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The *Coming of the Railroad*

Transportation Problems in Gold Rush California

At midcentury, commerce in California labored under serious burdens. Vast distances separated the state from the outside world, and even within the state, distance and travel difficulties hampered trade. Landlocked by mountains, areas such as the southern San Joaquin Valley and the interior valleys of Southern California remained isolated, sparsely populated, and their resources untapped. Travel by water was possible on some northern rivers, though it was frequently limited by periodic drought and flooding. Goods arriving by sea often had to be transferred multiple times between ferries, riverboats, and wagons before reaching interior destinations, multiplying costs. The flow of products and information could be delayed for weeks or months. With supplies and prices unpredictable, California businesses were prone to failure, complicating the state's volatile post-gold-rush economy.

The costs and hazards of ocean and overland travel also discouraged immigration. When the frenzy and quick profits produced by the gold rush cooled in the mid-1850s, population growth in California became sluggish, and women and children remained a minority. As mining waned and Californians began exploring new enterprises, they pleaded in newspapers, pamphlets, and public meetings for improved transportation.

Early Transcontinental Railroad Schemes

While California was being settled, steam railroads were revolutionizing trade, industry, agriculture, and urban fortunes in the eastern states. Even before the Mexican War, prophets of America's "manifest destiny" envisioned a transcontinental railroad that would spread civilization across the forbidding Great Plains, secure American control of the Pacific Coast, and channel U.S. manufactured and agricultural goods to millions of coveted customers in Asia. The acquisition of Texas, Oregon, and California lent urgency to this idea, as did the discovery of gold at Sutter's Mill. In the late 1840s and '50s, eastern and western cities flooded Congress with transcontinental railway bills favorable to their regional interests. Almost all of these plans recognized that laying tracks across 2,000 miles of rough wilderness was beyond the capacity of private business. Thus most plans—including legislation proposed by California's Senator William Gwin in 1853—called for heavy government subsidies.

Little resulted from these early efforts. Although Americans agreed on building such a rail line and the need for government subsidy, they clashed over the placement of routes and the terms of construction, as well as competition between free and slave states. Californian interests, ostensibly the major beneficiaries of a railway, also deadlocked over the western terminus. San Francisco, Benicia, Vallejo, Sacramento, Stockton, Los Angeles, and San Diego all claimed to be the logical Pacific terminus. An 1853 railroad convention in San Francisco, for example, deadlocked on all major issues. According to the city's *Alta California*, the meeting turned out to be a "miserable abortion." Through the 1850s, local and national politics doomed early Pacific railway bills.

Pioneer Rail Lines

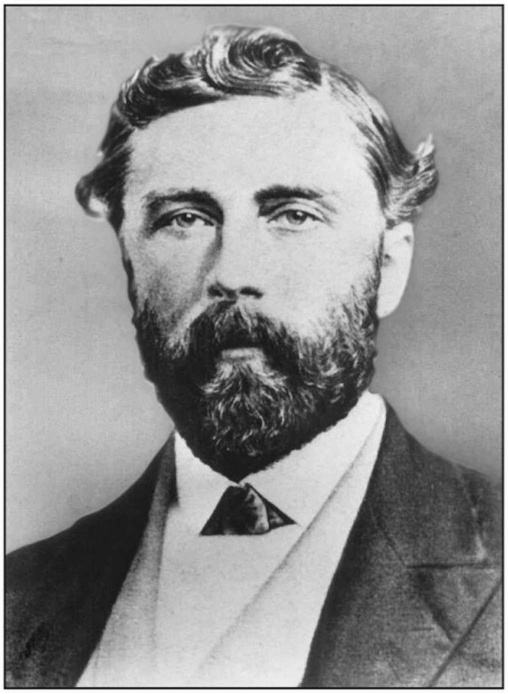
Unable to get the national government to subsidize the Pacific railway, Californians in the 1850s and early '60s focused on constructing short railways to replace existing stage, wagon, and steamboat lines. Businessmen organized elaborate railroad-building ventures and advertised their towns as the future trade centers of the West Coast. Plagued by delay, corruption, incompetent engineering, and scarce machinery and labor, most speculative railroad projects failed to progress from paper and hot air to steel and steam. One exception, the Sacramento Valley Railroad, laid tracks 23 miles from the Sacramento steamboat port, then northeast up the American River canyon to tap the lucrative mining trade. In 1856, it became California's first working railroad. It was an immediate, though limited, success. Rails now offered quicker transportation than the dusty wagon roads then in use, and the new town of Folsom sprouted at the end of the line.

Other early railways operated in the San Francisco Bay Area, the state's wealthiest and most populous region. The first regional line broke ground in 1861 and took two years to build a mile between the town of Oakland and its waterfront. The San Francisco & San Jose Railroad spanned 50 miles of western bayshore plains and marshes between those communities in 1866. The same year, the San Francisco & Alameda Railroad opened a line along the East Bay from Alameda to Hayward, an agricultural settlement 15 miles to the southeast. Although suffering from insufficient capital, heavy debt, poor construction, and opposition from rival communities and transportation companies, these early railways sparked agricultural and urban booms and strengthened the San Francisco Bay Area's hold on the state's economy.

Theodore Judah, Visionary

Above all others, Theodore D. Judah kept alive the hope of a transcontinental railroad binding California to the rest of the nation. When the Sacramento Valley Railroad hired him to construct its railway, the 28-year-old already had a reputation as a builder of eastern canals, bridges, and railroads. Judah completed the line in less than two years, a remarkable feat in an era of shaky railway ventures. But, as was typical, the company was saddled with debt, mostly the result of excessive profit-taking by its organizers and construction company. Bankrupt, the line reached no farther than Folsom and Judah left his job as chief engineer in 1856.

Ambitious and persistent, Judah was intrigued by the idea of a transcontinental railway. He was convinced that a line could be built through the Sierra Nevada and he scoured the mountains for a buildable route, all the while canvassing community leaders, addressing public meetings, and publishing pamphlets and surveys aimed at getting backing he needed to form a railroad company. To win federal subsidies, Judah took his cause to Washington, wooing federal officials and eastern capitalists. So passionately did the young engineer pursue his vision of a railroad over the central Sierra that scoffers dubbed him "Crazy Judah." Leery investors doubted his business acumen as well as the feasibility of the Sierra



Theodore D. Judah
California State Railroad Museum.

route; to many, Judah was an impractical pest. Still, he kept the transcontinental railway in the public eye, though he failed to win government or private funding for the project.

In 1859 Judah and other would-be railway promoters convinced the state legislature to summon another Pacific Railroad Convention to meet in San Francisco. Although local jealousies again prevented agreement on a specific route, the delegates managed to pass general resolutions favoring a route from the San Francisco Bay eastward through the central Sierra. Judah was appointed to present the plan to Congress. Arriving in Washington in late 1859, Judah pressed for a bill subsidizing transcontinental railways. His timing was terrible: the conflict between North and South and the looming presidential election absorbed national energies. Although he believed he had won some Congressional Republicans over to his plan, his route faced southern opposition as too far north. In the summer of 1860, Judah returned to California, ending four frustrating years of railway promotion in failure.

The Founding of the Central Pacific Railroad

By the time Judah returned from Washington, a lucrative trade had developed between California and the emerging Comstock Lode of western Nevada, increasing local interest in a railroad across the Sierra. A consortium of San Francisco financiers already dominated the Comstock mining trade via steamboats and the ailing Sacramento Valley Railroad. The hodge-podge delivery system funneled goods and travelers by water to Sacramento, then by rail to Folsom, finally by wagon over the Sierra south of Lake Tahoe to the Comstock Lode. The consortium now turned its sights to the north side of Lake Tahoe, formulating plans to build another rail and wagon route over the Sierra north of the lake, thus monopolizing Comstock commerce. Judah was hired to design this new line.

While working the new Sacramento Valley Railroad line, Judah discovered a route through the central Sierra. He secretly made plans to found his own company to tap the Comstock trade and build the western segment of a future transcontinental railroad. Judah finally settled on a path that started at Sacramento, rose 70 miles northeastward through the 7,000-foot-high Donner Pass, and plunged down the Truckee River canyon to the Nevada border. Although Judah's plan would require the railroad to combat huge snowfalls, bore expensive tunnels, and scale unprecedented grades, the Donner Pass route was shorter than its rivals and mounted only one summit to cross the Sierra. With a definite route now in hand, Judah and a few others formed the Central Pacific Railroad in October 1860. With limited financial resources, they could raise only a few thousand of the $115,000 in stock subscriptions the state required to incorporate the company.

Unwisely, Judah openly sought backing in San Francisco. He was rebuffed again and, what was worse, the Sacramento Valley Railroad got wind of his plan. Outraged that one of its employees had disclosed confidential information to promote a rival company, the railroad fired Judah. It publically attacked his scheme as poorly planned and impossible to construct, undermining investor confidence in the Central Pacific for years.

At this point, Theodore Judah's railroad resembled most others in California: it existed only on paper and in the mind of its promoter, and it was unlikely to be built. To salvage his plan, Judah turned to small investors in Sacramento and other towns along the Donner Pass route. He proposed that the company seek quick profits by laying tracks from Sacramento northeast to the foothill mining community of Dutch Flat, and simultaneously building a wagon road along the planned rail route from Dutch Flat to Virginia City, Nevada, thereby quickly seizing the Comstock trade. When completed, the wagon road would also ease rail construction through the remotest stretches of the Sierra, as well as offer a continual outlet to the Nevada mines.

After fruitless public meetings, Judah gained the attention of Sacramento hardware merchant Collis P. Huntington. Huntington brought in his partner Mark Hopkins, along with other Sacramento businessmen, including Charles Crocker, his attorney brother Edwin (who was also a state supreme court judge), and Leland Stanford. The group agreed to buy enough stock to incorporate Judah's company. In April 1861, in the Huntington-Hopkins hardware store, the Central Pacific Railroad was reorganized to admit the new investors. A committee composed of Judah and Dutch Flat dentist David Strong later nominated Stanford president, Huntington vice president, Hopkins treasurer, Edwin Crocker as chief attorney, and Judah chief engineer; directors approved the new slate of officers. When the Central Pacific was incorporated on June 27, 1861, the struggle began to convert dream into reality.

Huntington, Stanford, Charles and Edwin Crocker, and Hopkins quickly emerged as the most powerful leaders of the new company. The "Associates," or "Big Four," as they came to be known after Edwin died, brought much-needed business strength to Judah's struggling venture. Though by no means wealthy, they were respected as successful businessmen and city leaders whose word and credit were as good as gold. Huntington was a particularly valuable addition because he knew eastern suppliers and financiers. The Associates also had important political ties. They were among the tiny, militant band of antislavery men who had founded California's Republican Party in 1856. As leaders of the new party, the Associates labored tirelessly in John C. Frémont's losing presidential campaign, then rode to victory with Abraham Lincoln in November 1860. Now with close ties to the Lincoln administration, as well as local and national Republican leaders and congressmen, the Associates wielded the political clout that Judah had always lacked.

The Civil War and the Transcontinental Railway

Because California settlers hailed from both the North and the South, racial and sectional issues of the 1850s and '60s deeply divided the state. When slave states seceded from the Union and Civil War erupted early in 1861, only a small minority of Californians openly favored the Confederacy. Although at first pockets of Confederate supporters held some power in Southern California and parts of the San Joaquin Valley, in most places immigrants from northern states outnumbered those from the South, and the state remained staunchly Union. When secessionist speakers, journalists, politicians, or clergymen became too outspoken, they were silenced by public opinion, shouted down by unfriendly mobs, or arrested by military authorities. Republicans, the minority party at the onset of the 1860s, rose on the tide of pro-Union votes, gaining sufficient strength to dominate state and local government in California for most of the decade. Under the leadership of famed Unionist supporter and Unitarian minister Thomas Starr King, by war's end in 1865, Californians had contributed more than $1 million to the U.S. Sanitary Commission and other Union charities. California volunteers also saw combat with the Second Massachusetts Cavalry, manned western garrisons, and patrolled southern routes into the state.

Nevertheless, the Civil War's impact on California, though significant, was far less direct or immediate than it was for Americans living closer to the battlefields. For Californians, the greatest impact of the war was its disruption of commerce by creating shortages of supplies from eastern states, especially those now diverted to Union armies. Wartime disruptions forced Californians to rely more on their own resources, accelerating economic diversification, local industries, and trade with the outside world, particularly Asia. New firms increasingly canned foods, milled grain, and manufactured iron, wagons, cigars, sugar, textiles, blasting powder, leather goods, and other products that had earlier been imported from the East. Although the state initially lost some population to the Nevada silver boom during the 1860s, it regained some new population from the arrival of easterners escaping the wartime draft, and recouped financial losses by increasing its dominance of commerce in the Comstock Lode and throughout the Pacific Rim.

The Civil War also improved the Central Pacific Railroad's prospects. In control of Congress and the White House, Republican leaders were already committed to the idea of a transcontinental railway built with federal aid. Indeed, the war made the project even more urgent. Proponents argued that such a railway was vital to the Union war effort; a through route to the Pacific would assure the allegiance of the frontier and strengthen military control of the Far West. More importantly, secession removed the southerners who had earlier blocked California railroad bills, leaving the path through Congress open for a northern route.

The Central Pacific Besieged

Even so, monumental obstacles still blocked the Central Pacific in 1861. Practically every facet of the ambitious project—engineering, building, and financing—was unprecedented. Experts smugly predicted that locomotives would never be able to haul cars over high Sierra grades. Even if they did, critics scoffed, the railroad could not operate in the heavy winter snows and arctic temperatures of Donner Pass. Adding to the difficulties, most construction and operating equipment, including rails, cars, locomotives, and heavy machinery, would have to be shipped at great expense by sea around the Horn. Wartime shortages of iron, railroad machinery, and available ships, as well as the federal government's inflationary monetary policies, would balloon prices and cause endless delays. Finally, how could the railroad hope to complete its route with so few construction workers available in California?

Even with Judah's overly optimistic estimates, the cost of building the Central Pacific, especially the Sierra segment, would far exceed federal subsidies. The private wealth of the Sacramento businessmen was no match for the costs, nor could Judah's group expect much help from the San Francisco business community. Already committed to steamship lines or potential rail competitors of the Central Pacific, most San Francisco area financiers were also unlikely to assist any venture that might benefit arch trade rival Sacramento. Nor was private investment an option: in the tight wartime investment market, large risky ventures like the Central Pacific and other would-be transcontinental railroads could raise virtually no cash by selling stocks or bonds.

Illustrating how thin the Central Pacific's resources really were, its first stock subscription in 1861 brought in only $10,000, which the railroad committed for Judah's more detailed survey of the Donner Pass route. The money ran out before the work was complete, however, and in the summer of 1861, Judah returned from the mountains with the disheartening news that his original survey had been seriously flawed. The distance through the Sierra was 140 miles, not 115, and more than three miles of tunnels would have to be bored through some of the hardest granite in North America. Building as far as Nevada would cost at least $13 million, or $88,000 per mile, costs more than 50 percent higher than Judah's original estimate, and several times the likely federal subsidy.

To make matters worse, the outbreak of Civil War and the imminent passage of Congressional assistance spawned a host of new rail companies, all vying for a share in the federal funds. Both the San Francisco & San Jose Railroad and the Sacramento Valley Railroad mounted formidable campaigns of their own to get the transcontinental subsidy. Powerful San Franciscans controlled both railways, still the state's only working lines. Other threatened vested interests, such as the giant Pacific Mail Steamship, California Steam Navigation, and Wells Fargo companies concerned with losing federal mail contracts, joined rival cities—San Francisco, Stockton, Placerville, and Marysville—to smash Sacramento and its paper railroad.

The Pacific Railway Act of 1862

With little support outside Sacramento, the leaders of the Central Pacific, their private fortunes now committed, turned to securing the crucial federal charter and subsidies. To assure that the state would favor their company, the Associates ran Stanford for governor on the Republican ticket. In September 1861 he triumphed, bringing with him a group of sympathetic Republican legislators and congressmen. With the state government more or less under control, Judah, Huntington, several investors, and Congressional Republican allies set sail for Washington in the fall of 1861. They arrived to find the nation's capital aswarm with railway promoters anxious to cash in on the proposed rail subsidies. The Central Pacific's powerful Republican friends, along with several of Huntington's business associates, secured positions on the legislative committees charged with writing a railway bill. They, in turn, had Judah appointed to a key position as clerk of both the House and Senate railway committees. Now in charge of directing committee affairs, Judah could guard Central Pacific interests as Congress shaped the railway bill.

Judah and Huntington lobbied furiously through the winter and spring of 1862. To bribe legislators and leaders of other railroads, Judah and Huntington lavishly gave away Central Pacific stock. The company's friends overcame one major obstacle when they worked out a bargain with the San Francisco & San Jose Railroad. In exchange for Central Pacific's agreement to assign it the right to build and collect the subsidy for the transcontinental segment between San Francisco and Sacramento, the SF&SJ would drop its opposition to legislation favoring Central Pacific.

Judah and Huntington achieved a stunning victory in July, when President Lincoln signed the historic Pacific Railway Act. This law empowered the Central Pacific to construct tracks from San Francisco Bay, or the navigable waters of the Sacramento River, to the eastern boundary of California. The Union Pacific Railroad would complete the connection from the Missouri River. Both lines were awarded federal charters, rights-of-way, the right to take timber and stone from the public domain for construction, and grants of ten alternate sections of public land per mile of rail line, in a checkerboard pattern within ten miles on each side of the tracks. The act also authorized a loan to the companies of 30-year government bonds at variable rates: $16,000 per mile of track across low-elevation plains at each end of the line, $48,000 per mile through mountains, and $32,000 per mile across the Great Basin. The railroads were authorized to sell the bonds and land to raise capital for construction.

Path-breaking as it was, the 1862 act by itself probably would not have resulted in a transcontinental railway. Not only was the subsidy much lower than projected construction costs, but the law itself imposed serious restrictions. Each company was obligated to complete the entire line by 1876 if the other failed to build its portion, and the U.S. government would assume the assets of a company that did not meet its responsibilities. Because the bond-loan and land-grant subsidies would be delivered gradually after railroads had completed segments of track, the funds would not be available during the critical early years. Moreover, the government's loan of bonds was secured by a first mortgage against the railroad's property, reducing the company's own bonds to less-valuable second mortgages. These provisions discouraged private investors. As late as 1864 neither the Union Pacific nor the Central Pacific had been able to sell enough of its own securities to complete the short mileage needed to qualify for the federal loans.

Local Subsidies and Mounting Opposition to the Central Pacific

For the moment, Judah and the Associates concentrated on financing construction through local and state subsidies, plus loans secured by their personal assets. In the nineteenth century, state and local governments commonly subsidized new businesses, particularly transportation ventures. During his 1862–64 term Gov. Stanford assured that this kind of support favored his company. He and his allies pushed through many laws supporting the Central Pacific, granting millions of dollars in state bonds and allowing local communities to subscribe to its stock. A number of hotly fought elections were blemished on both sides by charges of bribery and ballot-box stuffing; in the end, voters in San Francisco, Sacramento, Placer, and elsewhere purchased more than $1 million in Central Pacific stock.

Opponents of Sacramento and the Central Pacific redoubled their efforts to destroy the infant railroad. In league with railway, steamship, and wagon competitors, communities far from the Donner Pass route tried to get the legislature to revoke Central Pacific subsidies and extend them instead to rivals. They filed lawsuits challenging the legality of state and local aid, attempted to overturn local subsidy elections, and launched a blistering propaganda war against the company. Pamphlets and editorials attacked the Donner Pass route as impractical and condemned the railroad as a speculative venture intended to seize subsidies, build the Dutch Flat wagon road, and then default on its bonds and go out of business. Opponents claimed that Central Pacific's executives had awarded themselves exorbitant construction contracts that would ruin the railroad, and that the company had won its victories only through bribery and corruption. The Central Pacific, its enemies sneered, was the "Great Dutch Flat Swindle."

These accusations were largely self-serving. The Central Pacific was indeed financially weak, its engineering untried, its leaders, particularly Judah and Stanford, guilty of conflict of interest, and its investors attracted to the enterprise by government subsidies. But these problems also characterized the company's critics, most of whom also served special interests. There is no evidence that the Central Pacific's owners did not intend to build the railway. It was popular enthusiasm for railways, not corruption that turned the tide in local subsidy elections—although it appears that Stanford's friends did indeed bribe voters to increase the margin in San Francisco. Conflict of interest, justifiably distasteful to modern sensibilities, was widespread in the nineteenth century, even among otherwise respectable people. Once again, most Central Pacific rivals were equally guilty. Likewise, early railroads and other large-scale building projects, including Judah's Sacramento Valley line, commonly employed "dummy" construction companies to overcome insufficiencies of capital and credit.

After 1862 Leland Stanford, as state governor and president of the railroad, led the fight to preserve the Central Pacific's privileged position. The company dispatched organizers to help local supporters get subsidy measures passed; partisans reached compromises with communities regarding stock purchases, and thwarted competing lobbyists in the legislature. The company successfully defended almost all of the lawsuits. By 1865 most of the opposition had been subdued, at least temporarily, and the railroad finally began to receive much-needed local funding.

But the anti-Central Pacific campaigns of the early 1860s were damaging, depleting the railroad's funds, delaying subsidies and probably completion. Also, the company's own tactics, amplified by exaggerations and untruths hurled by partisan opponents, gave the Central Pacific a reputation for corruption and ruthlessness. Many Californians were predisposed against the Central Pacific long before it had laid a single mile of track. Born in the business and community rivalries inherent in early railway building, these suspicions laid the groundwork for later anti-railroad movements.

Breaking Ground

While it battled its rivals through 1862 and into 1863, the Central Pacific began construction. The railroad still could not raise substantial funds but the public needed to see some tangible progress. Executives scraped together cash through new stock subscriptions and levies on its few stockholders, including contributions of $35,000 each from the Big Four, so that work could commence on the Dutch Flat wagon road. In December, Crocker resigned from the board of directors and, in league with other Central Pacific investors, founded Charles Crocker & Co., which received the contract to build the first segment of rail line. Finally, on January 8, 1863, ground was broken at the flood-ravaged Sacramento riverfront with prayers, speeches, parades, waving American flags, and the music of the Sacramento Brass Band. Gov. Stanford cast the first shovelful of dirt, ceremonially launching the transcontinental railway.

But after several months, work on the roadbed halted about 18 miles into the empty countryside. Grading crews had become enmired in the mucky valley earth, and the railroad again ran out of money before any tracks had even been laid. As it stood, the Central Pacific lacked rails, cars, locomotives, and enough workers to complete the rail line.

In March 1863 Huntington went east in a desperate attempt to sell $1.5 million in nearly worthless Central Pacific bonds, needed to purchase rolling stock and construction materials. The Union Pacific and other builders of the transcontinental railroad had raised virtually no capital in the stringent wartime market, yet Huntington, relying on old business friends and the excellent credit of his hardware firm, coaxed financiers into lending him several hundred thousand dollars, secured by discounted company bonds and his own personal guarantee of repayment. This was the company's first significant influx of outside funding. With it, Huntington bought rails, locomotives, and other equipment and had it shipped around the Horn, using cash and more bonds and personal promissory notes. The Central Pacific Railroad was finally in business, though carrying heavy debt.

Judah versus the Associates

Huntington returned from the East in the summer of 1863 to find the Central Pacific in shambles. Enemies still tied up local subsidies; some stockholders had defaulted on payments due on their subscriptions; and Stanford had lost his party's nomination for a second term as governor. Unless it obtained more capital, and quickly, the company could not finish the first 50 miles of track required by Congress's November 1864 deadline. In that case, the railroad would lose the federal subsidy and probably go under, taking with it the personal fortunes of its founders. Under mounting pressure, company leaders fought bitterly over control, engineering, and finances.

The Associates, who owned most Central Pacific stock and had already mortgaged their personal assets to begin construction, insisted that delinquent stockholders pay their subscriptions and that all investors be further assessed. Less wealthy minority stockholders, led by Judah, who had received his stock free and had little of his own money in the railroad, were equally determined that the company raise funds by further mortgaging its equipment and the uncompleted roadbed. The Huntington faction objected that this would saddle the shaky company with ruinous debt.

Judah also demanded absolute control over engineering and construction. Opposed to the draining of profits from the Central Pacific into a company in which he held no stock, Judah blocked the letting of additional construction contracts to Crocker & Co. The Associates countered that the outside construction firms did shoddy work, charged higher prices, and often defaulted on their contracts. Already upset with what he saw as the Associates' questionable methods, Judah was furious when Gov. Stanford persuaded the state geologist to declare that the Sierra Nevada began with the first low rises seven miles east of Sacramento, instead of the steeper grades 27 miles farther east, a move that added substantially to early construction subsidies.

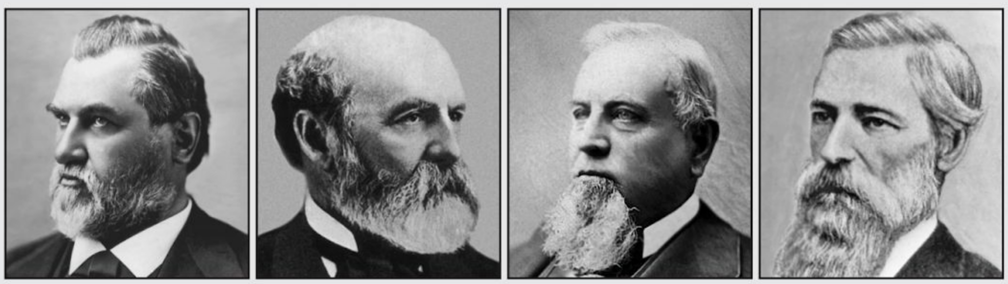
For their part, the Associates had long been exasperated by Judah's unrealistic cost estimates and his damaging mistakes in designing roadbeds, bridges, and culverts. As the company was flirting with bankruptcy, he also was planning to build grandiose train stations. Judah, the Associates had concluded, was a careless engineer and an impractical obstructionist who would ruin the railway and take their personal fortunes with it.

In July the Huntington faction won control of the board of directors; it demanded that other board members pay their stock assessments or relinquish their seats. When Judah and his supporters refused, the Big Four insisted that Judah buy them out or consent to sell his stock. Eventually, an agreement was reached. Again unable to raise cash, Judah exchanged his stock for $100,000 in Central Pacific bonds and withdrew from the board. He retained his post as chief engineer at a salary of $5,000 per year, as well as an option to buy out the Big Four for $100,000 each. In early October 1863, Judah left by steamer to try to borrow the money from eastern railroad financiers. He contracted yellow fever while in Panama, however, and died in New York City

The Big Four

Villains or Heroes?

"The Big Four," as the surviving members of the Associates were known after Edwin Crocker stepped down, in many ways typified frontier success. Contrary to the popular "rags-to-riches" myth, nineteenth-century American business and political leaders came primarily from northeastern middle- and upper-class families. Leland Stanford (1824–1893), Collis P. Huntington (1821–1900), Charles Crocker (1822–1888), and Mark Hopkins (1813–1878) all fit this pattern. Each hailed from middle-class families and had either been born or resided in New York state. Each arrived in gold-rush California with business and political experience and capital or goods to invest. Each tried mining "the golden fleece" but soon turned to the more reliable trade of "fleecing" the miners. Weathering flood, fire, depression, and personal adversity, the four established successful supply businesses in Sacramento in the 1850s.



The Big Four

Left to right: Leland Stanford, Collis P. Huntington, Charles Crocker, and Mark Hopkins. *California State Railroad Museum.*

Building the Central and Southern Pacific railroads soon made the Associates wealthy and powerful. The resulting transportation monopoly, and their aggressive business and political tactics, real and imagined, earned them many enemies. They were widely charged with pocketing excessive profits from public construction subsidies, destroying their competitors unethically, inhibiting California's development by charging shippers "all the market will bear," and corrupting public officials to get their way. Collis P. Huntington gained particular infamy in 1883, when the chance publication of his private letters to David Colton, a lesser company official, revealed that the Big Four had indeed bribed Congressmen and state politicians. Particularly after he ousted the more popular Stanford as president of the Southern Pacific companies in 1890, Huntington came to symbolize the greed and corruption of late-nineteenth-century business. Business rivals and political reformers accused him of every conceivable evil, and journalists and cartoonists made their reputations by pillorying him. Later historians have cast Huntington as the state's most despicable villain.

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Despite harsh public criticism, the Big Four saw themselves as honest, loyal California pioneers, and they took pride in their railroad's importance in spurring the state's growth in commerce, land values, personal incomes, and community welfare. "I am satisfied with what I have done," Huntington wrote privately near the end of his life. "No man is perfect and the man does not live who can look back and say that he has made no mistakes; but the motives back of my actions have been honest ones and the results have redounded far more to the benefit of California than they have to my own."

Like Andrew Carnegie and other giants of nineteenth-century business, the Big Four also made large donations of property and money to build parks, schools, and other community facilities. In Sacramento, Edwin Crocker founded the renowned Crocker Art Museum. Hopkins's heirs gave a good share of his money to endow the San Francisco Art Institute and the Hopkins Marine Laboratory near Monterey. Similarly, Huntington's nephew Henry and widow Arabella channeled much of Collis's wealth into San Marino's Huntington Library and Art Gallery. To honor the memory of their son, Leland and Jane Stanford donated immense land holdings and practically their entire fortune to create Stanford University.

Huntington merits reconsideration in another respect. Unlike many of his fiercest critics, Huntington, like others of the Associates, was an ardent opponent of racial prejudice and discrimination. As had the Crocker brothers, Huntington had been an abolitionist before the Civil War, and he later donated hundreds of thousands of dollars to support African American churches in California, and schools and colleges in the southern states, most prominently Booker T. Washington's Tuskegee Institute. Though it was politically unwise, Huntington ordered his companies to give equal employment and pay to black workers, and he publicly opposed the exclusions of black and other non-white children from public schools, as well as other "Jim Crow" restrictions then being enacted in the South and elsewhere. In newspaper columns and public speeches in the West, Huntington praised the Chinese for their culture and industry, and condemned state and federal discrimination against American Indians and Chinese, Filipino, and Japanese immigrants. "If we deny to the individual, no matter what his creed, his color or his nationality, the right to justice which every man possesses," he told a gathering of California civic and railway leaders in 1900, "there will be no enduring prosperity and [the nation's] decline will surely follow."

Were the Big Four "robber barons" or public benefactors? As with much else about California history, the answer is not simple. (RJO)

the following month. The career of one of California's most colorful figures had ended tragically.

Many histories of the era cast Judah as a martyr to the Associates' greed. Relying on hindsight and the worshipful memoirs of his wife, Anna, some historians have speculated that the railroad would have been less corrupt had Judah gained control. His contributions to the Central Pacific were undeniably important. He popularized the transcontinental railway, located a feasible route, conceived the original plan for the Central Pacific, and with Huntington lobbied through the Pacific Railway Act of 1862. Judah remains a true hero of California history. But in that era, Judah was only one of many would-be railroad builders. When he left California, the Central Pacific was still a speculative venture, lacked assets, and was indistinguishable from similar projects that had failed. Judah's engineering talent was adequate for preliminary work, but he made several costly errors, and he had yet to prove that he could solve the technical problems looming in the Sierra. Judah also shared many of the lax business ethics for which his generation was infamous, and his business skills and political influence were minimal. The company's victories had come primarily in politics, finance, and administration, areas in which the Associates' contributions were consistently more important than Judah's. It is likely that if Judah had wrested control from his partners, the Central Pacific would have failed.

The Pacific Railway Act of 1864

The Central Pacific's 1863 management crisis was the nadir in its history. With the future clouded, the Associates resumed work on the roadbed and bridges. The company set October 26 as the date for the laying of the first rails, but it avoided fanfare. "These mountains look too ugly and I see too much work ahead," Huntington complained. At this point, the Associates were eager for Judah to buy them out.

But even in the gloomy fall of 1863, the tide was beginning to turn. Crews were finally driving rails through the streets of Sacramento. On November 9, the first locomotive, *Gov. Stanford*, belched steam and began shuttling supplies, work gangs, and dignitaries back and forth between the river port and construction sites. The railroad's finances also improved dramatically. Starting in September, favorable resolutions were reached in the suits blocking state and local subsidies. County and municipal subsidy bonds started trickling into the Central Pacific's coffers, and state grants soon followed.

Huntington again headed east to secure all-important amendments to the Pacific Railway Act. Although the Central Pacific's enemies mounted another campaign to deny aid to the railway, Huntington struck an alliance with the Union Pacific, which was having even greater trouble raising capital and had yet to break ground. Six months of lobbying by Huntington and the Union Pacific's Thomas Durant produced the Pacific Railway Act of 1864, which modified most of the burdensome features of the 1862 law. The new act extended the deadline for completing the first 50-mile portion to 1865 and doubled the land grant to 20 sections per mile. More importantly, the 1864 law reduced the federal subsidy bonds to a second mortgage and allowed the railways to sell their own first-mortgage bonds in amounts equal to the government subsidy, thereby doubling potential construction capital for both companies. Two years later, hoping to induce the railroads to build faster, Congress authorized each company to construct as much of the transcontinental line as it could.

The second Pacific Railway Act was a turning point for the Central Pacific. Realizing the company's superior position, its rivals either went out of business or reoriented their lines to feed into the Central Pacific. With local and federal subsidies assured, investors grew more confident. For the first time, Huntington could sell the company's securities and government bonds. Investors, however, would purchase the bonds only at heavy discounts. The Central Pacific was lucky to receive one-half the face value of the securities, although it would be obliged to repay the entire amount, with interest. Laboring under a heavy debt and staggering interest payments, the railroad stood days or hours away from financial disaster many times over the next few years, especially as the high costs of mountain construction strained the company's finances. But with his close ties to American and European investors, his willingness to pledge his own or his Associates' businesses or to juggle funds in deceptive ways, Huntington always managed to buy supplies and cover interest payments. The Central Pacific's credit remained spotless and Huntington came to be acknowledged as one of the business geniuses of his era.

Completing the Transcontinental Railway

Fueled by new capital, construction on the Central Pacific steadily gained momentum. In April 1864, locomotives first hauled passengers and freight the 18 miles between Sacramento and Roseville. Passenger trains sped along at an astounding 22 miles per hour (15 miles per hour for freight), but traffic remained light until June, when the company completed the track to Newcastle and the Dutch Flat Toll Road to the Comstock Lode. The Central Pacific's combined rail and wagon service immediately proved faster and cheaper than anything its competitors could offer and they soon controlled most of the Comstock trade. As income began to exceed operating expenses, stocks and bonds became easier to sell. The Central Pacific looked like it might yet turn a profit.

Nevertheless, when the company tried to push its line higher into the Sierra in the winter of 1865, it again bogged down, this time with labor problems. Few men answered the company's call for 5,000 construction workers. Many of those who did quickly deserted to the Comstock mines, particularly after a taste of working in deep snows for $35 per month. Having employed Chinese construction laborers on the Dutch Flat Road, Charles Crocker ordered that Chinese workers be tried. Although some leaders objected, the experiment was an instant success. Chinese workers learned quickly, labored tirelessly, and soon excelled at skilled tasks. They eagerly accepted both the hard work and the low wages, which were only 60 to 90 percent of the rates paid Caucasians. By May 1865 the Chinese composed two-thirds of the Central Pacific's labor force. For the next four years, the company relied on the Chinese, as well as substantial numbers of Portuguese and other immigrant groups, to win its race with the Union Pacific. When labor needs exceeded the supply of local immigrants, Crocker arranged with San Francisco labor contractors to import workers directly from China. So efficient did the Chinese crews become that, after the transcontinental connection was completed, the company transferred them to extension lines it was building in California and states to the east. Before long, other western railroads also employed Chinese workers.

Chinese Laborers Filling the Secret Town Trestle

Once they had proven their skills, Chinese immigrants came to comprise a high percentage of the Central Pacific's work force, even after the completion of the first transcontinental line. In the 1870s Collis P. Huntington's friend Carleton E. Watkins, who often worked on assignment for the Big Four, took this famous photograph of Chinese laborers filling in the 1,000-foot-long Secret Town trestle, 62 miles east of Sacramento. *The Huntington Library, San Marino, California.*

Beyond Auburn, Central Pacific crews grappled with some of the most forbidding terrain in the country. The road faced a climb of more than 5,000 feet in 40 miles over the Sierra crest, before reaching the treacherous cliffs at Donner Pass. Below-zero temperatures and 40-foot snows halted work for weeks at a time. In summertime, the men were harried by insects and swarms of rattlesnakes, their dens disturbed by construction. Illness ravaged the overworked and underpaid workers. Cave-ins and misfired explosions killed and maimed scores of workers. Conditions were so unbearable by the spring of 1867 that even the normally compliant Chinese went on strike, demanding more pay and shorter working hours. After a week, the intransigent Crocker broke the strike by cutting off supplies and starving the Chinese back to work.

Somehow, the Central Pacific inched upward. The company invented new railway construction techniques and worked its force of more than 14,000 in round-the-clock shifts. The Chinese bored away at tunnels a few inches a day from both ends, and chipped out narrow ledges to carry the tracks around precipices, while the company used the Dutch Flat Road to move materials and rolling stock ahead by wagon—by sled in winter—so that work could proceed on multiple fronts. To shield its line from the crushing drifts of Donner Pass, in 1868 crews began building miles of long wooden snow sheds, to this day a distinctive feature of the Pacific railway.

The work devoured capital. Many stretches, particularly the tunnels, cost between $150,000 and $1 million per mile, and the company teetered perpetually on the brink of insolvency. Finally, after nearly three years of strenuous mountain construction, trains chugged over the summit of the Sierra in November 1867. The next May, the line finally reached Nevada, still only 140 miles from Sacramento.

Once clear of the mountains, the Central Pacific began to race across the relatively flat Great Basin towards the Union Pacific, now stalled in the mountains northeast of the Great Salt Lake. Though plagued

Snowsheds on the Central Pacific

Alfred Hart photographed the Central Pacific's famous snowsheds while they were under construction in the late 1860s. *The Huntington Library, San Marino, California.*

by extreme temperatures and scarce and alkali-tainted water, Crocker's experienced Chinese and European immigrant crews worked at an astonishing pace. During the next year they completed 550 miles.

On May 10, 1869, the Central Pacific had linked with the Union Pacific. Hundreds of jubilant laborers, executives, dignitaries, and reporters gathered at Promontory Summit, north of the Great Salt Lake, for a legendary ceremony. After the customary prayers and speeches, Leland Stanford swung his hammer at a golden spike fastening the last rail, and the transcontinental railroad was finally joined. Telegraph wires attached to the spike and hammer announced the grand moment to an eager outside world. Festivities were already in full swing in California. When word arrived at Sacramento, thousands surged through the streets celebrating the city's victory. Their wild cheers were quickly drowned in a clangor of church bells, whistles, fire bells, pistol shots, and cannon blasts. To the east, a nation still grieving from years of civil war rejoiced in the heroic building feat, and looked forward to a new age of prosperity, westward expansion, and national unity. A four-mile-long parade danced through the streets of Chicago. In Philadelphia, the Liberty Bell pealed from the tower of Independence Hall.

The Associates and the Emerging Rail System

Dramatic though it was, the driving of the golden spike was only the beginning of California's railway age. Capitalizing on the line's potential for stimulating development, promoters organized dozens of railways in the late 1860s and '70s. Locomotives soon whistled around the flats of San Francisco Bay and up its flanking valleys. Tracks penetrated the Sacramento Valley north of Marysville and into the San Joaquin south of Stockton, for the first time entering many of the

Thomas Hill's The Last Spike

Commissioned years later by Leland Stanford, Thomas Hill's romantic depiction of the driving of the golden spike at Promontory Point portrays a cross-section of those associated with the building of the transcontinental line: leaders such as Stanford (*at center, holding the hammer*); Chinese laborers (*to Stanford's left*); Irish immigrant workers, smoking their characteristic pipes (*to the right and below Stanford*); Indians (*foreground*); and a wagon train, the transportation mode being supplanted (*background*). Also in the painting were persons not present at the spike driving, including Collis P. Huntington, who was in New York at the time. Theodore Judah, dead for nearly six years, is resurrected at the lower right. Scorned by Stanford, the painting now hangs in the California State Railroad Museum at Sacramento. *California State Railroad Museum.*

state's lightly populated interior regions. In 1869, the Los Angeles & San Pedro Railroad, the first operating southern line, connected the old pueblo of Los Angeles to its new harbor at Wilmington. Within three years, small railroads extended lines into Los Angeles's fertile hinterland. Other railways welded regions together into the first statewide transit system. Of the state's major population centers, only the isolated northwest and central coasts, the Sierra foothills, and the San Diego area still lacked direct railroad service in the 1870s. By the early twentieth century, the rail network included these areas too.

If new rail lines were not themselves built by the Central Pacific, they usually fell quickly into the Associates' grasp. Often outgrowths of real estate schemes or designed by their promoters for quick speculation rather than long-term profitable operation, the new companies could not remain independent, weakened as they were by shoddy construction and equipment, light traffic, and ruinous debt. Their builders were all too eager to skim off profits and unload their shaky companies. The Big Four had reasons of their own for acquiring other lines. The revenues of the Central Pacific were at first disappointing. The Suez Canal, also completed in 1869, siphoned off much of the Asian trade. Traffic from eastern states in goods, tourists, and immigrants also failed to match overly optimistic predictions. In the late 1860s and early '70s the Big Four were deeply in debt and anxious to sell the Central Pacific. But due to the company's immensity, its troubled finances, and the recurrent depressions of the 1870s, the Associates could not dispose of the railroad, though they tried repeatedly.


Southern Pacific Lines
IN
CALIFORNIA AND NEVADA
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NEVADA
PACIFIC OCEAN
SAN FRANCISCO
SACRAMENTO
LOS ANGELES
SAN DIEGO
BAKERSFIELD
FRESNO
RENO
CARSON CITY
Mono Lake
Owens Lake
Walker Lake
Salton Sea
Lake Tahoe

The only way to avert disaster, Huntington convinced his partners, was to continue to build new lines, to defeat or absorb potential competitors, and to somehow make the roads profitable. Borrowing heavily and reinvesting all available profits, the Associates purchased other transportation companies. By the end of the 1870s, they had transformed themselves from railroad builders into railroad operators.

Most independent California railway companies came within the control of the Associates in the 1860s and '70s, either voluntarily or pressured by lowered Central Pacific freight and passenger fares they could not match. The first to fall was their old nemesis, the Sacramento Valley Railroad, whose owners sold out in 1865, followed three years later by the railroads around San Francisco Bay. With these lines, Central Pacific trains from the East arrived at the Bay a few months after the ceremony at Promontory. To the dismay of Sacramentans, their city's hard-won fame as the western terminus of the transcontinental ended in 1869, when the Central Pacific moved its terminal to Oakland, and in 1873 its headquarters to San Francisco.

Throughout the 1870s and into the twentieth century, the Big Four and their successors continued to expand their transportation holdings. To reduce water competition, they reached a rate and traffic agreement with the Pacific Mail Steamship Company in 1871. A few years later, in 1874, they formed their own trans-Pacific firm, the Occidental and Oriental Steamship Company, giving them a large measure of control over San Francisco's oceangoing commerce. The Big Four also absorbed inland riverboat enterprises and several San Francisco Bay ferries. Some of the newly acquired routes were integrated into the Central Pacific system. Others were reduced to branches or closed down altogether. While many communities thrived from the increased commerce, the hopes of some towns for urban greatness were dashed. Disappointed townsfolk added their voices to a growing anti-Central Pacific chorus.

Southern Pacific Rail Lines in California and Nevada, 1923

In this map of main California and Nevada railroads near their peak of expansion, Southern Pacific Company tracks appear as wide, those of rival companies as narrow, lines. *Courtesy of the California History Room, California State Library, Sacramento, California.*

The Associates' prize acquisition was the Southern Pacific Railroad. Severe winter weather and high elevations along the Central–Union Pacific route shifted national attention to building a southerly, low-elevation rail line near the Mexican border. Founded in 1865, the Southern Pacific secured a federal franchise and land grant to build that part of the line from San José to the Colorado River. Thus, when they purchased the unbuilt Southern Pacific in 1868, the Associates were assured of control of the western portion of the proposed southern transcontinental route.

Immediately upon acquiring their new road, the Big Four set off to capture the strategic crossing of the Colorado River at Yuma, Arizona Territory. Between 1869 and 1876, they extended one Southern Pacific line south of San José to Tres Piños, and another through the San Joaquin Valley. Then, in a feat rivaling the crossing of the Sierra, the company surmounted the Tehachapi Mountains to descend into Southern California. In 1872, the Southern Pacific had agreed to build through Los Angeles in exchange for a subsidy from the city. On September 5, 1876, another driving of a golden spike connected Los Angeles to the state's northern railway system and the Central Pacific's line to the East. Meanwhile, the Associates had acquired most other Los Angeles railways, including the line from the city 20 miles to its harbor. Already they had begun building the Southern Pacific eastward, across the cattle ranches of the San Gabriel and San Bernardino valleys and the parched Colorado Desert. In 1877, the Southern Pacific illegally bridged the Colorado River, before federal approval, and steamed into Yuma.

To the consternation of eastern railroad moguls who coveted the southern transcontinental route for themselves, in 1879 the Southern Pacific resumed construction east across Arizona and New Mexico without a federal subsidy. In 1881 the company's Chinese track-laying crews reached El Paso, Texas, a major rail crossroads. For several years Huntington had been quietly securing control of a string of Texas and Louisiana railroads, and in early 1883 Southern Pacific locomotives used these lines to enter Houston and New Orleans, with their Atlantic ports on the Gulf of Mexico. The Big Four had now brought the first coast-to-coast railway system under their own management. Trains between San Francisco and New Orleans, the famed Sunset Route, began operating in February 1883. Acquisition and completion in 1887 of the Oregon & California Railroad between the northern Sacramento Valley and Portland, and the subsequent absorption of additional Oregon lines, rounded out the Big Four's railroad empire.

The Southern Pacific Company

By the end of the 1870s the Big Four monopolized California transportation. Capitalized at $225 million, their California railroads in 1877 controlled 2,340 miles of track, including 85 percent of all railroad tracks in the state and all the important lines in the San Francisco Bay Area, Los Angeles, and the Sacramento and San Joaquin valleys. Their successful enterprises had brought the Associates great fortunes. From modest beginnings as Sacramento shopkeepers, they now ranked among America's richest and most powerful business leaders.

Acquiring widely separated companies, however, caused acute management problems. Linking and operating the many new companies proved unwieldy, particularly after acquisition of the Texas and Louisiana railroads. The companies varied according to different national, state, and territorial regulations they had to comply with, differences in financial solvency, and differences in the lease and ownership arrangements by which the Associates controlled them. To solve these problems and provide a better mechanism for distributing traffic, capital, equipment, and profits among their far-flung lines, Huntington convinced his partners in 1884 to set up a holding company, the Southern Pacific Company, and to transfer their holdings to the new company, which they would own in equal shares. To broaden its powers and shield it from legal and political attack in the West, the holding company was incorporated in Kentucky. In early 1885 the Associates transferred their commonly owned stock, leases, and property to the new firm. From headquarters in San Francisco and New York City, the Southern Pacific Company modernized and integrated the Associates' properties to produce more efficient, more profitable operation. By the end of the 1800s, all of the Associates' rail properties were commonly referred to as the "Southern Pacific."

Transportation competition revived somewhat for California in later years however. By constructing some tracks and deftly forcing the Southern Pacific to let it use others, the Santa Fe Railroad entered Los Angeles on its own tracks from the Midwest in the mid-1880s. There it engaged the Southern Pacific in a rate war that helped ignite a Southern California real estate boom. In the 1880s, the Santa Fe brought and extended an independent line up the San Joaquin Valley, and in the '90s built a connection to San Francisco Bay at Richmond. After 1900 both the Union Pacific and a new Western Pacific Railroad completed their own lines to the East. Nevertheless, the Southern Pacific still controlled most important tracks in the major markets, and it could often convince rivals to reduce competition. The company influenced California's economic and political life well into the age of automobiles and airplanes.