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Matching Federal Aid for Highways: Rationale from Post Roads to Interstates

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MATCHING FEDERAL AID FOR HIGHWAYS: RATIONALE FROM POST ROADS TO INTERSTATES

SUMMARY

Congress first enacted legislation in 1912 that provided Federal assistance to States for the construction of highways. Federal leadership and funding was justified to promote a multitude of national goals: economic development; national defense; the equitable distribution of costs, and expansion of interstate postal and commercial routes. As Congress passed subsequent legislation for highway development, one of the issues that evolved was determining the appropriate Federal contribution or matching ratio. The answer, it appears, fluctuated over time as congressional views changed regarding national interest, local responsibilities, and the value this incentive had in encouraging State and local support for Federal highway goals.

Early attempts to create a Federal-aid highway program in 1912 nearly failed. Insufficient financial incentives and program inflexibility were two reasons States declined to participate. This led to congressional reevaluation and a State-managed program with a 50-percent Federal funding match. The 50-percent Federal match was grounded in the belief that highway costs should be shared equally between State and Federal Governments and that any less Federal involvement would not entice sufficient State support.

Congress decided to alter the Federal match for highway construction at various times, but the two most important were in 1956 and 1970. The first created a new funding category for the Interstate System with a 90-percent Federal cost share. The second change increased the Federal match from 50 to 70 percent for noninterstate highways; both were major deviations from a 50-50 policy that was put in place in 1916.

Congress pointed to changing national highway priorities as the main reason for altering Federal funding ratios, but economic and political influences should not be overlooked. States, for their part, insisted on increased Federal funding matches, usually arguing that their budgets were inadequate to meet Federal highway goals, particularly during economic downturns. Lobbying groups, representing various transportation interests, applied similar pressure for more Federal money. Although this occasionally raised the specter of "pork barrel politics", most legislative action appeared to be driven by the need for improving the Nation's transportation system.

As Congress considers alternative Federal matching ratios for the next highway reauthorization bill, it might wish to consider two criteria that seem to have been used to determine matching ratios in the past: the extent to which the highway program meets national needs and the prospect for success given a certain level of Federal aid. Although other factors are important to the congressional decision-making process, these two perhaps best capture critical elements of a rational highway program at the Federal level.

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As Congress looks ahead to highway program reauthorization in 1991, age-old questions regarding Federal financial matching ratios are once again being raised. The term matching ratio refers to the percentage of total project cost covered by Federal funding. With the Interstate system virtually complete, many doubt there is still compelling need to continue 75 to 90 percent Federal matches for the various Federal-aid highway programs. Others might contend that future maintenance and reconstruction needs warrant continuing Federal assistance at these levels or above.[1]

Legislation creating and later changing the amount of funding that the Federal Government contributes to highway projects represented, at times, deliberate and precise goals as articulated by various Members of Congress. The legislative outcome, however, was often influenced by many additional and often unattributed factors. Reviewing previous congressional actions on Federal highway matching ratios within their political and economic contexts may provide some insight into the merits and pitfalls of different options likely to be considered by Congress during the 1991 surface transportation reauthorization process.

EARLY FEDERAL-AID PROGRAMS: 1912-56

Prior to 1912, Federal interest in creating a network of roads that would serve national as well as regional interests was driven largely by the desire for integrated postal delivery service, particularly in rural areas. Initially, the Post Office Department was obliged to deliver mail only to those areas that had reasonably good roads in place. This spurred increased attention to the construction of county roads and elevated highway development to a position of prominence among public policy issues.

Eventually, the Federal Government became more involved with assisting local jurisdictions improve their roads. At the turn of the century, the Office of Public Roads in the Department of Agriculture offered States engineering assistance to help identify problems and solutions; later these engineers oversaw the actual construction in many cases. As demand for postal delivery grew and it became clearer that the one bottleneck to enhanced service was the lack of

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[1] The prospect for reduced Federal matching is summarized in ENR, *Here Comes the Post-Interstate Era*. March 8, 1990. p. 30-32.

adequate roads, the first bill to provide for Federal road construction assistance was introduced in 1903. Similar bills continued to be introduced, although none became law until 1912.[2]

Ironically, direct attempts to authorize Federal aid for road building actually failed in 1912; Congress, however, succeeded in taking a more circuitous route by making the first appropriation for highways in the Post Office Department Appropriation Act of 1912 (37 Stat 551). It called for $500,000 to be appropriated to the Department of Agriculture and "expended in cooperation with the Postmaster General in improving the conditions of roads...over which rural delivery is or may hereafter be established."[3] Funds were to be spent equally among the 48 States, with State and county governments together contributing twice any amount provided by the Federal Government.

In this precedent setting legislation, the first Federal-aid highway program established a Federal financial match that was low, by historical perspective, providing for only one-third of project costs. The $500,000 to be apportioned equally among the 48 States allowed for a rounded allocation of up to $10,000 per State, provided local funding of $20,000 was forthcoming. It was thought that a one-third matching ratio would be sufficient to entice State governments to expand those roads that would support an integrated postal network rather than those that contributed to only parochial interests. Initially, however, this program attracted only a limited response; all but three States declined Federal money citing, among other reasons, conflicting State statutes, distrust of Federal powers over local jurisdictions, and refusal to comply with a legislatively mandated eight-hour work day.[4]

Much of the States' refusal to accept Federal assistance was due to economic problems associated with Federal labor requirements. For example, one county in Virginia determined that it would be less costly to use convict labor or extend the free-labor work day rather than accept one-third of project costs and comply with the Federal eight-hour day. Additionally, flexibility in the use of Federal funds was a paramount consideration even in 1912. Many States preferred that the Federal Government hand over Federal-aid money and allow them to spend it as they saw fit. In some cases, local matching funds were simply not available. In short, the first Federal assistance for highways, as one

[2] U.S. Department of Transportation. Federal Highway Administration. *America's Highways 1776-1976: A History of the Federal-Aid Program.* Washington, 1976. p. 80.

[3] U.S. Congress. House. *Joint Report of the Progress of Post-Road Improvement.* Prepared jointly by the Department of Agriculture and Post Office Department. House Document No. 204, 63d Cong., 1st Sess., Washington, 1913. p. 2.

[4] Ibid, p. 4.

congressional report noted, was "so small as to be unattractive", prompting Congress to reconsider specific features of the program.[5]

The importance of this first legislative effort to define a Federal-aid highway program for States is evident in the Federal-State cooperative framework it created, as well as the many issues that arose from its implementation. The Act was most effective in spurring interest in defining a Federal-aid program that would be acceptable to both Federal and State Governments. To accomplish this, future legislation had to provide for greater financial incentives and program flexibility to encourage broader participation by the States.

THE FEDERAL AID ROAD ACT OF 1916

The prospect for "Federally-aided roads" did not wither because the first experiment met with less than complete success. The Federal Aid Road Act of 1916 (39 Stat 355) incorporated many of the fundamental principles that were proposed over the previous decade, many of which remain in place today such as the multi-year authorization process, formula-based apportionment of funds, and State program management. Changes were made from the 1912 Act, however, to address the States' most ardent protests, including permitting local labor laws to govern construction. Significantly, Congress increased the Federal matching ratio to 50 percent in order to attract more States into the program; the primary justification for this move was outlined in the conference report,

> This requirement constitutes an equitable apportionment of burdens, an automatic check upon demands from the States for Federal appropriation, insures the accomplishment of tangible results, and affords a sound basis for the exercise by the Federal officials of the most searching scrutiny and a conservative policy of approval.[6]

In fact, the conference report went to great lengths beyond this simple justifioation to lay out both the economic and political groundwork for increasing the Federal contribution.

In addition to noting the "propriety" of Federal assistance based on constitutional grounds, the report appealed to the broad notion of national well-being in arguing for greater Federal participation in road development. It cited the encouragement of balanced economic development as well as the need for enhancing the physical and moral welfare of the Nation's citizens. Specific arguments, however, seemed even more compelling.

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[5] Ibid, p. 4, 8, and 13.

[6] U.S. Congress. Senate. Committee on Post Offices and Post Roads. *Federal Aid in the Construction of Rural Post Roads*. Report to Accompany H.R. 7617. Senate Report No. 250, 64th Cong., 1st Sess. Washington, 1916. p. 21.

By 1916, there were signs of dramatic growth in automobile use resulting in a sharp rise in road costs. Making adjustments to the inequitable distribution of these costs between rural and urban areas was a principal reason for raising the Federal match. With the continuing migration to cities, increasingly more traffic in rural areas resulted directly from commercial and pleasure driving by urban inhabitants.

Congress argued that forcing only local jurisdictions to build roads placed an unfair burden on sparsely settled rural communities, which had smaller tax bases than their urban counterparts. Through the taxing and appropriations processes, the Federal Government could efficiently and fairly distribute more of the cost burden to city inhabitants. Congress further reasoned that little or no headway could be made in adding to the stock of roads if local jurisdictions did not receive assistance from county, State, and Federal Governments.[7]

Additional justifications were offered. An increased Federal role further ensured that certain standards and procedures in road construction and repair would become more uniform and encourage local jurisdictions to act in the best interests of the country rather than respond only to local highway needs. Arguments, such as reducing the costs of mail delivery, were also set out.[8]

THE FEDERAL HIGHWAY ACT OF 1921

In 1921, Congress faced its first highway program reauthorization, culminating in the Federal Highway Act of 1921 (42 Stat 212). It provided Congress with the opportunity to evaluate the Federal-State partnership approach to highway construction and was important for two basic reasons: it reaffirmed and extended the Federal-State relationship in highway development and expanded on the basic principles outlined in the 1916 Act. Part of this legislation touched on the Federal matching ratio.

After five years of Federal aid to States, Congress clearly supported the original provisions in the 1916 Act, stipulating that the Federal Government pay for half of approved road improvement projects. The 1921 provisions did expand slightly on the preceding legislation. Those States that contain "unappropriated public lands (and hence not taxable) exceeding 5 percent of the total area" of the State would receive a Federal match of up to 60 percent of approved highway improvement costs. The matching ratio was raised on a sliding scale as the proportion of Federal lands to State total land area increased.[9]

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[7] Ibid, p. 7-8.

[8] Ibid, p. 12-14.

[9] U.S. Congress. Conference Committees, 1921. *Construction of Rural Post Roads*. Conference Report to Accompany S. 1072. House Report No. 451, 67th Cong., 1st. Sess. Washington, 1921. p. 4-5. See also Federal Highway Administration, *America's Highways*, footnote p. 125.

Although this provision provided for increased Federal assistance for highway construction in States with a large amount of Federal land, it more importantly solidified the mutual financial relationship between Federal and State Governments. Congress supported a highway program that provided benefits to both the States and the Nation, but it did so fully recognizing that a mutual obligation also existed. The 50-50 funding split remained the basis for defining this mutual obligation.

On the benefit side, programs were defined explicitly to support highway development that would meet the needs of both the States and the Nation. This is evident in the Act's distinguishing between primary and secondary roads. To ensure that the combined financial commitments of State and local Governments did not overly favor Federal priorities, beginning in 1922, no more than 60 percent of Federal assistance was permitted to go for primary or cross-state roads.[10] The balance, at least 40 percent of Federal aid, was to improve secondary or intercounty roads. Although the sense of equality between State and Federal authority was preserved, a slight edge was given to "interstate" roads, which presumably served primarily national goals.

SUPPLEMENTING STATE HIGHWAY SPENDING: THE DEPRESSION AND WORLD WAR II

The Federal-State funding formula remained unaltered for the next 30 years except for temporary adjustments to meet broader policy objectives. Increased Federal spending relative to State outlays came about in the 1930s and 1940s to achieve two goals: relief from the Great Depression and enhanced mobility to support the war effort. Although these events fall outside the traditional argument over Federal matching ratios, they deserve some attention to demonstrate the flexibility with which Federal funding for highways has been managed in times of crisis and hardship.

As part of public works jobs programs crafted during the Depression, Federal funds became available to help States meet part of their 50-percent matching requirements. These supplemental funds were initially considered advances to the States, to be repaid from future year's apportionments. As the Depression continued, however, it became clear that repayments by the States would produce undue hardship and were therefore converted to grants in 1934. At the same time, the policy goal of equal cost sharing between Federal and State Governments in the construction of highways was reaffirmed.[11]

More disruptive to a consistent highway spending policy were adjustments made for national defense. By 1940, supplemental appropriations for highways were again deemed necessary to improve military mobility. Many existing military establishments were nearly isolated or at least removed from major

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[10] Ibid, p. 3.

[11] Federal Highway Administration, *America's Highways*, p. 123 and 125.

highways. Bridges too were inadequate to meet wartime mobility needs. To compensate for deficient roads and bridges, Congress adjusted the Federal-aid highway programs to construct access roads requested by the War Department.[12]

Defense-related modifications to the highway programs, as with those of the Depression, were not intended to change standing policy. The War Department had two major goals: construct improved access roads to military installations and make needed improvements to those portions of the strategic interstate highway network that would expedite movement of military vehicles. Congress addressed these concerns in the Defense Highway Act of 1941 (55 Stat 765), which authorized funds with no matching contribution from the States for the construction of access roads. To meet the extraordinary needs of the wartime effort, the Federal matching ratio for Federal-aid roads was increased, as made clear in a 1944 conference report,

> ...during the continuance of the emergency declared by the President on May 27, 1941,...all such projects under construction during the period of said emergency, the Federal share payable on account of any such project shall be increased to three-fourths of the total cost thereof.[13]

Clearly, national defense goals superseded policies designed to foster a balanced, equitable highway program. Federally aided roads, by and large, were neglected unless they served military travel. A number of States objected to this because many of their road programs were deferred except when they happened to coincide with national interests. There appeared to be no intent, however, to undermine the philosophy or policies defined in earlier highway legislation, particularly the provision for a shared Federal-State partnership.

POSTWAR HIGHWAY PROGRAMS

By 1944, Congress, in evaluating future national needs, offered numerous bills to provide for a truly national highway system. What emerged was the Federal-Aid Highway Act of 1944 (58 Stat 838). Although important primarily because it outlined the National System of Interstate Highways that was to take shape a dozen years later, it also provided for a reinvigorated Federal-State

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[12] Ibid, p. 144.

[13] U.S. Congress. Conference Committees, 1941. *Supplementing the Federal Aid Road Act-Construction of Roads for National Defense.* Conference Report to Accompany S. 1840. House Report No. 1379, 77th Cong., 1st Sess. Washington, 1944. p. 1.

partnership in road construction, including reaffirming the 50-50 funding split that had dominated policy for nearly thirty years.[14]

As plans progressed to build what would become the Nation's interstate highway system, the debate over the Federal matching ratio intensified, particularly as it affected different highway systems. Federal aid was now to be apportioned to four classes of highway: interstate, primary, secondary, and urban roads. Interstates were technically considered part of the primary system, as they are today, but funding was provided through a separate program. Collectively, the noninterstate roads (primary, secondary, urban) were referred to as the ABC systems. The primary system included other interstate roads that were traditionally the focus of Federal aid. The secondary highways still encompassed intercounty, rural roads and the urban program provided funds for urban extensions of the primary system.

These distinctions were important because they provided a program framework to develop variable Federal-aid highway matching ratios. Whereas historically Federal aid was provided only as a 50-percent matching ratio, the development of different programs eventually led to different matching ratios based, in general, on perceptions of which highways contributed most to meeting national mobility goals. This was particularly true for interstates, which would eventually receive a 90-percent Federal match, changing the complexion of Federal aid to highways. The first interstate appropriations, however, retained the 50-50 split for fiscal years 1954 and 1955.

By 1954, interstates received their first increase in Federal funding as a proportion of total costs, effective in fiscal year 1956. This provision was outlined in the conference report that accompanied the Federal-Aid Highway Act of 1954 (68 Stat 70). It provided that the Federal matching ratio for any "project on the national system of interstate highways...shall be increased to 60 percent of the total cost thereof."[15] This increase was made ostensibly to help those States that could not meet their financial responsibilities under the 50-50 formula. At that time, however, there was considerably more controversy over the merits of State funding.[16]

Debate over legislation that would create a Federally funded interstate system peaked during the 84th Congress. It was widely accepted that the country needed a national highway network as well as improved roads on all

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[14] U.S. Congress. Conference Committees, 1944. *Federal-Aid Highway Act of 1944*. Conference Report to Accompany S. 2105. House Report No. 2052, 78th Cong., 2d Sess. Washington, 1944. p. 3.

[15] U.S. Congress. Conference Committees, 1954. *Federal-Aid Highway Act of 1954*. Report to Accompany H.R. 8127. House Report No. 1527, 83d Cong., 2d Sess. Washington, 1954. p. 3.

[16] Congressional Quarterly. *Almanac 84th Congress 2nd Session, 1956*. Congressional Quarterly News Features. Washington, 1956. p. 501.

highway systems. Growth in traffic volume and traffic related fatalities and the standstill of nondefense highway construction during World War II dictated that something be done on a "grand scale." Congressional debate centered at first on two initiatives, one offered by the Eisenhower Administration, another by State governors.

President Eisenhower, an early advocate of the interstate approach, unfolded his general guidelines for a national highway at the 1954 Annual Conference of State Governors. This sparked the creation of two highway committees: the Administration's Advisory Committee on a National Highway Program, under the direction of General Lucius D. Clay and the Governor's Conference Special Highway Committee. Each of these committees released reports advocating continuation of existing Federal-aid highway programs, with special attention paid to interstate construction. These reports varied only slightly with respect to cost sharing.[17]

The Governors' report advocated complete Federal funding for construction of the interstate system. It seems, perhaps not surprisingly, that virtually all Governors could support a national road system that did not require financial sacrifice from State coffers. The Clay Committee, by contrast, recommended a 5-10 percent match from States, with Federal funds to be raised through a national bond program.[18]

Congress responded in the Senate with two bills, the first presenting the Administration's perspective, and later a response introduced by Senator Albert Gore (D-TN), then Chairman of the Senate Subcommittee on Roads. The primary difference between the two was in how the interstate program was to be funded. Whereas the Administration's bill contained provisions for a separate Federal agency with bonding authority, Senator Gore proposed a "pay-as-you-go" system based on increased gasoline and other excise taxes.

Following extensive hearings and consideration of both the Administration's and the State Governors' proposals, Senator Gore offered legislation that would continue existing Federal-aid highway programs at higher funding levels and raise the Federal interstate cost share to two-thirds from the existing 60 percent.[19] At that time, there was still considerable disagreement in Congress and the White House over the best way to design the new interstate program. The Senate eventually opted to support a modified version of the Gore bill rather than the Administration's bill.

On the House side, Congressman George Fallon (D-MD), Chairman of the Subcommittee on Roads, introduced a bill similar to the Gore initiative, but it

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[17] Congressional Quarterly. *Almanac 84th Congress 1st Session, 1955.* Congressional Quarterly News Features. Washington, 1956. p. 432-33.

[18] Ibid, p. 432-33.

[19] Federal Highway Administration, *America's Highways*, p. 470.

contained a 90-percent Federal match. As the 1955 congressional session came to a close and following considerable debate, both the Fallon and Administration bills were defeated in the House, which also chose not to take up the Gore bill. Accordingly, passage of interstate legislation was left to the second session of the 84th Congress.[20]

FEDERAL AID IN THE INTERSTATE PERIOD: 1956-87

In 1956 and thereafter, highway legislation differed from before in that the new System of Interstate and National Defense Highways assumed priority status. The comprehensive nature of the 1956 Act and growing highway budgets demonstrated the new prominence that highway programs had achieved. In general, the transition to an interstate highway program that involved billion-dollar apportionments over many years meant that Congress had taken a highway program based on mutual financial obligation and transformed it into a large Federally funded public works program. Such a fundamental change required a corresponding new approach to Federal financial assistance, which raised the political stakes of future highway acts.

CREATION OF THE INTERSTATE PROGRAM IN 1956

Congressional disputes that kept the interstate highway legislation from passing in 1955 were overcome early in 1956. Broad agreement existed on a number key issues including the need for a user-pay financing system, a dedicated Treasury account with which to follow excise tax collection and spending (the highway trust fund), and perhaps most importantly, a quick response to the lack of a national highway system. When the Eisenhower Administration acquiesced to the pay-as-you-go philosophy, a broad consensus was established that allowed Senator Gore and Congressman Fallon to lead the effort for quick passage of the interstate highway legislation.[21]

The Federal Highway and Highway Revenue Acts of 1956 (70 Stat 374 and 70 Stat 387) together constituted the most comprehensive piece of highway legislation since 1916. Many significant goals were defined in this legislation: long-term financing for the interstate program; creation of the highway trust fund; and massive increases in annual highway funding. Although the 1956 highway Acts attracted considerable debate, the one measure that appeared to be acceptable to most parties was increasing the Federal matching share for highways of national importance. This was clearly expressed in the House report,

> The Committee feels that because of the substantial Federal interest in the Interstate System, the matching ratio should be increased to 90

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[20] Congressional Quarterly, *Almanac, 1956*, p. 439-41.

[21] Federal Highway Administration, *America's Highways*, p. 471.

> percent Federal and 10 percent State, with the customary sliding scale for the so-called public lands States but with a maximum Federal contribution of 95 percent.[22]

In fact, the 90-10 split was supported in both Chambers of Congress and was retained without lengthy debate in the final conference report. The stated reason for increasing the Federal share rested on the national scope of the project, but on a more practical level, it was considered virtually impossible to complete the interstate system in the allotted 13 years without overwhelming Federal support.[23]

Raising the Federal share for interstate highway construction to 90 percent was a remarkable feat, yet it was somewhat hard to rationalize based soley on Federal goals because they had not undergone any fundamental change. The initial reason for instituting a Federal-aid highway program with a 50-50 funding formula in 1916 was to construct a coordinated national highway system. This rationale remained the same in 1956, yet the Federal Government would now assume a funding share of 90 percent. It would seem, then, that broad agreement over the 90-percent match went beyond a simple recognition that national priorities were at stake. In fact, there may have been many influences not always explicitly acknowledged that pushed for stronger Federal participation.

Macroeconomic conditions were one such influence. By 1955-56, recessionary concerns affected highway spending and revenue guidelines. Realization that boosting highway programs during economic downturns was a commonly accepted policy may have given additional support for a higher Federal match. Certainly this was the case two years later when the economy was in the middle of a recession. Furthermore, President Eisenhower found a dedicated revenue source desirable because any additional higher spending for highways would not compromise his budget goals.[24]

Congress considered the interests of State governments, the driving public, and industry as well. Many Governors had already made clear that they would not be able to participate in an interstate construction program, at the level sought by Congress, if the States had to pay 40 or 50 percent of project costs. Highway spending proponents outside of government further bolstered a 90-percent match. Organizations such as the American Association of State Highway Officials and the American Road Builders Association spent

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[22] U.S. Congress. House. *Federal Highway and Highway Revenue Acts of 1956*. Report to Accompany H.R. 10660. House Report No. 2022, 84th Cong., 2d Sess. Washington, 1956. p. 9.

[23] U.S. Congress. Conference Committees, 1956. *Federal-Aid Highway and Highway Revenue Acts of 1956*. Conference Report to Accompany H.R. 10660. House Report No. 2436, 84th Cong., 2d Sess. Washington, 1956. p. 30.

[24] Federal Highway Administration, *America's Highways*, p. 172.

considerable time before Congress, testifying on the merits of high Federal interstate funding, including a high matching ratio.

Perhaps the 90-percent match was so completely embraced because Congress felt that the interstate program was, in fact, the national priority many claimed it to be. That is, they simply wanted it built very badly. All Members and their constituents had much to gain and it was a highly visible and popular project. With all these interests advocating a large Federal role, it is not surprising that broad congressional support materialized.

This vastly increased Federal role for highway financing, however, was not without its critics. The American Automobile Association complained to President Eisenhower that the multiyear highway development program "has pork-barrel and political potential of serious dimensions,"[25] an accusation that could not help but surface in proceedings involving such a large public works project. This sentiment was raised in Congress by Senator Prescott Bush (R-CT) as early as 1955, who argued that the highway legislation,

> scatters billions of politically-guided Federal dollars over the country as though they were shot from a blunderbuss. These widely scattered dollars will not build those roads having the greatest national interest.[26]

Some may consider the Senator's message a prescient warning given the large number of demonstration projects and other specialized funding authority that would creep into future highway bills. Nonetheless, laying this criticism aside, the political coalition of local governments, industry, and highway professionals could not help but accelerate passage of an interstate highway program funded predominantly by the Federal Government.

The unique nature of the interstate system was apparent not only because of the higher Federal match, but also because of its separate legislative treatment. The primary, secondary, and urban highways still constituted the Federal-aid highway system and remained subject to a 50-percent match by State governments. Congress deemed that nothing had changed with these programs; they supported both State and Federal goals and hence retained an equal cost share ratio reflecting the mutual nature of the relationship.

The interstate system, by contrast, not only received a greater matching share from Federal sources, but also warranted separate organizational treatment in the statute as it had when it was originally crafted in 1944. Federal participation was expanded by creating a new road and funding category, the interstate highway system, which served primarily national rather than local goals.

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[25] Congressional Quarterly, *Almanac, 1955*, p. 434.

[26] Ibid, p. 436.

THE FEDERAL-AID HIGHWAY ACT OF 1970

Federal highway matching ratios remained the same throughout the 1960s; major changes were not introduced until the Federal-Aid Highway Act of 1970 (84 Stat 1713). Among the most notable modifications was increasing the Federal share for noninterstate highways from 50 to 70 percent, effective in fiscal year 1974.[27] The principal reason for raising the matching ratio that had existed for over 50 years, as cited in highlights of the legislation, rested on the impending completion of the interstate system, which theoretically would free up more funding authority for other highway programs,

> In anticipation of commencing a transition program in fiscal year 1974, to phase out construction of the near(ly) completed Interstate System and next Federal-aid highway programs, section 108 provides that the Federal share of the cost of improvement of non-interstate highways, which is now 50 percent, shall be increased to 70 percent with respect to authorizations for fiscal year 1974 and subsequent fiscal years.[28]

In part, the matching share was altered because the noninterstate highways had been neglected while the interstate system was being built. There was, however, an economic component. The prospect of a sudden and large decrease in Federal spending on highways with the completion of the interstate system raised concern among many Members over the potential impacts to their local economies and the construction industry in particular. As expressed on the floor of the House, the increased Federal match for noninterstate roads was to begin June 30, 1974, precisely at the time when,

> many States will be completing Interstate construction. Their apportionments, will consequently, be greatly reduced. The new formula should help to ease the difficulties of transition from the old to a new highway program.[29]

Given that all congressional districts would receive Federal highway money, it was not difficult to garner support for expanding a Federal public works program that would affect so much of the country.

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[27] It should be mentioned that the matching shares were again temporarily altered during the recessions beginning in 1958 and 1975, but as with earlier countercyclical programs, did not represent any intention to change standing highway policy. See U.S. Congress. House. *Increasing the Federal Share of Highway Projects*. Report to Accompany H.R. 3786. House Report No. 94-109, 94th Cong., 1st Sess. Washington, U.S. Govt. Print. Off., 1975.

[28] Highlights of H.R. 19504. Remarks in the House. *Congressional Record*, v. 117, November 25, 1970. p. 38941.

[29] Clausen, Don H. Federal Aid Highway Act of 1970. Remarks in the House. Ibid, p. 38949.

States, at that time, were also clamoring for more Federal money and Congress seemed sympathetic to their budgetary problems. Increasing Federal highway funding, it was reasoned, not only returned more Federal money to the States, a concept in line with then-popular Federal revenue sharing principles, but also gave State governments greater flexibility to use their own-source funds for maintenance projects.[30] The broad political appeal of such a proposal was not lost on Members of Congress. As expressed by Representative George Fallon (D-MD), Chairman of the House Committee on Public Works, the new highway act,

> is without doubt the most significant piece of highway legislation to come before Congress since the 1956 Highway Act creating the Interstate System. There is no Member of this House whose district will not only benefit from this legislation but will require the legislation for its own well being.[31]

Given the overall popularity of such a proposal both within and outside of congressional circles, it may not be surprising that the 1970 Act was overwhelmingly supported by a vote of 319 to 11.[32]

Passage of the Act involved more than political considerations. There was a shift in concern from interstate to noninterstate roads, which elevated primary, secondary, and urban road systems once again to a position of prominence within Federal-aid highway programs. This was explicitly recognized by Congress and paralleled a deepening anxiety over the deterioration of existing highways. This trend took on more solid legislative form in the late 1970s and after, as the departure from traditional Federal highway goals of building new roads gave way to rehabilitation and improvement of existing highways. Addressing the growing backlog of major repairs was to become increasingly more a Federal responsibility as States seemed either unwilling or unable to fund all these repairs.

INTERSTATE PRESERVATION: 1976-87

The Federal-Aid Highway Act of 1976 (90 Stat 425) created a new experimental program to address the deteriorated road segments covered by the now twenty-year-old interstate program. Known as the 3R program, it provided for a modest two-year appropriation for resurfacing, restoring, and rehabilitating (3R) eligible lanes on the interstate system that had been in use for more than

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[30] Bray. Federal Aid Highway Act of 1970. Remarks in the House. Ibid, p. 38945.

[31] Fallon, George. Remarks Before the House, Ibid, p. 19504.

[32] Congressional Quarterly. *Almanac 91st Congress, 2nd Session, 1970.* Congressional Quarterly News Features. Washington, 1970. p. 790.

five years. Because this was technically an interstate program, the Federal match was initially set at 90 percent.[33]

The philosophy of Federal assistance for rehabilitation of highways was reinforced in the Surface Transportation Assistance Act of 1978 (92 Stat 2689). Title I of this Act, the Federal-Aid Highway Act of 1978, made permanent the 3R program and stipulated that a certain percentage of Federal-aid funds for other highways be spent on 3R projects. This reflected increasing congressional apprehension over deteriorating highways.[34]

In so doing, Congress standardized the Federal matching share for all but the interstate construction program at 75 percent. This 5 percentage point increase in the Federal match for noninterstates was actually a compromise to a House-backed bill that called for an 80-percent match.[35] To ensure that congressional intent regarding interstate highway restoration was carried out, the 1978 Act also included much stricter language mandating that States meet certain minimum maintenance levels. Congress felt that the inclusion of these provisions allowed for a reduction in the Federal share of interstate 3R monies from 90 to 75 percent. This modification was explained in the Senate report,

> Because the new Federal standards and inspections will insure that States adequately maintain their Interstate highways, the committee believes it is no longer necessary or desirable to keep the Federal share of Interstate 3R work at 90 percent.[36]

Accordingly, reduction in the interstate rehabilitation program match brought it in line with the increased noninterstate programs; all were now funded with a 75-percent match in Federal funds.[37]

The 1978 provisions, however, were not the final word on this issue, resulting in program revisions with the Federal-Aid Highway Act of 1981 (95

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[33] Public Law 94-280, sec. 106.

[34] U.S Congress. Senate. Committee on Environment and Public Works. *Federal-Aid Highway Act of 1978*. Report to Accompany S. 3073. Senate Report No. 95-833, 95th Cong., 2d Sess. Washington, U.S. Govt. Print. Off., 1978. p. 6.

[35] Congressional Quarterly. *Almanac 95th Congress, 2nd Session, 1978*. Congressional Quarterly News Features. Washington, 1978. p. 542 and 545.

[36] Ibid, p. 7.

[37] A special bridge rehabilitation program was created in 1970 and expanded in the 1978 Act. Because it applies to all Federal-aid and nonfederal-aid highway systems and the rationale for its existence closely parallels the maintenance backlog argument of the 3R program, it is not discussed in this report.

Stat 1699). There was general agreement that the interstate 3R program should be expanded to a 4R program, with reconstruction added to the list of eligible projects. This allowed major replacement projects as well as new construction, such as the addition of lanes or interchanges on existing portions of the interstate system, to be covered by these "maintenance" funds.

At this point the Senate and the House disagreed (generally along partisan lines) over the fundamental responsibilities of State governments in funding highway projects. The Senate passed a version of the bill that kept the Federal share of the revised 4R program at 75 percent and reduced the Federal contribution to the secondary and urban programs to 50 percent. This basically reflected the Senate's view that the Federal-aid program should revert back to a program more equally supported by State funds.[38]

The House offered a different version, which eventually prevailed. It altered only the interstate program, raising the Federal share of the 4R program to 90 percent and keeping noninterstate programs at 75 percent. There were many reasons cited for increasing the Federal share of interstate 4R projects. First, because it was an interstate program, a precedent existed for the 90-percent match. Second, permitting the use of "maintenance" funds for new lanes and interchanges may be viewed as new construction and hence eligible for similar treatment as the interstate construction program.[39] Third, because so much of the interstate system was aging simultaneously, a dominant Federal role was necessary to ensure the safety and reliability of the interstate system.[40] Despite the passage of legislation, a basic disagreement over the appropriate Federal match for highway assistance had not been completely resolved.

After 1981, only minor changes were made to legislation governing Federal matching ratios for highway assistance. Most of these affected relatively small specialized programs. Congress, however, reaffirmed its commitment to preserving the Nation's highways in the Surface Transportation Assistance Act of 1982 (P.L. 97-424). This Act, although important for its many sweeping changes such as increasing appropriations for all highway programs and raising the gasoline excise tax, affected the Federal matching ratios little. To improve

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[38] Congressional Quarterly. *Almanac 97th Congress, 1st Session, 1982.* Congressional Quarterly News Features, Washington, 1982. p. 583-86 and American Road and Transportation Builders Association. *Better Roads.* Congressional Bipartisan Cooperation Feature of Federal-Aid Highway Act. February 1982. p. 37.

[39] The effectiveness of this policy is not uniformly accepted. See U.S. Library of Congress. Congressional Research Service. *Maintaining Highway and Bridge Investments: What Role for Federal Grant Programs?* Report No. 90-277 E, by J. F. Hornbeck. May 31, 1990.

[40] Anderson, Glenn. Federal-Aid Highway Act of 1981. Remarks in the House. *Congressional Record*, v. 127, September 24, 1981. p. H6592.

the prospect for greater spending on highway repair, many changes were made to existing provisions, effectively allowing for transference of funds among different program categories to meet maintenance and restoration needs.

Federal matching ratios were altered in only three specific instances. Federal primary program funding with a 75-percent match that were transferred to interstate 4R projects could be used at the higher 90-percent Federal match. Concern over preserving the interstate highways was a paramount objective as expressed in the House report;

> By increasing the Federal share to 90 percent, this section further expresses the identified Federal priority for Interstate completion-preservation, so as to enhance the current flexibility now afforded to States when primary funds are used in support of meeting Interstate System requirements.[41]

The other minor changes were made to the Federal share for specific highway projects. To help States comply with Federal requirements regarding marking highways, the Federal match was increased to 100 percent for certain eligible projects. Additionally, some relatively smaller special projects received an increased Federal match from 90 to 95 percent. These included economic growth center development highways, carpool/vanpool projects, and access highways to public recreation areas.[42]

The Surface Transportation and Uniform Relocation Assistance Act of 1987 (101 Stat 132) amended some of these minor provisions, leaving the basic Federal matching ratios untouched. Improved highway safety and the cost effectiveness of these projects were cited as the primary reasons for such a high Federal cost share. New projects eligible for 100 percent Federal assistance included installation of uniform traffic signs, highway lights, guard rails, and impact attenuators (barriers).[43]

The 1987 Act increased the list of priority primary route projects that were eligible for 95 percent Federal assistance, compared to the normal 75 percent match and raised the Federal match by 5 percentage points on any project in which coal ash is used in construction. This latter addition was made for alleged environmental, cost, and energy reasons. Coal ash, which is a by-product of

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[41] U.S. Congress. House. Committee on Public Works and Transportation. *Surface Transportation Assistance Act of 1982.* Report to Accompany H.R. 6211. House Report No. 97-555, 97th Cong., 2d Sess. Washington, U.S. Govt. Print. Off., 1982. p. 14.

[42] Ibid, p. 14-15.

[43] U.S Congress. Conference Committees, 1987. *Surface Transportation and Uniform Relocation Assistance Act of 1987.* Conference Report to Accompany H.R. 2. House Report No. 101-27, 100th Cong., 1st Sess. Washington, U.S. Govt. Print., Off., 1987. p. 158-59.

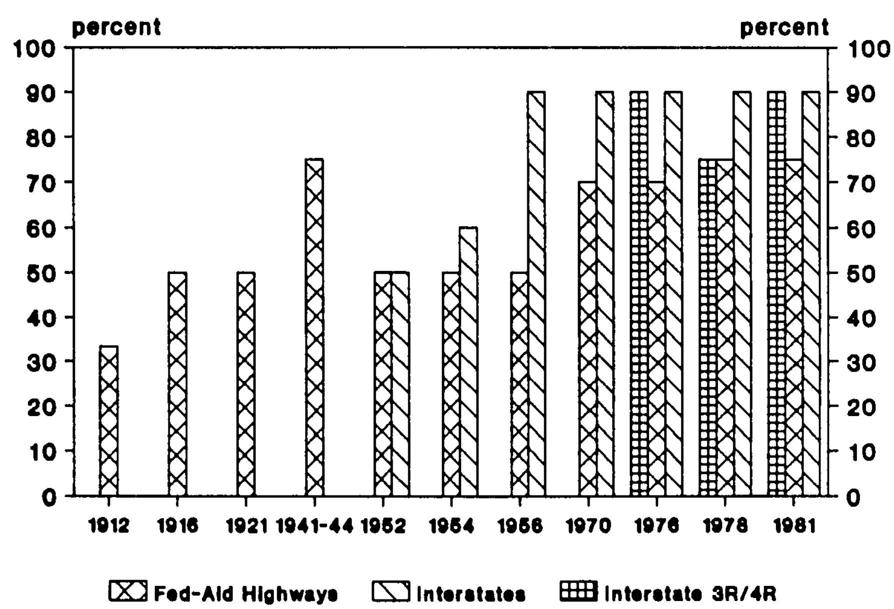
electricity generation, if not used in pavement construction is disposed of as a waste product.[44]

A final amendment to highway legislation stipulated that any funds used for highway emergency relief projects carry the Federal matching ratio of the highway system that requires repair. Any work completed in the first 90 days following the emergency may receive a 100-percent match from Federal funds.[45]

TRENDS AND POLICY IMPLICATIONS

Congress increasingly devoted more resources to the Federal road building effort since its inception in 1912. Generally, budgets grew incrementally, although there were some notable exceptions such as in the 1956 and 1982 Highway Acts. The Federal matching ratios, by contrast, seemed to increase abruptly at certain critical junctures in program development. Hence, as demonstrated in figure 1, the Federal-aid highway program had matches of 50 percent in 1916, 70 percent in 1970, and 75 percent in 1978. A similar pattern may be seen with the interstate construction program, which carried a Federal match of 50 percent in 1952, 60 percent in 1954, and 90 percent in 1956.

FIGURE 1. Federal Matching Ratios for Highway Projects



[44] Ibid, p. 159.

[45] Ibid, p. 160.

In looking at the growth in Federal spending, some may question whether it might not be appropriate to retreat from higher Federal matches, particularly now that the interstate system is virtually complete. This is a fundamental question that has been raised in many Congresses since the interstate program began in 1956. The answer may well rest with one's interpretation of Federal highway priorities.

Since Federal aid for highways was first legislated in 1912, Congress has stated one overriding goal: construction of an integrated national highway system. The prospect of a coordinated national road network developing on a timely basis from disparate State highway construction efforts seemed improbable in 1912. In an attempt to foster a national road building program, Members of Congress continued to offer bills that would provide Federal assistance to States so that roads meeting national as well as local goals would be constructed. Although there was limited response at first, Federal grants in aid, as defined in the 1916 and 1921 Acts, did succeed in forging a new multigovernment highway development partnership.

Federal, State, and local governments effectively entered into a long-term contract to build roads, sharing both the costs and the benefits. The sense of equity and mutual obligation inherent in the pact, based on a 50-50 cost split, was a cornerstone of the early agreement. The 50-50 split developed for two basic reasons: any smaller Federal share seemed unlikely to attract the needed State response and only a truly shared arrangement was acceptable to all levels of government. These fundamental principles provided the foundation for Federal highway programs for forty years. Deviations were made during the Depression and World War II, but they were considered exceptions to standing policy.

Federal matching shares were not permanently altered until the United States entered the interstate period. Determination to build a national highway system in a relatively short time span (13 years) spurred Congress to create a Federal assistance program separate from the long-standing Federal-aid highway program already on the books. The interstate program began as a 50-50 proposition, much like the existing Federal-aid programs, but because it was a separate effort and unquestionably of national importance, was soon funded with 90-percent Federal money.

This development created, for the first time, two distinct categories of road aid: interstate and noninterstate. Although noninterstate highways were still considered important to national interests, they were relegated to a lower class of significance once the interstate highway system was conceived. The overwhelming rationale for the differential in Federal aid appears to be the extent to which these roads contributed to national rather than local or regional goals. The interstates, therefore, may be viewed as transcending the boundaries of Federal aid defined in earlier highway legislation.

But there appeared to be more than national priorities at stake as Congress so drastically altered the longstanding highway partnership. There was considerable pressure from State governments and private lobbying efforts to pass the new legislation. The fact that it was the largest public works project ever envisioned at that time had economic (and electoral) implications for all congressional districts, which raised the specter of "pork barrel politics" playing a greater role than is often discussed. The tendency of special projects to become part of later highway reauthorization and appropriations to some attests to the legitimacy of these concerns. In effect, there were probably too many interests involved for this legislation not to be enacted.

By 1970, the perception of national highway needs began to change, which partially explains the Federal match for noninterstate roads increasing from 50 to 70 percent. This occurred because a large portion of the interstate system had been completed, which encouraged perceptions that greater flexibility in the use of Federal funds was possible. The additional Federal match, however, reflected a sincere heightened sense of importance that primary, secondary, and urban roads played in achieving the country's national transportation goals as well as the conviction that without Federal assistance their continued safe and efficient use could not be guaranteed.

The timing for increasing the Federal funding share coincided with expected diminished spending on interstates that was to take place in 1974. Congress again, as it had in 1912, 1954, and 1956, acceded to State concerns over their budget problems and the economic implications of reduced Federal spending by altering program mixes to ensure that there was no interruption in Federal highway dollars flowing to the fifty States. This was also in line with the emerging revenue sharing proposals that dominated Federal-aid programs in the early 1970s. These held generally that the Federal Government could best ensure equitable and efficient program management by taxing and redistributing funds at the national level and that local governments had a better understanding of local needs. This too, partially explains the growth in the Federal matching share for highway programs.

Highway maintenance or preservation, although long a topic of discussion in congressional highway reports, did not become a separate funding category until the late 1970s. Congress, attuned to increasing attention given the "infrastructure crisis," devoted more funds for repair and rehabilitation projects both on and off the interstates. Eventually, the Federal matching ratios were raised for noninterstates to 75 percent, with greater latitude given for rehabilitation projects. For similar reasons, the interstate 4R program eventually rose and stayed at 90 percent. There was broad concern that deteriorating highways not be allowed to reverse the successes achieved by decades of highway investment.

Raising the Federal match on these programs, however, was not universally accepted. Many Members of Congress expressed a strong desire for Federal retrenchment and that States be required to fund once again one-half of highway project costs. This represented a general sentiment that highway programs had become too dependent on Federal dollars and that politics rather than national transportation priorities may have become too much the deciding factor. This line of thinking argues against revenue sharing as a tax and spending approach. Some insist that revenue sharing leads to larger, more expensive projects because States are less inclined to impose funding restraints given that they do not have to meet a substantial portion of project costs.

Most recently, the Bush Administration has raised the issue of reducing Federal aid matching ratios for each highway category. A major argument often cited for making such a change is that future highway needs will likely emphasize restoration rather than new highway construction. Because States have traditionally been held accountable for maintaining highways under their jurisdiction, it could be argued that the Federal matching ratio should be reduced.

As Congress considers alternative Federal matching ratios for the next highway reauthorization bill, it might wish to consider two criteria that seem to have been used to define matching ratios in the past: the extent to which the highway program meets national needs and the prospect for success given a certain level of Federal aid. Together, these two factors weighed heavily in determining the appropriate funding levels for different highways, particularly in the early years.

When Congress embarked along the path of national highway development by providing Federal matching funds for the primary highways in 1916 and the interstates in 1956, the Federal share was justified based on the contribution these highways made to meeting national highway goals. These two highway systems, however, were not viewed as contributing equally to national priorities. The matching ratios, therefore, differed accordingly with the Federal-aid highway program having a 50-percent match (later 70 and 75) and the interstate program funded since 1956 at 90 percent.

The fact that national highway goals would not have been achieved without Federal assistance was a basis for increasing Federal matching ratios. This line of reasoning supported boosting the Federal match on primary highways from 33 to 50 percent in 1916, as well as increasing the interstate match from 50 to 90 percent in 1956. Interestingly, similar reasoning justified the interstate 3R program in 1976. Early concerns with a sufficient financial incentive and program flexibility might also be considered.

Political motivations cannot be overlooked. It was more than the pursuit of national priorities that influenced the raising of the Federal Government's share of interstate funding to 90 percent. Demands from many groups played a part in making this jump in Federal funding. Major changes that occurred in 1970 had similar motivations. The decision to alter highway programs, however, did include careful analysis of transportation needs and priorities, the areas that may be of greatest interest to Congress in considering future legislation.

Congress faces some difficult challenges in reauthorizing Federal-aid highway programs in 1991. At a time when some observers are calling for returning highway programs to local government control, many States may respond by arguing for maintaining existing Federal-aid highway matching ratios. States will likely insist that their own budget problems will preclude greater spending on highways irrespective of real need. Should the Nation enter a protracted recession, States will no doubt look to highway spending as a legitimate and time tested Federal response.

Congress, for its part, may find it difficult to increase outlays or matching ratios and thereby meet States' demand for more Federal highway aid. Growing concern over the Federal deficit may prevent traditional fiscal responses to an economic downturn. Increasing highway spending, commonly done during recessions, will be difficult at a time when Congress has little room to negotiate for a significantly larger transportation budget.

Changes to the Federal budget process made in the Revenue Reconciliation Act of 1990 (P.L. 101-508) will also complicate matters. Future budgets must reconcile total domestic spending, including entitlements, only with domestic programs. For highway spending to increase or even stay even with past budget allocations, either revenue must increase or other domestic programs will have to be adjusted. This is an issue that may become more charged given recent increases in gasoline and other transportation excise taxes, much of which will not be going toward transportation projects. Assuming that highway needs are still considered extensive, reevaluating highway programs, including the various Federal matching ratios, may be critical given what looks like a potential impasse between Federal and State budget capabilities.

APPENDIX: CONGRESSIONAL DOCUMENTS USED IN THIS REPORT

For those wishing to pursue congressional sources used in this report, the following list of documents is provided in chronological order. All are available on microfiche in the Law Library of the Library of Congress.

U.S. Congress. House. *Joint report of the progress of post-road improvement*. Prepared jointly by the Department of Agriculture and Post Office Department. House Document No. 204, 63d Cong., 1st Sess. Washington, 1913.

U.S. Congress. Senate. Committee on Post Offices and Post Roads. *Federal aid in the construction of rural post roads*. Report to accompany H.R. 7617. Senate Report No. 250, 64th Cong., 1st Sess. Washington, 1916.

U.S. Congress. Conference Committees, 1921. *Construction of rural post roads*. Conference report to accompany S. 1072. House Report No. 451, 67th Cong., 1st Sess. Washington, 1921.

U.S. Congress. Conference Committees, 1941. *Supplementing the Federal aid road act-construction of roads for national defense*. Conference report to accompany S. 1840. House Report No. 1379, 77th Cong., 1st Sess. Washington, 1944.

U.S. Congress. Conference Committees, 1944. *Federal-Aid Highway Act of 1944*. Conference report to accompany S. 2105. House Report No. 2052, 78th Cong., 2d Sess. Washington, 1944.

U.S. Congress. Conference Committees, 1954. *Federal-Aid Highway Act of 1954*. Report to accompany H.R. 8127. House Report No. 1527, 83d Cong., 2d Sess. Washington, 1954.

U.S. Congress. House. *Federal Highway and Highway Revenue Acts of 1956*. Report to accompany H.R. 10660. House Report No. 2022, 84th Cong., 2d Sess. Washington, 1956.

U.S. Congress. Conference Committees, 1956. *Federal-Aid Highway and Highway Revenue Acts of 1956*. Conference report to accompany H.R. 10660. House Report No. 2436, 84th Cong., 2d Sess. Washington, 1956.

U.S. Congress. House. *Increasing the Federal share of highway projects*. Report to accompany H.R. 3786. House Report No. 94-109, 94th Cong., 1st Sess. Washington, U.S. Govt. Print. Off., 1975.

U.S Congress. Senate. Committee on Environment and Public Works. *Federal-Aid Highway Act of 1978*. Report to accompany S. 3073. Senate Report No. 95-833, 95th Cong., 2d Sess. Washington, U.S. Govt. Print. Off., 1978.

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