50,000.

The Knights of Labor

During the 1870s and 1880s, American workers began to form national labor unions in order to effectively negotiate with big corporations. The Knights of Labor was one of the most important early labor organizations in the United States. It wanted to organize workers into "one big brotherhood" rather than into separate unions made up of workers who had a common skill or who worked in a particular industry.

The Knights were founded in 1869 as a secret organization of tailors in Philadelphia. At first, the union had a strong Protestant religious orientation. But a decade later, when a Catholic, Terence V. Powderly was elected its head, the Knights became a national organization open to workers of every kind, regardless of their skills, sex, nationality, or race. The only occupations excluded from membership were bankers, gamblers, lawyers, and saloonkeepers.

At its height in 1885, the Knights claimed to have 700,000 members. Despite the Knight's rejection of strikes as a tactic in labor disputes, the union won big victories against the Union Pacific railroad in 1884 and the Wabash railroad in 1885. The Knights had a wide-ranging platform for social and economic change. The organization campaigned for an eight-hour work day, the abolition of child labor, improved safety in factories, equal pay for men and women, and compensation for on-the-job injury. As an alternative to wage labor, the Knights favored

cooperatively run workshops and cooperative stores. The organization held the first Labor Day celebration in 1882.

The Knights declined rapidly after the 1886 Haymarket Square riot in Chicago, in which 11 people were killed by a bomb. The American Federation of Labor, a union of skilled workers, gradually replaced the Knights as the nation's largest labor organization. Unlike the Knights, which sought to organize workers regardless of craft, rejected the strike as a negotiating tool, and had a broad-based reform agenda, the American Federation of Labor was made up of craft unions and committed to "bread-and-butter" unionism. Its goals were narrower but also more realistic than those of the Knights. It sought to increase workers' wages, reduce their hours, and improve their working conditions.

Samuel Gompers and the American Federation of Labor

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The labor movement gained strength in the 1850s in such crafts as typographers, molders, and carpenters. Fixed standards of apprenticeship and of wages, hours, and working conditions were drafted. Although such agreements often broke down in periods of depression, a strong nucleus of craft unions had developed by the 1880s so that a central federation emerged. This was the American Federation of Labor.

Samuel Gompers (1850-1924) was the first president of the American Federation of Labor, the first enduring national labor union. He served as president from 1886 until his death in 1924, except for a single year, 1895. Born in London, he immigrated to the United States at the age of 13, and worked as a cigar-maker. He became the leader of the cigar-makers' union, and transformed it into one of the country's strongest unions.

Gompers believed that labor had the most to gain by organizing skilled craft workers, rather than attempting to organize all workers in an industry. He refused to form an alliance with the Knights of Labor. "Talk of harmony with the Knights of Labor," he said, "is bosh. They are just as great enemies of trade unions as any employer can be."

Gompers repudiated socialism and advocated a pragmatic "pure and simple" unionism that emphasized agreements with employees--which would spell out for a stipulated period the wages, hours of work, and the procedures for handling grievances. Gompers proposed that agreements contain clauses stipulating that employers hire only union members (the closed shop) and that any employee should be required to pay union dues. Employers advocated the open shop, which could employ non-union members.

During the 1880s and 1890s, unions sought to secure and retain a foothold in such major industries as railways, steel, mining, and construction. It was in the building trades where the craft principle was most dominant that the American Federation of Labor developed its largest membership. Miners merged their crafts into the United Mine Workers of America, an industrial union that admitted to membership of those working in and about a mine, whether skilled or unskilled.

In 1892, the AFL's affiliate in the steel industry, struck in protest against wage cuts. Following the bitter Homestead strike, the steel industry adopted an open shop policy. Craft unions were

able to secure collective bargains on railroads, but when some workers a union of all rail workers, their effort collapsed in the Pullman boycott of 1894.

But some efforts at unionization proved more successful, including efforts in organizing workers in immigrant sweatshops. The International Ladies' Garment Workers and the Amalgamated Clothing Workers demonstrated that the new immigrants could be effectively organized.

As trade unionism gained ground before World War I, employers in mines and factories established "company unions," to handle grievances and provide certain welfare benefits. The most notable company union was in the Rockefeller-owned Colorado Fuel and Iron Company.

Haymarket Square

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An explosion in Chicago in 1886 helped to shift the labor movement toward "bread-and-butter" unionism.

On May 1, 1886, thousands of people in Chicago began demonstrations in behalf of an eight-hour workday. The marchers' slogan was, "Eight hours for work, eight hours for rest, eight hours for what we will."

On May 4, 1886, a deadly confrontation between police and protesters erupted at Chicago's Haymarket Square. A labor strike was in progress at the McCormick farm equipment works, and police and Pinkerton security guards had shot several workers.

A public demonstration had been called to protest police violence. Eyewitnesses later described a "peaceful gathering of upwards of 1,000 people listening to speeches and singing songs when authorities began to move in and disperse the crowd." Suddenly a bomb exploded, followed by pandemonium and an exchange of gunfire. Eleven people were killed including seven police officers. More than a hundred were injured.

The Chicago Tribune railed against "the McCormick insurrectionists." Authorities hurriedly rounded up 31 suspects. Eventually, eight men, "all with foreign sounding names" as one newspaper put it, were indicted on charges of conspiracy and murder.

No evidence tied the accused to the explosion of the bomb. Several of the suspects had not attended the rally. But all were convicted and sentenced to death. Four were quickly hanged and a fifth committed suicide in his cell. Then, the Illinois Governor, Richard Ogelsby, who had privately expressed doubts "that any of the men were guilty of the crime," commuted the remaining men's death sentences to life in prison.

Illinois's new governor, John Peter Altgeld, pardoned the three surviving men. A German born immigrant who had enlisted in the Union army at the age of 15, Altgeld declared, "The deed to sentencing the Haymarket men was wrong, a miscarriage of justice. And the truth is that the great multitudes annually arrested are poor, the unfortunate, the young and the neglected. In short, our penal machinery seems to recruit its victims from among those who are fighting an unequal fight in the struggle for existence."

After granting the pardon, he said to the famous attorney Clarence Darrow: "Let me tell you that from this day, I am a dead man, politically." There was an immediate outcry. The Washington Post asked rhetorically: "What would one expect from a man like Altgeld, who is, of course, an alien himself?" The Chicago Tribune stated that the governor "does not reason like an American, does not feel like one, and consequently does not behave like one."

In 1889, the American Federation of Labor delegate to the International Labor Congress in Paris proposed May 1 as international Labor Day. Workers were to march for an eight-hour day, democracy, the right of workers to organize, and to memorialize the eight "Martyrs of Chicago."

Homestead

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In 1986, United States Steel, once the world's largest steel producer, closed down its mills in Homestead, Pa., six miles from Pittsburgh. It was slightly less than a hundred years since the epic clash between labor and management at the plant in 1892 that helped eliminate unions from the steel industry for more than four subsequent decades.

Originally built in 1880 and 1881 by local merchants, the Homestead Works was purchased by industrialist Andrew Carnegie, who installed open-hearth furnaces and electricity in order to boost the plant's efficiency and reduce the need for skilled labor. Carnegie's steel mills produced armor for battleships, rails for western railroads, and beams, girders, and steel plates for bridges and skyscrapers.

Carnegie's drive for efficiency also led to an armed confrontation at Homestead. In contract talks in 1892, Henry Clay Frick, the superintendent of the Carnegie Steel Company, proposed to cut workers' wages, arguing that increased efficiency had inflated salaries. At the time, unskilled mill workers, who were mainly eastern European immigrants, made less than \$1.70 for a 12-hour day. Skilled workers earned between \$4 and \$7.60 a day. Frick also wanted to eliminate the Amalgamated Association of Iron and Steel Workers union from the plant.

When the negotiations broke down, Frick shut down the mill, installed three-miles of wooden fence topped with barbed wire around the mill, and hired 300 guards supplied by the Pinkerton Detective Agency. The guards were placed aboard two company barges in Pittsburgh for the trip up the Monongahela River to nearby Homestead.

On July 6, the guards were confronted by hundreds of workers and townsfolk. In the gun battle that ensued, seven workers and three Pinkerton guards were killed. Twelve hours after the battle for Homestead began, the guards surrendered.

The union's apparent victory was short-lived. Within days, 8,500 members of the National Guard took control of the plant. When Frick was seriously wounded in an assassination attempt in his Pittsburgh office, public opinion turned against the steel workers' union. By November, the union had been broken and the mill had reopened as a non-union plant using African American and eastern European workers. Union leaders were blacklisted from the steel industry for life.

One of the strike's consequences was that the steel mills shifted from an eight hour to a 12-hour a day, six-day work week, with a 24-hour shift (followed by a day off), every two weeks. It would be some 44 years before the steel industry would again be unionized.

Pullman

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1894 was the second of four years of depression. The pinch was felt even by the Pullman Palace Car Company, which manufactured the sleeping cars used by most of the nation's railroads. George Pullman responded by laying off several thousand of his 5,800 employees and cutting pay 25 to 50 percent, while refusing to reduce rents charged employees, who lived in the company town of Pullman, near Chicago. Then he fired three members of a workers' grievance committee.

On May 11, 1894, 90 percent of his workers went on strike. The strike spread nationwide when the American Railway Union refused to move trains with Pullman cars. Within a month, more than a quarter million other railroad employees had joined the strike.

The government, under President Grover Cleveland, swiftly won a court injunction ordering strikers back to work. When they refused to comply, he dispatched more than 14,000 federal troops and marshals. In Chicago, when soldiers fired into a crowd of 10,000, 25 persons were killed, 60 badly injured. Hundreds were jailed, including union leader Eugene Debs, who subsequently founded the Socialist party. Railroad attorney Clarence Darrow switched sides and defended Debs, launching his career as a defender of underdogs. Social Worker Jane Addams led an investigation of the strike.

Samuel Gompers and his fellow craft unionists at the helm of the American Federation of Labor spurned Debs' plea for a general strike to protest enlistment of the White House and the courts on the side of management

Socialist and Radical Alternatives

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The rise of the American Federation of Labor did not spell the disappearance of more radical groups. Two organizations offered a more radical vision. The Industrial Workers of the World, formed in 1905, clamored for "one big union" to oust "the ruling class" and abolish the wage system.

The Socialist Party, founded in 1901, had, by 1912, grown to 118,000 members. By that year, it had elected 1,200 public officials, including the mayors of Milwaukee, Wisconsin; Flint, Michigan.; and Schenectady, New York. More than 300 Socialist periodicals appeared. A weekly socialist newspaper, the Appeal to Reason, reached a circulation of over 700,000 copies in 1913.

Socialist support was concentrated between two immigrant groups: Germans, who had left Europe in the 1840s, and East European Jews, who were refugees from Czarist repression. The largest daily socialist newspaper in the United States, the Jewish Daily Forward, which had a circulation of 142,000 in 1913, was published in Yiddish, not in English. The Socialist Party's first major electoral victories occurred in Milwaukee, which had a large German community. In 1910, the city elected a Socialist mayor and member of Congress.

The Socialist Party declined in influence during Democratic President Woodrow Wilson's first term, as many reforms enacted by Congress diminished the party's appeal. Support for the party briefly surged during World War I, but had dissipated by 1919 as a result of federal, state, and local campaigns to suppress the party and internal disputes involving how the party should respond to the Bolshevik Revolution in Russia.

The Rise of Big Business

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Between 1869 and 1910, the value of American manufacturing rose from \$3 billion to \$13 billion. The steel industry produced just 68,000 tons in 1870, but 4.2 million tons in 1890. The central vehicle of this surge in economic productivity was the modern corporation.

In recent years, Americans have often been told that we have entered a "new economy." The older industrial economy, it is said, is giving way to a new global economy based on computers, the Internet, telecommunications, and entertainment. This is not the first new economy in American history. Following the Civil War, a new economy emerged in the United States resting on steam-powered manufacturing, the railroad, the electric motor, the internal combustion engine, and the practical application of chemistry. Unlike the pre-Civil War economy, this new one was dependent on raw materials from around the world and it sold goods in global markets.

The transformations that took place in American business following the Civil War involved far more than a change in industrial techniques or productivity. Business organization expanded in size and scale. There was an unparalleled increase in factory production and mechanization. By the beginning of the 20th century, the major sectors of the nation's economy--banking, manufacturing, meat packing, oil refining, railroads, and steel--were dominated by a small number of giant corporations.

The rise of big business was accompanied by the emergence of a new class of millionaires. At the beginning of the Civil War, there were only 400 millionaires in the United States. By 1892, the number had risen to 4,047.

The emergence of the modern corporation was accompanied by many positive developments. Through mechanization, standardization, and economies of scale, economic productivity soared. Between 1890 and 1929, the average urban worker put in one less day of work a week and brought home three times as much in pay. The proportion of families confined to the drudgery of farm life declined by half. Families enjoyed comforts and conveniences that were unimaginable before 1890. By 1929, nine out of ten Americans had electricity and indoor plumbing; four-fifths had automobiles; two-thirds had radios; and nearly half refrigerators and phonographs. At the same time, infant mortality fell by two-thirds, and life expectancy increased by 20 years. In 1888, Charles E. Perkins, the president of the Chicago, Burlington, and Quincy Railroad asked:

Have not the great merchants, great manufacturers, great inventors, done more for the world than preachers and philanthropists? Can there be any doubt that cheapening the cost of necessities and conveniences of life is the most powerful agent of civilization and progress?

Yet the rise of big business also produced many anxieties. Corporations were accused of abusing workers, corrupting the political process, and producing shoddy, unsafe products. Many feared

that corporate power allowed companies to fix prices and influence government decision-making.

The Corporate Revolution

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During the late 19th century, a radical transformation took place in the way in which American business was structured and operated. The most obvious contrast involved the corporation's larger size and capitalization. The typical business establishment before the 1870s was financed by a single person or by several people bound together in a partnership. As a result, most businesses represented the wealth of only a few individuals. As late as 1880, the average factory had less than \$1,800 in investment. Even the largest textile factories represented less than a million dollars in investment. In contrast, John D. Rockefeller's Standard Oil Company was worth \$600 million and U.S. Steel was valued at \$1 billion.

Another contrast between the new corporate enterprises of the late 19th century and earlier businesses lies in the systems of ownership and management. Before the Civil War, almost all businesses were owned and managed by the same people. In the modern corporation, actual management was increasingly turned over to professional managers. Within corporations, a management revolution took place.

In the days before big business, business operations required little in the way of management and administration. Companies usually involved only a few partners and clerks. Usually, an owner oversaw all of a business' operations. To insure honesty in a distant office, a merchant might staff it with a relative.

As businesses grew larger, new bureaucratic hierarchies were necessary. A business' success increasingly depended on central coordination. To address this challenge, businesses created formal administrative structures, such as purchasing and accounting departments. Various levels of managers were established, clear lines of authority were devised, and formal rules were created to govern the company's operations. The managerial revolution helped to create a "new" middle class. Unlike the older middle class, which consisted of farmers, shopkeepers, and independent professionals, the new middle class was made up of white collar employees of corporations.

Yet another sweeping change in business operation was the corporation's increased size and geographical scale. Before the 1880s, most firms operated in a single town from a single office or factory. Most sales were made to customers in the immediate area. But the new corporate enterprises carried out their functions in widely scattered locations. As early as 1900, General Electric had plants in 23 cities.

In addition to carrying out business in an increasing number of locations, the new corporations also engaged in more kinds of business operations. Prior to the Civil War, merchants, wholesalers, and manufacturers tended to specialize in a single operation. But the late 19th century, greatly expanded their range of operations.

During the late 19th century, businesses typically grew as a result of vertical and horizontal integration. When a company integrated vertically, it brought together various phases in the

process of production and distribution. Thus U.S. Steel took iron ore from the ground, transported it to its mills, turned it into steel and manufactured finished products, and shipped the products to wholesalers. Somewhat similarly, the great meat packing houses like Swift, which had 4,000 employees, and Armour, with 6,000, combined the business of raising, slaughtering, transporting, and wholesaling meat. Swift developed a fleet of refrigerator railroad cars, which allowed it to bring cattle and hogs to a central packing house in Chicago, where the company could make use of every part of the animal "except the squeal."

When a company integrated horizontally, it expanded into related fields of business. In the 1850s, an iron furnace might produce a single product such as cast iron or nails. But U.S. Steel produced a vast array of metal goods.

During the last third of the 19th century, the American economy was dramatically transformed. After 30 years of periodic economic crises marked by high unemployment and large numbers of business failures, business began to consolidate into progressively larger economic units.

Mythmakers sometimes look back on the late 19th century as the golden age of free enterprise. But it is important to emphasize that the rise of a new economy did not take place easily. Working conditions in many factories were appalling. Labor conflict was intense. Businesses were accused of price fixing, stock watering, and other abuses.

In the end, these abuses would bring about a political reaction. To address the problems of corporate power, the federal government instituted new forms of regulation in the late 19th and early 20th centuries.

Why Business Grew

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By 1906, six large railroad systems controlled 95 percent of the nation's mileage. As early as 1904, the 2,000 largest firms in the United States made up less than one percent of the country's businesses. Yet they produced 40 percent of the nation's goods. By the early 20th century, many important sectors of the American economy were dominated by a handful of firms, a condition that economists call "oligopoly."

Why did business grow bigger? The classic explanation stresses such factors as:

- the shift from water-powered to coal-powered factories, which freed manufacturers to locate their plants nearer to markets and suppliers.
- transportation improvements that meant that firms could distribute their products to regional or national markets.
- the development of new financial institutions--such as the stock market, commercial banks, and investment houses--that increased the availability of investment capital.

One of the pacesetters of the "new economy" was Montgomery Ward, the nation's first mail-order business. From its founding until 1926, Montgomery Ward owned no stores. It operated strictly on a mail order basis. Through its catalog, Ward brought consumer goods to a largely rural clientele.

To list these factors makes business growth seem like an orderly process. But this was not the way the process was experienced. The emergence of the modern corporation came largely as a response to economic instability.

During the late 19th century, business competition was cutthroat. In 1907, there were 1,564 separate railroad companies in the United States, and two years later there were 446 companies manufacturing steel. The challenges of competition were compounded by frequent economic contractions, or panics as they were known. Violent contractions gripped the country from 1873 to 1878 and from 1893 to 1897. There were briefer contractions in 1884, 1888, 1903, 1907, and 1911. During the panic of the mid-1870s, 47,000 businesses went bankrupt. In hard times, the competitive marketplace became a jungle and businessmen sought to find ways to overcome the rigors of competition.

Faced with recurring business slumps, mounting competition, and declining profits, the boldest businessmen experimented with new ways of creating financial stability. The first attempt to overcome destructive competition was the formation of pools or cartels. These were agreements among competitors to divide markets and forbid price cutting. As early as the 1870s, pools were formed to divide markets, fix production quotas, and set prices. Over the years, pools became trade associations, which devised methods for dividing markets and assisting failing firms.

The problem with pools was that they rarely survived an economic contraction. Financial depressions tempted some firms to cut prices and seek a larger share of the market.

Pools were too weak to solve the problem of competition because they were voluntary agreements. An alternative was the trust, under which owners of rival firms assigned their stock to a single board of trustees in return for non-voting, interest-bearing certificates. The trustees then fixed prices and marketing policies for all the companies. John D. Rockefeller's Standard Oil Company was the first trust. Half a dozen industries followed, including alcohol distilling and sugar refining.

Trusts faced intense legal challenges on the grounds that they illegally restrained trade and violated the corporate charters of the participating firms. In 1890, Congress adopted the Sherman Anti-Trust Act, which declared trusts illegal. Trusts were then supplanted by a new legal entity, the holding company. This was a company with the power to purchase other companies. Perhaps the most famous holding company was General Motors, which purchased a number of automobile manufacturers.

A great surge in mergers took place in the American economy after 1897, when many of the largest corporations in such industries as steel and railroads were created. The number of mergers rose from 69 in 1897 to 303 in 1898 and 1,208 in 1899. By 1900, there were 73 combinations worth more than \$10 million. Two thirds had been established in the previous three years.

The Debate Over Big Business

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A great debate over big business took place during late 19th century. Among the issues that Americans debated was:

- whether wealth came from exploitation or from patience, frugality, and virtue;
- whether bigness was the result of conspiracy or of pressures of blind economic forces;
- whether men of wealth and power were free to use their riches as they wish or whether they should be taxed to support the public good.

Henry Demarest Lloyd, a precursor for the muckraking journalists of the Progressive Era, considered the lords of industry monopolists and profiteers, who blocked the road to success for those who tried to compete with them. Others, like Edward Atkinson, a successful investor and businessman, asserted that the great business titans made all Americans better off through their innovations in management, finance, and production. Lloyd and Atkinson helped set the terms for a long lasting public debate: Were the business leaders of the Gilded Age robber barons or creative industrial pioneers?

There can be no doubt that the late 19th century business titans were business innovators, who, through their technical, administrative, and financial skills, achieved economies of scale, eliminated waste, and brought order and stability to large sectors of the American economy. In large part, their wealth was the product of innovations that transformed business practice. Rockefeller developed the oil tank-car; Swift the refrigerated rail car; and Montgomery Ward the mail-order catalog. As philanthropists in later life, some also served important welfare and educational functions.

But big business' critics accused the captains of industry of financial trickery, such as cornering and watering stock, and of political corruption and the bribing of legislatures. They attacked them for the inhumane treatment of labor--including the imposition of heavy hours, wage cuts, lockouts and the suppression of trade unions. They also condemned them for using cheap immigrant contract labor to undercut wage rates and defeat strikes, as well as for imposing monopoly prices. Above all, they were condemned as sinister monopolists who engaged in ruthless competition - choking off rivals by use of railroad rebates and kickbacks, control of raw material supplies, industrial espionage, and the forced purchase of competing firms.

Many people likened J.P. Morgan, Jay Gould, and other business leaders to the "robber barons" of the Middle Ages, who set up barriers across rivers and forced boats to pay a toll in order to navigate the waterways. A U.S. Senator described Morgan as a "thick-necked financial bully, drunk with wealth and power, [who] bawls his orders to stock markets, Directors, courts, Governments, and Nations."

The Gospel of Wealth

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Andrew Carnegie did not believe that men of great wealth were robber barons, but trustees whose duty it was to devote their talents to the common good. This, he wrote, is "the true Gospel concerning Wealth, obedience to which is destined some day to solve the problem of the Rich and the Poor, and to bring 'Peace on earth, among men of Good-Will.'"

Drawing on the doctrine of St. Paul, that the rich had to be stewards of wealth, defenders of the Gospel of Wealth, like the Episcopal Bishop of Massachusetts, argued that it was God's will that some men attained great wealth, and "in the long run, it is only to the man of morality that wealth

comes." He concluded: "Material prosperity is helping to make the national character sweeter, more joyous, more unselfish, more Christ like."

In an 1889 essay, steel magnate Carnegie told his fellow business leaders, "The man who dies thus rich dies disgraced." Carnegie believed that the wealthy should repay their debt to society. True to his beliefs, by his death in 1919 he had divested himself of more than 95 percent of his fortune. He built a library building for any town that would provide a site, stock the building with books, and guarantee maintenance expenses. He provided pensions for professors at universities that agreed to meet strict academic standards. In addition to funding music halls, outdoor swimming pools, and church organs, he also set up endowments to promote teaching and world peace.

Social Darwinism

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In 1895, an attorney named Joseph H. Choate persuaded the U.S. Supreme Court to declare an income tax approved by Congress unconstitutional. Choate told the court that:

The act of Congress which we are impugning before you is communist in its purposes and tendencies and is defended here upon principles as communistic, as socialistic, what shall I call them, as populistic as ever have been addressed to any political assembly in the world.

As a result of the court decision in the case of *Pollock v. Farmers' Loan and Trust Co.*, the United States did not institute an income tax until the 16th Amendment was ratified in 1913.

Choate rested his arguments partly on ideas associated with Charles Darwin, who published his theory of evolution in 1859. Darwin had argued that within nature, there was a process of competition within and between species, and that, through a process of natural selection, the fittest organisms prevail. Closely associated with the English theorist Hebert Spencer (1820-1903) and the Yale sociologist William Graham Sumner (1840-1910), Social Darwinism sought to apply the Darwinian principles of survival of the fittest and the struggle of existence to economics, ethics, and other realms of life. Social Darwinists like Spencer believed that this theory of evolution gave scientific validity to the notion that government should keep its hands off the economy.

Critics of Social Darwinism, including John Dewey and William James, rejected the notion that the process of social and economic change should occur unregulated, arguing that government should intervene to address the social ills that accompanied industrial development.

Controlling the Shop Floor

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He revolutionized manufacturing by insisting that managers should eliminate unnecessary motions in order to increase output by workers. He gained national visibility in 1910 when Louis Brandeis, the future Supreme Court justice, said that his notions of scientific management could save railroad companies \$300 million a year.

Frederick Winslow Taylor (1856-1915) was the first efficiency expert. Using slow-motion photography and stop watches, he broke down the production process into separate movements, then he redesigned the work process to make it more efficient. His advocacy of scientific

management earned the admiration of Henry Ford, Benito Mussolini, and Vladimir Lenin. But many workers condemned his time-and-motion studies because his system sought to remove decision making from labor and hand it over to management.

Before Taylor introduced scientific management onto the factory floor, production was largely in the hands of skilled craftsmen, who followed their own routines and worked at their own pace. In the interest of increasing productivity, Taylor advised managers to study, reorganize, and control the work process. The success of his system, he wrote a Bethlehem Steel manager in 1906, required that absolute control must reside in management. Each worker, he said, must receive "clear-cut, definite instructions as to just what he is to do and how he is to do it." His obsession with efficiency spilled over into his family life, where he regimented the lives of his adopted children. He convinced professional baseball that pitching overhand was more efficient than throwing underhand.

Born into a wealthy Philadelphia Quaker family, he attended the prestigious Phillips Exeter Academy, and, after passing Harvard's admission examination with distinction, apprenticed himself as a pattern maker and machinist to a company that made hydraulic pumps. He subsequently became a machinist at a steel company. Soon, he became obsessed by the idea that management, applying the principles of scientific management could organize the productive process more efficiently, identify the one, best way to perform a job, and increase workers' output. Factories, he believed, should be organized like the military, with directions flowing from superiors to subordinates. He recommended that bonuses go to workers who exceed quotas.

Industry considered him a visionary who made factories more productive by eliminating wasteful motion that allowed the company to cut prices and raise wages. Management argued that Taylor's emphasis on simplified production methods was essential in dealing with a labor force that consisted of unskilled immigrant workers with low proficiency in English. But his time-and-motion studies enraged labor leaders who condemned him as a monster who valued machine-like efficiency more than the health and well being of labor. Trade unionists charged that his system reduced workers to robots. Said one labor leader:

No tyrant or slave driver in the ecstasy of his most delirious dream ever sought to place upon abject slaves a condition more repugnant.

In 1910, a strike broke out at the Waterford Arsenal near Boston, when a manager stood behind a worker with a stopwatch. Two years later, a hostile Congressional committee held hearings about Taylorism. The committee's chair condemned scientific management as undemocratic and dehumanizing.

Although few companies used Taylor's ideas in their pure form, the principles of scientific management were applied on assembly lines, factory floors, secretarial pools, and housework. The relentless quest for efficiency helped to fuel the great gains in productivity in American industry during the 20th century. During World War II, Taylor's principles of scientific management helped American industry convert unskilled workers into welders and shipbuilders in 60 to 90 days. But Taylor's techniques also exacted a cost, increasing stress in the workplace,

"de-skilling" manual labor, and widening the gap between technical and manual work, even as it made labor better off.

As early as the late 1920s, Taylorism had begun to provoke a counter-reaction. Between 1927 and 1933, studies were conducted of factory workers at Western Electric's Hawthorne plant in Illinois. The Hawthorne studies showed that regardless of the changes made in working conditions--increasing or reducing the number and length of breaks or tinkering with lighting--productivity increased. By paying attention to workers and treating their jobs as important, productivity rose. The results of these studies encouraged business managers to adjust workplace conditions and improve interpersonal relations in order to improve worker morale and bolster productivity.