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Negotiating a Financial Package for Freeways

How California's Collier–Burns Highway Act Helped Pave the Way for the Era of the American Interstate Highway

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With the Collier–Burns Highway Act of 1947, California pioneered a new system of highway finance. In response to estimates of enormous highway needs in the postwar period, the state planned substantial increases in funding. The key debate was about who would pay what share. Legislators planned a significant increase in the motor fuel tax and a shift of more of the tax burden onto heavy vehicles, which inflicted most damage to roads. However, the proposal met with intense opposition from motorist groups, oil companies, and truckers. California eventually passed legislation that established the first-ever trust fund dedicating highway user tax revenue to roads, a law that was later copied widely, including by Congress in 1956, when the Interstate system was funded. The trucking industry in California defeated proposals to require it to shoulder more of the financial burden; this outcome too would be repeated elsewhere, including at the federal level. Finally, the inclusion of urban freeways eased the California legislation's passage, and this provision also became a key element of the federal Interstate legislation. Thus, the legacy of Collier–Burns reaches well beyond California to influence transportation and public finance across the United States to the present day.

While California's iconic image as the global capital of automobile culture is in some ways misplaced, the state was indeed one of the pioneers in building a statewide freeway system (*1, 2*). While New York led in highway design, engineering, and building, California's trailblazing was in the realm of finance, administration, and politics (*3*). The Golden State did not invent freeways, but it did devise a new way to pay for them. The finance arrangements established in California's 1947 Collier–Burns Highway Act, paired with motor fuel tax increases in 1953, flooded the state's coffers and allowed it to mass-produce freeways, including within cities, before nearly all other states. The California fiscal–administrative model became the prototype for the rest of the country—most importantly for the U.S. Interstate Highway System. This paper uses a combination of primary sources (newspaper accounts, government reports, proceedings of legislative hearings, and legislation text) and tertiary-source materials to recount how California created a transportation finance model that would propagate nationwide.

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CALIFORNIA RESUMES HIGHWAY PLANNING AFTER WARTIME NEGLECT

With the end of World War II, California clearly faced a serious highway revenue shortfall. The diversion of materials and manpower to the war effort brought the state's highway program to a standstill; all but the most urgent maintenance and construction projects were deferred (*4*). But just as construction and maintenance stagnated, wear and tear on the highway system increased. While wartime passenger vehicle travel dipped as a result of gasoline rationing (*5*), truck traffic surged with the transport of war matériel, resulting in significant damage to highways and bridges (*4*).

In 1944, the California Senate established the McCormack Committee to investigate state highway needs. The committee concluded that state highways were in poor condition because maintenance and construction needs far outpaced the revenue generated by the gasoline tax (last raised in 1927) and other motor vehicle taxes (first and last set in 1937). A separate inquiry by the state's Division of Highways in 1943, the *First Critical Deficiency Report,* had come to a similar conclusion: correcting deficiencies would cost $635 million ($8.6 billion in 2015 dollars) over a 10-year period (*6, 7*), but projected revenues would cover just 39% of this cost (*8*).

The report also identified urban freeway "needs" totaling nearly $386 million ($5.2 billion in 2015 dollars). This inclusion was noteworthy. Local governments had primary responsibility for urban roads, which were largely financed by local property tax revenue. The reasoning was that cities had the financial means to fund their own transportation systems and that state involvement was inappropriate because the benefits from urban roads were local (*9, 10*). The decision to adopt urban highways as a state responsibility came in response to increasing demands by urban elected officials, particularly in Los Angeles and San Francisco. They argued that (*a*) cities were where most tax revenues were raised and (*b*) property taxes on which cities relied had yet to recover fully from the Depression. For example, in Los Angeles, local funding for streets and roads plummeted 90% between 1929 and 1935 (*10*).

Around the same time, the Automobile Club of Southern California and the California State Automobile Association released a well-publicized study on highway needs, estimating that correcting

deficiencies would cost between $700 to $870 million (about $9.5 to $11.8 billion in 2015 dollars) (*8, 11*). The clubs, representing an overwhelmingly urban constituency, maintained that a need existed for larger, primarily state-financed urban roadway networks (*4*).

However, the legislature initially failed to act on these needs reports because many legislators opposed raising taxes, while others were not convinced that the highway system was in as bad of a shape as the reports suggested. They argued that better management and cost controls could remedy the problem. Many legislators—particularly those representing rural interests, which had long been the beneficiaries of fuel tax revenues—were especially critical of the Division of Highways' argument that a lack of urban freeways represented a critical state highway deficiency, insisting instead that the purpose of the state highway system should center on serving intercity and rural travel (*10, 12*).

COLLIER COMMITTEE IDENTIFIES CALIFORNIA'S HIGHWAY NEEDS AND PROPOSES A WAY TO PAY FOR THEM

In June 1945, the legislature empaneled yet another committee, the Joint Fact-Finding Committee on Highways, Streets, and Bridges, to investigate state highways. Chaired by Senator Randolph Collier, a veteran legislator with substantial expertise on highway issues (Figure 1) (*13*), the body, which soon became known as the Collier Committee, was charged with (*a*) determining the proper size, location, and cost of the state road system; (*b*) establishing an equitable distribution of costs among the various stakeholders; and (*c*) allocating administrative authority and financial responsibility to the appropriate levels of government (*14*).

To support the committee's work, Collier requested that the Division of Highways compile the *Second Critical Deficiency Report*, which estimated that a 10-year, $1.2 billion ($15.9 billion in 2015 dollars) program would be required to modernize and expand the state highway system fully (*11*). This estimate showed a substantial increase over the $635 million ($8.4 billion in 2015 dollars) in deficiencies reported earlier. The biggest reason was a large increase in the projected need for urban freeways (*7*).

Despite his representing rural Siskiyou County, Collier emerged as a leader in the effort to include urban highways within the state's purview (*15*). The committee thus focused not only on intercity highways but on all roads in California (*16*). This focus reflected the notion that all roads were part of a larger interconnected network, with changes on any link affecting others. So, despite the vigorous protestations of many rural legislators, the committee recommendations ultimately included significant urban highway funding (*8*).

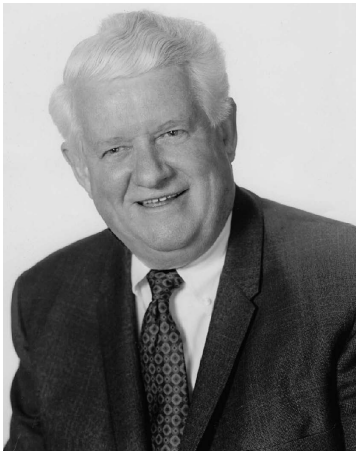

FIGURE 1 Senator Randolph Collier in later life (*13*).

Contemporary observer Nelson Price argued that two factors motivated this move into cities (*8*). First, most of the state's ever-increasing traffic problems were in and around urban areas, and local governments still suffered from a lingering fiscal crisis that made addressing congestion difficult. Second, urban legislators, automobile clubs, and other urban interests (such as the League of California Cities) were increasingly powerful in the rapidly urbanizing Golden State, and they desired urban freeways. In 1941, for example, officials in Los Angeles published a plan for a 600-mi freeway system (*17*). Thus, Collier's desire to bring urban areas into the state highway program had support and ultimately prevailed, and during the 1947 legislative hearings, an urban freeway program was for the first time included as an integral part of the state highway program.

The Collier Committee estimated that by 1959 the state could eliminate serious street and highway construction deficiencies—including the lack of urban freeways—at a cost of $2.8 billion ($34.2 billion in 2015 dollars). This figure was more than double the estimate in the *Second Critical Deficiency Report.* The rub, then, was how to pay for all these needs. The committee estimated that at current rates of motor vehicle taxation (including fuel taxes, truck taxes, and registration fees), all units of government would raise roughly $1.33 billion ($16.2 billion in 2015 dollars) over this period, less than half of what was needed. To close the gap, the committee recommended large increases in all motor vehicle taxes and fees (*7*). To determine exactly where the increased tax burdens should fall, the committee considered several philosophical issues. As Collier put it

> In order to recommend the proper allocation of this burden, the proposed projects are being analyzed to determine the "purpose," the responsibility for the "cost caused," the relative "need," the comparative "use," the recipient of the benefits, and finally the "ability" and "willingness" of the various groups of taxpayers to bear this tremendous expense. (*14*)

Committee consultant Bertram Lindman proposed that the burden should be apportioned on the basis of benefits received from streets and highways. He identified three classes of beneficiaries: (*a*) property owners, (*b*) highway users, and (*c*) the public and government (*7*). Lindman argued that local streets should be supported solely by property owners because of the economic benefits that streets conferred on their parcels. In contrast, he maintained that highway users should bear the entire responsibility for supporting the state highway system. Primary county roads and major city streets were an intermediate case, which would be financed jointly by property owners and road users. Lindman held that, of the $2.8 billion ($34.2 billion in 2015 dollars) program cost, 73.2% should be borne by highway users, 22.8% by property owners primarily through property taxes, and 4% by the federal government through the Federal-Aid Highway Program (*7*).

While Lindman's overall schema was based on the benefits-received principle, in relation to apportioning the highway users' share of the burden, he was more influenced by the costs-imposed principle. His proposal suggested three basic changes in the finance system that would raise needed revenue and reapportion the tax burden in the name of fairness. Its components were these:

1. Increasing the state's gasoline tax from 3 cents per gallon to either 4 or 4.5 cents ($0.49 to $0.55 in 2015 dollars).
2. Taxing diesel fuel at rate 50% higher than gasoline. Diesel engines were more expensive than gasoline engines but were also more efficient at propelling heavy loads. According to Lindman, the

Lindman's recommendations, proposed a vastly expanded and accelerated right-of-way acquisition and highway construction program. It was to be financed largely as Lindman had proposed but with tax rates that were somewhat higher:

1. An increase in the gasoline tax of 67% (from 3 to 5 cents per gallon),
2. An increase in the diesel tax of 150% (from 3 to 7.5 cents per gallon),
3. An increase in the vehicle registration fee of 100% (from $3 to $6),
4. Repeal of the 3% gross-receipts tax on for-hire vehicles,
5. Replacement of the existing unladen truck weight fees with a vehicle mileage tax of 5.6 to 14.6 mills per ton mile on trucks with gross (truck + cargo) weights over 14,000 lb, and
6. Creation of a special highway users tax fund to receive the net proceeds of the gasoline, diesel, and vehicle mileage taxes.

In both inflation-adjusted and percentage terms, the proposed increases were large, although the fact that the increases were widely perceived as user fees made the proposal more appealing than a general tax hike (*8*). Targeted or not, however, the size of the proposed tax increases would spell trouble in a more populist assembly.

Despite the size of the proposed rate hikes, legislative staff economist Richard Zettel estimated that the taxes proposed would cover only $2.1 billion of the projected $2.8 billion ($26 billion of $34 billion in 2015 dollars) 10-year-needs deficiency. The remaining $700 million ($8.5 billion in 2015 dollars) would have to come from local and county property taxes (*15*).

Proceeds from all motor vehicle taxes were to be deposited in a state highway account whose balances were earmarked for highway purposes only. Although so-called antidiversion sentiment was as old as motor fuel taxes themselves and antidiversion amendments had been added to the constitutions of California and other states, this was the first time that a state had proposed an off-budget trust fund to sequester highway revenue. This proposal provided a number of operational and political advantages that would have considerable ramifications for the future of highways, both in California and nationwide.

Had SB 5 been approved by the assembly and signed into law by Governor Warren, it might have remedied some of the structural weaknesses that continue to plague highway finance to the present day, particularly the fact that incentives are inadequate to reduce truck weights per axle. The bill was both forward thinking and philosophically grounded in its efforts to restructure the finance system. However, because both the tax increase and the shift in cost burdens would be significantly substantial, the bill predictably generated intense hostility from two political constituencies: (*a*) the petroleum industry and automobile clubs opposed the large fuel tax increases, and (*b*) the trucking industry opposed the higher diesel and new ton-mile taxes (*23*). The ability of these important constituencies to defeat SB 5 is a powerful lesson that "winners" in any existing public finance schema, no matter how unjustified, will fight hard, and often effectively, to avoid losing their favored status.

SB 5 was referred to the assembly Committee on Revenue and Taxation in March 1947. Here, the opponents of SB 5's financing provisions made their stand. Truckers vigorously protested that their industry was in a parlous financial condition and higher taxes might be its ruin (*24*); that the administrative burden of keeping the records would be unreasonable (*15*); and that, given their critical economic role, raising taxes on trucking would hurt all Californians (*24*). In strenuously objecting to the higher diesel fuel tax, truckers claimed that recent developments in gasoline engines had eroded diesel's efficiency advantage (*25, 26*). They also objected to the differential tax for diesel on fairness grounds.

Arguments that the new taxes would actually be a boon to truckers when they were returned in the form of better roads fell on deaf ears; truckers indeed wanted new highways: they just wanted others to pay for them. As an alternative, they argued that gasoline taxes should be further increased. Other than this suggestion, trucking lobbyists offered no concrete financing alternatives.

The truckers gained an unexpected ally when officials from the state Board of Equalization testified that collecting the ton mile tax presented too high an administrative burden and that expecting truckers to keep the weight and mileage records would be unfair (*24*). Skeptics noted that two other states already successfully administered a ton mile fee and that virtually all truckers already kept such records for billing and payment purposes.

Automobile club opposition to SB 5 was also formidable despite the fact that a great deal of the tax revenue ($1.1 billion, $11.8 billion in 2015 dollars) would fund the urban roads for which they had long lobbied. Perhaps most important, fierce opposition came from the petroleum industry, which had a considerable presence in midcentury California and was deaf to the proposition that new roads would lead to more driving and greater demand for fuel (*23*). Oil companies, like the trucking industry, claimed that the tax increases were too onerous a financial burden and that their industry was being unfairly targeted (*24*). The Western Oil and Gas Association, an industry trade group, launched a publicity campaign in 500 California newspapers in an attempt to marshal public opinion. The advertisements complained that the state had enough money to build needed roads and that the current year's fund had a large surplus (*24*). Opponents responded that the association's figures were "ridiculously misleading" (*22*). Public claims to the contrary notwithstanding, most in the petroleum industry and their supporters in the assembly conceded that some fuel tax increase was needed but drew a proverbial line in the sand at an increase of 1 cent per gallon (11.8 cents in 2015 dollars) instead of the 2 cents proposed in SB 5 or the 1.5 cents that was the minimum Warren pronounced himself willing to tolerate (*8, 23*).

When SB 5 was discussed by the assembly's Committee on Revenue and Taxation, the press was filled with accounts of the supposedly nefarious activities of its opponents, particularly the petroleum companies and truckers. Despite the fact that he previously had ties to the petroleum industry, Warren singled out the oil companies for blistering attacks in the press on the grounds that their greed was stymieing the public interest; this line of argument fell on willing ears in California, which had a tradition of suspicion about the outsized influence of lobbyists on the legislature (*23*). The *San Francisco Chronicle* described the relationship between petroleum industry lobbyists and legislators as akin to that between ventriloquist Edgar Bergen and his dummy Charlie McCarthy (*25*). One assemblyman told the *Chronicle* that the assembly hearings represented "the smoothest bit of lobbyist activities he ever witnessed in the 16 years he . . . had been in the Legislature."

> On March 19, the committee took its actions. The *Chronicle* reported Opponents of California's proposed highway expansion program won a smashing temporary victory tonight when the Assembly Revenue and Taxation Committee emasculated the Senate approved Bill No. 5 and sent it to the Assembly floor minus most of its revenue raising provisions.
>
> Many of the amendments were written in the bill amidst hilarious laughter from the Committee members.... Once during the proceedings tonight, Assemblyman Vincent Thomas, San Pedro, demanded the committee members quit considering the proceedings a joke. (*27*)

typical diesel engine moved 57% more ton miles per gallon of fuel than the typical gasoline engine. A higher diesel tax would offset this advantage (*7*).

3. For heavy trucks and other commercial vehicles, repealing the state's gross-receipts tax (a tax based on a trucking firm's annual sales receipts) and its system of weight fees based on unladen weight (i.e., the weight of the empty truck). These taxes would be replaced with a ton-mile tax based on gross weight (i.e., the weight of the truck when fully loaded) and distance traveled.

Special truck taxes were designed to reflect the fact that heavy vehicles inflict a disproportionate share of road damage. Ironically, the system that taxed trucks on the basis of unladen weight encouraged road-damaging behavior by motivating shippers to load as much weight as possible onto as light a truck (with as few axles) as possible—with road damage being largely a function of weight per axle. A ton-mile tax would correct these perverse incentives. Moreover, the new tax would for the first time apply to private trucks as well as trucks for hire. Thus, it promised to be more equitable.

What would be the effect of these changes? Motorists would make a greater financial contribution through the higher gasoline tax. In contrast to near collapse of most forms of economic activity during the Depression, driving had proven remarkably robust, with vehicle miles traveled nationwide rising 69% between 1929 and 1941 (*18*). Because of this increase, gasoline taxes had been star performers: in California in 1946, the state tax of 3 cents per gallon brought in more than $78 million (approximately $952 million in 2015 dollars). Simply raising the tax rate rather than seeking new sources of revenue thus had considerable appeal (*4*). The proposed increase was steep, but California's fuel tax rates would still be in the middle of those of all states after the increase (*7*).

The proposals to raise diesel taxes and impose weight-based mileage taxes on trucks represented more radical departures. Nearly everyone in Sacramento, California, with the obvious exception of the trucking industry and its legislative allies, believed that, because heavy trucks disproportionately caused road damage, the trucking industry was not bearing its fair share of the costs (*8, 19*). Increased truck taxes were thus logical and fair to many. Although obviously generalized and rudimentary, the weight-based mileage tax system would far better apportion highway taxes on the basis of damage inflicted, and while it would involve significant change, it was not without precedent in that it mirrored systems already in place in Oregon and Colorado (*4*).

However, such a tax would have a major financial impact on the trucking industry. Although the burden would vary by truck and haul type, virtually every trucker would pay higher taxes. In addition to having greater out-of-pocket costs, truckers would experience increased administrative expenses, because they would have to keep records of weights carried and distances traveled (although observers at the time argued that such records were mostly kept for commercial bookkeeping purposes anyway). Two members of the Collier Committee voted against Lindman's proposal on the grounds that the administrative burdens would be too onerous for trucking companies.

CALIFORNIA LEGISLATURE MEETS TO ACT ON STATE HIGHWAY NEEDS

In early 1947, the Collier Committee submitted its reports to what would prove to be a contentious and ultimately momentous special session of the legislature convened by Governor (and later U.S. Supreme Court Chief Justice) Earl Warren. Before the specifics were addressed, the legislature had to answer two important questions: first was, "Should we build now or wait and build later?" The answer depended on forecasts of postwar inflation; if prices were expected to fall, postponing land acquisition and construction made sense. But postwar economics were uncertain. Many feared that the ending of wartime demand would lead to falling employment and prices and possibly a postwar depression. Others were more sanguine, predicting a rise in private consumption and private sector employment. On balance, the agreement was that 1947 was a bad time to embark on new road building (*8*). But the legislature ultimately decided that, whether or not financial conditions were optimal, pressing maintenance needs justified immediate action. [Ultimately, of course, those who advocated postponing road building on economic grounds were wrong; construction costs actually increased steadily in the late 1940s and the early 1950s, were relatively flat during the mid-1950s, and then began to edge up at the end of the decade (*20*).]

The second question was, "Should we engage in short- or long-term planning?" Opponents of long-term planning maintained that forecasts of need decades ahead were unavoidably speculative and would inevitably result in costly mistakes; this assessment would prove correct, as the state's long-range forecasts seriously overestimated California's actual population growth through 1980 (*21*). Unsurprisingly, the petroleum industry advocated short-term planning only, as it would result in lower expenditures and less tax on fuels. However, in the end, long-term planning advocates, notably Collier and the Division of Highways, prevailed in making the definition of highway needs far more expansive.

The Collier Committee and other highway supporters offered several arguments to justify a focus on long-term needs. One was that deferring needed road maintenance was a pennywise, pound-foolish strategy: resurfacing a road today costs far less over the long run than rebuilding a broken down road later. Another was that highways were essential for economic growth, particularly in auto-oriented California. Still another was that reducing traffic congestion would save time and vehicle operating costs. Proponents also noted that some of the benefits of new roads would accrue to property owners, who would see the value of their holdings rise (*14*).

However, the argument most frequently raised in support of increased highway spending concerned safety (*12*). As motor vehicle travel surged, fatalities did as well, to 3,800 deaths and 86,000 injuries in 1946. Lindman reported that accidents cost Californians nearly $175 million ($2.1 billion in 2015 dollars) each year, excluding the cost of suffering and loss of life (*7*). Highway supporters correctly maintained that new roads designed with the most up-to-date engineering principles could help to stem highway carnage. State officials pointed to crash statistics on new, improved facilities like the Arroyo Seco Parkway in Los Angeles and the San Francisco–Oakland Bay Bridge, which had one-third to one-half the fatality rates of the average state highway (*19*). As Governor Warren put it, "I refuse to believe, that with people dying on our congested highways, as they are today, the Legislators will go home from this session without taking proper steps to end the slaughter" (*22*). Safety, then, provided highway supporters with an argument that was more emotionally powerful than recourse to statistics about vehicle operating costs or pavement damage (*23*).

DEFEAT OF SENATE BILL 5

In March 1947, the state Senate passed the omnibus highway Senate Bill 5 (SB 5), which was then forwarded to the assembly. The bill, largely the handiwork of Senator Collier, and based generally on

Senator Collier characterized the committee's actions as "childish and disgraceful" (*26*). Governor Warren stated that "he had never seen a time when the lobbyists were any more active, any more ruthless or when they had a greater disregard for the truth and welfare of the people" (*22*). In the end, the assembly returned the bill, without all the new tax provisions, to the Senate, where it was dead on arrival (*8, 19*).

LEGISLATIVE COMPROMISE PRODUCES COLLIER–BURNS HIGHWAY ACT

The senate proved to be in no hurry to consider the assembly's amended legislation. But the newspapers, the automobile clubs, and Governor Warren generated constant pressure to produce some sort of legislation, and Warren had taken the case over the legislators' heads to the public through radio addresses and lobbying by his appointees (*23*). In response, a joint committee of five members from each house was formed to produce compromise legislation (*19, 24*). Unsurprisingly, it deadlocked on the issue of finance, particularly the size of the gasoline tax increase. The senators reduced their proposal to 1.5 cents per gallon (16 cents in 2015 dollars), while the assembly members would concede no more than a half cent (*8*).

Finally, in a last-ditch effort to pass a highway bill before the special session ended, on May 30, Assemblyman Michael Burns introduced Assembly Bill 46. Burns's compromise proposal dropped some of the prior bill's more innovative features. In a victory for the trucking industry, increases in both the gasoline and the diesel taxes were limited to 1.5 cents (to 4.5 cents total), while the ton-mile truck tax was jettisoned and unladen-weight fees were retained (although rates were increased), along with the 3% gross receipts tax. Annual vehicle registration fees were raised from $3 to $6 ($32 to $64 in 2015 dollars). New driver's license fees of $2 ($21 in 2015 dollars) for originals and $1 for renewals were imposed (*19, 24*). In short, across-the-board increases occurred, but all were less obviously related to costs imposed by drivers and were lower than those proposed under SB 5. All said, the finance mechanisms would raise the money available for state highways by nearly 66% (*21*), but the state lost the opportunity to bring revenue collection more in line with equity principles of highway finance. Gasoline tax, diesel tax, and gross receipts tax receipts were to be deposited in a new Highway Users Tax Fund, whose revenues were placed off budget, to be used expressly for road construction (*28*).

The compromise satisfied the petroleum and trucking industries as well as the auto clubs. This compromise, combined with the intense public pressure to pass a bill, worked in the Burns bill's favor, as it encountered relatively smooth sailing in both houses and was signed by the governor (*19, 24*). It became known as the Collier–Burns Highway Act of 1947.

LEGACY OF COLLIER–BURNS HIGHWAY ACT

The Collier–Burns Highway Act of 1947 provided the financial means to build California's extensive postwar freeway system, while it also foreshadowed developments at the federal level in 1956. Three key elements that made Collier–Burns' passage possible were initially omitted from the failed 1955 federal Interstate funding legislation, but, with their inclusion, follow-up legislation in 1956 passed easily, with immense consequences for transportation in the United States.

First, the establishment of the California Highway Users Tax Fund, funded by fuel taxes, in 1947 created a powerful tool that ensured lavish road construction funding for decades. The fund created a predictable, steady stream of highway funding, dependent principally on increased highway use and attendant gasoline consumption. The fund operated off budget, without the prospect of continual legislative and special-interest-group interference; this feature was an enormous benefit to long-term highway planning and a boon to highway advocates. With Collier–Burns, California became the first state to establish such a fund (*8*). This fiscal device allowed the undertaking of a host of new state highway projects, including the construction of 330 route miles of freeway by 1956 (*21*).

In 1956, the U.S. Congress made tax increase and trust fund decisions very similar to those made in California nearly a decade earlier (*23, 29–38*). Collier–Burns provided a template for the 1956 federal legislation in that fuel taxes, rather than general revenues or tolls, would fund the system. Moreover, although the initial recommendations of the Clay Committee that studied the issue called for funding federal highway expenditures by issuing bonds, ultimately, as in California, the federal government would fund highways on a pay-as-you-go basis by depositing highway user tax revenues into a dedicated trust fund. The U.S. Highway Trust Fund, omitted from the unsuccessful 1955 legislation but included in the successful 1956 legislation, created a linkage between highway expenditures and proposed tax increases that made them more palatable to the auto and trucking interests—if not to the petroleum industry, which remained steadfastly opposed to fuel tax increases (*33*). Politically and operationally the U.S. Highway Trust Fund has been, and continues to be, the centerpiece of federal transportation finance, although (*a*) a failure to enact rate hikes and (*b*) the effects of improving fuel economy, inflation, and an expansion of the trust fund's mandate to cover mass transit have combined in recent years to leave it repeatedly on the brink of insolvency. The per-gallon federal fuel tax has not changed since 1993, and for the first time in 2008, a general fund transfer from the U.S. Treasury was required to keep the fund solvent; four more solvency-mandated general fund transfers have been required over the next 6 years (*39*).

Second, the Collier–Burns Highway Act raised some motor vehicle taxes but ultimately only to levels that could be tolerated by the powerful highway lobby, particularly the trucking industry. Despite Governor Warren's vociferous attacks on special interests and lobbyists, those interests ultimately succeeded in killing the most innovative and fairness-driven aspects of the final legislation (*23*). Despite a rise in tax rates on trucks, the trucking industry was able to defeat both the weight–mileage tax and the large diesel tax increases, which would have shifted the tax burden onto the vehicles doing the most road damage and encouraged less-damaging practices by truckers. Industry lobbyists successfully defended the notion that what was good for trucking was good for everybody, arguments that they continue to deploy today.

Similarly, federal highway legislation proposed in 1955 failed resoundingly in Congress in large part because of hostility by the trucking industry (*28*). Diesel fuel taxes proposed in 1955 were opposed by diesel fuel users and sellers, while intercity bus companies, the trucking industry, and the Teamsters Union all opposed the proposed heavy vehicle tax increases (*33, 40*). The American Trucking Association claimed that its industry would contribute 45% of all new revenue raised under the 1955 proposal. The association's John V. Lawrence testified to the House Public Works Committee and the Ways and Means Committee that the proposed increase

would raise rates "to a confiscatory, ruinous and unjustified level" and that roughly half the proposed tax burden would fall on less than 3% of vehicles. Singling out trucks would be "punitive," harm the economy, and endanger nearly seven million jobs (*40*). Although the railroad industry fought hard to increase truck taxes thanks to intense intermodal rivalry, its argument that trucks were not paying taxes commensurate with either the highway damage that they inflicted or the costs of building the Interstates to design standards that could bear heavy loads would not ultimately be effective in the face of a highly motivated trucking lobby.

When the 1955 legislation failed, many, including those in Congress, believed that the intense hostility from the trucking industry was in large part responsible: House Majority Leader John W. McCormack (D-Massachusetts) stated, "I have a sneaky idea that the truckers of the country played an important part in what happened" (quoted in *40*). Although the truckers would later settle for a 2% tax on the sales of new trucks (on condition that the revenue was dedicated to highway construction), the legislation that ultimately passed in 1956 dramatically scaled back taxes on heavy vehicles. Thus, events in California in the mid-1940s would prove the opening act in a drama that was to be repeated nationwide less than a decade later.

The subsequent story of truck taxation would be complex. The 1956 legislation mandated a study of heavy trucks and the pavement damage that they caused, in an effort at a fair determination of appropriate burden sharing between heavy and light vehicles. The report issued in 1961 found that the amount of freight hauled by truck was increasing very dramatically and concluded that certain types of heavy vehicles were not paying their fair share in some states but that others were overpaying. This report was the beginning of decades of debate over whether trucks are undertaxed, which, predictably, continues to feature heated disagreements between the trucking industry, the railroads, and the auto clubs. Many observers believe that trucks are in the main undertaxed, and over time the federal government has acknowledged this by shifting more of the burden to heavy vehicles (*33, 41*). As Schwartz puts it, "Of all the reasons for believing that the Interstate System has inappropriately assisted the trucking industry, this cross-subsidy [from light vehicles to heavy ones] is by far the most persuasive" (*33*). A 1997 federal highway cost allocation study concluded that under the current taxation structure (little changed since that time) heavy trucks are undertaxed by about 10% relative to the costs they impose (*42*).

Third, and finally, the Collier–Burns Highway Act put the state Division of Highways in the lead role in urban freeway development in California. In 1947, California's urban interests scored what they saw as a major victory when the state took financial responsibility for the urban freeway programs in metropolitan Los Angeles and San Francisco. That decision was necessary to win the support of urban voters and legislators who feared that the proposed tax increases would otherwise siphon urban money to pay for rural roads (*23*). California's cities finally secured long-coveted state highway funds for their ambitious freeway plans, but the money did not come without strings, which included a loss of local political control over urban freeways to state-elected officials, the Division of Highways, and state highway engineers (*39*). The Division of Highways was thrust into operating in urban environments, where it had little prior experience, with far-reaching consequences for urban development. State highway engineers were primarily concerned with accommodating flows of traffic and promoting mobility, with scant concern for land use and urban development, which resulted in urban freeway networks that frequently clashed inharmoniously with their context.

This situation would again foreshadow events nationwide. Early federal highway planning had also excluded urban areas, until it became clear that, as the major traffic generators, cities would have to be included in highway plans so as to generate sufficient use to justify the investment. However, even when included, most urban routes were not specified [e.g., in the landmark *Interregional Highways* report (*43*)] on the grounds that such routes should be locally designated. The failed 1955 legislation followed in this tradition, leaving most of the urban routes to be determined later. Observers have argued that this failure to specify the urban routes meant that the legislation did little to excite the imaginations of urban legislators, who were suspicious, as in California, that they were being asked to fund a primarily rural highway system (*33, 44*). When the 1955 legislation collapsed, the federal Bureau of Public Roads thus embarked on a crash program of designating the urban routes, largely disregarding local input and using principles developed for rural highway siting. This process was completed with great haste: a scant 3 months after announcement of the route selection criteria, the routes of urban freeways throughout the nation were completed and published in the Yellow Book. In the views of Schwartz (*33*) and Taylor (*44*), this publication was crucial to kindling the enthusiasm of urban legislators and turning the legislative tide in favor of financing the Interstates. Hence, three elements of Collier–Burns—the trust fund, favorable treatment of trucking, and urban routes—were absent from the failed federal legislation in 1955 but present in the compromise that produced the system in 1956, a change strongly suggesting that events in California pioneered the template that would ultimately prove politically successful nationwide.

Nearly 70 years after Collier–Burns, and nearly 60 years after its counterpart federal legislation, the compromises that they entailed still profoundly affect transportation finance and urban travel. Debates over the proper distribution of the finance burden between passenger vehicles and trucks continue at both state and federal levels, with no resolution in sight. And, in the meantime, the centerpieces of these landmark bills, their trust funds, decline further toward insolvency in today's low-tax political climate. Highway user tax increases that were once difficult but doable are today largely off the table, making it impossible to restore the purchasing power of trust funds in the face of inflation, ever-increasing vehicle fuel efficiency, a broadening mandate, and an aging infrastructure that has significant, and increasing, maintenance and replacement needs. Whether another grand bargain in the spirit of Collier–Burns can possibly fix a finance system that, for good and for ill, helped to create America's vast highway network remains to be seen.

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