PAR — Project Adequate Roads: Traffic Jams, Business, and Government, 1945-56

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In the post-World War II years business politics revolved around a few economic and political verities, according to historical accounts. As several scholars would have it, businessmen celebrated conventional notions of a balanced budget, low taxes, and reduced government interference in company affairs. Business leaders set the tone in government offices and commercial and managerial values predominated in the political arena. At best, government officials and business executives disagreed about the timing or dimension of some program. President Dwight D. Eisenhower's close association with members of the business community, so runs this reasoning, symbolized the harmony of the era.[1]

This perspective obscures far more than it explains, leaving historians with a skewed picture of business politics and recent American history generally. Certainly it does not clarify American highway politics sufficiently. Actually, intense conflict characterized highway and transportation affairs. Government officials and members of the road transport and highway construction industries divided over the appropriate level of federal highway spending. At the same time, there existed profound divisions within industry and administration circles over federal gasoline taxation rates and more ethereal debates over the direction of American economic and social life. Ultimately political conflict between members of competing road-minded groups deadlocked the American highway program.

Economic growth in the postwar period dramatically exceeded wartime hopes. The years after 1945 were especially prosperous for members of the road transportation industry. Truck operators increased the range of their service and sought new techniques for carrying ever larger loads more rapidly [35, pp. 9-11; 42, Vol. 3, pp. 606-7; and 41, pp. 38-39].

Prosperity, however, accelerated major traffic problems for the nation's commercial road users. Prior to World War II, poor roads and heavy concentrations of traffic along key routes had produced a costly and dangerous situation. The federal and state governments had halted road construction during the war and had allowed existing surfaces to fall into disrepair. For the 10 years or so following World War II, traffic congestion grew even more intolerable and the accident rate soared upward. Human and economic losses were high as drivers jostled one another for space on crowded roads.

Basically, a huge increase in motor vehicles, outstripping highway mileage in key spots, caused the traffic jams. Automobile and truck traffic increased at a phenomenal rate during the postwar decade. At the end of the war, registered motor vehicles numbered approximately 31 million; by 1955, registrations had jumped to more than 62 million, including 10 million trucks [64, p. 23].

Vehicle ownership increased in every area of the country. Drivers in Michigan purchased 1.5 million new cars and trucks from 1946 through 1955. Motor vehicles multiplied at an even greater rate in California, where registrations increased more than 3 million. Even in sparsely settled New Mexico, registrations rose more than 150 percent. In the meantime, the number of vehicle miles actually driven increased at a comparable pace [64, pp. 25, 29, 31, and 40-41].

State road engineers had constructed thousands of miles of high quality roads, hoping to accommodate the increased traffic load. While the level of construction lagged immediately after the war, it increased rapidly thereafter. By 1948, in fact, engineers were building major traffic arteries, including freeway and toll systems, more rapidly than ever [64, p. 151].

Increased construction levels and improved design standards, however, were not capable of coping with postwar traffic conditions. Inflation and material shortages hobbled efforts to construct more mileage. Although state and local road-building officials tripled expenditures for new roads, rising prices consumed a good part of the additional outlays. Costs for many items had doubled from their prewar level, and were even higher for the very expensive structural components necessary for urban expressways. Finally, the Korean conflict drained the nation of steel for roads and bridges even further.[2]

The traffic upsurge, rising costs, and shortages had their greatest impact on congested urban roads and along busy primary highways between major cities. Since they were the costliest to construct, it was even more difficult to keep abreast of rapid traffic increases. Road officials had constructed 19,000 miles of farm roads in one year at a cost of $232 million, but had labored seven years and spent nearly $1 billion to build only 6,500 miles on the Interstate System. Highway officials worried that at that rate, it would require 20 years to finish Interstate roads in Colorado and Ohio, and nearly 30 years to complete them in California [60, p. 4; 61, p. 5; 59, pp. 66-67; 53, p. 61; 43, p. 44; and 80].

The men whose careers were most intimately tied to road and traffic conditions had developed a fairly elaborate program for dealing with the finance side of highway construction problems. In the past, leaders of the National Highway Users Conference (NHUC) -- a coalition of commercial truckers, motor vehicle manufacturers, and oil company and auto club executives -- had affirmed a benefit theory of highway taxation. According to its proponents, each class of a road's users should contribute to its construction and maintenance costs in proportion to their use of it. In general, members of the Users Conference were willing to deploy state gasoline taxes for construction of key routes, leaving property owners responsible for the expenses of land access roads. Since everyone benefited from high-volume interstate highways, or so the reasoning went, the federal government should fund them from general revenues [56, p. 72].

Conference members opposed unanimously the diversion of motor-fuel taxes to nonhighway purposes. From their point of view, gasoline taxes were "special charges . . . for the use of public highways," and should not be made available for education, welfare, or other activities unrelated to road construction. For years organized road users had complained that diversionary practices limited the construction of trunk-road mileage, placing road transportation itself in jeopardy [50, p. 16; 49, pp. 3 and 5; 30, p. 27; and 45, p. 65].

Firmly held beliefs in beneficiary payment and nondiversion shaped the day-to-day political maneuverings of truck operators, manufacturers, and auto association leaders. In brief, they supported a program of concentrated road building coupled with low taxes at the state level and elimination of federal automotive excises. After World War II, and in the face of rapidly mounting traffic they lobbied vigorously for removal of the federal gasoline tax, increased national attention for major roads, especially the Interstate System, and an end to diversion. Antidiversion amendments in state constitutions were one of their favorite devices for directing gas tax revenues to highway work. As part of this reform package, truck owners endorsed elaborate traffic and highway surveys aimed at ascertaining traffic patterns and locating roads most in need of repair, widening, or replacement. If everything went along smoothly, their cumulative efforts promised the construction of roads where they were needed most, reduced congestion, and lower taxes [12, pp. 98-99; and 16, p. 43].

By the early 1950s, a number of state legislatures had approved reforms along the lines recommended by organized road users. All of a sudden, however, these seemed insignificant. Now road users sensed that major changes had taken place in the dimensions of the traffic problem. According to Arthur Butler, the Director of the National Highway Users Conference, the situation was "more costly than we can stand." It was, he thought, a "near crisis" [14].

Truck and bus operators around the country perceived the situation in much the same terms and predicted dreadful consequences if traffic jams were not eased shortly. As traffic movement slowed, farm products spoiled, fuel was wasted, employees were delayed in the completion of their tasks, and production stalled. Accidents were another form of traffic inefficiency. In mid-1950, the Chamber of Commerce of the United States reported that in some New England cities, nearly 40 percent of trip time was consumed in traffic delays [14; and 75, p. 9].

Paying tolls for new highways also aroused commercial operators. Truckers argued that they already paid taxes for road construction and toll fees amounted to unwarrented surcharges. Moreover, they feared that toll authorities would perpetuate themselves by channeling revenues to additional construction rather than terminating charges on the original roads [14].

Since road users had not solved the traffic problem privately, they perceived a growing threat of external interference with their affairs. HUC Director Butler, for example, feared that competing transport groups would take advantage of intraindustry squabbling to promote antihighway legislation. The possibility of federal intervention especially frightened him. Butler asserted that the federal government, in an attempt to accommodate traffic, would nationalize the highway system. In the process, the federal government would reduce state autonomy and saddle road users with higher taxes. As it was, plans to increase federal gasoline and auto excises had produced great distress in public among organized road users [14].

Confronted by slowing traffic and menacing bureaucrats, truck owners and vehicle manufacturers developed a new political response. In the past, they had concentrated their attention at the state and local levels, lobbying for antidiversion legislation and efficiency-oriented road programs of one sort or another. Generally speaking, they had limited federal-level initiatives to biannual pleadings for abolition of the gas tax and greater support for construction of new roads along heavily traveled corridors. In some respects, however, their federal highway program had been ritualistic; they had not contested federal legislation seriously; but after 1950 members of the National Highway Users Conference aligned with leaders of other dissatisfied groups in a concerted effort to stop tollway construction, overthrow longstanding federal taxation and distribution formulas, and impose the rules of beneficiary payment and focused road construction [34, pp. 5-7]. In essence, leaders of the road transport industry had wedded their customary complex of attitudes, political techniques, and aspirations to an updated program of political action.

The formal vehicle for this new initiative was PAR -- Project Adequate Roads. Officially launched late in 1951, PAR was a creature of National Highway User Conference leaders. They perceived PAR as a national coalition of highway users, manufacturers, public officials, and traffic research men in the Automotive Safety Foundation and Highway Research Board. According to HUC Director Butler, PAR would serve as a "national committee for highway improvement." At any rate, PAR's founders envisioned a series of relatively independent local and state groups operating under the national organization [14].

In most respects, PAR offered highway users another opportunity to express time-honored perspectives on road and traffic problems. Once again, they demanded construction of additional highway mileage in the most crowded areas, antidiversion legislation and, of course, lower taxes. One of the few new ideas on the PAR agenda, a call for a 10-year road construction program, had been passing around construction industry circles for some time [14].

Although all of these proposals remained important in their own right, a way of rating highways according to their traffic sufficiency formed the mainspring of the PAR movement. State road engineers, as this proposal had it, would study highways and assign numerical scores for structural, traffic, and safety conditions. Roads with the lowest scores would receive prior attention. In the view of its proponents, the sufficiency rating system was an "impartial, unbiased method" of dividing funds between different road networks [38].

Actually, the usual political goals of organized road users were the decisive factors in the application of the sufficiency system. As always, subjective evaluations of optimal performance governed scoring. A high rating rested upon the belief that a section of road was perfect for the task assigned to it. In this way, even a road rated poorly would receive a higher score if it were judged for lighter traffic conditions.[3] Since postwar traffic increases were concentrated on a few urban and intercity routes, they would receive lower scores and preferential treatment. Farm roads, on the other hand, would draw higher ratings and drop in highway priorities.

Ultimately, PAR was a political movement. Its fluid make-up and scientific trappings, especially the sufficiency rating, attracted support from a variety of road-minded men. Members of the National Highway Users Conference assumed that PAR would appeal to state highway officials as well as to highway users and elected officials at the local level. Leaders of the PAR movement recognized that revising state and federal road legislation would prove simpler if members of their industry united around common goals. What they had in mind, then, was a hard-pushing, nationwide campaign for concentrated, tax-free federal road building and more efficient highway programming at the local level. At some point, Butler hoped that PAR would act "as the nation's index finger . . .," directing attention to the areas of most critical highway need [20, p. 65; 37, p. 67; 15; and 14].

By early 1952, PAR had expanded into a fairly broad coalition. At the national level, it was more or less an extension of the National Highway Users Conference. Auto and truck manufacturers, leaders of the trade associations for fleet operators, commercial carriers, and oil companies joined both groups. Officers of the American Automobile Association represented state and local auto club members in PAR and the NHUC. Executives of the Chamber of Commerce of the United States were active in founding PAR, though they were not NHUC members. In fact, the Chamber's transportation specialist, Henry K. Evans, described PAR as a continuation of the Progressive Era good roads movement. Within a year, 20 local PAR groups were also active in state highway affairs [28, p. 120; and 15].

Highway engineers in particular and especially those in the northeastern states liked PAR's program. The chief engineer of Connecticut, Roy Jorgensen, joined the NHUC, advised conference members on technical matters, and proselytized on behalf of the organization. In general, state engineers in the Northeast had criticized federal road aid distribution formulas and argued for the substitution of state gasoline taxes in place of federal ones. This stance benefited them financially, since the federal government returned only a small percentage of the gas tax revenues it collected in their area back to them. At the same time, however, state highway officials still expected the Treasury to continue to fund construction of important national roads in their states [14; 37, p. 67; and 39, p. 66].

Although PAR was large and its goals endorsed widely, it achieved little immediate success. It had not overcome the political strength of President Harry S. Truman and members of other groups who had always opposed concentrated, tax-free federal highway building. Basically President Truman worried more about inflation than about speeding the flow of traffic. Even the arguments of the Secretary of the Army in favor of greater federal assistance for construction of roads on the high-volume Interstate System failed to turn Truman's attention from the national economic picture. At the same time, proponents of increased aid for the farmroad network were determined to retain their share of federal appropriations. The head of the Texas Highway Department, DeWitt C. Greer, admitted that the farm-to-market system was more fully developed than rural through-routes and urban networks. The solution to this inequality, he argued, was not to reduce the farm system, but to raise the roads in the other networks to its level. Such a solution was acceptable to many commercial road users certainly; they just did not want to pay for it [55; 54; 36; 31, p. 333-334; and 10; also 7; and 9, pp. 11-12].

At this point, the PAR coalition could not break the pattern of federal road building. In spite of PAR's efforts, the 1952 Highway Act largely restated the usual highway construction arrangements. Congress allocated a big share of the federal road dollar to construct farm roads and a number of rural highways of minor traffic importance. At the same time, PAR failed to block a small increase in the gas tax, though the amount agreed upon was less than feared originally. On the other hand, Congress disregarded Truman's plea for a ceiling on highway spending and even voted $25 million for construction of the Interstate System alone. On balance, however, organized road users had won little for their efforts [37, 36, and 76].

Early defeats, however, failed to dampen PAR members' enthusiasm for basic changes in the federal road program. Essentially they still hoped to impose a fairly strict set of beneficiary rules on the country's highway traffic. During the next year or so, in fact, PAR leaders extended the scope of their activities. Beginning late in 1952, they participated in industrywide conferences on road problems, coordinated local group endeavors, and continued an information-dispensing service. Several considerations prompted these activities. In the view of some truckers, the industry was locked in a "two-front battle." On the one side, they struggled for acceptance of their scientific approach to road building. On the other, they confronted those whom they viewed as promoters of misleading notions about trucking affairs. This was the "propaganda front" [10, p. 244; and 15]. In reality, these tactics were only phases of a single strategy aimed at winning intraindustry, general, and governmental support for PAR's goals.

Other elements of the PAR movement renewed the struggle as well, repeating familiar plans for reform of the federal highway program. State road engineers located in the Northeast still wanted to repeal federal gas taxes. Governors and legislators in quite a few states joined them. They spoke of inherent states' rights, recited the history of federal aid to roads, and a few even called for the abolition of the Bureau of Public Roads or its reduction to a fact-gathering agency -- all in an effort to hold back from Washington a larger share of the gasoline tax dollar.[4]

Leaders of the American Association of State Highway Officials (AASHO) and the Associated General Contractors of America (AGC) -- national associations of road officials and highway construction contractors respectively -- endorsed portions of PAR's program. As early as 1948 representatives of the AASHO-AGC Joint Cooperative Committee had begun to discuss extension of federal aid across a longer period of time. By 1950, they had agreed to promote a 10-year road-building program as the only adequate response to the traffic mess. Members of the AASHO-AGC group supported PAR's gas tax program as well, asserting that federal gasoline taxes limited the ability of states to raise their own rates. In this matter, AASHO officials had gone further than PAR and had asked for the cancellation of all federal automotive excises.[5]

The Project Adequate Roads campaign had succeeded in uniting a relatively large number of groups around some common themes.

Yet the coalition gradually disintegrated. Eventually even truckers failed to rally behind PAR. The fact of the matter was that extensive public relations gimmickry, large conferences, and the mumbo jumbo of sufficiency ratings had failed to bridge fundamental differences among highway-minded men.

State road engineers broke from the PAR movement first, largely in an effort to preserve their income and range of activities and to bolster their competitive position. Now they demanded that the federal government link its gasoline tax income to highway expenditures. In the past, of course, engineers had lobbied for PAR's scheme to drop federal gas taxes and concentrate federal attention on major traffic arteries. This stance no longer appeared wise. Many road engineers had begun to fear that eliminating federal gas taxes would lead to a disasterous cut in federal road aid without a corresponding increase in state taxes as PAR leaders were predicting. As a result, engineers in the state highway departments would construct fewer miles while toll authorities built most of the expressways. On the other hand, linkage offered financial security and promised to augment highway department income greatly, permitting a vastly expanded highway program. If all went well, they might also check expanding toll authorities. Along these lines, then, leaders of AASHO urged an annual federal road program of $900 million, approximately the sum collected in fuel taxes each year [29, pp. 65, 106, and 110; 72; 73; and 62].

Governors, congressmen, and members of several state legislatures also called for linking federal gas taxes to highway construction. Some politicians even wanted the federal government to spend its revenues from motor vehicle excises on road building. As a reflection of this growing interest in achieving full linkage, men introduced bills in Congress to create a trust fund made up of revenue from auto taxes out of which federal aid for highways would be drawn. If they had their way, federal road construction outlays would amount to $2 billion a year.[6]

Highway engineers and a few politicians were only marginal to the PAR movement, however. Occasionally they expedited local tasks, especially the engineers with their expertise and reputation as impartial professionals, but neither were vital politically. The real strength of the movement depended on thousands of truckers and their ubiquitous trade association leaders, who buttonholed state legislators, petitioned congressmen, and appeared before regulatory bodies. These men failed to unite around PAR and, in effect, reduced the organization to its core of major truck operators and manufacturers.

Although truckers liked PAR's program in principle, it was not sufficiently inviting to bridge fundamental divisions within the industry. Truckers split on issues according to the transport needs of the region they served, dividing further between fleet-owners, large common carriers, and local, single-unit operators. To a considerable extent, smaller truckers opted for state control of road construction and state regulation of transportation matters. They had welcomed Interstate Commerce Commission regulation in 1935 as a way of controlling competition, but wished no additional intrusions into their control of company matters or influence with state governments.[7]

Leaders of a few of the larger trucking industry organizations looked upon federal highway building and industry regulation from another point of view. Members of this group included David Beck of the Teamsters Union, Roy A. Freuhauf, the head of one of the nation's biggest truck manufacturing firms, and Burge N. Seymour of the American Trucking Associations. These men and most of the truck owners differed significantly in the scope of their respective business operations and their assessment of the regulations best suited to serve commercial needs. As Beck, Seymour, and Freuhauf saw it, the industry had matured to the point where it required the "guidance and support" of a single federal agency in charge of road construction and more uniform size and weight standards. Although they did not object to state regulation per se, they had concluded that the multitude of state laws created difficulties which "complicated interstate operations" [8]. By mid-1953, then, the trucking industry was in fragments, unwilling to unite around schemes to eliminate federal participation in their affairs or plans to return road construction to the states alone.

The PAR campaign enjoyed no greater impact on federal officials, many of whom had their own pet notions about highway construction matters. Through most of 1953, as a matter of fact, they did not even formulate a highway policy. Yet the absence of a formal program did not mean that the Eisenhower people were not concerned deeply about the interrelationship of highway building, economic growth, and national transportation efficiency. The President and some of his leading officials viewed proposals for highway construction and other public works projects as ways for uplifting downward cycles in the economy. As the economy sagged late in 1953, adminstration officials perceived highway building as one of several available devices for boosting the rate of economic activity. In contrast, officials in the Department of Commerce entertained alternative methods of highway finance, such as toll charges, largely as a technique aimed at promoting a more efficient and flexible transportation system. Although they accepted the conventional view that congestion-free roads were vital for a high level of industrial productivity, they believed that fuller utilization of all transportation modes would serve the nation's economic development best.[8]

The PAR campaign had failed miserably by late 1953. Much effort had not shifted high-level officials in two administrations to their cause and truckers remained divided over tax and regulatory matters. Usual allies, such as the state road engineers and highway contractors, had broken from PAR and were demanding that the federal government tie gasoline tax income to road spending, not abolish the tax as PAR leaders recommended. Finally, several governors and a number of state assemblies had also endorsed the linkage concept.

Directors of the PAR movement recognized that it was time to shift tactics. Late in 1953, about two years after founding, they called it to a halt and endorsed the increasingly popular proposal for linking federal gasoline tax receipts to road spending. Although PAR members had not lost faith in the efficacy and basic equity of beneficiary payment, it seemed "unacceptable as a practical proposition." In that case, they were willing to accept a national antidiversion statute dedicating federal gasoline tax income to highway purposes. But they were not prepared to accept toll financing. Toll roads relieved traffic congestion somewhat, conceded the chairman of the board of the American Trucking Associations, but they also delayed the achievement of a more viable solution to the problem of highway finance. In a sense, he continued, the existing toll roads stood as "monuments to . . . [their] failure" to find that solution.[9]

Conversion of PAR's leaders to linkage did not narrow the differences between highway-minded men. Tax rates, the distribution of funds, and the appropriate level of federal support for highway construction continued to serve as sources of debate and political conflict. So strong were feelings among state road engineers that the executive director of AASHO warned that feuding over the Interstate System threatened the "solidity of the Association . . ." as well as continuation of the federal aid program [32].

All the while, there existed a more diffuse controversy over the meaning of highway construction for economic growth and social order. Generally speaking, road users and engineers did not consider the relationship of highway building to countercyclical activity and social stability; their primary interest was in "continuing highway programs." But a number of government officials, especially economists, tied road construction programs to economic and social goals directly. The government bore an obligation to foster stability and growth, they argued, adding that an expanding economy was "the best assurance of harmonious social and economic adjustment" [22 and 27].

Political conflicts over taxes, toll roads, fund apportionment, and, at some point, the nature of government's relationship to the social and economic spheres had stymied the efforts of Congress since World War II to update federal road legislation. In 1954, members of the Senate and House Public Works Committees chose the safest route again, reporting bills which simply incorporated the deadlock by including a few items for each contender. Since the range of views was so broad, it was impossible to solve the traffic crisis at the same time.[10]

Debate and deadlock in highway affairs continued for the next two years. In 1955 administration and congressional leaders introduced several bills, each promising vastly expanded road-building programs. Interstate, farm, and urban road enthusiasts were to receive billions for new highways. But the House turned down all legislation, largely because truckers objected to higher fuel and rubber taxes, and the President and Secretary of the Treasury George Humphrey would not accept deficit financing if the rates were lower. Only in 1956 when Representatives Hale Boggs and George H. Fallon introduced bills which offered more roads, moderate tax increases, and no deficits could heads of contending truck and highway groups and federal executives endorse a plan for a greatly expanded highway program. To that point, clogged traffic and economic losses had appeared preferable.

Everyone hated traffic jams and endorsed the simple notion that more money was required for highway building. As a result, participants in highway policy formulation assumed that financial matters of one sort or another blocked construction of additional highway mileage. In reality, financing problems were bound together with much broader issues of principle and self-survival. High-level officials in two administrations examined road-building schemes in light of national economic trends and, occasionally, with a view toward coordinating transportation totally. What they had in mind was erecting a foundation for rapid, controlled expansion through all sectors of the economy. As a minimum, most federal officials wanted to retain the federal gasoline tax as a useful economic weapon. Truckers reacted to these plans from a more particular and less optimistic viewpoint. Most were reluctant to sacrifice well-established influence in state road and tax matters to a national agency. Of course, they applauded federal highway spending but rejected plans to deploy road funds as a lever in countercyclical manipulations. Continued imposition of the gas tax looked dangerous in the light of economic uncertainties, especially when the government refused to concentrate road building in major traffic corridors. Consequently, they endorsed plans for continuing and then increasing the tax only when alternative funding arrangements appeared unachievable, and the crush of traffic seemed overwhelming. Road engineers, highway contractors, and state officials recognized the problems and dangers posed by an expanded federal role in highway building. On the other hand, they feared that elimination of the federal gas tax portended the elimination of their jobs and perhaps even of the state highway department itself.

As things stood, then, members of highway transportation groups and government leaders at all levels were engaged in a serious struggle over basic issues and aspects of American life. So important were these items that they preferred to get along without the roads they loved rather than sacrifice vital principles or pay higher taxes. If the highway industry is a representative case, it is clear that political conflict revolving around emotion-laden social questions and basic norms formed the dominant pattern in American life following World War II.

NOTES

*Raimund E. Goerler of Case Western Reserve University, K. Austin Kerr of Ohio State University, and Marsha S. Rose of Case Western Reserve University read drafts of this paper and made a number of valuable suggestions.

1. [2, p. xii; 18, p. 162; 23, Vol. 2, p. 752; 24, p. 14; 25, p. 105; 33, pp. 5, 7, and 19-20; 44, p. 95; 48, pp. 180 and 208; and see especially 40, pp. 91-92 and 94]. Thomas C. Cochran argued that business and government maintained close ties after World War II, but that "business was likely to be divided on specific policies." In any event, he concentrated on divisions over foreign policy, neglecting the domestic sources of political conflict. See [19, pp. 321 and 326].

2. See [64, pp. 65-66 and 74-75; 67, p. 1; 63, pp. 166-67; 65, p. 4; 66, p. 1; and 59, p. 2]. Structural components for construction of the Interstate System constituted 53 percent of the cost of all interstate mileage and 50 percent of Federal Aid Primary mileage. These figures do not reflect the heavy expenses of rights-of-way in urban areas. See [63, p. 167].

3. [38]. PAR leaders urged state and local officials to use sufficiency ratings to arrange priorities for work on farm market and city roads. State engineers perceived the average-daily-traffic count as the key factor composing the sufficiency rating. See [78, p. 422].

4. Impressions gained from an examination of industry journals and correspondence. See also [69, p. 2].

5. [4, 5, and 29]. The president of AASHO, Charles M. Ziegler, spoke of a 15-year program. See his remarks in [69, p. 203].

6. [70, and 46]. S. 219 and H.R. 3637 provided for the creation of a Highway Trust Fund.

7. Impressions gained from an examination of trucking industry journals. See also [47, p. 401; 77, pp. 347-50; and 52].

8. [58, 11, 79, and 1]. For many years, Charles L. Dearing, the Deputy Under Secretary of Commerce for Transportation, had advocated toll charges on highways as a method aimed at forcing the fullest utilization of all transport modes. As late as 1 October 1953, however, neither Dearing nor the Under Secretary for Transportation had prepared a formal road program.

9. [74, pp. 322-33; 68, p. 146; 51; and 17]. Automobile industry officials avoided the gas tax issue and emphasized the importance of federal road spending for national purposes, coordination of highway construction, and as a way of satisfying demand created by the industry's products. See [21].

10. A number of road bills followed this pattern, mostly proceeding along the lines of the 1952 Highway Act and disagreeing primarily over total funding levels and the percentage of allocation for the Interstate System. Compare H.R. 7818, H.R. 14, H.R.

1407, H.R. 3528, H.R. 3529, H.R. 7124, H.R. 7207, and H.R. 7678 in [71, pp. 5-10].

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