The Interwar Response of the Southern Pacific Company and the Atchison, Topeka & Santa Fe Railway to Passenger Road Competition

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By 1941 the passenger branch of the railroad business was failing in the United States. That airlines did not yet offer significant competition suggests roads as the main culprit. Obviously, U.S. railroad managers had adapted the passenger train to road competition unsuccessfully. What is not as obvious is whether they or government responded inappropriately to the market, or whether railroad technology was economically hopeless against the automobile and the preferences of Americans.

In this paper I address these questions by examining how two of America's most important railroad corporations adapted to road competition in their most important arena of operation, California. The Southern Pacific Company and the Atchison, Topeka & Santa Fe Railway operated respectively the third and sixth largest intercity passenger operations in the United States in 1911, measured in passenger miles. Their decisions on passenger trains and buses is representative of the American interwar experience of competition between railroads and roads.

My main point is that although private corporations supplied passenger train service in California throughout the interwar period, they failed to respond to the discipline of the marketplace in important ways. I will first outline my reasons for why this was so. This will help in interpreting my subsequent sketch of a chronology of passenger train and bus decisions in California.

Three important institutional traits prevented California's railroad corporations from fully responding to the market. First, during the interwar period the American railroad industry was out of synch with the prevailing interwar policy consensus on how intercity transportation should be provided. The industry developed in the nineteenth century in accordance with a consensus that private corporations should build and operate the intercity transportation system with little government oversight. During the first decade of this century American business embraced a new transportation policy consensus that government should provide transportation infrastructure to all regions, while private individuals and corporations would provide vehicles and operate services over the infrastructure. Because

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[1]Unless otherwise indicated, this paper is abstracted from my book, *The Passenger Train in the Motor Age: California's Rail and Bus Industries, 1910-1941* (Columbus, 1993). Other references are cited as appropriate.

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the American political system accommodates radical shifts in policy by adding new paradigms on top of the old [1], railroads continued as private corporations responsible for providing their own infrastructure, but they competed with other industries for whom government built infrastructure.

In California the new order first manifested itself in the government improvement of ports between 1900 and 1910 and the building of the Panama Canal. Both resuscitated the moribund coastal shipping industry to the extent that by the early 1920s the majority of freight leaving Los Angeles went by water, and as late as the mid-1920s 60 percent of the freight moving between California and Oregon also went by water. More significantly, the state legislature established the California Highway Commission between 1909 and 1912. Although it often is argued that the good roads movement originally sought better connections from farms to railroad stations, the legislature in California charged the new agency with building a statewide network of concrete wagon roads parallel to the main lines of the state's major railroads. When it poured its first concrete in 1912, the new agency was staffed by dedicated professional engineers who zealously believed in providing superior roads to the people of California at no cost.

That the American railroad industry was out of step with the new transportation paradigm crippled its subsequent efforts to compete with the automobile. It tended to blind railroad management to the reasons behind the success of its competitors. While managers of autos, buses, and trucks pursued productivity improvements with religious zeal, American railroad managements saw the success of their competitors stemming from government subsidy. They focused much of their own competitive energies in the passenger arena on seeking political redress to what they saw as unfair advantage rather than on investments and technical problem-solving directed at improving the dismally unproductive state of their own passenger services [10].

Another institutional trait further blinded management to market forces. Edwin Pratt, a *London Times* reporter, studied American passenger service in 1900, finding then that much passenger investment and managerial attention focused on a tiny percent of passenger trains that in effect were advertisements for freight service on routes where two or more railroads competed with each other. The businessman who traveled by a particular route would ship freight by that route, according to management maxim, and the ostentation and excess that resulted from it prevailed through the interwar period [3].

Managerial misunderstanding of how costs behaved also mitigated against the development of a culture oriented to productivity improvement in passenger operations. Throughout the interwar period management assumed that the cost of running a typical train one mile was only about a third of the railroad's fully-allocated passenger costs divided by the number of train miles, whereas the true variable cost approached 100 percent. Management also assumed that the cost of adding a car to a train was negligible, and that little was saved by taking a car off. In reality, total railroad operating costs fluctuated significantly as cars were added or deleted. A related notion was that heavy cars cost little more to pull around than light cars, but in fact marginal cost was proportional to weight. Those in railroad management who analyzed the behavior of railroad costs in relation to changes in traffic levels as well as economists in the Interstate Commerce Commission knew about the behavior of costs, but the specialized, complex nature of the subject and the erosion of the political power of railroad corporations kept the old, "every school boy knows" paradigm in place. As an ICC report noted in 1915 about the

resistance of railroad managers to improving costing methodology, "The possible misuse of information collected was also urged as a reason for not developing the subject of railway cost accounting. It was argued [by the railroads] that to give cost accounting information to the public would be the same as giving dangerous instruments to children" [8, p. 49].

Given that railroads were out of synch with the prevailing business paradigm of how transportation should be provided, that they tended to view passenger service as a public relations gimmick rather than a profit center, and that they did not know how their costs behaved, it is not surprising to find that railroad managers failed to follow the textbook example of how competitive enterprises respond to competition. One would expect that competition would have forced managers to adjust services and develop technology to provide a product more attuned to public demands at ever lower cost. Such failed to happen in California.

During the first decade of this century, passenger traffic grew 50 percent faster than California's rapidly growing population, and both Southern Pacific and Santa Fe invested heavily in it. At least half of the mushrooming demand and investments were local in nature, including the creation of vast electric suburban train operations in the Bay Area and the Los Angeles basin. Passenger service reached the peak of its economic and social influence in California about 1910, when it (except for the electric operations) earned a competitive return on investment.

After 1910 the rise of road competition quickly eroded passenger train influence. Auto ownership, climbing from 15 autos per 1,000 population in 1910 to 97 in 1917, combined with the rapidly spreading concrete roads to decimate demand for trains, particularly in rural areas. The fraction of incomes that Californians spent on intra-California and longer-distance passenger trains dropped by a stunning 53 percent for intra-California trains and 36 percent for interstate trains respectively between 1911 and 1917.

The ancestors of intercity buses probably figured in the decline, but their numbers were too small to make a large difference. As early as 1910 and probably earlier some auto owners found that they could make money by operating for hire over rural roads. By 1915 the Railroad Commission of California estimated that 500 owner-operator interurban jitneys operated throughout the state outside of urban areas; by 1917 the number increased to 1,700, most likely serving latent demand.

Despite such trends, both Southern Pacific and Santa Fe managements continued heavy passenger service investments until about 1915. After that date they ceased significant investment and service expansion for local trains. Both railroads also agreed to stop competing on speed and to limit luxurious excesses on their flagship trains.

The U.S. entry into World War I in 1917 greatly affected the evolution of rail passenger service in California. In the previous year and in accordance with a directive from the Interstate Commerce Commission, U.S. railroads began separating freight and passenger expenses. The first such report showed that the western railroads, of which Southern Pacific and Santa Fe were among the most significant, had a passenger operating ratio (passenger operating expenses divided by passenger-related revenues) of 77.4. (This is read as 77.4 percent.) Both managements considered this too high to be earning a competitive return on investment. Despite this, they did not seek substantive efforts to reduce expenses, except as already noted. They also did not seek passenger fare increases. Instead, they joined with other managements in the United States in unsuccessful attempts to request freight rate increases, justified partly to pay for passenger losses.

The rate hearings revealed substantial waste in rail passenger transportation and produced a consensus that freight service should not subsidize passenger losses. These findings and attitudes influenced management decisions on passenger trains after President Woodrow Wilson seized control of the U.S. railroads in December 1917. Federal control emphasized elimination of competition between railroads, particularly with passenger trains, higher wages for railroad employees, and higher freight and passenger rates, though not high enough to compensate for higher wages. During the first six months of federal control Santa Fe seized the opportunity to end its aggressive decade-and-a-half effort to compete with Southern Pacific for local traffic in California. It slashed its intra-California train service outside of its line between Los Angeles and San Diego. It also downgraded and reduced drastically its train service between San Francisco and Chicago, a route that Southern Pacific dominated west of Ogden. Santa Fe focused its passenger energies on the route between Los Angeles and Chicago, where it was designated the dominant carrier.

Southern Pacific, on the other hand, focused its energies not only on its route from San Francisco to Chicago (operated by the Union Pacific and Chicago & Northwestern east of Ogden), but also within California. With Santa Fe traffic shifted to them along with traffic from coastal steamers, which federal control eliminated during the war, Southern Pacific's local trains experienced a traffic revival through 1920.

The Transportation Act of 1920 returned U.S. railroads to private control under a reformed Interstate Commerce Commission that Congress directed to look after the health of the private railroad system as well as the needs of shippers. By now the principle was well established that all classes of freight and passenger traffic pay its own way. To continue efficiencies that federal control had established, the act allowed railroads to enter into passenger and freight traffic pools. Despite this, the commission and railroads agreed on the desirability of resuming competitive luxury train service, in order to restore what was termed "competitive identity." To make passenger service profitable and pay for competitive identity, the commission encouraged the railroads to raise fares to a level 63 percent higher than before the war and impose a surcharge for sleeping car service. The fare increases went into effect August 1920 and prevailed until December 1933.

With the return to private control Southern Pacific and Santa Fe managements continued the pattern of passenger operations that developed during the war. Santa Fe concentrated on luxury service on its route between Los Angeles and Chicago, conceding San Francisco-Chicago and intra-California markets to Southern Pacific. In 1921 it signed an agreement with Southern Pacific by which the latter company would transport Santa Fe passengers arriving from the East locally within California. Southern Pacific, on the other hand, did restore luxury train service on its route from Los Angeles to Chicago as well as on all of its other mainlines. Southern Pacific also resolved to maintain a significant passenger identity within California.

As the 1920s unfolded, intensified road competition pressed both managements to modify their strategies. By 1920 concrete state highways linked all of California's cities. The California Highway Commission increasingly focused on building connections with the rest of the nation's highway system, the first of which opened in 1926, as well as on upgrading internal roads with the heaviest traffic. Mountain passes between major cities received particular attention. In 1929 the Highway Commission began construction of a two-lane super highway across the difficult mountain crossing between Los Angeles and the San Joaquin Valley,

notable in that motorists did not have to slow down for curves once it opened in 1933. By 1941 the Highway Commission had completed mountain crossings to this standard on all of the major routes in the state; several had four lanes and median strips. During this time auto ownership increased from 150 cars per 1,000 population in 1920 to 341 in 1929. Auto ownership fell slightly to 316 in 1933, after which it increased modestly for the rest of the decade.

Bus competition also intensified. As early as 1917 rising auto ownership began thinning demand for public transportation to such an extent that not enough business remained to support the concept of owner-operated jitneys, each finding a unique, small market niche to fill [9]. The Auto Truck and Stage Act of that year brought intercity jitneys under the jurisdiction of the California Railroad Commission, which had adopted the tenets of New Nationalism. The commission prohibited competing services and encouraged consolidation of owner-operators into regional, monopolistic corporations. This happened extraordinarily rapidly; by 1920 seven bus corporations provided most service in the state; by 1926 these had consolidated into the two largest intercity bus companies in the United States: Pickwick Stages and the California Transit Company.

As the consolidations took place, buses began attracting passengers traveling longer distances, which provoked a reaction from Southern Pacific management. Taxpayer-supported highways were intended for the enjoyment of the private individual, the railroad's management argued, not as subsidies to private corporations that competed with railroads. Around 1922 the company launched an aggressive publicity and lobbying campaign to legislate for-profit enterprises off public roads.

During this time patronage plunged on Southern Pacific rural local trains, and the company discontinued many of them as revenues dropped below crew and fuel expenses. The Railroad Commission, which considered such trains obsolete compared to modern highway transportation, did not stand in the way. Despite this, the company generally left several round trips a day on many lines, because of its self-imposed duty to provide a comprehensive transportation service. After 1924 when it became clear that the legislature would not adopt Southern Pacific's legislation, Southern Pacific management resolved to cut its losses but still maintain what it called "presence" by replacing many of its remaining rural local trains with its own buses.

Doing so brought Southern Pacific head to head with Pickwick and California Transit. Neither of the bus companies wanted Southern Pacific, with its comparatively vast financial resources and its recent history of trying to legislate them out of existence, in the bus business. Viewing the railroad's initiative as just a new ploy to wipe them out, they implored the California Railroad Commission to prevent the railroad from operating buses in competition with them.

Despite the bus company entreaties, the commission allowed Southern Pacific to set up a bus line competing with an existing bus line in 1928. Buck Travis, the entrepreneur who had built up California Transit, then launched a complicated set of maneuvers that resulted in the 1930 formation of Pacific Greyhound Lines. His idea was to create a West Coast intercity bus monopoly owned by all parties with an interest in West Coast bus transportation. The various bus operations of California Transit, Pickwick, and Southern Pacific were reorganized into a new operating company whose routes paralleled the rail lines of Southern Pacific from Portland to El Paso. The owners, each with one-third interest, were Pickwick, Greyhound, and Southern Pacific, who because of the small size of

its bus operations contributed badly-needed cash to join. Santa Fe was invited to join but refused, saying that it had no interest in local passenger transportation.

From 1930 Southern Pacific considered Pacific Greyhound as supplying the comprehensive aspect of its passenger transportation system. Between 1928 and 1933 buses replaced most remaining rural local trains. However, the company continued to operate commuter trains (including vast money-losing electric train operations in the Bay Area and Los Angeles), intercity local trains that were well-patronized, luxury trains that defined the company image, and rural local trains that failed to cover crew and fuel expenses but which carried overnight Pullman cars for the benefit of small-town businessmen traveling to Los Angeles or San Francisco.

Rising auto and bus use also forced both railroads to change their policies toward long-distance trains. Through the mid-1920s high fares and the appearance of alternatives drove almost all price-sensitive passengers from the rails. Long-distance coach passengers, who made up a third of transcontinental train traffic in 1920, left the rails as did tourists using Pullman cars. Women and children, alienated by the male-dominated culture of Pullman travel, left the rails, as well. Primarily male business travel increased, but it was not enough to keep the fraction of Californian incomes spent on long-distance train revenues from declining precipitously through the first half of the decade.

Alarmed by such trends, Santa Fe management in mid-decade broke its agreement with other transcontinental railroads and began improving its Los Angeles-Chicago trains. It added a new extra-fare luxury train, the *Chief*, and at the end of the decade discounted round trip tickets and marketed certain trains for economy travelers in an attempt to bring back price-sensitive business. Other railroads followed suit. Southern Pacific for its part inaugurated faster, luxury day-time coach service at discounted round trip fares between Los Angeles and San Francisco in 1926. Both companies also began speeding up their long distance trains in 1926, a program that they continued through 1929 and resumed between 1935 and 1941.

Despite these initiatives and the booming growth of Los Angeles, California passenger revenues fell by 34 and 37 percent for Southern Pacific and Santa Fe respectively between 1920 and 1929. Revenues from intra-California trains fell the most, but long-distance revenues fell by 12 percent for Southern Pacific and 17 percent for Santa Fe. At the end of the 1920s Southern Pacific's passenger operating ratio stood at 84, little changed from 1920. Figures could not be found for Santa Fe.

The experience of Santa Fe and Southern Pacific reflected market trends affecting all western railroads. By the end of the 1920s the largest rail markets were short distance and between large and medium-sized cities, such as New York-Philadelphia and San Francisco-Sacramento. Passenger traffic held up the most in the East, largely because of its many, closely-spaced large cities. The long-distance train market did next best, but in the West it was tiny compared to the western passenger market that existed before World War I.

As the nation's economy sank ever lower between 1929 and 1933, passenger revenues fell by another 60 to 70 percent for both Santa Fe and Southern Pacific, and their passenger operating ratios soared to 139 and 110 respectively. In these two statistics the passenger operations of the two railroads fared no worse than those of other U.S. class I railraods in the West and South. Most lost more than 75 percent of their passenger revenues between 1920 and 1933, and experienced higher passenger operating ratios than did Southern Pacific. [6]. Passenger service

now not only failed to earn an adequate return on investment; it did not even cover its operating costs. Both managements believed, however, that when the economy turned around, passenger losses would disappear. After the economy reached bottom in 1933, passengers did begin to return to the rails to some extent, but alarmingly, passenger deficits continued to worsen, particularly for Santa Fe.

Driven to desperation over its mounting passenger losses, Santa Fe management in 1935 decided on a bold, creative strategy that defined public transportation development in California through World War II. The company reasoned that it needed to carry a much greater passenger volume to spread fixed costs. It could attain volume though radically lower fares, higher speeds, and buses to carry shorter-distance passengers. Part of this strategy was to reenter the California local passenger market that it ceded to Southern Pacific in 1921. To do so, it proposed a new bus system that would compete head-to-head with Pacific Greyhound, and high-speed, diesel powered trains not only for the San Diego-Los Angeles market, but also for the Los Angeles-San Francisco market via the San Joaquin Valley.

Terrified that the Santa Fe initiative would gain the allegiance of California freight customers, Southern Pacific, in alliance with Pacific Greyhound, tied up the proposal in the regulatory process for over two years. During this time, Santa Fe inaugurated new high-speed, streamlined trains only on its transcontinental route. In the meantime, Southern Pacific and Pacific Greyhound significantly improved their intra-California train and bus services. The most glamorous, but by no means the only, element of this program was Southern Pacific's luxurious and beautiful streamlined *Daylight*, placed in operation between Los Angeles and San Francisco in March 1937.

To influence the Railroad Commission, both sides appealed to business groups throughout California. Southern Pacific argued that it had faithfully provided a comprehensive passenger service to the California public over the years, while Santa Fe abandoned the field to concentrate on only one prestigious market. It added that its vast electric interurban train services in Los Angeles and the Bay Area were indispensable to the state's general welfare, and even though they failed to earn their operating expenses, the company would gladly continue operating them in exchange for protection from competition. Southern Pacific finally argued that the passenger market was small and finite and should not be spread so thinly that no company could afford to serve it.

In the same forums, Santa Fe officers invoked the image of the octopus as they charged that collusion between Southern Pacific and Pacific Greyhound victimized the California public. Collusion kept bus fares above train fares in important markets and kept speeds low. Santa Fe officers added that the market for public transportation was highly elastic and would expand in response to lower fares and higher speeds once the chokehold of Southern Pacific could be broken.

Every business group to which the two sides appealed supported Santa Fe, and in April, 1938 the California Railroad Commission decided in that railroad's favor. The decision realigned passenger rail service in California. By July of that year, Santa Fe placed its intra-California streamlined trains into operation and launched what became a cornerstone of the Continental Trailways bus system. Stung by rejection of the business community, Southern Pacific immediately launched a program to dismantle its electric train operations in the Bay Area and most of those in Los Angeles. It also eliminated its business-oriented Pullman services on local trains in the San Joaquin Valley and its other remaining local train

services in the state, save those between San Francisco and respectively Sacramento and San Jose. No significant opposition stood in its way, and most of these operations were off the company books by early 1939 and abandoned altogether by 1941. Forced to do so by competition, the company continued to invest in new and refurbished long-distance luxury and economy trains, particularly on routes where Santa Fe inaugurated new streamliners.

Also stung, Pacific Greyhound subsequently distanced itself from Southern Pacific and began to compete against the railroad more aggressively. It could do so because, since 1933 when the Pickwick Corporation went bankrupt, the Greyhound Corporation held 61 percent of Pacific Greyhound's stock, while Southern Pacific held 39 percent.

These changes proved Santa Fe right in one respect: the intra-California passenger market was elastic. Despite train abandonments, the faster, streamlined services that remained, marketed with lowered fares, boosted non-commuter intra-California train revenues by 17 and 260 percent respectively for Southern Pacific and Santa Fe between 1937 and 1941. Shortly after Santa Fe started streamlined train service, Southern Pacific president A. D. McDonald wrote to his board chairman Hale Holden in New York that the Santa Fe initiative was succeeding in raising the prestige of Santa Fe in California – for freight as well as passengers. Revenue from transcontinental trains serving California grew by 29 and 40 percent respectively for the two railroads. Records are less clear for buses, but the size of the intercity bus market appears to have increased substantially, as well.

Despite rising traffic, the financial performance of each railroad's passenger operations remained grim. Santa Fe's passenger operating ratio did turn around, improving from 138 in 1937 to 123 in 1940 as it increased passenger volume through fast short-to-moderate distance streamliners pulled by diesels, and to 110 in 1941 as war-related traffic began to improve passenger fortunes. However, even in 1941 its passenger operating ratio remained unacceptably high. Santa Fe also lost money on its bus operations, even though it captured half the ridership in its service area, while Pacific Greyhound's return on investment remained above 30 percent for the rest of the decade. Through the 1930s Southern Pacific management decisions increased the emphasis of the railroad on long-distance prestige trains, but doing so failed to improve financial performance. Its passenger operating ratio grew from 110 in 1933 to 118 in 1937 and remained at 117 in 1940. In the latter year all suburban electric train operations were off the company books, and most local train service had been discontinued. Rising war-related traffic lowered the ratio to 105 in 1941. The results of both railroads were consistent with those of other railroads. The greater that a railroad's operations were characterized by long-distance trains and passengers riding long distances, the greater were its passenger losses per dollar of gross passenger revenue [6].

Even though Southern Pacific and Greyhound colluded, nothing in this story suggests that their collusion contributed to the collapse of the passenger train in California, contrary to the popular GM-conspiracy theory advocated by Bradford Snell [7]. To the contrary, as Santa Fe charged, the two corporations used collusion to protect the passenger train in important markets. After the mid-1930s Pacific Greyhound did become more aggressive, but it was Santa Fe and not General Motors that pushed Pacific Greyhound in that direction.

Rather, the grim results in 1940-41 reflected three, anti-market aspects of the passenger operations of the private American railroads during the interwar period. The first was that railroads were out-of-synch with the prevailing transportation

paradigm in which government provided transportation infrastructure while private enterprise operated vehicles. This blinded railroad management to the major reason underlying the success of road competition, which was dramatic productivity improvements in road vehicle technology throughout the interwar period. Railroad management instead blamed government subsidy for the falling costs of road competition. The second was managements' view of passenger operations not as a profit center but as a loss-leader for freight. By the mid-1930s western railroads in particular were investing in one or two flagship trains on each of their principle routes primarily to gain general prestige in the eyes of the public and more specifically to win freight traffic [10]. Santa Fe reentered short-to-moderate haul passenger markets partly for this reason, but to the extent that it actually was trying to make money by catering to what it perceived to be a large, untapped market, it stands out as a highly visible exception among railroads on the western half of the continent.

The third was management's misunderstanding of cost behavior. Because management falsely thought of so many cost categories as fixed, particularly those jointly incurred with freight service, it believed that many long-distance trains covered their expenses and contributed to overhead. Curiously, passenger deficits failed to decline as western railroad managers discontinued local trains and concentrated their passenger operations almost entirely on long-distance trains by the end of the 1930s. New, light-weight streamliner technology did not help, either, primarily because the railroads gave each passenger so much more room in the new trains that the cost to move a passenger one mile fell less rapidly than fares. After World War II some in the railroad industry tried to rationalize the dichotomy between the seeming profitability of long-distance streamliners and the high overall passenger deficit by arguing that the ICC definition of passenger operating expenses misled, because it included fixed cost categories [2]. This argument has been taken up by many railfan activists and some historians today, who romanticize the long-distance trains of the 1930s through the 1950s and argue that national transportation policy should embrace trains like them, because they covered their operating costs [4, 5]. In reality, a long tradition of railroad cost analysis shows that the ICC passenger costing was much closer to the truth and that such trains in fact incurred heavy operating expenses.

The private market failed to deliver the passenger train product desired by the American public. The three anti-market forces turned management attention away from what really was needed, which was productivity improvement. It also turned its attention away from where markets really lay. To the extent that railfan activists today attempt to influence public intercity passenger policy with a model of the type of trains that existed into the 1950s, this legacy still plagues the country.

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