



History and Politics of Transportation in the United States

Transportation has always shaped development. It has been a major factor in the growth of the United States from the earliest days of settlement. The location and the success of a city depended on its proximity to the various transportation systems of the era. In each new phase, cooperation between government and private entrepreneurs was always the key to the success of the enterprise. In many cases, one mode was favored over another with politics and even corruption playing a major role in determining the choices of modes and the shape of development patterns. This paper will provide background materials to help instructors understand the basic historical and political factors behind the growth of transportation systems in the United States. Supplemental fact sheets will provide specific information and quotes and statistics on economic, environmental, health and safety factors related to transportation.

WATER TRANSPORTATION

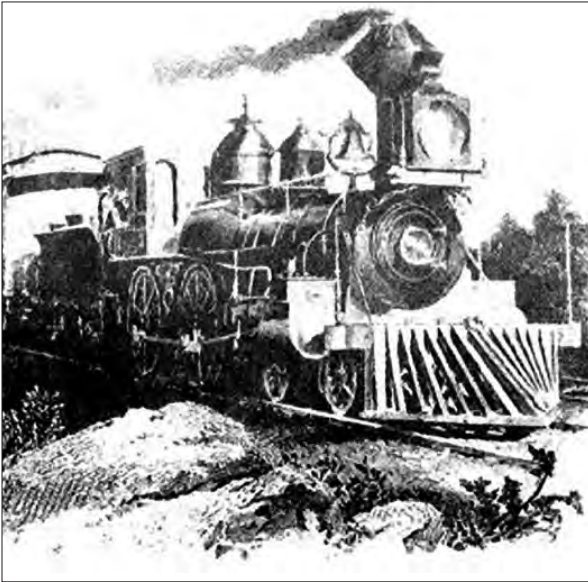
In the early days of the United States, as the country grew in size and population, the need for an efficient transportation system linking the coastal cities with the rich agricultural interior countryside became more and more pressing.

The first significant progress in national transportation was river steamboat navigation, pioneered by Fulton and Livingston on the Hudson and Henry Miller Shreve on the Mississippi. Steam navigation cut the time of a journey between New York and Albany by two thirds.

The second major improvement was canal construction. Prominent people in New York who supported the building of the Erie Canal included Stephen Van Rensselaer III. The Erie Canal, which linked the Hudson River to Lake Erie, was opened in 1825 and its impact on the economic development of New York City and the hinterland was huge. It firmly established New York as the top city in the United States, against its rivals Boston, Philadelphia and Baltimore. The latter cities responded with their own canal projects, notably the Chesapeake & Ohio and the Delaware & Hudson. But canal building was expensive and slow, so when the first railroads were built in England, pioneers in America closely followed their development.¹



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THE RAILROADS

In various places steam railroad companies were started; among them the most successful were the Baltimore & Ohio, which ran a train on 15 miles of track from Baltimore to Ellicott's Mills in 1830; the Charleston & Hamburg in South Carolina; and the Mohawk & Hudson, a forerunner to the New York Central, the first consolidated railroad system in America.

The beginnings were difficult and it would take another generation of railroad building before the first large fortunes derived from railroads would appear. The first major consolidation in the U.S. railroad industry took place in 1853, with the merger of 15 local railroads into the 600-mile-long New York Central.

Congress approved a Transcontinental Railroad in 1865 and chartered two companies to build it: the Union Pacific building westward from Omaha through the Rocky Mountains, and the Central Pacific, which started in Sacramento and built eastward through the Sierra Nevada. Heavily funded by government credit and land grants, these private enterprises created great fortunes because they had powerful enablers in Washington. In the 1870s and 1890s, when panicked investors dumped the heavily watered stock in their railroad portfolios, the market collapsed, and long depressions ensued.

RAILROAD POLITICS

The transcontinental railroads of the nineteenth century were the first corporate behemoths. Their attempts to generate profits from proliferating debt sparked devastating panics in the U.S. economy. Their dependence on public largess drew them into the corridors of power, initiating new forms of corruption. Their operations rearranged space and time, and remade the landscape of the West. Through wheel and rail, car and coal, they opened new worlds of work and ways of life. Their discriminatory rates sparked broad opposition and a new antimonopoly politics.²

The money that built those lines did not come from the railroad barons themselves. Instead, those men persuaded Congress to lay out enormous subsidies. While the federal government wanted to build the transcontinental railroad, it saw no way to make money actually running it. However, there were lots of ways to make money constructing it and financing it. The western railroad barons had close ties to Congress and received land grants, bond guarantees, and aid in controlling the labor forces. The railroads and their influence mark the start of modern-day lobbying.³

The Union Pacific alone raked in \$43 million in interest subsidies on federal loans, and railroads east and west of the Mississippi River received more than 131 million acres in free land.⁴

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BICYCLES AND THE BUILDING OF ROADS

The horse was the main mode of individual transportation for centuries. Although in hindsight this mode may be romantic, the horse could be a sloppy escort. Manure turned crowded city streets into avenues of muck, breeding flies and disease. Horses consumed 40 percent of the U.S. grain crop. Bicycles started to replace horses in large numbers in the bicycle boom of the 1890s.

The 19th century had already seen major changes in human travel. Passenger trains carried increasing numbers of people as railroads expanded. Cable cars and then electric trolleys came to cities in the 1870s and '80s, soon carrying loads of urban passengers. Electric streetcars soon displaced the horse-drawn omnibus and by 1908, 500,000 horses were replaced with electricity. When bicycles showed up around the same time, the public marveled at the personal freedom they allowed.⁵

By 1896, four million bicycles wheeled around North America. Bike touring increased, supporting inns and other businesses catering to travelers. In Chicago, postmen on bikes reduced the cost of mail delivery. Pedal-driven ambulances could travel at speeds that the horse-drawn equivalent could not match.

The invention of the bicycle has had an enormous impact on society, both in terms of culture and of advancing modern industrial methods. Several components that were invented for the bicycle eventually played a key role in the development of the automobile. They include ball bearings, pneumatic tires, chain-driven sprockets, and spoke-tensioned wheels.

So many people were riding that cycling soon began to influence the urban environment. In order to ride, cyclists needed good roads. In the late 1800s, where there were good roads there were cyclists. And where there were enough cyclists, businesses would spring up, and soon there were new towns.⁶

The Good Roads Movement occurred in the United States between the late 1870s and the 1920s. Advocates for improved roads, led by bicyclists, turned local agitation into a national political movement. Outside cities, roads were dirt or gravel: muddy in the winter and dusty in the summer. Early U.S. organizers cited the example of Europe, where road construction and maintenance were supported by national and local governments. In its early years, the main goal of the movement was education to promote road building in rural areas between cities and to help rural populations gain the social and economic benefits enjoyed by cities, where citizens benefited from railroads, trolleys and paved streets. Even more than traditional horse-drawn vehicles, the newly invented and ever-improving bicycles could benefit from good country roads.⁷

The Good Roads Movement was officially founded in May 1880, when bicycle enthusiasts, riding clubs and manufacturers met in Newport, Rhode Island to form the League of American Wheelmen to support the burgeoning use of bicycles and to protect their interests from legislative discrimination. The League of American Wheelmen (now called the League of American Bicyclists) got the government to spend \$10,000 to open an Office of Road Inquiry in 1893. This was largely to protect the interests of bicycles and later for horses and wagons. But there were political battles with the operators of trolleys and interurban trains, who sued to stop

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changes that did not benefit them. For instance, an elevated bicycle path meant to travel the 11 miles from Pasadena to Los Angeles was halted by the Southern Pacific Railroad in 1898.

The popularity of the automobile alone probably would have diminished the role of bicycles, but politics and greed helped to hasten its demise. Laws were passed banning cyclists from certain areas; business interests initiated price wars driving the price down; and ultimately the American Bicycle Company, Col. Albert Pope and John D. Rockefeller took control of the industry and then went into default putting 400 small bicycle makers out of business.⁸

THE CAR TAKES OVER

Until the 1920s, even North America still had an array of transportation choices: streetcars, bicycles, horse-drawn wagons, electric cars, gas cars, interurban trains and long-distance trains. But the car increasingly replaced these other travel means, and not only because of public fervor for automobiles. Government and business lent a hand. U.S. regulatory policies and industry practices fostered the decline of non-car travel.⁹

Nowhere was the psychology of consumption more evident than in the automobile industry. Annual U.S. automobile production rose from 2 million during the 1920s to 5.5 million in 1929. By the late 1920s there was one automobile for every five Americans, allowing, theoretically, for every person in the United States to be on the road in a car at the same time.¹⁰

The railroad barons had so soured the public through their reputation as power mongers and for overt corruption that they became the villains. The automobile became the savior. In 1887, Congress created the Interstate Commerce Commission, which layered increasingly complicated regulations on railroads. In 1916 Congress helped autos and trucks through the Federal Aid Road Act and then the Federal Highway Act of 1921. Government gave railways loans to upgrade railroad rights of way, but it paid entirely for road right of way. The Depression-era Works Progress Administration gave 10 times the funding to roads than it gave to rail.¹¹

Road construction absorbed increasing amounts of government budgets. In 1929, US government expenditures totaled \$2,237 billion but revenues collected from various special motor-vehicle taxes came to only \$849 million, requiring that about 62% of road spending come from other sources. In essence, the federal government switched its subsidies of the railroads to roads.¹²

America's affluence, success with mass production, rich oil reserves, and growing network of paved roads all helped to make it a nation of drivers. Many Americans desired cars, but the economic and cultural realities of the early 1900s often restricted automobile ownership to wealthy and middle-class families. Still by 1912, traffic jams became common.¹³

Two factors led to the rising popularity of cars. One was cost: The price of automobiles declined steadily until the mid-1920s so that many well-paid working families could afford to purchase a car. The Model T Ford, for

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example, cost \$290 in 1926. Another was credit: In 1925, Americans made 75% of all automobile purchases on the installment plan.¹⁴

Still, many city people were served well enough by the trolleys that they didn't require cars; in 1927, the lowest rate of US car ownership was in cities of 100,000 and up, where only 54% of families owned autos. But events in the 1930s changed that.¹⁵

POLITICS AND THE AUTOMOBILE

The political influence that had been enjoyed by the railroad barons was transferred to the automobile industry. While the rapidly growing car industry already enjoyed significant subsidies from the government, that wasn't quite enough for the companies that made cars or supplied parts or fuel for cars. They wanted to ensure that rail competition was eliminated for good. In 1936, General Motors, Firestone Tire, Standard Oil and others formed National City Lines. They used National City Lines (NCL) to systematically buy trolley lines, dismantle them and replace them with buses. This conversion to motor buses, mostly GM diesels, took place despite the fact that streetcars were often NCL's biggest net revenue producers. Across the nation, tracks were torn up and diesel buses were placed on city streets.

The highway lobby then pushed through Congress a vast network of urban freeways that fueled suburban development and increased auto dependence—and also elicited some passionate opposition. In 1956, Congress passed the Federal-Aid Highway Act, and the Interstate network was born. The 41,000-mile system was designed to reach every city with a population of more than 100,000. Mostly completed by the 1990s at a cost of more than \$100 billion, Interstates chopped up cities and bypassed existing roadside businesses, created new kinds of cities and suburbs. Seventeen city freeways were stopped by citizens who would become the leading edge of a new environmental movement.¹⁶

These stories are recounted in the documentary "Taken for a Ride."¹⁷

SUSTAINABLE TRANSPORTATION

In the early 1960s and '70s, new thinking began to emerge with regard to transportation. Jane Jacobs, in her landmark book *The Death and Life of the Great American Cities*, was one of the first to question the benefits of auto-centric society. The energy crisis of the 1970s precipitated by oil shortages caused many to question our energy usage. Many environmentalists began to realize that improved access for cars was resulting in a tremendous loss of America's farmland and wild areas. They also realized that making the automobile the only mode of transportation and suburbia the preferred land use had serious environmental consequences. A movement began that promoted land-use patterns that could support walking and biking, be served by public transit, and make goods and services more accessible through mixed-use development. Trains came back into fashion. These new land-use developments were not unlike the urban patterns of the pre-automobile age, but

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with more environmental protections and with deliberate planning to promote positive social interaction. This overall idea has many names: Livable Communities, Smart Growth, Traditional Neighborhood Design, Transit-Oriented Development, and Sustainable Development.

In the opinion of some, urban transport systems based around the car have proved unsustainable, consuming excessive energy, affecting the health of populations, and delivering a declining level of service despite increasing investments. Many of these negative impacts fall disproportionately on social groups who are also least likely to own and drive cars. The sustainable transport movement focuses on solutions to these problems.¹⁸

Making the changes was not going to be easy. Americans have grown attached to the freedom of movement afforded by cars, despite issues from traffic headaches to deadly accidents. Furthermore, transportation institutions favored the automobile. Walkable, mixed-use streetscapes are not legal now. Not only road patterns, but also zoning codes, tax breaks, mortgage guarantees and the network of laws and institutions now favor one-family-per-building, no-sidewalk development.

The switch from subsidizing rail to subsidizing roads that began in the 1920s has now become ingrained in the American psyche. The U.S. government's shift in transportation funding shares is dramatic, and so are public perceptions.

"We 'invest' in airports. We 'invest' in highways. But we 'subsidize' trains" said Joe Vranich, former head of the High Speed Rail Association. Gordon Linton of the Federal Transit Administration asks, "Is it a purely free market force when the very same federal government that reshapes the entire landscape with an interstate highway system dismisses urban mass transit as a matter best dealt with at the local level?"

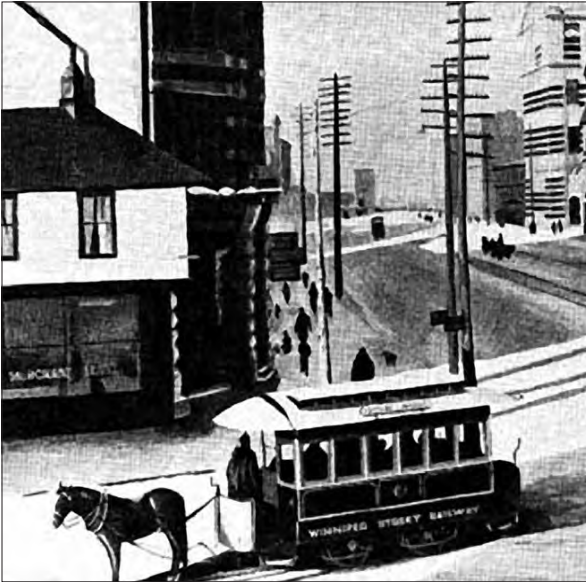
Still, progress has been made. In 1992, the Surface Transportation Act, which distributes gas tax money, began for the first time to fund walking and biking facilities. Each time the act has been renewed, increased funds have been provided for pedestrians and bicyclists. In 2004, the Safe Routes to Schools program was added to the mix, providing \$612 million to fund infrastructure to provide safe access to schools; funding for education programs is also included in that total.

In 2012, as Congress debates a new transportation bill, bicycle and pedestrian funding, including Safe Routes to Schools, could be completely de-funded or severely curtailed by new voting blocs in Congress. The saga continues.

The arguments in favor of sustainable transportation encompass economic concerns, environmental costs, and health issues. Many people are starting to see the social values of "Smart Growth" communities. Some of these issues are touched on in fact sheets accompanying this paper.

See Resources for the source materials for this paper.

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FOOTNOTES

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