

Urban Freeways and the Interstate System*

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In researching this Article, I interviewed the following persons:

Gen. Lucius Clay, in New York, N.Y., May 31, 1973.

George Fallon, in Baltimore, Md., July 17, 1974.

Patrick Healey, Jr., in Washington, D.C., June 6, 1973.

John Howard, in Worcester, Mass., May 30, 1973.

A.E. Johnson, in Washington, D.C., Aug. 14, 1972.

Wilfred Owen, in Washington, D.C., Aug. 15, 1972.

Floyd Peterson, in Washington, D.C., Aug. 2, 1973.

Paul Sitton, in Washington, D.C., Aug. 1, 1973.

Francis Turner, in Arlington, Va., June 5, 1973 and July 18, 1974.

These interviews will hereinafter be referred to as Clay Interview, Fallon Interview, and so on. Paul Sitton had served as the transportation budget examiner at the Bureau of the Budget during the late 1950's, and he allowed me to read through the various papers and memoranda he preserved from those years; this fund of documents will hereinafter be referred to as the Sitton Papers. Sitton was Administrator of the federal Urban Mass Transportation Administration in 1968-69.

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When eventually completed, the federal Interstate Highway System—a product of the Federal-Aid Highway Acts of 1944¹ and 1956²—will consist of 42,500 miles of modern freeways, with over 8,800 miles located in urban areas.³ More than 88 percent of the System is presently open to traffic.⁴ Yet well over 34 percent of the total cost of the System has not yet been expended,⁵ and Interstate construction will almost certainly continue at least until the early 1990's.⁶ Congress recently declined to act on a major Administration proposal concerning the restructuring of the Interstate program's financing,⁷ choosing instead to extend the program

1. Act of Dec. 20, 1944, ch. 626, 58 Stat. 838.

2. Act of June 29, 1956, ch. 462, 70 Stat. 374.

3. Federal Highway Administration, Press Release No. 39-76, Aug. 19, 1976, at 2 (quarterly report on the federal-aid highway program, June 30, 1976).

4. *Id.* at 1.

5. *Id.*

6. See note 311 and accompanying text *infra*.

7. For the details of the Administration's proposal, see note 241 *infra*.

in its present general form on an interim basis, while agreeing to consider the issues raised by that proposal within the next few years.⁸ As we await further consideration of the Interstate program, the time seems ripe for an independent effort at review and evaluation.

In a 1970 essay, Daniel Moynihan ventured this dramatic but conclusive appraisal of the Interstate System:

One of the received truths of contemporary liberal history is that no domestic initiatives of any consequence occurred during the Eisenhower Presidency. I will not contest the general point that it was a period of relatively "low governmental profile," as the phrase now goes, following twenty years of the alarms and exertions of the New Deal and Fair Deal. Even so, there was one program of truly transcendent, continental consequence. This was a program which the twenty-first century will almost certainly judge to have had more influence on the shape and development of American cities, the distribution of population within metropolitan areas and across the nation as a whole, the location of industry and various kinds of employment opportunities (and, through all these, immense influence on race relations and the welfare of black Americans) than any initiative of the middle third of the twentieth century. This was, of course, the Interstate and Defense Highway System. It has been, it is, the largest public works program in history. Activities such as urban renewal, public housing, community development, and the like are reduced to mere digressions when compared to the extraordinary impact of the highway program.⁹

Most of the urban freeways in the United States belong to the Interstate System,¹⁰ and even a merely intuitive grasp of the impact of urban freeways upon metropolitan welfare seems sufficient to validate Moynihan's exuberant judgments; certainly, it can be fairly said that most of the urban transportation legislation which Congress has enacted in the years since 1956 has amounted to one ongoing amendment to the 1956 Act, attempting to improve the Interstate program, correct its mistakes, and rectify the imbalances for which it may be responsible.¹¹

Although the implications of the Interstate program clearly rank as profound, a library search uncovers the surprising fact that the scholarly literature on the program is glaringly thin.¹² Until the late 1960's, there was

8. See Federal-Aid Highway Act of 1976, Pub. L. No. 94-280, § 150, 90 Stat. 425, 447; S. REP. No. 94-485, 94th Cong., 1st Sess. 1-2 (1975); H.R. REP. No. 94-716, 94th Cong., 1st Sess. 102-04 (1975).

9. Moynihan, *Policy vs. Program in the '70's*, PUB. INTEREST, Summer 1970, at 90, 93-94 (hereinafter cited as *Policy vs. Program*).

10. See text accompanying notes 89-90 *infra*.

11. Sections 132-44 have been added to 23 U.S.C. since 1956, typically one or two sections in each biennial highway act (the 1973 Act adds §§ 145-50). Even the Federal urban mass transit program initiated in 1964 (see note 539 *infra*) can be seen as an effort at equalizing subsidies for competing urban transportation modes. See D. NETZER, *ECONOMICS AND URBAN PROBLEMS* 155 (1970).

12. The legal commentary on the System has been modest in its ambitions. A law review

a comparable meagerness in the writings on the program intended for the general public. The only pre-1968 articles worthy of mention were those authored in 1958 and 1960 by Lewis Mumford and Daniel Moynihan,

article was written by a lobbyist while the 1956 Act was in the midst of congressional consideration. Martin, *Proposed Federal Highway Legislation in 1955: A Case Study in the Legislative Process*, 44 GEO. L.J. 221 (1956) (hereinafter cited as Martin). A second article authored by one of the program's in-house lawyers appeared three years after congressional approval was secured. Levin, *Federal Aspects of the Interstate Highway Program*, 38 NEB. L. REV. 377 (1959). Both articles are cursory in their treatment of the urban Interstates. After their publication, the Interstate program vanished from the law reviews for almost a decade. The last few years have witnessed the appearance of a number of legal articles. *E.g.*, Johnson, *The 1962 Highway Act: Its Long Term Significance*, 1970 URBAN L. ANNUAL 57. Although some of these have been researched impressively (see, *e.g.*, Gray, *Section 4(f) of the Department of Transportation Act*, 32 MD. L. REV. 327 (1973)), almost all have been limited to individual features of the program—usually, one or more of the various reforms enacted in the 1960's. A recent general discussion of highway policy which does not particularly focus on the Interstate System is Mashaw, *The Legal Structure of Frustration: Alternative Strategies for Public Choice Concerning Federally Aided Highway Construction*, 122 U. PA. L. REV. 1 (1973).

The only sustained review of the Interstate System by an economist concludes that the urban Interstates are economically "justified." A. FRIEDLAENDER, *THE INTERSTATE HIGHWAY SYSTEM—A STUDY IN PUBLIC EXPENDITURE* 3 (1965) (hereinafter cited as FRIEDLAENDER). However, this conclusion is based on an implicit definition of economic justification so narrow as to render all but meaningless its apparently favorable finding. Ms. Friedlaender volunteers that the urban Interstates have resulted in the "externalities" of smog, visual ugliness, dislocation hardship, and increase of central business district congestion, but she asserts that since these costs are unquantifiable, they are irrelevant to economic "justification." *Id.* at 3, 64, 115. Moreover, her "justification" conclusion comes from merely comparing the existing six- and eight-lane urban Interstates to an alternative system of urban highways of only four-lane width; she expressly declines to test out the urban Interstates against alternative investments in urban public transportation. *Id.* at 84.

Political scientists have prepared case studies of many of the important legislative enactments of the 1950's and 1960's. See, *e.g.*, CONGRESS AND URBAN PROBLEMS (F. Cleveland ed. 1969). However, none of them has chosen to deal either specifically with the 1956 Act, or with the Interstate program more generally. Professor Colcord's brief discussion of the 1956 Act in A. LUPO, F. COLCORD & E. FOWLER, *RITES OF WAY: THE POLITICS OF TRANSPORTATION IN BOSTON AND THE U.S. CITY* 184-85 (1971) [hereinafter cited as LUPO, COLCORD & FOWLER], completely confuses the A-B-C program and the Interstate program. See notes 34-72 and accompanying text *infra* for a discussion of the A-B-C program.

By now, the 1950's have receded far enough from the present to make them a fit subject for historians; there have not yet been, however, any significant historical works on the 1956 Act. A book by Professor John Rae, the research for which was financed by the American Manufacturers Association, contains a short, unanalytic subchapter on the Interstate System. J. RAE, *THE ROAD AND THE CAR IN AMERICAN LIFE* 187-94 (1971) [hereinafter cited as RAE]. The two scholarly histories of the Eisenhower Presidency which have so far appeared devote only two paragraphs to the Interstate program in the course of their collective 1000 pages. C. ALEXANDER, *HOLDING THE LINE: THE EISENHOWER ERA, 1952-1961*, at 41-42 (1975); H. PARMET, *EISENHOWER AND THE AMERICAN CRUSADES* (1972). The Interstate program is totally ignored in Peter Lyon's biography, which in general is very short on the domestic side of the Hero's Administration. P. LYON, *EISENHOWER: PORTRAIT OF THE HERO* (1974). A recent anthology of papers from the Eisenhower Library compiled by two historians treats the 1956 Act merely as an instance of Presidential-Congressional relations, and not a particularly revealing instance at that. 1 *THE EISENHOWER ADMINISTRATION 1953-1961: A DOCUMENTARY HISTORY* 537-62 (R. Branyan & L. Larsen eds. 1971) [hereinafter cited as EISENHOWER DOCUMENTS].

respectively.¹³ Since 1968, however, there has occurred nothing less than an outpouring of books and articles.¹⁴ These works have provided us with an assortment of useful anecdotes and information about the Interstate program in operation. They also have developed a set of allegations about the Interstates that are almost unrelievedly and unqualifiedly negative in terms of the Interstates' urban effects—including air pollution, massive displacements, public transit declines, and excessive suburbanization. This body of literature clearly has achieved success; its multicount indictment against the urban Interstates has gained acceptance among a large section of the informed public.¹⁵ However, if one starts out by assuming the truth of these various accusations, one can only be astonished to learn of the nonpartisan landslide votes by which the program swept through the Congress in 1956—388-19 in the House, and 89-1 in the Senate.¹⁶ With these votes in mind, one discovers with interest that there is a single important issue on which the critics are badly divided—the extent to which what now are perceived as the real consequences of the urban Interstates were appreciated or intended by those responsible for the program's creation. The leading spokesman for one point of view is Daniel Moynihan. Writing in 1960, his position was: "It is not true . . . that the sponsors of the Interstate program ignored the consequences it would have in the cities. Nor did they simply acquiesce in them. They exulted in them."¹⁷ The leading spokesman for the opposite point of view is also Daniel Moynihan. In his 1970 essay he lists the Interstate program as the prime example of a program whose actual "policies" were entirely "hidden" from those who originally established it.¹⁸

13. Moynihan, *New Roads and Urban Chaos*, REPORTER, Apr. 14, 1960, at 13 [hereinafter cited as *New Roads*]; Mumford, *The Highway and the City*, ARCHITECTURAL RECORD, Apr. 1958, at 179.

14. E.g., R. BUEL, *DEAD END* (1972); J. BURBY, *THE GREAT AMERICAN MOTION SICKNESS* (1971) [hereinafter cited as BURBY]; R. CARO, *THE POWER BROKER: ROBERT MOSES AND THE FALL OF NEW YORK CITY* (1974) [hereinafter cited as CARO]; J. FLINK, *THE CAR CULTURE* (1975); R. GOODMAN, *AFTER THE PLANNERS* 69-84 (1971); R. HÉBERT, *HIGHWAY TO NOWHERE: THE POLITICS OF CITY TRANSPORTATION* (1972); B. KELLEY, *THE PAVERS AND THE PAVED* (1971); H. LEAVITT, *SUPERHIGHWAY—SUPERHOAX* (1970) [hereinafter cited as LEAVITT]; J. LINDSAY, *THE CITY*, 59-60, 211-12 (1973); LUPO, COLCORD & FOWLER, *supra* note 12; A. MOWBRAY, *ROAD TO RUIN* (1969) [hereinafter cited as MOWBRAY]; K. SCHNEIDER, *AUTOKIND VS. MANKIND* (1971) [hereinafter cited as SCHNEIDER]; Cameron, *How the Interstate System Changed the Face of the Nation*, FORTUNE, July 1971, at 78; Dunhill, *The Freeway Versus the City*, ARCHITECTURAL F., Jan. 1968, at 72; Dunhill, *Reconciling the Conflict of Highway and Cars*, REPORTER, Feb. 8, 1968, at 21; Shannon, *The Untrustworthy Highway Fund*, N.Y. Times, Oct. 15, 1972 § 6 (Magazine), at 31; Whalen, *The American Highway: Do We Know Where We're Going*, SATURDAY EVENING POST, Dec. 14, 1968, at 22. There are even two melodramatic, Airport-type novels. B. DEAL, *INTERSTATE* (1970); E. TREVOR, *EXPRESSWAY* (1973).

15. See A.B.C. Whipple's flattering review of LEAVITT, *supra* note 14, on the front page of the N.Y. Times Book Review, May 17, 1970, § 7, at 1.

16. See notes 209-10 and accompanying text *infra*.

17. *New Roads*, *supra* note 13, at 19.

18. *Policy vs. Program*, *supra* note 6, at 93-95. "Had anyone realized what they were in fact

My own initial and more conventional scholarly purposes¹⁹ were effectively frustrated by the absence of an adequate body of literature on the Interstate System; moreover, the questions suggested in the preceding paragraph, when I became aware of them, aroused my historical curiosity. For these reasons I undertook the general Article on the System which follows.²⁰ Part I of this Article sets forth certain relevant information about the traditional elements of the federal highway program, the development of urban freeways in the United States, and the employment of highway-user taxes as a way of financing highway construction. Part II depicts the legal framework within which the Interstate program operates. It also presents, in a structured way and with an eye for thematic interest, a description of the Interstate program and a narrative account of its progress from the 1930's to the present. In light of the existing state of the literature, both the description and the narration should be of value in their own right. They also serve to lead into the "Evaluation" section of Part II, which deals with the financing of the Interstate program, the utilization of the Trust Fund device, and the recognition of the program's system character. Part III of the Article is exclusively concerned with the urban Interstates. It first elucidates the traffic purposes which the sponsors of the urban Interstates perceived they would satisfy—purposes which turn out to be more complex than might have been expected. Part III then gives appropriate recognition to the indictment against the urban Interstates, explores certain general issues which the indictment raises, and comes to grips with its most salient counts. My basic purpose in this Article is to promote an honest understanding of the urban Interstates,²¹ and it is as such an effort that the Article itself should be understood.

doing, the sheer magnitude of the interests they were affecting, it is nigh impossible to imagine they would have won acceptance." *Id.* at 94.

19. My original intention was to prepare a straight legal study of 23 U.S.C. § 134 (1970), the comprehensive planning requirement added to the Interstate program in 1962. What I quickly realized was that any significant study of § 134 would need to draw on a thorough understanding of the Interstate System upon which § 134 belatedly had been superimposed. See text accompanying notes 361-62 and 637-41 *infra*.

20. The urban Interstates are an integral part of the Interstate System as a whole. Technically, there is no such thing as the "urban Interstate program." However, there is an urban division within the Federal Highway Administration, and certain statutory provisions (e.g., § 134) apply to the System only with respect to its urban routes. Although occasionally, for convenience's sake, this Article will speak of the "urban Interstate program," it will usually make reference instead to the "urban portion" of the Interstate program, or employ some similar phrase.

21. Many of my conclusions in this Article are contrary to the views with which I began. See Schwartz, *The Interstate System* (unpublished essay, in the author's files, prepared in 1969 for a seminar at the UCLA School of Architecture and Urban Planning).

I. BACKGROUND

A. THE TRADITIONAL FEDERAL-AID HIGHWAY PROGRAM

There has been a federal "interstate" program of sorts ever since 1921. In 1916, just 3 years after Henry Ford began mass producing the Model T,²² Congress approved the first program of continuing federal aid for highways;²³ the 1916 statute apportioned funds among the states for half the construction cost²⁴ of "rural post roads," those roads over which mail was carried.²⁵ The Federal Highway Act of 1921,²⁶ in superseding the 1916 Act, began by stating that when considering state proposals federal officials should "give preference to such projects as will expedite the completion of an adequate and connected system of highways, interstate in character."²⁷ It then called upon each state to designate a formal system of highways for federal aid purposes. These highways were to be of two sorts: "primary or interstate highways," which "shall not exceed three-sevenths of the total mileage which may receive Federal aid"; and "secondary or intercounty highways," constituting the remaining mileage.²⁸ Obviously, a tension existed between, on the one hand, the Act's stated "interstate" preference, and on the other, its explicit "interstate" ceiling.²⁹ This tension was resolved in a curious way: the three-

22. See G. MOWRY, *THE URBAN NATION 1920-1960*, at 12 (1965); J. RAE, *THE AMERICAN AUTOMOBILE* 58-62 (1965).

23. Act of July 11, 1916, ch. 241, 39 Stat. 355. In light of later discussions of the "highway lobby," it is interesting to note that the constellation of forces supporting the 1916 legislation included bicycle enthusiasts and professors at agrarian colleges worried about the isolation of the farmer and his family. S. WARNER, JR. *THE URBAN WILDERNESS: A HISTORY OF THE AMERICAN CITY* 37 (1972) [hereinafter cited as WARNER].

24. Act of July 11, 1916, ch. 241, §§ 1, 6, 39 Stat. 355, 357. As the 1921 Act made clear, "construction" costs did not include the costs of acquiring the right-of-way. Act of Nov. 9, 1921, ch. 119, § 2, 42 Stat. 212. For subsequent developments, see note 35 *infra*.

25. Act of July 11, 1916, ch. 241, § 2, 39 Stat. 356. The limitation of federal expenditures to such roads probably was primarily due to a congressional desire to bring the program within the coverage of the "establish . . . post Roads" grant of power. U.S. CONST. art. 1, § 8; see P. BURCH, JR., *HIGHWAY REVENUE AND EXPENDITURE POLICY IN THE UNITED STATES* 219 (1962) [hereinafter cited as BURCH]. As of 1916, congressional spending authority under the general welfare clause had not yet been judicially clarified (see *United States v. Butler*, 297 U.S. 1 (1936)), and a cautious Congress may have been reluctant to rely on 28-year-old Supreme Court dicta (see *California v. Central Pac. R.R.*, 127 U.S. 1, 39 (1888)) concerning the extent of its highway-building powers under the commerce clause. The constitutional issue is whether the power to "regulate" interstate commerce includes the power to invest public funds in ways which are thought to promote that commerce.

26. Act of Nov. 9, 1921, ch. 119, 42 Stat. 212.

27. *Id.* § 6, 42 Stat. 213.

28. *Id.*

29. There is some ambiguity as to whether the base figure—expressed in terms of "the total mileage which may receive Federal aid" (*id.*)—meant to refer (1) to all the routes on the designated system of state highways from which individual federal-aid projects were to be drawn, or (2) only to those state highways actually approved for federal funding.

sevenths limitation was "wisely ignored" by the involved federal and state officials, who made "[n]o distinction . . . between classes of roads within the [federal-aid] system; all [were] considered primary arteries."³⁰ While there are difficulties in pinning down the exact practical effects of this deliberate flouting of the law,³¹ it seems clear that the aggregate amount of highways funded under the 1921 Act contained "interstate" highway mileage in excess of the supposed three-sevenths limitation.³²

In late 1944, the approaching close of World War II led Congress to involve itself in the preparation of a postwar highway program.³³ The resulting Federal-Aid Highway Act of 1944,³⁴ drafted to take effect in the first "post-war fiscal year," specified three distinct categories of federal highway expenditure—categories which quickly became known as A-B-C.³⁵

Category A, which would annually receive 45 percent of the authorized federal funds, was to be the existing "Federal-aid [primary³⁶] highway system."³⁷ The 1944 Act declined to spell out criteria for inclusion of particular routes within this system. When Congress eventually codified

30. BURCH, *supra* note 25, at 230.

31. In classifying all federal-aid highways as "primary, some states may simply have been relying on "primary highway" as that term was customarily used in state highway law. See *Hearings on H.R. 2426 Before the House Comm. on Roads*, 78th Cong., 2d Sess. 59-60 (1944) (testimony of F.R. White, Chief Engineer of the Iowa State Highway Commission) [hereinafter cited as *1944 House Hearings*]. As a matter of state law phraseology, a primary highway was one which was part of the state's own highway system and which accordingly was under the jurisdiction of the state highway department. See BURCH, *supra* note 25, at 140, 144; HIGHWAY RESEARCH BOARD, *HIGHWAY SYSTEM CLASSIFICATION: A LEGAL ANALYSIS—PART I*, at 3-4, 6 (1969). Primary highways of this sort were very often the kind of "intercountry" facility which the 1921 Act would have described as "secondary." Noteworthy is the fact that the entire post-1921 federal-aid program was commonly understood as redounding to the benefit of the farmer. The program's administration was in the Department of Agriculture (see Act of July 11, 1916, ch. 241, § 1, 39 Stat. 355), and its slogan was "to get the farmer out of the mud." See, e.g., Levin, *Federal Aspects of the Interstate Highway Program*, 38 NEB. L. REV. 377, 379 (1959); *Policy vs. Program*, *supra* note 6, at 94.

32. We are told that federal and state officials from the first regarded the three-sevenths allotment as "wholly inadequate" for the needs of cross-state traffic. BURCH, *supra* note 25, at 230.

33. By passing no comprehensive highway act between 1940 and 1944, Congress had allowed the preexisting highway program to lapse during the 1944 and 1945 war years. See *LAWS RELATING TO FEDERAL AID IN CONSTRUCTION OF ROADS* 122-53 (U.S. Government Printing Office 1966).

34. Act of Dec. 20, 1944, ch. 626, 58 Stat. 838.

35. Another innovation of the 1944 Act was that it rendered rights-of-way acquisition costs eligible for federal aid, although the federal share ceiling was set at only one-third. *Id.* § 5(a), 58 Stat. 840. The federal share ceiling was lifted to one-half by the Federal-Aid Highway Act of 1950. Act of Sept. 7, 1950, ch. 912, § 7, 64 Stat. 789.

36. The word "primary" was added by the Federal-Aid Highway Act of 1952, ch. 462, § 1(a), 66 Stat. 158, but this was understood as merely restating and clarifying existing law. See, e.g., H.R. REP. NO. 1730, 82d Cong., 2d Sess. 6 (1952).

37. Federal-Aid Highway Act of 1944, ch. 626, §§ 2, 3(a), 58 Stat. 839.

the highway title in 1958,³⁸ the "primary system" was quite tersely defined as an "adequate system of connected main highways."³⁹ The federal primary system frequently is assumed to consist of the U.S.-numbered roads⁴⁰—routes 1, 20, 66, and so forth. This assumption, though understandable, is technically incorrect. U.S. numbering is a designation enterprise carried out by states acting cooperatively, but on their own; a number of routes bearing the U.S. emblem are not part of the primary (or any other federal-aid) system, and there are individual routes within the primary system which lack a U.S. designation.⁴¹ Most federal-aid primary highways, however, carry a U.S. number, and vice versa;⁴² hence the map of U.S.-numbered routes provides a workable image of the primary system.

The second or *B* element consisted of principal "secondary and feeder roads," which were expected to receive 30 percent of the annual federal funds.⁴³ The post-1944 "secondary" or *B* program had antecedents in the secondary routes ineffectively provided for by the 1921 Act,⁴⁴ and also in the secondary highways furnished with special funding by the 1934 Act.⁴⁵ This latter Act illustrated secondary highways as "farm to market roads, rural free delivery mail roads, and public-school bus routes,"⁴⁶ and the 1944 Act's description of secondary roads was patterned after the 1934 Act's illustrations. The 1944 Act was in turn expanded by later acts, with the result that "nearly every rural road in the United States" currently falls within the secondary category.⁴⁷

The final element of the tripartite 1944 federal program was the *C* category, which the 1944 Act characterized as "projects on the Federal-aid highway system in urban areas."⁴⁸ This recognition of the *C* routes was the culmination of years of development. The original 1916 and 1921 highway legislation had been explicit in rendering all roads in urban areas ineligible for federal aid.⁴⁹ Not until a major depression set in was this urban

38. 23 U.S.C. § 101 *et seq.* (1958).

39. *Id.* § 103(b) (1970).

40. *See, e.g.*, WARNER, *supra* note 23, at 38.

41. *See generally* AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, THE FIRST FIFTY YEARS: 1914-64, at 31, 144-46 (1965). The federal Bureau of Public Roads did play a role in the launching of this enterprise. *See id.* at 139-44.

42. *Id.* at 131.

43. Federal-Aid Highway Act of 1944, ch. 626, §§ 2, 3(b), 58 Stat. 839.

44. Federal Highway Act of 1921, ch. 119, § 6, 42 Stat. 213.

45. Act of June 18, 1934, ch. 586, 48 Stat. 993.

46. *Id.* § 1.

47. *See* BURCH, *supra* note 25, at 226.

48. Federal-Aid Highway Act of 1944, ch. 626, § 3(c), 58 Stat. 840.

49. Act of July 11, 1916, ch. 241, § 2, 39 Stat. 356; Federal Highway Act of 1921, ch. 119, § 2, 42 Stat. 212. The urban exclusion can be partly explained in terms of need: by 1916 cities generally had developed their own streets at least to a point of minimum adequacy, while roads

exclusion successfully challenged. Public works legislation enacted by Congress in 1932 and 1933 afforded one-shot funding to the federal highway program to which the exclusion did not apply;⁵⁰ the legislative purpose was to provide employment, and the unemployed were to be found in the cities.⁵¹ A year later, in the 1934 Act,⁵² Congress took the further step of eliminating the urban exclusion from the highway program in its ongoing operation.⁵³ This meant that full discretion now lay with state highway departments as to the inclusion of urban routes within their federal-aid system; federal law stipulated neither a maximum nor a minimum urban figure. A fundamental fact about traditional state highway programs is their antiurban orientation,⁵⁴ because of this orientation, in the years following 1934 the state departments placed little emphasis on city projects in exercising their federal-law discretion.⁵⁵ The 1944 Act, by mandating the expenditure of 25 percent of a state's federal aid for urban C projects,⁵⁶ thus accomplished a significant change.

Two quite distinct interpretations of the new C program quickly surfaced.⁵⁷ Under one interpretation, the basic criterion for C projects was that they best serve the highway needs⁵⁸ of the individual metropolitan area; under the other, an urban area route would qualify for C status only if its function was to "extend" into a city an otherwise intercity highway which itself belonged to the A federal-aid system.⁵⁹ The federal Bureau of Public Roads, charged with administering the program,⁶⁰ originally favored the

connecting (but still outside of) cities were typically in a "wretched condition." See G. SMERK, *URBAN TRANSPORTATION: THE FEDERAL ROLE* 121 (1965). See also HIGHWAY RESEARCH BOARD, *HIGHWAY SYSTEM CLASSIFICATION: A LEGAL ANALYSIS—PART I*, at 69 (1969).

50. Emergency Relief and Construction Act of 1932, ch. 520, § 301(a)(1), 47 Stat. 716; National Industrial Recovery Act of 1933, ch. 90, § 204(a)(1), 48 Stat. 203. President Hoover signed the 1932 bill with great reluctance after vetoing an earlier version. See I. BERNSTEIN, *THE LEAN YEARS* 456-69 (1960). The 1933 provision is one part of President Roosevelt's famous National Industrial Recovery Act.

51. See G. SMERK, *URBAN TRANSPORTATION: THE FEDERAL ROLE* 124 (1965).

52. Act of June 18, 1934, ch. 586, 48 Stat. 993.

53. *Id.* § 13, at 995-96. Professor Warner thus is not correct in stating that "[u]ntil 1944 no federal highway funds were expended on urban" roads. WARNER, *supra* note 23, at 38.

54. See R. CONNERY & R. LEACH, *THE FEDERAL GOVERNMENT AND METROPOLITAN AREAS* 49-50 (1960). See also text accompanying notes 77-81 *infra*.

55. See 1944 *House Hearings*, *supra* note 31, at 756 (testimony of Frederick MacMillan, Executive Secretary of the League of Wisconsin Municipalities).

56. Federal-Aid Highways Act of 1944, ch. 626 §§ 2, 3(c), 58 Stat. 839-40.

57. See BURCH, *supra* note 25, at 234-35.

58. This phrase should be used with caution, since the concept of "highway needs" is one which is frequently abused. See *Hearings on Economic Analysis and the Efficiency of Government Before the Subcomm. on Economy in Government of the Joint Economic Comm.*, 91st Cong., 2d Sess. 1129 (1970) (statement of Peter Craig).

59. As between the two interpretations, the legislative history of the 1944 Act is indecisive. See, e.g., S. REP. NO. 1056, 78th Cong., 2d Sess. 4, 8 (1944); H.R. REP. NO. 1597, 78th Cong., 2d Sess. 2, 5, 9 (1944); 1944 *House Hearings*, *supra* note 31, at 74-76, 417, 576, 755-61.

60. Until 1939 the Bureau was located in the Department of Agriculture. In that year it was

intrametropolitan interpretation, and attempted to require the states to adopt general highway plans for each metropolis—an “urban system” of highways. In this effort, however, the Bureau encountered stern resistance from the states. In 1955, responding to a hint in the 1954 Act,⁶¹ the Bureau gave up on its earlier position and administratively ruled that all *C* routes must be “extensions” of either the *A* or the *B* facilities.⁶² This result was expressly confirmed by Congress in the 1956 Act,⁶³ which drew the 45-30-25 percent distinctions among the “Federal-aid primary highway system,” “the Federal-aid secondary highway system,” and “extensions of these systems within urban areas.”⁶⁴

The general structure of the *A-B-C* program was continued intact through the Federal-Aid Highway Act of 1968,⁶⁵ with funding gradually increasing to \$1.1 billion annually.⁶⁶ That structure finally was altered by the 1970 Act⁶⁷ which raised the federal share to 70 percent⁶⁸ and added a new federal-aid system called the “urban system”⁶⁹—essentially the independent urban program which the Bureau had originally sought to read into the 1944 Act. The 1973 Act,⁷⁰ which Congress gestated over a

shifted to the Federal Works Agency, a New Deal creation. A transfer or two later, the Bureau wound up in the Department of Commerce in 1949. LEAVITT, *supra* note 14, at 23-26. In 1956, Congress authorized the appointment of a Federal Highway Administrator to manage the Bureau, which until then had been run by its own Commissioner. See Act of Aug. 3, 1956, ch. 937, 70 Stat. 990. As part of the Department of Transportation, created in 1966, an entire Federal Highway Administration was set up, with the Bureau of Public Roads as only one of its components (the National Traffic Safety Bureau was another). Department of Transportation Act of 1966, Pub. L. No. 89-670, § 3, 80 Stat. 931-32 (codified as 49 U.S.C. § 1652(f) (1970)). During President Nixon’s first term, the National Highway Traffic Safety Administration was given independent status within the Department (Highway Safety Act of 1970, Pub. L. No. 91-605, tit. II, § 201, 84 Stat. 1739), and the Bureau of Public Roads, veteran of so many bureaucratic intrigues, was dissolved by merger (H.R. REP. No. 91-1554, 91st Cong., 2d Sess. (1970)) into the Federal Highway Administration (often referred to as FHWA, an acronym which visually too much resembles YHVH, and hence will be avoided in this Article).

61. In expanding the *C* program to include urban routes on the secondary (as well as the primary) system, the Act’s precise language referred to “approved extensions of the Federal-aid secondary systems within urban areas.” Federal-Aid Highway Act of 1954, ch. 181, § 1(c), 68 Stat. 71.

62. See BURCH, *supra* note 25, at 234-35; *Hearings on H.R. 4260 Before the House Comm. on Public Works*, 84th Cong., 1st Sess. 807-08, 810-12 (1955) (testimony of Shepard A. Magidson) [hereinafter cited as *1955 House Hearings*].

63. Federal-Aid Highway Act of 1956, ch. 462, 70 Stat. 374.

64. *Id.* § 102(a)(1).

65. Act of Aug. 23, 1968, Pub. L. No. 90-495, 82 Stat. 815 (codified in scattered sections of 23 U.S.C.).

66. *Id.* § 5(1), 82 Stat. 816.

67. Federal-Aid Highway Act of 1970, Pub. L. No. 91-605, 84 Stat. 1713 (codified in scattered sections of 23 U.S.C.).

68. *Id.* § 108, 84 Stat. 1718.

69. *Id.* § 106, 84 Stat. 1716.

70. Federal-Aid Highway Act of 1973, Pub. L. No. 93-87, 87 Stat. 250 (codified in scattered sections of 23 U.S.C.).

2-year period, is an endlessly complicated enactment with provisions for everything from mass transit to bicycle trails; one of these provisions allows "urban system" funds to be spent for urban public transportation projects.⁷¹ The proposed 1976 Federal-Aid Highway Act is expected to simplify and consolidate somewhat these several highway program elements.⁷²

B. THE HISTORY OF URBAN FREEWAYS

Urban freeway building did not begin in this country until the late 1930's; the Arroyo Seco Freeway in Los Angeles (now the Pasadena Freeway) was among the very first.⁷³ In the 1944 Act Congress provided special federal funding for urban facilities,⁷⁴ and in its early administration of the C program the Bureau of Public Roads assigned to urban freeways a considerable priority.⁷⁵ Although the C program grew in its federal authorization from \$125 million in 1944 to \$175 million in 1954,⁷⁶ such sums divided into 48 shares resulted in only \$2.6 million (\$3.6 million) annually for the average state—amounts which did not go very far towards covering the cost of expensive urban freeways. For this reason and despite the Bureau's priorities, the total mileage of federally aided urban freeways as of 1956 was relatively limited.

During the 1944-56 interval, state highway programs were responsible for the building of some urban freeways, but not very many. In earlier years state statutes had withheld from state highway departments all authority to build highways within city limits;⁷⁷ as late as 1956, these departments were allowed to do no more in cities than build "extensions"

71. *Id.* § 121(a), 87 Stat. 259-60 (codified at 23 U.S.C. § 142(a)(2) (Supp. III, 1973)). The states have proven slow in availing themselves of their urban-system opportunities under the 1970 and 1973 Acts. S. REP. NO. 94-485, 94th Cong., 1st Sess. 8-9 (1975).

72. See S. REP. NO. 94-485, 94th Cong., 1st Sess. 57 (1975); H.R. REP. NO. 94-716, 94th Cong., 1st Sess. 9 (1975).

The Administration had recommended a more extensive consolidation. The Administration's entire 1975 legislative proposal is described in four documents: (1) an undated draft of its proposed "Federal-Aid Highway Act of 1975"; (2) an undated "Section by Section Analysis" of that bill; (3) an undated "Explanation" of the bill's Trust Fund and Interstate System aspects; and (4) an "Environmental Impact Statement" on the bill, dated June 1975 (copies on file with the author). These four items will be cited collectively hereinafter as Dep't of Transportation 1975 Documents.

73. See J. ROBINSON, *HIGHWAYS AND OUR ENVIRONMENT* 79 (1971).

74. See text accompanying note 56 *supra*.

75. In the first year and a half under the 1944 Act, the Bureau approved 144 urban freeway miles, which alone accounted for almost half of the available C funds. See Barnett, *Progress in the National Status of Urban Arterial Routes*, 2 *TRAFFIC Q.* 80, 87 (1948).

76. Federal-Aid Highway Act of 1944, ch. 626, § 3, 58 Stat. 838; Federal-Aid Highway Act of 1954, ch. 181, § 1, 68 Stat. 70.

77. See HIGHWAY RESEARCH BOARD, *HIGHWAY SYSTEM CLASSIFICATION: A LEGAL ANALYSIS—PART I*, at 69-77 (1969).

of state and rural highways,⁷⁸ and even this extension power was frequently circumscribed.⁷⁹ In 1956, state funding for urban highway projects remained meager; occasionally, rurally dominated legislatures budgeted no more than the minimum necessary to match the federal C apportionment and thereby entitle the state to the C program federal aid.⁸⁰ Moreover, in distributing funds earmarked for urban projects, it was common for the state departments to discriminate in favor of small cities and against the major metropolitan areas.⁸¹ Such state programs apart, cities did not build many freeways on their own; they could not be expected to do so, in light of the obvious need to plan and develop urban highways at a governmental level higher than the municipality.⁸²

For whatever the complex of governmental reasons, by 1956 there were only 480 freeway miles completed or under construction in the country's 25 largest cities.⁸³ Two hundred ninety of these miles were confined to New York, Los Angeles, and Chicago.⁸⁴ There were no freeways completed or even under construction in four of the 25 cities, and eight other cities had a combined total of less than 33 freeway miles.⁸⁵ Few of these freeways were built to what are now conceived of as modern urban freeway standards; many of them belonged to the "Interstate System" preliminary established in 1944 and 1947.⁸⁶

With the modern Interstate program assuming jurisdiction via the 1956 Act for (eventually) 8,600 urban freeway miles,⁸⁷ it is unclear how much of the C-program billions spent since 1956 has gone for urban freeways, rather than for more conventional urban highways.⁸⁸ In some states, such as California, state urban freeway programs flourished during the late 1950's and 1960's. Elsewhere, the Interstate System was allowed to take over most of those urban freeways which state and local officials were especially eager to proceed ahead on.⁸⁹ Presently the total national

78. *Id.*

79. See W. OWEN, *THE METROPOLITAN TRANSPORTATION PROBLEM* 59 (1st ed. 1956) [hereinafter cited as OWEN].

80. BURCH, *supra* note 25, at 225.

81. *Id.* at 154, 226.

82. *But see Hearings on S. 1048, S. 1072, S. 1160, and S. 1573 Before a Subcomm. of the Senate Comm. on Public Works, 84th Cong., 1st Sess. 218-20 (1955) (effective state-local cooperation in Detroit) [hereinafter cited as 1955 Senate Hearings].*

83. See OWEN, *supra* note 79, at 47. The figures relate to the central cities only, not to entire metropolitan areas.

84. *Id.*

85. *Id.*

86. The 1944-47 System is discussed in notes 121-50 and accompanying text *infra*.

87. See note 254 *infra*.

88. The freeway which was judicially halted in the case of *Named Individual Members of San Antonio Conservation Soc'y v. Texas Highway Dep't*, 446 F.2d 1013 (5th Cir. 1971), was a federal-aid C highway rather than an Interstate.

89. See, e.g., A. ALTSHULER, *THE CITY PLANNING PROCESS* 22 (1965) (dealing with St. Paul);

amount of non-Interstate urban freeways can be estimated at less than 4,000 miles.⁹⁰ Therefore, when we speak of urban freeways in this country, we are speaking largely of the urban Interstates.

C. THE GAS TAX

As far back as 1919, Oregon became the first state to levy a gasoline tax, set initially at 1 cent per gallon. All other states quickly followed suit, and substantial state gas taxes have been with us ever since.⁹¹ From the first, the justification for these special state taxes on gasoline seems to have been that their proceeds would be ticketed for highway construction and maintenance⁹²—herein the “linkage” principle. A few state legislatures did, however, “divert” gas tax funds into general revenue, and the incidence of diversion began to rise during the early 1930’s.⁹³ In the 1934 Act, Congress responded to these events by proclaiming that diversion was “unfair and unjust” and by threatening to cut off partially federal highway funding to states which diverted excessively.⁹⁴ This statute was curiously hypocritical, since at the time of its enactment the federal government was by far the country’s largest single diverter.⁹⁵ Moreover, the statute’s bark was worse than its bite. Its definition of excessive diversion—once the execrable syntax was untangled—turned out to be surprisingly tepid,⁹⁶ and there has never been occasion to invoke the funding cutoff. At the state level, however, diversion was attacked during the middle and late 1930’s in a far more effective fashion.⁹⁷ By the end of that decade, a majority of the states had inserted amendments into their constitutions barring the diversion of gas tax proceeds to nonhighway purposes.⁹⁸ These “antidiversion” amendments typically insist that the tax’s proceeds be spent “exclusively for highway purposes”;⁹⁹ this latter

LUPU, COLCORD & FOWLER, *supra* note 12, at 13-14 (Ecstion inner belt); J.S. Bragdon, Interim Report, Progress Review of National System of Interstate and Defense Highways, Mar. 5, 1960, at 9-10 (Bragdon Papers, Eisenhower Library) [hereinafter cited as Interim Report].

90. This is based on my review of maps of a number of metropolitan areas. Most of the non-Interstate urban freeways have probably received at least some federal support from the C program.

91. See BURCH, *supra* note 25, at 36.

92. *Id.* at 37, 47-49.

93. RAE, *supra* note 12, at 77.

94. Act of June 18, 1934, ch. 586, § 12, 48 Stat. 935, as amended, 23 U.S.C. § 126 (1970).

95. See BURCH, *supra* note 25, at 73.

96. In effect, the statute merely says that if in 1934 a state spent \$X out of its highway user revenues for highway purposes, in future years it must spend at least \$X from such revenues in order to avoid the disqualification.

97. *Cf.* RAE, *supra* note 12, at 78-79.

98. Soloman, *Towards Balanced Urban Transportation: Reform of the State Highway Trust Funds*, 4 URBAN LAW. 77, 78 & n.5 (1972).

99. *E.g.*, WASH. CONST. art. 2, § 40.

phrase has generally been given a limited interpretation by the state judiciary.¹⁰⁰

The modern federal gas tax was inaugurated at the level of 1 cent per gallon as part of the Revenue Act of 1932,¹⁰¹ which was entirely separate from the federal highway program.¹⁰² The gas tax was regarded as a simple excise tax.¹⁰³ While the tax was understood to be an emergency depression measure,¹⁰⁴ it escaped repeal as the years wore on. In 1941 the tax was increased to 1.5 cents,¹⁰⁵ where it remained until 1951, when it was pegged at 2 cents.¹⁰⁶ Over the years the gas tax proceeds continued to be unearmarked, funds for the highway program continued to be drawn from general revenue, and annual tax revenues vastly exceeded the program's expenditures.¹⁰⁷ Once it became clear that the federal tax was not merely a temporary phenomenon, it aroused the opposition of many groups, including the American Association of State Highway Officials (AASHO),¹⁰⁸ the automobile manufacturers, the trucking industry, the petroleum industry, and certain farmer organizations.¹⁰⁹ This opposition movement reached its peak in 1952 and 1953, when it gained the support of the prestigious Governors' Conference, which in each of those years issued formal resolutions calling for the "return" of the gas tax to the states.¹¹⁰ At the same time, however, the gas tax was sliding, if somewhat silently, in the direction of linkage. In 1955 federal gas tax revenues and federal highway expenditures were just about equal,¹¹¹ and this was apparently other than mere coincidence.

100. See, e.g., the cases reported in Soloman, *Towards Balanced Urban Transportation: Reform of the State Highway Trust Funds*, 4 URBAN LAW. 77, 90-101 (1972).

101. Act of June 6, 1932, ch. 209, § 617, 47 Stat. 266.

102. This Act also imposed a new federal tax of 2.25 cents per pound on tires and 4 cents per pound on inner tubes. *Id.* § 602, 47 Stat. 261.

103. See 1955 House Hearings, *supra* note 62, at 48 (testimony of Commerce Secretary Sinclair Weeks).

104. See BURCH, *supra* note 25, at 71; 1955 House Hearings, *supra* note 62, at 48 (testimony of Commerce Secretary Weeks).

105. Revenue Act of 1941, ch. 412, § 521(a)(20), 55 Stat. 707.

106. Revenue Act of 1951, ch. 521, § 489, 65 Stat. 536. The 1954 Revenue Code boosted the tire tax to 5 cents per pound and the inner tube tax to 10 cents per pound. INT. REV. CODE OF 1954, § 4071.

107. See LEAVITT, *supra* note 14, at 35. The 1941 and 1951 tax increases were undoubtedly occasioned by the need to raise revenues during wartime.

108. Renamed, in 1974, the American Association of State Transportation Officials (AASTO).

109. See 1955 House Hearings, *supra* note 62, at 899-900 (statement of American Trucking Association); *id.* at 1267-73 (statement of American Petroleum Institute); *id.* at 328 (testimony of American Farm Bureau Federation); 1955 Senate Hearings, *supra* note 82, at 492 (testimony of Automotive Manufacturers Association).

110. See R. ZETTEL, FEDERAL HIGHWAY LEGISLATION OF 1956 AND ITS IMPACT ON CALIFORNIA 7 (1957).

111. See 1955 House Hearings, *supra* note 62, at 328 (testimony of American Farm Bureau Federation).

II. THE INTERSTATE SYSTEM

A. THE 1944 ACT—ITS ANTECEDENTS AND SEQUELAE

The earliest traces of the Interstate System can be found in a map drawn by General Pershing at the close of World War I, based on a War Department study, sketching out a nationwide system of advanced highways thought to be of value in the transportation of military materials and personnel.¹¹² But the Pershing map had been largely forgotten by the late 1930's, when the modern history of the Interstate System began in earnest with the Federal Aid Highway Act of 1938.¹¹³ That Act commissioned the Bureau of Public Roads to conduct a study of a set of six superhighways—three east-west and three north-south—to traverse the country; one specific question the Bureau was ordered to explore was the "feasibility of a toll system on such roads."¹¹⁴ The Bureau's report, *Toll Roads and Free Roads*, was submitted to Congress in early 1939.¹¹⁵ Part I of the report described a 14,000-mile system of four-lane divided highways which complied with Congress' three-by-three mandate. The report's conclusion, however, was that less than 200 miles of this system would generate tolls equal to costs, and that on barely one-fifth of the mileage would the tolls even recoup half of the original cost;¹¹⁶ the central finding underlying these conclusions was that the volume of transcontinental or even "semicontinental" traffic was surprisingly light.¹¹⁷ In Part II the report considered the "free" road possibility, as applied, however, not to the three-by-three system which Congress had referred, but rather to a more ambitious system of 27,000 miles.¹¹⁸ The resulting "Master Plan of Free Highway Development"¹¹⁹ received the Bureau's endorsement. The Bureau's report placed considerable emphasis on the idea that this highway system would go into, through, and closely around the country's major metropolitan areas.¹²⁰

112. See generally *New Roads*, *supra* note 13, at 13; Turner Interview.

113. Act of June 8, 1938, ch. 328, 52 Stat. 633. The Senate Report refers to "widespread interest" in such a system. S. REP. NO. 1794, 75th Cong., 3d Sess. 5 (1938).

114. Federal Aid Highway Act of 1938, ch. 328, § 13, 52 Stat. 636.

115. BUREAU OF PUBLIC ROADS, *TOLL ROADS AND FREE ROADS*, H.R. DOC. NO. 272, 76th Cong., 1st Sess. 1 (1939).

116. *Id.* at 2-4.

117. *Id.* at 5-7.

118. See the Bureau's justification of this proposal, *id.* at 4.

The "free" in "freeway" conveys a quite different meaning, *i.e.*, "freedom" from interference by cross-traffic, counter-traffic, or pedestrians. See Bassett, *The Freeway—A New Kind of Thoroughfare*, AM. CITY, Feb. 1930, at 95.

For discussion as to whether a free system can make sense under circumstances where a toll system could not pay its way, see text accompanying notes 316-22 *infra*.

119. BUREAU OF PUBLIC ROADS, *TOLL ROADS AND FREE ROADS*, H.R. DOC. NO. 272, 76th Cong., 1st Sess. 89 (1939).

120. *Id.* at 90-102.

The Bureau's plan lay dormant until 1941, when President Roosevelt appointed an Interregional Highway Committee, whose membership was of distinguished caliber,¹²¹ to reinvestigate the entire question of a national superhighway system.¹²² The Committee's report, *Interregional Highways*, the result of 2-years' work, investigated five possible freeway systems of differing lengths. It was the third largest of these (33,920 miles) which the Committee concluded was "optimal";¹²³ this system would connect all cities of over 300,000 population, and almost all cities of over 100,000.¹²⁴ Over 4,400 of the proposed miles would be located within city boundaries; this mileage was intended to "provide direct connection into and through all of [the] cities" reached by the interregional system.¹²⁵ The Committee went on to indicate the general desirability of additional circumferential and distributing routes within metropolitan areas; it recommended up to 5,000 miles of these as a supplement to the basic 33,920 miles.¹²⁶

Interregional Highways was submitted to Congress in January 1944. Congress proceeded to place the following simple section in the already ambitious 1944 Act:

SEC. 7. There shall be designated within the continental United States a National System of Interstate Highways not exceeding forty thousand miles in total extent so located as to connect by routes, as direct as practicable, the principal metropolitan areas, cities, and industrial centers, and to serve the national defense The routes of the National System of Interstate Highways shall be selected by joint action of the State highway departments of each State and the adjoining States All highways included in the National System of Interstate Highways as finally approved, if not already included in the Federal-aid highway system, shall be added to said system without regard to any mileage limitation.¹²⁷

121. The Committee consisted of the head of the Bureau of Public Roads, two state highway officials, a former state governor, a federal natural resources official, and two city planners (one of them Rexford Tugwell, a member of the President's original Brain Trust, and in 1941 the Chairman of the New York City Planning Commission). See the Committee's Letter of Submittal of its Report, in NATIONAL INTERREGIONAL HIGHWAY COMMITTEE, INTERREGIONAL HIGHWAYS, H.R. DOC. NO. 379, 78th Cong., 2d Sess., ix (1944) [hereinafter cited as INTERREGIONAL HIGHWAYS].

122. In creating this Committee, Roosevelt acted on his own authority. In 1943 legislation, however, Congress directed the Bureau to conduct a "survey of the need for a system of express highways throughout the United States" Act of July 13, 1943, ch. 236, § 5, 57 Stat. 561. Since the Bureau's Commissioner was already serving as chairman of Roosevelt's Committee and since the Bureau was doing the Committee's staff work, the Bureau adopted the Committee's report as its own. INTERREGIONAL HIGHWAYS, *supra* note 121, at iv.

123. INTERREGIONAL HIGHWAYS, *supra* note 121, at 3-4. The lengths of the other systems considered were 14,200, 26,700, 36,000, and 48,400 miles. *Id.* at 4.

124. *Id.* at 6. The Committee's recommendation was that every route on the system should enjoy limited access. *Id.* at 78.

125. *Id.* at 51.

126. *Id.* at 52.

127. Federal-Aid Highway Act of 1944, ch. 626, § 7, 58 Stat. 842.

The "interstate" language of this section is, of course, familiar, resembling the statutory definition of the primary or A program.¹²⁸ The 40,000-mile limitation on mileage, however, combined with the assumption of limited access, signified that the Interstate System was extremely serious about its "interstate" intentions in a way quite unlike the A program; one 1944 witness aptly referred to the proposed Interstate System as a "primary-primary system."¹²⁹

In 1947 agreement was reached by the Bureau and the states on 37,800 of section 7's 40,000 miles. By this section 7 "joint action," the designations were made official and a map was published.¹³⁰ Almost 3,900 of the 37,800 miles were in urban areas; these were the embodiment of the 4,400 mile allowance in *Interregional Highways* for highways which "carry" traffic "through" the cities.¹³¹ In response to *Interregional Highways'* supplemental up-to-5,000 miles proposal for circumferential and distributing highways, the System's remaining 2,200 miles¹³² were reserved for later designation within urban areas; the reason given for postponing decision on these urban routes was to allow time in which to secure better urban traffic information.¹³³

Because of limited funding, very few of the Interstates were built between 1944 and 1952.¹³⁴ In 1955 Congress began serious consideration of legislation which would provide adequate Interstate financing.¹³⁵ With such legislation pending, the time had obviously come to reach decision on the remaining 2,200 miles. An invitation from the Bureau drew proposals totalling 3,500 miles from at least 38 states.¹³⁶ In early June a Bureau memorandum set forth the criteria for selection of these remaining urban Interstates.¹³⁷ Noting that the 1947 designations had been rather vague as to the location of the urban routes, this memorandum indicated that proposals for new Interstate mileage should be accompanied by the

128. See text accompanying notes 27-32 *supra*.

129. See 1944 House Hearings, *supra* note 31, at 189 (testimony of William J. Cox, State Highway Commissioner of Connecticut).

130. 1955 Senate Hearings, *supra* note 82, at 676-80. The system officially designated in 1947 is quite similar to the system originally mapped in INTERREGIONAL HIGHWAYS, *supra* note 121, at 7.

131. See generally 1955 Senate Hearings, *supra* note 82, at 671 (testimony of Bureau of Public Roads Commissioner C. D. Curtiss).

132. 40,000 miles less 37,800 miles.

133. See 1955 Senate Hearings, *supra* note 82, at 1977 (testimony of Bureau Commissioner Curtiss).

134. See text accompanying note 147 *infra*.

135. See text accompanying notes 151-97 *infra*.

136. Circular Memorandum from A.C. Clark, Deputy Commissioner, to Division and District Engineers, Subject: Criteria for Selection of Additional Interstate System Routes at Urban Areas, June 9, 1955 (on file with the author) [hereinafter cited as 1955 Bureau Memorandum].

137. *Id.* at 1.

fixing of somewhat more specific corridors for those routes already approved.¹³⁸ Pursuant to this recommendation, all the urban Interstates originally approved in 1947 were given a thorough restudy—even though none of these 1947 approvals were in the end rescinded.¹³⁹ In September 1955, the Bureau announced its decisions as to the remaining 2,200 urban miles. It then released a document entitled *General Location of National System of Interstate Highways* (known within the profession as the *Yellow Book*¹⁴⁰), which contained a national map of the entire System and individual maps of 100 urban areas, showing the approved urban Interstate routes in each locality. For the major metropolitan areas the maps generally display an "inner belt" encircling all or part of the downtown areas, an "outer belt" encircling all or part of the entire metropolis, and one or more "radial" freeways leading outward from the inner belt.¹⁴¹ In a typical medium-size metropolitan area the proposed Interstate splits in two as it approaches the city, one branch going through the city and the other around it, with the two branches then reuniting at a point beyond the city.¹⁴² For many smaller cities the maps show a single freeway "spur" connecting the city with the Interstate as it sweeps by some distance away.¹⁴³ All of these Interstates having been designated by the "joint [federal-state] action" procedure contemplated by section 7. It has been the understanding of federal highway officials that neither they nor the states possess the unilateral legal power to delete routes from this predesignated system.¹⁴⁴

The Interstate System was thus in a real sense legally established in 1944, 1947, and 1955, and hence the frequent statements that it was "created" by the 1956 Act are inadequate.¹⁴⁵ It is true, however, that the

138. *Id.* at 1. See also *1955 Senate Hearings, supra* note 82, at 674 (statement of Bureau Commissioner Curtiss).

139. Turner Interview.

140. This was due to the color of its cover.

141. See, e.g., the map for Boston in BUREAU OF PUBLIC ROADS, GENERAL LOCATION OF NATIONAL SYSTEM OF INTERSTATE HIGHWAYS 37 (1955).

142. See, e.g., the map for Flint, Mich. *Id.* at 42.

143. See, e.g., the map for Battle Creek, Mich. *Id.* at 40.

144. As to the absence of federal power, see *1955 Senate Hearings, supra* note 82, at 982 (testimony of Henry Kaltenbach, Chief Counsel for the Bureau). For the absence of state power, see *Hearings on H.R. 11619, H.R. 12633, H.R. 13442, and H.R. 13585 Before the Subcomm. on Roads of the House Comm. on Public Works, 90th Cong., 1st Sess. 35 (1967)* (testimony of Federal Highway Administrator Lowell K. Bridwell) [hereinafter cited as *1967 House Hearings*]. The state might possess de facto power in this regard, however, by refusing to submit a route for actual funding under 23 U.S.C. § 106 (1970). The Secretary would also undoubtedly be reluctant to insist on a route which the state clearly does not want. This latter point is implicit in the Bridwell testimony. See *1967 House Hearings, supra* at 34-53.

145. E.g., R. GOODMAN, AFTER THE PLANNERS 72 (1971) (Interstate System "signed into law" in 1956); READINGS IN URBAN TRANSPORTATION 231 (G. Smerk ed. 1968) (introduction to ch. 6); WARNER, *supra* note 23, at 43. The film which is shown visitors at the Eisenhower Library in Abilene, Kansas, claims in its soundtrack that the 1956 Act "initiated" the Interstate System.

1944 Act provided no special funding for the System, nor did it in any way establish a distinct Interstate program. Instead the Act merely included the entire System within the federal-aid primary system, making it eligible for federal funding under that program's ordinary operation.¹⁴⁶ Only 1 percent of the System was completed to full Interstate standards in the 5 years after the 1947 designations.¹⁴⁷ The Interstates were, of course, extremely expensive to build, and the states preferred to deploy their limited primary apportionment over a larger number of ordinary highway projects rather than exhausting it on a very small number of Interstates. In 1944 this slow rate of progress had been foreseen by only a very few.¹⁴⁸ It was only in the early 1950's that federal officials came to realize that special funding would be needed if the System were to be built within the reasonable future. With auto registrations having nearly doubled in the years after World War II,¹⁴⁹ and with the view becoming widely accepted that the country's road system was "functionally obsolete,"¹⁵⁰ the need for superhighways came to be regarded as especially urgent.

B. THE 1956 ACT

To "expedite" the System, the 1952 Act¹⁵¹ budgeted a separate \$25 million for each of the next 2 years—really only a pittance—for System construction.¹⁵² The 1954 Act,¹⁵³ the first highway legislation of the Eisenhower era, added a special \$175 million for each of the next 2 years and increased the federal share for this special Interstate expenditure to 60 percent.¹⁵⁴ Obviously, these measures were capable of speeding up the System's construction only slightly.¹⁵⁵ The real impetus for an accelerated Interstate program came in the form of a Presidential address delivered on July 12, 1954, by Vice President Nixon to the Governors'

146. See Federal-Aid Highway Act of 1944, ch. 626, § 7, 58 Stat. 842, quoted in text accompanying note 127 *supra*.

147. See *New Roads*, *supra* note 13, at 14.

148. See *1944 House Hearings*, *supra* note 31, at 189 (testimony of State Highway Commissioner Cox of Connecticut, to the effect that the failure to provide special funding for the Interstate System would be "fatal").

149. See PRESIDENT'S ADVISORY COMMITTEE ON A NATIONAL HIGHWAY PROGRAM, A 10-YEAR NATIONAL HIGHWAY PROGRAM, H.R. DOC. NO. 93, 84th Cong., 1st Sess. 8 (1955) [hereinafter cited as CLAY COMMITTEE REPORT].

150. H. Mertins & D. Miller, *Urban Transportation Policy: Fact or Fiction*, June 1970, at 6 (Occasional Paper No. 2 of the Urban Transportation Institute of Syracuse University).

151. Federal-Aid Highway Act of 1952, ch. 462, 66 Stat. 158.

152. *Id.* § 2, 66 Stat. 159.

153. Federal-Aid Highway Act of 1954, ch. 181, 68 Stat. 70.

154. *Id.* § 2, 68 Stat. 72.

155. Even with the help of the 1952 and 1954 funding, by 1956 only 3,000 miles of the System had been completed. See *Hearings on H.R. 8836 Before the Subcomm. on Roads of the House Comm. on Public Works*, 84th Cong., 2d Sess. 55 (1956) (information provided by Bureau Commissioner Curtiss) [hereinafter cited as *1956 House Public Works Comm. Hearings*].

Conference at Bolton Lake, New York.¹⁵⁶ This address proposed in very general terms a vast expansion of the nation's highway program, and especially the Interstate System's share of that total program.¹⁵⁷ Contemporaries observed that the address had an "electrifying effect"¹⁵⁸ and furnished the often mundane highway issue with "a remarkable degree of grandeur."¹⁵⁹ It left open, however, almost all questions concerning the specifics of a federal legislative proposal. In September the President established an outside committee of blue-ribbon private citizens chaired by General Lucius D. Clay, a longtime Eisenhower confidant,¹⁶⁰ to give these questions their initial study. The Clay Committee's report,¹⁶¹ submitted to the President in January 1955, priced the System at \$27 billion, \$15 billion of which would be allotted to the System's urban routes.¹⁶²

156. This was 2 months after the signing of the Federal-Aid Highway Act of 1954. Vice President Nixon spoke from President Eisenhower's notes; Eisenhower was unable to attend because of a death in the family. See PUBLIC PAPERS OF PRESIDENTS OF THE UNITED STATES: DWIGHT D. EISENHOWER, 1954, at 629 (U.S. Government Printing Office 1960).

How Eisenhower was persuaded to accept the views expressed in the address remains somewhat unclear. One possible explanation concerns Francis du Pont, an Eisenhower appointee then serving as Commissioner of the Bureau. During the 1920's, du Pont's father had constructed a 5-mile route, which many regard as the country's first superhighway, on land he owned in Delaware (this facility has since been incorporated into the Delaware Turnpike). For the du Pont family, the promotion of superhighways became an idealistic mission. Within the Administration, du Pont apparently exerted a large influence on Eisenhower, who tended to be impressed by blue-ribbon businessmen of the du Pont sort. Johnson Interview; Turner Interview. Shortly after the Presidential address, du Pont resigned as Bureau Commissioner so that he could spend all his time, as a special consultant to the Secretary of Commerce, working on the emerging Interstate program. That he declined all compensation for this service impressed the Senate committee. See *1955 Senate Hearings*, *supra* note 82, at 38-39.

157. Address by Vice President Nixon, Governors' Conference, July 12, 1954, in PROCEEDINGS OF GOVERNORS' CONFERENCE 1954, at 87 (1954). The address recommended that over the next 10 years all levels of government spend \$50 billion more on highways than was otherwise being planned. *Id.* at 90.

158. Memorandum from [Highway Consultant] Robinson Newcomb to the Council of Economic Advisors, Aug. 23, 1954, in EISENHOWER DOCUMENTS, *supra* note 12, at 539.

159. Letter from John Peter Flynn to Sherman Adams, Nov. 15, 1954 (Files of the President's Advisory Committee on a National Highway System, Eisenhower Papers, Eisenhower Library).

160. After having served as a special deputy to General Eisenhower in 1945, General Clay had been selected by Eisenhower to administer the American zone in Germany. 1 WHO'S WHO IN AMERICA 1972-73, at 585 (37th ed. 1972). In 1951-52 Clay was influential in persuading Eisenhower to run for the Presidency. See H. PARMET, EISENHOWER AND THE AMERICAN CRUSADES 45-56 (1972). The idea of an outside committee had been urged on the President by Sherman Adams. See J.S. Bragdon, The Interstate Limited Access 90/10 Federal Aid System with Special Reference to Toll Financing and Intra City Routing, 1961, at 4-5 (manuscript which Bragdon unsuccessfully tried to have published in national magazines) (Bragdon Papers, Eisenhower Library) [hereinafter cited as Bragdon].

161. CLAY COMMITTEE REPORT, *supra* note 149.

162. This latter figure involved expenditure of \$11 billion for the already designated urban portions, and \$4 billion for additional "feeder and distribution routes" within urban areas. *Id.* at 14, 18. Although the second part of this recommendation was purportedly based on the Committee's own investigation (*id.* at 18-19), it amounted to an endorsement of the 2,200 urban miles of the original System left undesignated in 1947.

It took 2 years, several government studies, and both sessions of the 84th Congress to figure out what the sources would be for this \$27 billion. The ultimate congressional decisions in this regard became incorporated into the 1956 Act.¹⁶³ The highlights of that Act were: first, the fixing of a 90 percent federal share for Interstate construction;¹⁶⁴ second, the raising of a variety of federal highway-user taxes, including the gas tax (from 2 cents to 3 cents a gallon) and the tire tax (from 5 cents to 8 cents a pound), and the levying of a new annual licensing tax on all vehicles heavier than 26,000 pounds;¹⁶⁵ and third, the creation of a Highway Trust Fund into which all these revenues would be automatically funneled, to be available for expenditure without need for further congressional authorization.¹⁶⁶

While a full history of the 1956 Act is beyond the scope of this Article, it is important to take notice of three financing alternatives which were explicitly considered and rejected. In 1955 the rubber manufacturers, the American Automobile Association (AAA), and the petroleum industry, all noting the "defense" justification for the Interstate System,¹⁶⁷ argued that the program ought to be financed out of general revenues.¹⁶⁸ But this proposal was entirely unacceptable to the Administration, and elicited almost no interest in Congress.¹⁶⁹

The second alternative was tolls. President Eisenhower's memoirs disclose that he "originally preferred a system of self-financing toll highways" for the System;¹⁷⁰ Eisenhower's address to the governors envisioned that the entire national highway program would be based on the principle of "self-liquidation of each project, whenever that is possible, through tolls or an insured increase in gas tax revenues."¹⁷¹ By the

163. Act of June 29, 1956, ch. 462, 70 Stat. 374.

164. *Id.* § 108(b), 70 Stat. 378 (codified at 23 U.S.C. § 120(c) (1970)). The states are required, however, to provide for the "maintenance" of the System. 23 U.S.C. § 116 (1970). Over the years, maintenance expenses may well exceed the state's original 10% contribution.

The 1956 Act allows the state to claim above 90% (but never higher than 95%) to the extent that "unreserved public lands and nontaxable Indian lands" exceed 5% of the state's total area. See 23 U.S.C. § 120(c) (1970). Burch's figures for 10 states show the federal share ranging from 90.71% to 95% (Nevada). BURCH, *supra* note 25, at 261.

165. See Highway Revenue Act of 1956, ch. 462, §§ 202-06, 70 Stat. 387-91.

166. *Id.* § 209, 70 Stat. 397-401. It is not true, as Eirby claims, that the trust fund idea was "just dreamed up" by Alf Johnson of the American Association of State Highway Officials. BURBY, *supra* note 14, at 298. The possibility of a highway trust fund had been extensively discussed in Congress in 1953. See SUBCOMM. ON ROADS OF THE HOUSE COMM. ON PUBLIC WORKS, 83D CONG., 1ST SESS., SUMMARY OF HEARINGS, NATIONAL HIGHWAY STUDY 9-10 (Comm. Print No. 9, 1953).

167. See text accompanying notes 392-97 *infra*.

168. See 1955 House Hearings, *supra* note 62, at 1237, 1263, 1277.

169. In the Senate's 89-1 approval of the 1956 Act, the lone dissenter was Senator Russell Long, whose view was that motorists were too heavily taxed already. See 102 CONG. REC. 10,966 (1956).

170. D. EISENHOWER, MANDATE FOR CHANGE 548 (1962).

171. Address by Vice President Nixon, Governors' Conference, July 12, 1954, in PROCEEDINGS OF GOVERNORS' CONFERENCE 1954, at 91 (1954).

mid-1950's, this country was in the midst of a burgeoning toll road movement; the number of toll superhighways was rapidly increasing, and the experience with toll roads had been almost uniformly auspicious.¹⁷² Within the Administration, the chief toll apostle was Major General John S. Bragdon, a West Point classmate of the President. Bragdon joined the Council of Economic Advisors in 1954 with special responsibility for federal highway policy, and then was shifted a year later to the White House staff as Special Assistant for Public Works.¹⁷³

In acclaiming tolls, however, Bragdon was breaking with the tradition of the federal highway program. The very first paragraph of the 1916 Act had required that all federally funded roads be "free from tolls of all kinds."¹⁷⁴ That requirement had been expressly reaffirmed in the 1921 Act¹⁷⁵ and continued forward in all subsequent highway legislation.¹⁷⁶ Bragdon also found himself at odds with both the Clay Committee and the federal Bureau of Public Roads, both of which in their 1955 reports recommended against the possibility of toll financing.¹⁷⁷ What the Clay Committee proposed, instead, was a third alternative: that the 90 percent federal share be financed primarily by 30-year bonds to be issued by a

172. See OWEN, *supra* note 79, at 50. See also BUREAU OF PUBLIC ROADS, PROGRESS AND FEASIBILITY OF TOLL ROADS AND THEIR RELATION TO THE FEDERAL AID PROGRAM, H.R. MISC. DOC. NO. 139, 84th Cong., 1st Sess. 4-17 (1955) [hereinafter cited as BUREAU OF PUBLIC ROADS]; J. RAE, THE AMERICAN AUTOMOBILE 180-85 (1965).

173. See Bragdon, *supra* note 160, at 1; Historical Materials in the Dwight D. Eisenhower Library, 1972, at 7 (document prepared by the staff of the Eisenhower Library for persons using the Library's research facilities, copy on file with the author).

174. Act of July 11, 1916, ch. 241, § 1, 39 Stat. 356.

175. Federal Highway Act of 1921, ch. 119, § 9, 42 Stat. 214.

176. See 23 U.S.C. § 301 (1970).

177. See BUREAU OF PUBLIC ROADS, *supra* note 172, at 4-17; CLAY COMMITTEE REPORT, *supra* note 149, at 13-14.

Technically, both the Committee and the Bureau recommended only that toll routes should not receive federal aid. They declined to adopt the more drastic position that such routes could not, if self-supporting, become part of the System. The reports also identified (besides the 1,000 toll miles already open to traffic) over 7,200 miles of economically feasible toll facilities on routes paralleling the System which either were under construction or at least had been authorized or taken under study by the states. Still, the reports' basic recommendations were calculated to undermine the toll possibility. If 90% federal aid was to be available for an Interstate facility, but only if the facility was operated on a toll-free basis, anyone could predict that the states would abandon their toll road plans. Certainly the AAA appreciated this. See Martin, *supra* note 12, at 253. Of the over 5,500 miles of toll routes either "authorized" or being "considered" by the states in 1954 (see BUREAU OF PUBLIC ROADS, *supra* note 172, at 23) the only project that has since been built is a 50-mile segment of I-95 in Delaware and Maryland. See generally RAE, *supra* note 12, at 181. Of the 2,700 miles of toll roads already completed or under construction by 1954, most were incorporated into the Interstate System—but without any sort of reimbursement to the states—in 1957. See Federal-Aid Highway Act of 1956, ch. 462, §§ 113-14, 70 Stat. 384-85; AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, THE FIRST FIFTY YEARS: 1914-64, at 191-92 (1965); NEW ROADS, *supra* note 13, at 17-18.

new Federal Highway Corporation.¹⁷⁸ The anticipated 30-year revenues of the existing federal gas and tire taxes would be sufficient to pay off the indebtedness. The Clay Committee's proposal thus accepted the philosophy of financing highway construction through highway-user taxes. However, by relying on the indebtedness technique, the Committee was able to avoid suggesting that any of these taxes should be raised; it evidently regarded any such tax increases as unacceptably impolitic.¹⁷⁹

The clarification (and modification) of the President's position—on the side of highway-user taxes rather than tolls—was disclosed to the public in his February 1955 message to Congress, in which he forwarded the *Clay Committee Report* and stated somewhat noncommittally that he was "inclined to the view" that the Committee's financing proposal was desirable.¹⁸⁰ That message had been written in a February 1 meeting attended by Sherman Adams (evidently representing the President), Treasury Secretary George Humphrey, Commerce Secretary Sinclair Weeks, General Clay, General Bragdon, and three others.¹⁸¹ At that meeting, the toll issue was "very warmly discussed." The discussion dealt partly with the political fact that a toll proposal predictably would arouse the ire of the AAA, state highway officials, and the state governors, particularly in the West; with these enemies, it was argued, the proposal would stand little chance of succeeding in Congress.¹⁸² By the end of the meeting, Governor Adams was clearly agreeing with Clay, and the matter was in this way resolved.¹⁸³

The Administration, in rejecting tolls, thus came to support the Clay Committee's bonding proposal. However, this proposal turned out to be

178. CLAY COMMITTEE REPORT, *supra* note 149, at 26. While the Corporation would raise the revenue for the Interstates, the administration of the Interstate program would remain with the Bureau. *Id.* at 23.

179. See Martin, *supra* note 12, at 227.

180. See CLAY COMMITTEE REPORT, *supra* note 149, at vi.

181. See Memorandum from J.S. Bragdon to the Council [of Economic Advisors], Subject: Conference on Message and Legislation for Roads, Feb. 1, 1955, at 1 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

182. *Id.*

183. General Bragdon returned to his office and drafted a forlorn memorandum, which ended as follows:

So this ends the matter as far as the toll roads are concerned. In other words, the American people will have a \$27 billion bill for something which they could have gotten for nothing, all because of (a) political feasibility, and (b) the horse-and-buggy anti-toll road sentiment in the Bureau of Public Roads.

Id. at 2.

In all his White House efforts, Bragdon was handicapped by an ineptness at bureaucratic maneuverings. Beginning with his inability to establish a good working relationship with Sherman Adams (Peterson Interview), Bragdon's entire White House career was marked by frustrations and failures. See Memorandum of Introduction to the Bragdon Papers (Eisenhower Library). In later reviewing his activities as a toll advocate, Bragdon himself saw fit to comment, "How naive!" Bragdon, *supra* note 160, at 12.

unacceptable to Congress, where it was defeated in both chambers—by a 31-60 vote in the Senate,¹⁸⁴ and by a closer margin, 193-221, in the House.¹⁸⁵ Interestingly, little of the bill's congressional opposition came from those organizations which supposedly had been working for the abolition of the federal gas tax. The bill's acknowledgement of "linkage"¹⁸⁶ managed to dissolve the impressive coalition which previously had objected to the federal gas tax;¹⁸⁷ only the petroleum industry and one farmers' association remained within the ranks.¹⁸⁸ All of the counter-proposals for Interstate funding given serious congressional consideration in 1955 and 1956 conceded the idea of dedicating federal highway-user taxes. What provoked antagonism were several other aspects of the bill,¹⁸⁹ the most important of which was its reliance on indebtedness. Senator Harry F. Byrd, chairman of the Senate Finance Committee, endorsed a policy of "pay-as-you-go" (as contrasted to a bonded debt), and made great political capital of the fact that the \$20 billion indebtedness would eventually require the payment of \$11.5 billion in interest,¹⁹⁰

184. The Republican vote was 30-13 and the Democratic vote 1-47. The unlikely Democratic maverick was Senator John F. Kennedy. CONGRESSIONAL QUARTERLY, CONGRESS AND THE NATION 1945-64, at 530 (1965).

185. Both of these votes were on motions to substitute the Administration's bill for the bill reported out by the respective Senate and House committees. In the House, the party breakdown was Democrats, 7-214; Republicans, 186-7. These two votes were the most party-partisan of all the events that transpired during 1955-56. Federal highway legislation traditionally had been a nonpartisan issue. See BURCH, *supra* note 25, at 223; *1955 Senate Hearings, supra* note 82, at 34-35. Senator Harry F. Byrd, who led the fight against the Administration's bill, was a southern Democrat who usually aligned himself with the Republicans.

186. See text accompanying note 92 *supra*.

187. See *1955 House Hearings, supra* note 62, at 900; text accompanying notes 109-10 *supra*. The key was the response of the Governors to the President's address. The evening of the address, the Governors were overtly critical, but after pondering the matter for a day or two, they began to regard the President's proposal as acceptable. See N.Y. Times, July 13, 1954, at 1, col. 1; *id.*, July 14, 1954, at 1, col. 2; *id.*, July 15, 1954, at 1, col. 4. The Conference's eventual official resolution was basically friendly. STATE GOV'T, Aug. 1954, at 175-76. The Conference also established a highway committee to formulate a more precise position for the Governors.

188. See *1955 House Hearings, supra* note 62, at 328 (testimony of American Farm Bureau Federation); *id.* at 1268 (statement of American Petroleum Institute).

189. Since the indebtedness would belong to the Corporation rather than to the federal government itself, it would not count against the congressionally enacted debt ceiling—a procedure which struck many in Congress as disingenuous notwithstanding its probable technical legality. See, e.g., *1955 Senate Hearings, supra* note 82, at 550 (statement of Sen. Stuart Symington); *id.* at 610-11 (statement of the Comptroller General). Many in Congress were allergic to the idea of an outside corporation taking authority away from regular federal agencies. *Id.* at 260 (remarks of Sen. Albert Gore). The Administration's bill involved placing a monetary ceiling on the A-B-C program for the following years, a ceiling which disturbed that program's constituency. See, e.g., *Hearings on H.R. 9075 Before the House Comm. on Ways and Means, 84th Cong., 2d Sess. 59 (1956)* (statement of Rep. George Fallon) [hereinafter cited as *1956 House Ways and Means Comm. Hearings*].

190. See *1955 Senate Hearings, supra* note 82, at 497. In Representative Fallon's view, this was the most "glaring" weakness of the Administration bill. *1956 House Ways and Means Comm. Hearings, supra* note 189, at 59.

Byrd's apparent view was that interest payments were nothing more than a wasted expenditure.

The bill the Senate finally approved in late May 1955 was the one which its Public Works Committee had reported out, authored by one of its members, Albert Gore. In light of the constitutional requirement that tax legislation begin in the House,¹⁹¹ this bill studiously avoided the question of where the needed additional revenue would be found¹⁹² and thus comprised much less than a full program proposal. The Administration bill was given serious attention by the House Public Works Committee. However, once that bill had been rejected by the Senate, the House committee's leadership concluded that even if the bill were approved by the House, it would stand little chance of surviving a House-Senate conference.¹⁹³ The committee accordingly held new hearings on a new bill hastily drafted by committee chairman George Fallon with the help of data supplied to him by Frank Turner, then the Assistant to the Bureau Commissioner.¹⁹⁴ It was this Fallon bill which was the first major proposal to embrace the strategy of financing the System by increasing the federal taxes levied against highway users.¹⁹⁵ H.R. 7474, a later version of the original Fallon bill, was reported out by committee to the full House. The Administration, speaking through Treasury Secretary George Humphrey, effectively acquiesced in this bill.¹⁹⁶ Nevertheless, when the vote finally came on the House floor, H.R. 7474 was soundly defeated by a nonpartisan vote, 123-292.¹⁹⁷

While several explanations can be found for the bill's defeat,¹⁹⁸ the overriding cause was the bitter opposition which the bill evoked from the

191. U.S. CONST. art. 1, § 7.

192. *1955 Senate Hearings, supra* note 82, at 493 (statement of Sen. Clifford Case).

193. *See 1955 House Hearings, supra* note 62, at 1105 (statement of Rep. Fallon).

194. Fallon Interview; Turner Interview.

195. Since this was the strategy which prevailed in 1956, and since Fallon was deeply involved in the preparation of the 1956 bill as well, he deserves to be recognized as a principal architect of the Interstate program. There is irony in this, since Fallon dislikes driving—freeway driving especially. Fallon Interview. The irony is not unique: Robert Moses, New York City's great freeway builder, "except for a few driving lessons he took in 1926, . . . never drove a car in his life." CARO, *supra* note 14, at 12.

196. *See 1955 House Hearings, supra* note 62, at 1194.

197. The Democratic vote was 94-128; Republican, 29-164. CONGRESSIONAL QUARTERLY, CONGRESS AND THE NATION 1945-64, at 530 (1965).

198. One cause of the ultimate vote was committee ill-will within the House. The bill had not been sent to the Ways and Means Committee, despite its general jurisdiction over revenue measures. While an arrangement was worked out whereby a handful of Ways and Means Committee members would participate in the Public Works Committee hearings, that arrangement turned sour after petty debating about committee member prerogatives. Fallon Interview. *See also 1955 House Hearings, supra* note 62, at 1104. One squabble was over where in the committee room the Ways and Means members would sit. Fallon Interview. Shades of the Paris peace talks!

various interests and industries which would have carried the burden of the tax increases. The bill's tire taxes led all the branches of the rubber industry to condemn it.¹⁹⁹ The petroleum refiners and sellers denounced the bill because of its gas taxes.²⁰⁰ Its proposed taxes on diesel fuel brought down the wrath of diesel fuel sellers and users.²⁰¹ The intercity bus companies, the trucking industry, and even the Teamster's Union rejected the bill because it taxed large vehicles too heavily,²⁰² while the AAA was critical that its taxes on large vehicles were so modest.²⁰³

From the day of introduction of [the Fallon bill,] there occurred one of the most intense pressure campaigns observed on Capitol Hill for many years. . . . This campaign moved with increasing intensity until the revised tax bill was defeated on the floor of the House.²⁰⁴

All during this period of congressional consideration of highway proposals, an event of major importance was unfolding within the federal and state highway bureaucracies—the 1955 urban designations.²⁰⁵ One probable effect of these designations was to render the Interstate program more attractive to Congressmen from urban areas where Interstates were specifically displayed in the 1955 *Yellow Book*.²⁰⁶ Certainly, when highway legislation was introduced early in the 1956 session, the congressional mood proved to be far more receptive. A new bill, authored by Representative Fallon and captioned the Federal-Aid Highway Act of 1956, was considered by the House Public Works Committee. A separate bill, the Highway Revenue Act of 1956, was considered by the House Ways and Means Committee; it carried the name of committee member Hale Boggs,²⁰⁷ although Fallon claims that it originated in his office.²⁰⁸ Like H.R. 7474, the idea of the Revenue Act was to levy new or increased taxes on highway users and motor vehicle commodities, although there were

199. *1955 House Hearings*, *supra* note 62, at 1132-34, 1237-39.

200. *Id.* at 1163-64, 1267-73.

201. *Id.* at 1293-95, 1297-1305, 1307-16.

202. *Id.* at 1108-10, 1151-53, 1290. The bill would have taxed more heavily large tires and inner tubes, which of course are purchased both by trucks and by other vehicles of similar size. See note 218 *infra*. The general reason for a two-tiered tax is that the heavier the vehicle, the greater the burden it places upon the roadway. While heavier vehicles also consume more gas and hence produce more revenue in the form of gas taxes, the gas tax differential falls considerably short of equaling the burden differential. Additional taxes on large vehicles thus are advisable if tax equity is to be achieved. See *generally id.* at 982-94 (testimony of American Railroad Association).

203. *Id.* at 1277.

204. Martin, *supra* note 12, at 252.

205. See text accompanying notes 136-44 *supra*.

206. It was General Bragdon's suspicion that the Bureau undertook the 1955 designation process partly in order to commit the urban Interstates before the Act was passed, and partly to enhance the System's congressional popularity. See Bragdon, *supra* note 160, at 20.

207. See *1956 House Ways and Means Comm. Hearings*, *supra* note 189, at 1.

208. Fallon Interview.

appreciable differences between this new bill and H.R. 7474 in the exact distribution of the tax burden. The two bills—the Highway Act and the Revenue Act—after respective committee approval were consolidated by the Public Works Committee and sent to the House floor. The resulting bill was approved by the House on April 27, 1955.²⁰⁹ The Senate Finance Committee considered, and largely accepted, the House's Revenue Act; the Senate Public Works Committee worked certain changes in the House's highway bill, but did not significantly tamper with its basic provisions on Interstate expenditure. This two-part bill was then approved by the Senate in a voice vote. The differences between the House and Senate bills were ironed out in conference, and the conference bill was then approved by a voice vote in the House and by an 89-1 roll-call vote in the Senate.²¹⁰

What is the explanation for this dramatic reversal in the legislative result between 1955 and 1956? While the 1955 designations were not without some influence in this regard, the major reason for this reversal was an astonishing reversal in the direction of the lobbying effort. The violent lobbying against the 1955 bill has been described above. However, in 1956 the "highway lobby swarmed, trade association by corporation president, all over Capitol Hill"²¹¹ in support of the highway bill, and not a single major interest group actively lobbied against the legislation.²¹²

If this lobbying reversal accounts for the ease of the 1956 Act's passage, how is this reversal itself to be explained? The explanation lies in a congeries of circumstances which, between 1955 and 1956, resulted in the mobilization of the program's proponents and the neutralization, and in some instances even the conversion, of its 1955 antagonists. The "proponents" included those interest groups, particularly the highway construction industry,²¹³ which had obvious reasons for favoring the Interstate program. On the whole these groups had not mounted much of an effort in 1955, but a year later they indeed "swarmed."²¹⁴ The mobilization of these groups between 1955 and 1956 is easily understood. It had

209. 102 CONG. REC. 7221-22 (1956).

210. 102 CONG. REC. 10,969 (1956).

211. BURBY, *supra* note 14, at 298.

212. See, e.g., *Hearings on H.R. 10660 Before the Senate Comm. on Finance*, 84th Cong., 2d Sess. 184 (1956) (statement of the American Petroleum Institute, acquiescing in the legislation) [hereinafter cited as *1956 Senate Hearings*].

213. Other important interest groups included the auto companies and the state highway departments. The auto companies had been promoting an Interstate-type program for too many years to back away because of the prospect of increased taxes on auto users. See *New Roads*, *supra* note 13, at 14. State highway officials had decided early in 1954 that an expanded highway program justified the disadvantage of greater federal control. See AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, *THE FIRST FIFTY YEARS: 1914-64*, at 182 (1965).

214. See text accompanying note 211 *supra*.

been late in the first session when H.R. 7474 materialized as the one crucial bill; the opposition to H.R. 7474 then had erupted suddenly, not giving the Interstate program's natural supporters much of a chance to organize their own campaign. The intermission between sessions afforded them ample opportunity for this kind of organizing.²¹⁵

The antagonists consisted chiefly of those interest groups which had been singled out by H.R. 7474 to bear the burden of the Interstate program's taxes. Certain of the 1955 antagonists were neutralized in 1956 only because the new Fallon bill did in truth treat them more gently than had H.R. 7474.²¹⁶ More interesting and more important, however, are those interest groups which between 1955 and 1956 basically changed their minds, even in the face of nonchanging tax proposals. The tire industry can serve as a prominent example: after having opposed the 1955 bill, the industry publicized its support of the 1956 bill,²¹⁷ even though the latter bill's tire taxes may well have been higher in total than those contained in the 1955 bill.²¹⁸ Such changes in industry or interest-group position are also capable of explanation. The highway-user organizations had adopted their positions in some haste in 1955, reacting to the sudden Fallon proposal, with its substantial and unexpected increases in highway-user taxes.²¹⁹ The intersession gave these industries a chance to think their positions through more thoroughly. The result of this reconsideration was that they were more willing to accept the general idea of increased highway-user taxes and to confine their arguments to the question of a fair distribution of the tax burden.²²⁰ With respect to the small/large vehicle tax differentiation, a provision was placed in the 1956 bill calling on the Bureau to conduct a thorough 3-year study of the highway costs and benefits associated with vehicles of different "dimensions, weights, and other specifications";²²¹ the implication was that Congress would then modify the tax structure in light of the study's findings and recommendations. The existence of this promised realloca-

215. Fallon Interview. Representative Fallon also volunteers that in 1955 he lacked the time to adequately "educate" his fellow Congressmen, but they did a very good "educational" job in 1956.

216. For example, diesel fuel interests had railed against H.R. 7474 because it would have fixed the diesel fuel tax at 4 cents per gallon, 1 cent more than the proposed 3 cent gas tax; the 1956 bill set the fuel tax at 3 cents across the board.

217. 1956 *House Ways and Means Comm. Hearings*, *supra* note 189, at 121.

218. The pre-1956 tire tax was 5 cents per pound for all tires. *See* note 106 *supra*. H.R. 7474 would have left this tax alone for automobile-sized tires, but would have raised the tax to 8 cents for medium-large tires and 15 cents for very large tires. H.R. 7474, § 4(d), 84th Cong., 1st Sess. (1955). The 1956 House bill (and the 1956 Act) raised the tax uniformly to 8 cents for all tires. Highway Revenue Act of 1956, ch. 462, § 204(a), 70 Stat. 388-89.

219. *Cf.* 1955 *House Hearings*, *supra* note 62, at 1171-72.

220. *See* EISENHOWER DOCUMENTS, *supra* note 12, at 552-53; 1956 *House Ways and Means Comm. Hearings*, *supra* note 189, at 100 (statement of 11 organizations).

221. Highway Revenue Act of 1956, ch. 462, § 210, 70 Stat. 401.

tion of the tax burden—to be effected in the near future and on the basis of informed professional judgment—made it difficult to oppose the 1956 bill for small/large vehicle reasons.²²²

In any event, through this rather complicated process a remarkably broad consensus was achieved in support of the 1956 Act. Its financing provisions would make possible the "early completion" of the System, which the Act declared to be "essential to the national interest."²²³ Thanks to the 1955 designations, in 1956 the entire Interstate System as officially approved was available to every Congressman in convenient *Yellow Book* form.²²⁴ These designations served to convert the urban Interstates from somewhat vague and abstract policy into quite specific plans before Congress took its decisive financing action on the Interstate program; by the same token, the 1956 Act entailed, at least in a general way, a congressional ratification of the System as already designated. The 1956 Act, in addition to its basic financing arrangements, established a number of particular rules applicable to the building of the Interstates. For example, "construction standards" for the Interstates were to be developed and promulgated "as soon as practicable" by "the Secretary of Commerce in cooperation with the State highway departments," and these standards "shall be adequate to accommodate" the 1975 traffic forecasts.²²⁵ Also, federal funds would be available to reimburse the states for 90 percent of any relocation payments made by the states to public utilities which the Interstates would uproot.²²⁶ As observed above,²²⁷ the "Interstate System" was itself set up by the 1944 Act, but in light of the financing and other provisions in the 1956 Act, it is entirely appropriate to say that the modern "Interstate program" originated in 1956.

The ambitiousness of that program merits special attention. President Eisenhower himself described it as the largest public works program "ever undertaken by the United States or any other country."²²⁸ What the program contemplated was a nationwide system of 40,000 miles, its

222. See *1956 Senate Hearings*, *supra* note 212, at 37 (testimony of American Automobile Association).

223. Federal-Aid Highway Act of 1956, ch. 462, § 108(a), 70 Stat. 378 (codified at 23 U.S.C. § 101(b) (1970)).

224. See text accompanying note 206 *supra*.

225. Federal-Aid Highway Act of 1956, ch. 462, § 108(i), 70 Stat. 380 (codified at 23 U.S.C. § 109(b) (1970)). Design standards were duly approved in July 1956, and have since been revised several times. See AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, A POLICY ON DESIGN STANDARDS: INTERSTATE SYSTEM (undated pamphlet) (on file with the author). From an engineering (and a cost) point of view, these standards are an integral part of Interstate program "law."

226. Federal-Aid Highway Act of 1956, ch. 462, § 111, 70 Stat. 383 (codified at 23 U.S.C. § 123 (1970)).

227. See text accompanying note 145 *supra*.

228. D. EISENHOWER, MANDATE FOR CHANGE 548 (1962).

The amount of concrete poured to form these roadways would build eighty Hoover Dams or six sidewalks to the moon. To build them, bulldozers and shovels would move enough dirt and rock to bury all of Connecticut two feet deep.

Id.

routes determined in advance by the cooperative action of federal and state officials, every mile to be built to the highest freeway standards. The program also included financing arrangements purporting to provide both complete funding and a complete timetable for System construction. 1969 would be the final year in which the Secretary would be authorized to pledge federal funds for upcoming projects, and 1972 would be the last year in which those pledges would be honored; on July 1, 1972, the taxes would expire (or lapse back to their pre-1956 levels) and the Trust Fund would self-destruct.²²⁹ Clearly, all of this comprised an extraordinary instance of the federal government attempting to "Think Big," to develop and carry out a "Grand Plan," as President Eisenhower put it.²³⁰ The following subsection describes the developments which have ensued in the score of years between 1956 and today, and will permit an evaluation of the results achieved in carrying out such an ambitious effort.

C. AFTER 1956

1. Expansion of Funding

Within 2 years after the 1956 Act, it had become clear that the effort at complete financing attempted in the 1956 Act would not be successful. By 1958 the Bureau had reestimated the total cost of the System to be \$41 billion, an increase of \$14 billion over the original figure.²³¹ Given this cost reestimate, the 41,000 mile system 231A obviously needed additional funding. This funding could be provided in one of two ways: by "stretching out" the program and collecting its special taxes beyond the original 1972 termination date; or instead by raising tax rates (or imposing new taxes) so as to collect more revenue within the originally contemplated period. Of course, there was another policy alternative: the \$27 billion originally budgeted for the Interstates could itself be reaffirmed and appropriate reductions made in the original 41,000-mile System so that a less extensive System could be completed with the original funding. Within the White House, General Bragdon made an effort to delineate a higher priority "first stage" of the System which could be constructed within the \$27 billion figure.²³² This possibility, however, was given scant attention by the Administration and the Congress,²³³ both of which tended to rely on the assumption that the completion of the entire System remained the basic federal goal. As for financing, in 1959 the government elected to temporize: the 1959 Act raised the gas tax from 3 cents to 4

229. Federal-Aid Highway Act of 1956, ch. 462, § 108(b), 70 Stat. 378; Highway Revenue Act of 1956, ch. 462, §§ 202(c), 204(a), 205-06, 209(c), 70 Stat. 388-90, 398.

230. See CLAY COMMITTEE REPORT, *supra* note 149, at 1.

231. See H.R. Doc. No. 49, 87th Cong., 1st Sess. 1, 11-12 (1961); H.R. Doc. No. 300, 85th Cong., 2d Sess. 8 (1958).

231A. The 1956 Act added 1,000 miles to the original 41,000 miles. See note 250 *infra*, and accompanying text.

232. Interim Report, *supra* note 89, at 47-49.

233. See, e.g., *Hearings on Financing the Federal-Aid Highway Program Before the House*

cents but only until 1961.²³⁴ The Bureau's cost estimate remained at \$41 billion in 1961,²³⁵ and in that year whatever doubts remained concerning the federal purpose were resolved by the Kennedy Administration, which strongly favored completing the entire system.²³⁶ Funding was to be accomplished in both of the available ways—the 1961 Act boosted several of the highway-user taxes, and also somewhat extended those taxes' duration.²³⁷

Since 1961 the cost estimate for the System has skyrocketed, reaching \$76 billion in 1972.²³⁸ Nevertheless, the 1961 decision to build the complete System has never been questioned. In 1965, 1966, 1968, 1970, and 1973, Congress voted additional authorizations for the System,²³⁹ and has correspondingly stretched out the life of the Interstate program and its taxes. The 1973 Act establishes 1979 as the final authorization year.²⁴⁰ In August 1975 the official cost estimate was increased once

Comm. on Ways and Means, 86th Cong., 1st Sess. 68, 154 (1959) (remarks of Rep. Thomas Curtiss) [hereinafter cited as *1959 House Hearings*].

234. Federal-Aid Highway Act of 1959, Pub. L. No. 86-342, § 201, 73 Stat. 613. The Federal-Aid Highway Act of 1958 had increased program authorizations (but not its taxes) for the next 3 fiscal years. Act of Apr. 16, 1958, Pub. L. No. 85-381, § 7(a), 72 Stat. 93. Part of Congress' purpose was to keep the Interstate program on schedule, but the major reason for the increase was to take action against the 1958 recession. See S. REP. NO. 1407, 85th Cong., 2d Sess. 4-5, 26 (1958).

235. H.R. Doc. No. 49, 87th Cong., 1st Sess. 1, 11-12 (1961).

236. See President Kennedy's statement to Congress, H.R. Doc. No. 96, 87th Cong., 1st Sess. (1961).

237. The tire tax was raised from 8 cents to 10 cents per pound and the large vehicle tax from \$1.50 to \$3.00 per thousand pounds, while the gas tax was continued at 4 cents per gallon instead of being allowed to return to 3 cents. Federal-Aid Highway Act of 1961, Pub. L. No. 87-61, §§ 201-07, 75 Stat. 124. This initial extension was only for 3 months.

As indicated, the 1956 Act ordered the Bureau to prepare an Interstate cost allocation study by 1959. See note 221 and accompanying text *supra*. At the Bureau's request, in 1958 Congress deferred the due date for this report until January 1961. Act of August 28, 1958, Pub. L. No. 85-823, § 2, 72 Stat. 983. The lengthy document which the Bureau submitted in that month was incomplete, since one set of tests remained to be conducted. H.R. Doc. No. 54, 87th Cong., 1st Sess. 152 (1961). The results of these tests were reported to Congress by the Bureau in 1961 testimony. *Hearings on Title II of H.R. 6713 Before the Senate Comm. on Finance*, 87th Cong., 1st Sess. 54-91 (1961); *Hearings on Federal-Aid Highway Financing Before the House Comm. on Ways and Means*, 87th Cong., 1st Sess. 114-36 (1961). The study, as so completed, was equivocal as to the respective tax burdens which should be borne by large and small vehicles. The Kennedy Administration drew inferences which were somewhat anti-large vehicles, but Congress resolved the uncertainties in a manner distinctly favorable to large vehicles. Compare S. REP. NO. 367, 87th Cong., 1st Sess. 16-19 (1961), *with id.* at 54-57 (dissenting views of Sen. Paul Douglas, advocating the Administration's position).

238. HOUSE COMM. ON PUBLIC WORKS, 92D CONG., 2D SESS., A REVISED ESTIMATE OF THE COST OF COMPLETING THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS 13 (Comm. Print No. 92-29, 1972).

239. Federal-Aid Highway Act of 1961, Pub. L. No. 87-61, § 103, 75 Stat. 122; Act of Aug. 28, 1965, Pub. L. No. 89-139, § 1, 79 Stat. 578; Federal-Aid Highway Act of 1966, Pub. L. No. 89-574, § 2, 80 Stat. 766; Federal-Aid Highway Act of 1968, Pub. L. No. 90-495, § 2, 82 Stat. 815; Federal-Aid Highway Act of 1970, Pub. L. No. 91-605, § 102, 84 Stat. 1714; Federal-Aid Highway Act of 1973, Pub. L. No. 93-87, § 102, 87 Stat. 250.

240. Federal-Aid Highway Act of 1973, Pub. L. No. 93-87, § 102, 87 Stat. 250. So far, the

again, this time to \$89 billion.²⁴¹ Because this estimate was deliberately based on 1973 calendar year prices,²⁴² it was already badly out of date at the time of its release. In September 1975 the Comptroller General, making varying assumptions about inflation rates and annual authorization levels, predicted a total system cost of anywhere between \$111 and \$184 billion.²⁴³ Half a year later, Congress, acting on the assumption of 7

taxes have only been extended through 1977. See Act of Dec. 31, 1970, Pub. L. No. 91-605, §§ 301-03, 84 Stat. 1743-44.

241. HOUSE COMM. ON PUBLIC WORKS AND TRANSPORTATION, 94TH CONG., 1ST SESS., REVISED ESTIMATE OF THE COST OF COMPLETING THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAY 9, 12-13, 16 (Comm. Print No. 94-14, 1975).

The month before, the Administration had advanced a major proposal concerning the Trust Fund and Interstate financing. See Dep't of Transportation 1975 Documents, *supra* note 72, Explanation. The proposal requested only a 1-year extension of Interstate authorizations, until 1980. It also asked that existing termination dates for the special highway-user taxes and the Trust Fund be removed, so that the taxes would continue indefinitely until further congressional action. However, after October 1976 the Trust Fund would receive only 1 cent of the federal gas tax; Trust Fund revenues, so depleted, would then be spent exclusively for Interstate purposes. Although the Trust Fund would continue to receive the tire and large vehicle taxes, loss of most of the gas tax would reduce its income by 50%. While this partial depletion of the Trust Fund would slow the rate of the System's ongoing progress, the Trust Fund would remain available until the eventual (though undetermined) date when the System is finally and truly completed. (The proposal additionally hinted that the Trust Fund would continue even after that date to finance the reconstruction of those Interstate routes which had physically deteriorated. *Id.*, Section by Section Analysis at 20; *id.*, Explanation at 1. Compare the burden of Interstate route "maintenance" placed on the states by existing law. See note 164 *supra*.)

Under the Administration's recommendation, the 3 cents of the existing gas tax excluded from the Trust Fund would go into the general federal treasury—except that the federal gas tax would be lowered by 1 cent in any state which increased its own gas tax by at least 1 cent. For states electing this option (and most probably would), the state constitutional antidiversion amendments (discussed in text accompanying notes 98-100 *supra*) could be expected to channel the new state gas tax proceeds into highway construction. The traditional elements of the federal highway program would continue although considerably revamped. However, they would be financed out of general revenues rather than from the Trust Fund and hence would be subject to the annual congressional appropriations process.

For the congressional response to the Administration's proposal, see text accompanying notes 7-8 *supra*.

242. HOUSE COMM. ON PUBLIC WORKS AND TRANSPORTATION, 94TH CONG., 1ST SESS., REVISED ESTIMATE OF THE COST OF COMPLETING THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS 9 (Comm. Print No. 94-14, 1975).

243. The Comptroller General noted that \$60.9 billion had been obligated by June 30, 1975. He estimated the future costs as:

Annual authorization	Annual inflation rate	Completion year	Cost-to-Complete
\$3.75 billion	0%	1985	\$38.9 billion
	5%	1987	\$50.2 billion
	10%	1996	\$83.4 billion
\$3.25 billion	0%	1986	\$38.9 billion
	5%	1990	\$52.4 billion
	10%	2009	\$123.4 billion

U.S. GENERAL ACCOUNTING OFFICE, DOC. NO. RED-76-19, REPORT TO THE CONGRESS BY THE COMPTROLLER GENERAL OF THE U.S.: COSTS AND PROBLEMS OF COMPLETING THE INTERSTATE HIGHWAY SYSTEM 9 (1975).

percent annual authorization, voted authorizations through 1990 which project a total system cost of close to \$120 billion.²⁴⁴ Congress also approved an interim 2-year extension of the program's taxes.²⁴⁵

The Interstate cost overrun is, of course, of eyebrow-raising proportions. Some of the explanations for the overrun relate to expense-producing changes made in the Interstate program since 1954,²⁴⁶ but it also appears that the 1954 cost estimate was hastily and amateurishly prepared.²⁴⁷ While cost overruns of the magnitude described are difficult to tolerate, it should be noted that major public transportation projects have also regularly suffered from severe problems of cost underestimation.²⁴⁸ A significant share of the Interstate overrun is attributable to inflation. The Interstate cost estimates have traditionally been insensitive to the inflation factor, but it is also true that the extensions of the program's duration have compounded the effects of inflation,²⁴⁹ and that the unprecedented inflation of the last several years has wreaked havoc on cost estimates throughout the economy.

2. *The Status of the System*

One of the House-Senate negotiated compromises in the 1956 Act added 1,000 miles to the Interstate System, for a total of 41,000.²⁵⁰ When more careful engineering studies were conducted of the 40,000 miles of freeways approved in 1947 and 1955, it was learned that their true length needed to be only 38,550 miles; this placed an additional 1,450 miles into the pool of designated mileage. In October 1957 the Bureau approved

244. See Federal-Aid Highway Act of 1976, Pub. L. No. 94-280, § 102(a), 90 Stat. 425; H.R. REP. No. 94-716, 94th Cong., 1st Sess. 26-27 (1975).

245. Federal-Aid Highway Act of 1976, Pub. L. No. 94-280, § 301, 90 Stat. 425, 456.

246. These include: (1) the 2,500 miles added to the System since 1954; (2) utility relocation payments imposed on the program by the Federal-Aid Highway Act of 1956 (see text accompanying note 226 *supra*); (3) the family and business relocation allowances mandated in 1962 and 1968 (all the relocation guarantees in the federal highway program have now been merged into the Uniform Relocation Assistance Act, 42 U.S.C. §§ 4601-55 (1970)); and (4) the provisions of § 116(b) of the Federal-Aid Highway Act of 1956 (70 Stat. 385) and the implications the Bureau saw therein. See text accompanying notes 427-28 *infra*.

For a general breakdown of the post-1958 causes of the increase in the Interstate cost estimates, see U.S. GENERAL ACCOUNTING OFFICE, DOC. NO. RED-76-19, REPORT TO THE CONGRESS BY THE COMPTROLLER GENERAL OF THE U.S.: COSTS AND PROBLEMS OF COMPLETING THE INTERSTATE HIGHWAY SYSTEM 6 (1975).

247. Turner Interview; cf. H.R. Doc. No. 300, 85th Cong., 2d Sess. 8 (1958).

248. The Bay Area Rapid Transit System (BART) in San Francisco, priced at \$925 million when it was approved by referendum in 1962, instead costs at least \$1.6 billion. See Wall Street Journal, Sept. 16, 1974, at 12, col. 2. Metro in Washington, D.C., budgeted at \$2.5 billion as late as 1969, will cost at least \$4.7 billion, and perhaps as much as \$5.8 billion; in light of this cost prospect, construction may be halted after completion of 41 of Metro's planned 89 route-miles. See L.A. Times, Feb. 15, 1976, § 1, at 3, col. 4.

249. RAE, *supra* note 12, at 189.

250. Federal-Aid Highway Act of 1956, ch. 462, § 108(1), 70 Stat. 381.

new Interstate routes, including beltways for 13 metropolitan areas.²⁵¹ In the 1968 Act, Congress boosted the System's mileage to 42,500,²⁵² and a round of additional designations was subsequently made, including some in urban areas.²⁵³ In the aggregate, the 42,500 mile system has ultimately acquired over 8,800 urban miles.²⁵⁴ By June 30, 1976, 37,717 miles, or 88.8 percent of the System, were open to traffic; an additional 2,054 miles (4.8 percent) were under construction.²⁵⁵ Of the planned urban routes, 7,697 miles or 87 percent were open to traffic.²⁵⁶ Only 341 miles, or less than 1 percent of the overall System, had not yet reached the public hearing stage.²⁵⁷

This data may mislead, however, to the extent that it suggests the placidity of the System's progress; that progress has not been placid at all, especially in the major urban areas. Almost as soon as Interstate construction began in urban areas, community opposition to particular urban Interstates began to develop: in 1958, Reno, Nevada was the first trouble spot.²⁵⁸ In 1965, the local antifreeway movement achieved its first major victory, in San Francisco.²⁵⁹ By 1970 scheduled urban Interstates had become entangled in controversy in 13 different metropolitan areas.²⁶⁰ As Moynihan correctly points out, "it is [now] just about impossible to get a major highway program approved in most large American cities."²⁶¹ The change in public understanding of urban freeways, and the legal problems posed by these Interstate controversies, will be dealt with below.²⁶²

251. See S. REP. NO. 1407, 85th Cong., 2d Sess. 8 (1958); *1959 House Hearings*, *supra* note 233, at 30-32.

252. Federal-Aid Highway Act of 1968, Pub. L. No. 90-495, § 14, 82 Stat. 822.

253. See Federal Highway Administration, Stewardship Report on Administration of the Federal-Aid Highway Program 1956-1970, in *Hearings on Report on the Status of the Federal-Aid Highway Program Before the Subcomm. on Roads of the Senate Comm. on Public Works*, 91st Cong., 2d Sess. 82, 87 (1970).

254. See Federal Highway Administration, Press Release No. 39-76, Mar. 11, 1976, at 2 (quarterly report on the federal-aid highway program, Dec. 31, 1975). The mileage classified as urban has gone up over the years as urban areas have themselves grown outwards. Telephone interview with Henry Paterick, Federal Highway Administration official, July 16, 1974.

255. Federal Highway Administration, Press Release No. 39-76, Mar. 1, 1976, at 2 (quarterly report on the federal-aid highway program, Dec. 31, 1975).

256. *Id.* at 2.

257. The Quarterly Report indicates that 26,192 miles of the routes already open to traffic are in need of certain "improvements," in most cases minor, before they can fully comply with Interstate standards. *Id.*

258. See H.R. REP. NO. 292, 86th Cong., 1st Sess. (1959).

259. See note 295 and accompanying text *infra*.

260. See Federal Highway Administration, Stewardship Report on Administration of the Federal-Aid Highway Program 1956-1970, in *Hearings on Report on the Status of the Federal-Aid Highway Program Before the Subcomm. on Roads of the Senate Comm. on Public Works*, 91st Cong., 2d Sess. 81-114 (1970).

261. *Policy vs. Program*, *supra* note 6, at 94.

262. See text accompanying notes 286-310 *infra*.

3. White House Review

As Moynihan notes,²⁶³ the Eisenhower Administration was one which characteristically shied away from innovations in domestic policy. More particularly, during his Presidency, Eisenhower displayed a clear indifference to urban problems and a reluctance to involve the federal government in efforts to deal with them.²⁶⁴ One is therefore curious as to why he signed into law the 1956 Act, providing as it did for substantial freeway mileage in every major metropolitan area. This urban curiosity can be simply, if rather startlingly, explained. The truth is that in 1956 Eisenhower was operating under the incorrect assumption that the Interstate program had adopted the policy of bypassing urban areas. Ignorant of the fact that the urban Interstates would intrude into inner cities, he was quite disturbed when his ignorance was finally dispelled. According to two reports, this did not happen until 1959, when he chanced to query urban planners who were showing him the freeway network planned for the District of Columbia;²⁶⁵ while a third report tells the story differently, it is to the same effect.²⁶⁶ Eisenhower's immediate reaction was a phone call to the Director of the Bureau of the Budget (BOB),²⁶⁷ Maurice Stans.²⁶⁸ This call found a receptive ear, since Stans was already appalled by the extraordinarily high cost of the urban Interstates; in his view the 90 percent federal share was "a horrible thing."²⁶⁹ BOB immediately began looking into the matter, and General Bragdon was also alerted. The early returns on the Bragdon and BOB efforts were strong enough to persuade the President on July 2, 1959, to order a formal White House study of the urban Interstates, under the direction of General Bragdon in coordination with Stans and the Secretary of Commerce.²⁷⁰

This Bragdon review organized itself into a major project staffed by 19 full-time professionals and three consultants.²⁷¹ On certain matters Brag-

263. See text accompanying note 9 *supra*. See also note 156 *supra*.

264. See S. FARKAS, URBAN LOBBYING 62 (1971).

265. BURBY, *supra* note 14, at 299; LEAVITT, *supra* note 14, at 298-99. See also J.S. Bragdon, Memorandum for the Record, Nov. 30, 1959 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

266. According to Paul Sitton, the truth came to the President's attention when he noticed a deep freeway construction gash in the outskirts of metropolitan Washington while being driven to Camp David. Sitton Interview.

267. The Bureau of the Budget was reorganized and redesignated the Office of Management and Budget in 1970.

268. Sitton Interview.

269. J.S. Bragdon, Memorandum of Meeting, Sect. 18, 1959 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

270. Letter from Dwight D. Eisenhower to General Bragdon, July 2, 1959 (Bragdon Papers, Eisenhower Library).

271. See J.S. Bragdon, Memorandum for the Record, Nov. 8, 1959 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

don and the Bureau negotiated agreements involving changes or clarifications in the Bureau's Interstate policies,²⁷² but with respect to other issues which the Bragdon unit raised, it and the Bureau were unable to resolve their conflicts. In late November 1959, Bragdon met with the President, and it was agreed that Bragdon would prepare and submit an Interim Report.²⁷³ After going through many drafts, that Interim Report was finally completed in March 1960. Its strongest recommendation was that the Interstate program should reaffirm responsibility only for those routes whose chief function was to carry intercity traffic around and into cities. From this basic recommendation Bragdon derived several specific recommendations: (1) that inner belts be eliminated; (2) that circumferentials be preferred over arterials or spurs; (3) that spurs be substituted for routes going all the way through the city; and (4) that spurs be kept to minimum length.²⁷⁴ According to Bragdon's calculations, acceptance of these recommendations—even on a prospective basis—would permit the elimination of 1,700 miles of urban freeways from the System,²⁷⁵ freeways whose justification Bragdon thought could only be in the service they would provide for intrametropolitan traffic. The Bragdon Interim Report also urged a comprehensive planning requirement for the urban Interstates.²⁷⁶ And faithful to Bragdon's original beliefs,²⁷⁷ the Report once again espoused tolls: its suggestion was that for Interstates not yet in the final planning stage, toll financing should be offered to the states on an optional basis, with state motorists receiving an appropriate "remission" of the federal gas tax if their states elected the toll option.²⁷⁸ With regard to all of its proposed reforms, the Report insisted that immediate action was necessary if they were to be effectuated meaningfully.²⁷⁹ The Bureau resisted Bragdon, point by point.

With the issues so joined, the Interim Report was formally presented to the President in a 55 minute meeting on April 6, 1960.²⁸⁰ At that meeting Bragdon made a rather fancy presentation (with 17 charts).²⁸¹ According to the meeting's minutes, Eisenhower indicated that "the matter of running

272. See notes 431-33 and accompanying text *infra*.

273. See J.S. Bragdon, Memorandum for the Record, Nov. 30, 1959 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

274. Interim Report, *supra* note 89, at 21.

275. *Id.* at 7.

276. *Id.* at 32-33, 38.

277. See text accompanying note 173 *supra*.

278. Interim Report, *supra* note 89, at 53-54 & Attachment 1.

279. *Id.* at 4 (Letter of Transmittal).

280. In attendance were General Bragdon, Secretary of Commerce Frederick Mueller, Federal Highway Administrator Bertram Tallamy, and White House aide Robert Merriam. See J.S. Bragdon, Memorandum for the Record, Apr. 8, 1960, at 2 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

281. *Id.*

Interstate routes through the congested parts of the cities was entirely against his original concept and wishes." However, he also noted that "the *Yellow Book* depicting routes in cities had sold the program to the Congress," and he took account of the Bureau's view that it lacked the legal power to unilaterally delete System routes. The conclusion Eisenhower came to was that the program "had reached the point where his hands were virtually tied." The meeting was then adjourned "due to other [Eisenhower] appointments."²⁸² Somehow, Bragdon was able to emerge from this meeting with the idea that its outcome was encouraging, and he began working on a final report.²⁸³ A few weeks later, however, President Eisenhower offered to appoint Bragdon a Commissioner on the Civil Aeronautics Board, and Bragdon accepted.²⁸⁴ With the responsibility now devolving upon Floyd Peterson, Bragdon's successor, the final report fizzled out into a 12 page report submitted on January 17, 1961, almost the last day of the Administration.²⁸⁵ This report was in both style and substance a classic of bureaucratic aridity.

4. Congressional Afterthoughts

The 1944 and 1956 Acts imposed on highway officials a certain legal obligation to complete the Interstate System. A 41,000 (later 42,500) mile System was mandatory,²⁸⁶ and routes on the System, once designated by Section 7 "joint federal-state action," could not be deleted or replaced, at least by federal or state officials acting unilaterally.²⁸⁷ Since 1956, however, the times have wrought changes, especially in attitudes towards the urban Interstates. The public's present perceptions of urban freeways, and the accuracy of those perceptions, will be discussed more fully in another section.²⁸⁸ It suffices here to say that urban freeways are now widely understood as being far more complicated and problematical than they were assumed to be back in 1956.

Does the law of the Interstate program allow for revision of the program in light of such changes in public understanding? In raising his

282. *Id.* Although these minutes speak of Bragdon in the third person, he was their apparent transcriber.

283. Peterson Interview.

284. Peterson believes that both Eisenhower and Bragdon regarded this as a promotion. *Id.* Bragdon died in 1964.

285. Memorandum from Floyd Peterson to General Wilton B. Persons, Jan. 17, 1961 (Sitton Papers). Peterson explains that he was occupied by other important matters, that the Eisenhower Administration was entering its terminal phase, and that the Vice President (nominated by his party to succeed Eisenhower) displayed little interest in the operation of federal program. Peterson Interview.

286. See note 223 and accompanying text *supra*. See also 1967 House Hearings, *supra* note 144, at 35 (testimony of Federal Highway Administrator Bridwell).

287. See note 144 and accompanying text *supra*.

288. See notes 437-653 and accompanying text *infra*.

argument against the urban Interstates, General Bragdon tried to take advantage of what may have been a congressional accident. In codifying its highway legislation in 1958, Congress included in Title 23 general language drawn by the codifiers from the 1921 Act,²⁸⁹ which authorized the Secretary of Commerce to "require modifications or revisions" of any of the federal-aid highway systems.²⁹⁰ In early 1960, Bragdon secured an opinion from an Assistant Attorney General which concluded that this language did indeed apply to the Interstate System,²⁹¹ even to the extent of permitting the Secretary to cut thousands of urban miles from the overall System, as Bragdon then was recommending.²⁹² The Secretary of Commerce, however, advised the President at the April 6 meeting that he did not accept this new interpretation,²⁹³ and the opinion was never made public or communicated to Congress. Moreover, the Secretary of Commerce (since 1966, the Secretary of Transportation) apparently never has sought to exercise the power which the interpretation would recognize in his office,²⁹⁴ which means that there has never been occasion to test out its validity.

The first explicit alteration in the structure of Interstate law was instigated by the citizenry of San Francisco. In 1965, in response to citizen protests, the San Francisco Board of Supervisors cast a vote that effectively stymied the Embarcadero Freeway²⁹⁵—then part of the Interstate System. There was uncertainty as to how the Interstate program should

289. Federal Highway Act of 1921, ch. 119, § 6, 42 Stat. 213.

290. 23 U.S.C. § 103(f) (1970).

291. See Memorandum from Henry J. Kaltenbach to General Bragdon, Subject: Authority of the Secretary of Commerce to change or modify parts of the Federal-Aid System, Feb. 23, 1960 (Bragdon Files, Eisenhower Papers, Eisenhower Library). The Assistant Attorney General "assumed" that in exercising this authority the Secretary would give "ample weight to the importance of stability in federal-state relationships" and to the state's reliance on the earlier designations.

292. Bragdon made it clear that the massive urban cutback he favored would amount to a basic modification in the "concept" of the Interstate program. See Interim Report, *supra* note 89, at 11.

293. See Memorandum for the Record, Apr. 8, 1960 (no author indicated), attached to Memorandum from J.S. Bragdon to General Goodpaster, Apr. 11, 1960 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

294. While over the last several years the Secretary of Transportation has deleted particular routes, his reason usually, if not always, has been their inconsistency with the social and environmental statutes enacted by Congress since 1956. See note 303 and accompanying text *infra*.

295. *Hearings on Urban Highways Before the Subcomm. on Roads of the Senate Comm. on Public Works*, 90th Cong., 1st Sess. 134 (1967) (statement of San Francisco Mayor John F. Shelley).

The Supervisors' quasi-veto power comes from CAL. STS. & H'WAYS CODE § 100.2 (West 1969). *But see* 23 U.S.C. § 107(a) (1970), as interpreted in *City of Pleasant Ridge v. Romney*, 382 Mich. 225, 169 N.W.2d 625 (1969) (if state law allows a city to block the state highway department from condemning land for an Interstate, the federal Secretary, at the state's request, may initiate the condemnation).

respond to this awkward circumstance. At the time, both federal and state officials were enthusiastic about the Century Freeway then planned for Los Angeles, and they were attracted to the idea of replacing the Embarcadero in the System with the Century; their mutual approval of this change could provide the "joint action" required by the 1944 Act.²⁹⁶ However, such a substitution scheme presented difficulties. First, there was room for doubt as to the legality of substitutions of this sort, since it could be plausibly argued that Congress in the 1956 Act had legally ratified the System as designated in 1947 and 1955 and presented it to Congress via the *Yellow Book*.²⁹⁷ Second, since the Century was of greater length than the Embarcadero, the need to stay within the System's (then) 41,000 mile limit militated against the substitution. Moreover, the substitution legally would have broken down into two discrete acts: the deletion from the System of one of its existing routes, and the addition to the System of a new route. With respect to that addition, the Century Freeway may have had many advantages, but so did the freeways which other states wished to propose; furthermore, under existing law the Secretary correctly believed himself legally obliged to consider all these additional proposals competitively.²⁹⁸ Congress reacted to the San Francisco experience by approving the Howard amendment²⁹⁹ in 1967. This amendment implicitly confirmed the general legality of mutually agreeable Interstate route substitutions: it provided the Interstate program with a 200 mile supplement for the purpose of making such substitutions; and it gave the state relinquishing an Interstate route a limited preference when the relinquished mileage came up for redesignation. Five years later, in the Federal-Aid Highway Act of 1973, Congress enlarged the mileage leeway to 500 miles (four substitutions had all but exhausted the original 200 miles³⁰⁰), and also strengthened the preference.³⁰¹ Substitu-

296. See Federal-Aid Highway Act of 1944, ch. 626, § 7, 58 Stat. 842, quoted in text accompanying note 127, *supra*.

297. But see 1967 House Hearings, *supra* note 144, at 39 (testimony of Federal Highway Administrator Bradwell).

298. *Id.* at 40-41.

299. Act of Jan. 2, 1963, Pub. L. No. 90-283, 81 Stat. 772. The amendment was coauthored by Representative Don Clausen of California. It was the San Francisco situation which was on his mind, and which was a focus of discussion in the committee hearings. See 1967 House Hearings, *supra* note 144, at 28, 40-41. In fact, California had by then already concurred in the deletion of the Embarcadero. *Id.* at 40. Relying on the general substitution principles recognized by the amendment the Secretary designated the Century Freeway as part of the System in March 1968. Work on this Interstate has now been halted by court order for reason of an inadequate public hearing. *Keith v. California Highway Comm'n*, 506 F.2d 696 (9th Cir. 1974), cert. denied, 420 U.S. 908 (1975).

300. See Hearings on 1972 Highway Legislation Before the Subcomm. on Roads of the House Comm. on Public Works, 92d Cong., 2d Sess. 542 (1972) (testimony of Alan A. Altshuler, Massachusetts Secretary of Transportation).

301. See Act of Aug. 13, 1973, Pub. L. No. 93-87, § 137(a), 87 Stat. 269 (codified at 23 U.S.C. § 103(e)(2) (Supp. III, 1973)).

tions of the type contemplated by the amendment do ease the Interstate program out of difficult situations, but this is accomplished only by camouflaging the fact that the System is abandoning one of its original routes. Moreover, the substitution provisions, while giving the state a helpful incentive to concur in a System deletion,³⁰² also detract from the original idea/ideal of a delimited System serving national rather than parochial state-by-state interests.

Of course, even to the extent that the 1944 and/or the 1956 Acts legally lock in the System, the authority has always resided in Congress to undo this lock. Again, however, the more that Congress exercises this authority, the more it disparages the original Interstate concept. In recent years Congress has at least tinkered with the lock. Responding to new public values, it has enacted various social and environmental statutes, clearly applicable to the Interstate program, which can be read as authorizing (if not requiring) the Secretary of Transportation to delete particular Interstate routes.³⁰³ Given liberalized rules on standing³⁰⁴ and on the reviewability of discretionary administrative judgments,³⁰⁵ these statutes also effectively authorize federal judges to halt work on particular Interstates; federal court injunctions of this sort, for better or worse, have turned into a major source of System delay.³⁰⁶ In another move, Congress, unhappy with the way in which the urban controversies were threatening to prevent the completion of the System, included provisions in the 1970 and 1973 Acts calling for the removal of certain freeways from the System if states do not have firm plans to proceed with them by an appropriate date.³⁰⁷ Even more significantly, in the 1973 Act, Congress also set up an important procedure pursuant to which the Secretary of Transportation and the state (the latter acting cooperatively with affected urban govern-

302. Recall the Bureau's view that it lacked the legal power to delete a System route unilaterally. See 1967 House Hearings, *supra* note 144, at 35 (testimony of Federal Highway Administrator Bridwell); note 144 and accompanying text *supra*.

303. *E.g.*, Department of Transportation Act of 1966, 49 U.S.C. § 1653(f) (1970), pursuant to which Transportation Secretary Volpe cancelled part of I-40 in Memphis. See the Secretary's decision, reproduced in O. GRAY, CASES AND MATERIALS ON ENVIRONMENTAL LAW 1129-30 (2d ed.).

304. See *Road Review League v. Boyd*, 270 F. Supp. 650, 660-61 (S.D.N.Y. 1967).

305. See *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971).

306. See, *e.g.*, *District of Columbia Fed'n of Civic Ass'ns v. Volpe*, 459 F.2d 1231 (D.C. Cir. 1971), *cert. denied*, 405 U.S. 1030 (1972); *Arlington Coalition on Transp. v. Volpe*, 458 F.2d 1323 (4th Cir.), *cert. denied*, 409 U.S. 1000 (1972); *Lathan v. Volpe*, 455 F.2d 1111 (9th Cir. 1971).

307. Federal-Aid Highway Act of 1970, Pub. L. No. 91-605, § 124, 84 Stat. 1729, *adding* 23 U.S.C. § 103(g) (1970); Federal-Aid Highway Act of 1973, Pub. L. No. 93-87, § 110(a), 87 Stat. 255-56 (codified at 23 U.S.C. § 103(g) (Supp. III, 1973)). No Interstates have yet been deleted under these provisions. Telephone interviews with Bob Finch and Lester Pettigrew, Federal Highway Administration officials, July 3, 1975, and Jan. 13, 1976, respectively.

308. Federal-Aid Highway Act of 1973, Pub. L. No. 93-87, § 137(b), 87 Stat. 269 (codified at 23 U.S.C. § 103(e)(4)(Supp. III, 1973)). If there is a public transit "trade," the federal money is to come out of general revenues rather than the Trust Fund. *Id.* Since 1973, trades of this sort have

ments) can agree jointly, for federal funding purposes, to "trade" a designated Interstate for an urban mass transit facility servicing the particular traffic corridor.³⁰⁸ The "intermodal" reasoning embodied in this procedure manifests, at least in principle a repudiation of the Interstate program's original highway premises. The 1976 Federal-Aid Highway Act allows the "trade" of urban Interstate for ordinary city highways, as well as for mass transit.³⁰⁹ The idea lurking behind these "trading" provisions offers interesting comment on the basic purposes of the urban Interstates.³¹⁰

In all, for a program which supposedly had been comprehensively dealt with in 1956, the changes made since that year, taken individually or in combination, are of undeniable moment. The program's last bills were due to be paid in 1972; by now, continuation into the 1990's is a virtual certainty.³¹¹ The overall cost of the program has already quadrupled and may well go higher before the end is reached. There now are 1,500 more miles of Interstate routes, and the rules for designating (and undesignating) routes have been amended several times. These various post-1956 modifications in the Interstate program suggest certain general lessons about federal policymaking that will be elucidated at the end of the next section, which is explicitly concerned with an evaluation of the program.

D. EVALUATION

The preceding narrative has described and explained historically the essential features of the Interstate program as they were decided on in 1944, 1956, and thereafter. This section of the Article will evaluate three of the program's most important features: its reliance on highway users' taxes as its means of financing; the Trust Fund and the problems associated therewith; and the conception of the System as an integrated entity. This is a conception which, as will be shown, blunts many of the criticisms which have been directed against the program, but at the same time suggests the appropriateness of certain other criticisms not previously articulated.

1. Sources of Financing

Three alternatives were presented to the federal government for financing the System: tolls, general revenues, and highway-user taxes.³¹² From the perspective of the ordinary efficiency and equity principles of

been effected in Boston, Philadelphia, and Hartford, Conn. Telephone interviews with Bob Finch and Lester Pettigrew, Federal Highway Administration officials, July 3, 1975, and Jan. 13, 1976, respectively.

309. See Federal-Aid Highway Act of 1976, Pub. L. No. 94-280, § 110(a), 90 Stat. 425, 431.

310. See text accompanying note 424 *infra*.

311. Authorizations will run until at least 1980 (see note 244 and accompanying text *supra*) and the taxes will presumably continue for 3 years or so after the authorizations end. See text accompanying note 229 *supra*.

312. See notes 151-230 and accompanying text *supra*.

public finance, the choice among these three alternatives is genuinely difficult.

Fees imposed on the users of public facilities usually are celebrated insofar as they efficiently guide public decisions as to the level of facilities to be provided.³¹³ The gas tax repeatedly has been praised as a "user tax."³¹⁴ However, since the tax is compulsory, motorists in paying the tax cannot be read as signaling their demand for more highways,³¹⁵ except in a rather indirect way. And since the tax applies to gas consumed on all the country's highways, it tells public officials next to nothing about the motorists' desire for a limited Interstate System.

Unlike the gas tax, an Interstate toll clearly would constitute a user's fee, plain and simple, and therefore could lay claim to those fees' efficiency advantages. Considerations exist, however, which suggest that a toll regime for the Interstates would actually have been productive of significant inefficiencies. Standard economic analysis advises that for a high fixed-cost public facility, inefficiency will result if that fixed cost is charged against the facility's users.³¹⁶ Rather, the facility should be priced in such a way that its users pay its variable costs only;³¹⁷ for a freeway, whose variable costs involve merely freeway maintenance and physical depreciation,³¹⁸ the fee imposed on motorists should therefore be moder-

313. See O. ECKSTEIN, PUBLIC FINANCE 26-28 (3d ed. 1973).

314. AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, THE FIRST FIFTY YEARS: 1914-64, at 176 (1965); Bruce-Briggs, *Mass Transportation and Minority Transportation*, PUB. INTEREST, Summer 1975, at 43, 44. See also Ross, *Basic Theory of State Highway Financing*, in TAX INSTITUTE, INC., FINANCING HIGHWAYS 102, 113 (1957).

315. See *Hearings on Economic Analysis and the Efficiency of Government Before the Subcomm. on Economy in Government of the Joint Economic Comm.*, 91st Cong., 2d Sess. 1129 (1970) (statement of Peter Craig).

316. See Bator, *Government and the Sovereign Consumer*, in PRIVATE WANTS AND PUBLIC NEEDS 125 (E. Phelps ed. rev. ed. 1965).

317. See Lisco's discussion of "the well-know argument" in Lisco, *Mass Transportation: Cinderella in Our Cities*, PUB. INTEREST, Winter 1970, at 52, 69. See generally A. ALCHIAN & W. ALLEN, UNIVERSITY ECONOMICS 246 (3d ed. 1972).

318. Also the costs of congestion, if privately incurred costs are to be considered. Many economists espouse the idea of congestion fees for rush-hour motorists. E.g., G. HILTON, FEDERAL TRANSIT SUBSIDIES: THE URBAN MASS TRANSPORTATION ASSISTANCE PROGRAM 113-15 (1974); A. WALTERS, THE ECONOMICS OF ROAD USER CHARGES 172-79 (1968). See also Mashaw, *The Legal Structure of Frustration: Alternative Strategies for Public Choice Concerning Federally Aided Highway Construction*, 122 U. PA. L. REV. 1, 70-98 (1973). For several reasons, many of them suggested in J. MEYER & M. STRASZHEIM, TECHNIQUES OF TRANSPORT PLANNING 44-59 (1971), I am far from convinced.

(a) The motorist who decides to drive on a congested street at peak hour may cause incremental congestion for all the other motorists, but he also suffers congestion which he would not incur were he to drive at a different time. There is, therefore, a substantial private cost to his decision which must be recognized as an offset against the external cost.

(b) The existing system does ration limited highway space—by expenditures of time rather than money. The income distribution effects of using time rather than money as the rationing device are attractive to me.

ately low. This standard analysis typically has been applied to the pricing of a facility which is assumed already to exist. But the idea at the core of the analysis³¹⁹ suggests that it also has application to the decision to build the facility in the first place; toll revenue projections will significantly understate its potential societal value.³²⁰

(c) In the long run, congestion pricing would have strong dispersing effects, as Professor Hilton recognizes. These long-run effects probably would hamper public transportation and seriously weaken downtown areas.

(d) If the urban Interstates were the only roads which were congestion priced, traffic would be diverted inefficiently to other city streets. Congestion pricing must be reasonably comprehensive if it is to be efficient.

(e) The administrative costs of a sensitive system of congestion pricing would be high—unless the highways already are being run as toll facilities. See Demsetz, *Wealth Distribution and the Ownership of Rights*, 1 J. LEGAL STUDIES 223, 230 (1972).

(f) Assume that 100 cars can drive on a freeway without congestion, but that with 101 cars, each of them will suffer 1 minute of congestion; with 102 cars, 3 minutes; 103, 6 minutes; and so on. Now assume that 103 cars (or 110) wish to use the freeway. In the name of efficiency (and fairness), which cars should be assessed which fees?

(g) Without knowing how the revenues of the congestion tax will be spent, there is no reason to believe that imposing the tax will produce a net benefit for the affected urban motorists. See J. THOMSON, *MODERN TRANSPORT ECONOMICS* 148-49 (1974). This helps explain why local officials have always regarded the congestion tax idea as "political suicide." See J. MEYER, J. KAIN & M. WOHL, *THE URBAN TRANSPORTATION PROBLEM* 340 (1965).

(h) Centralized collection of comprehensive information on persons' travel behavior would threaten many persons' privacy values.

319. Assume the pure case of a facility with *no* variable costs, whose price, geared to its fixed cost, is set at \$X. Consider all persons who would derive a positive benefit from using the facility, but a benefit less than \$X. The \$X price effectively excludes those persons from the facility. This exclusion eliminates the cost-free benefit which their use of the facility would have entailed.

According to the Bureau's 1955 estimate, placing full tolls on the Interstates would have reduced their traffic by one-third. BUREAU OF PUBLIC ROADS, *supra* note 172, at 26.

320. Assume again the pure case above, at the time when the facility is at the decision-to-build stage. Its cost estimate, let us say, is \$1 million, and the revenue accruing from the \$X price is estimated at \$700,000. From this last point it can be predicted that the facility, if operated on a price basis, will produce user benefits of \$700,000 (plus the consumer surpluses of all the price-payers). If, however, the facility is operated instead on a free basis, all of these benefits will be realized, as will, additionally, all the benefits tied to the new facility users described in note 319 *supra*.

If there is an intrinsic problem with this line of analysis, it lies in the ability of a government, set loose from the pricing constraint, to assess accurately and honestly what the diverse user benefits from the facility will be. Professor Demsetz, who makes explicit his distrust of public decisionmaking, sets forth a provocative scheme for avoiding the problem in Demsetz, *The Private Production of Public Goods*, 3 J. LAW & ECON. 293 (1970). What he proposes is a differential pricing system for such facilities, the objective of which would be to charge each user a price just below the personal benefit he would derive from the facility. The trouble with this proposal is that sophisticated methods for determining individual benefits would be (as Demsetz concedes) prohibitively costly, while simpler, less expensive methods would probably produce determinations too crude to make the Demsetz system effective. Demsetz adequately demonstrates that his differential pricing proposal is not inconsistent with basic economic doctrine. Nevertheless, there are public instincts about equality which differential pricing of this sort

Additionally, it makes little economic sense to place a price on one facility if a substitute facility is provided for free.³²¹ To the extent that a motorist confronted with an Interstate can return to an ordinary highway which is without any charge, imposing tolls on the Interstates would be certain to bring about substantial traffic misallocations. Finally, attention should be paid to the toll booth procedure at freeway entrances and exits. Such a procedure imposes both an administrative cost upon the highway authority, and a private cost, measured in terms of delay, upon the motorists. For a motorist taking a typical trip on an intercity Interstate, these costs will usually be quite small compared to the motorist's Interstate benefit. However, the costs remain the same regardless of the length of the particular trip. The average trip on an urban freeway is obviously much shorter than the average intercity trip; for urban trips of this sort, the toll both costs, public and private, become relatively substantial. For the urban Interstates, therefore, toll financing could be especially inefficient.³²²

Efficiency apart, users' fees are typically commended on equity grounds: the person who benefits, pays.³²³ This benefit principle is one which clearly supports freeway tolls. The relevance of this equity principle to the gas tax as the means of Interstate financing is somewhat more complex. It is true, of course, that the motorists who pay the gas tax do benefit as a class from Interstate construction, and therefore the gas tax does have a strong appeal. However, it is also true that within the general class of motorists, the incidence of tax payments does not at all match the incidence of benefits from new highways.³²⁴ This suggests basic equity problems in the distribution of the Interstate System's costs and benefits. Under a gas tax revenue system, a subsidy runs from those motorists whose use of the System is less than average in favor of those whose use thereof is disproportionately high. Of all the reasons for believing that the Interstate System has inappropriately assisted the trucking industry,³²⁵

probably would offend—especially when the public is aware of the crudeness of the procedures by which the prices are set.

321. See generally Lancaster & Lipsey, *The General Theory of the Second Best*, 24 REV. OF ECON. STUDIES 11 (1956).

322. It was stated repeatedly in the years before 1956 that toll financing was unfeasible for urban freeways. See, e.g., BUREAU OF PUBLIC ROADS, *supra* note 172, at 27-28; W. OWEN & C. DEARING, *TOLL ROADS 174-75* (1951); *1955 Senate Hearings, supra* note 82, at 871-72 (testimony of Francis du Pont).

323. See O. ECKSTEIN, *PUBLIC FINANCE* 54 (3d ed. 1973).

324. See FRIEDLAENDER, *supra* note 12, at 131-32.

325. Moynihan concludes that the Interstate System "provide[s] a great subsidy" to truckers because they share the cost of their roadbed with automobiles while the railroads pay the full cost of their own roadbed. *New Roads, supra* note 13, at 18. The "sharing" fact is of course an important one, but what it demonstrates is not a "subsidy" but rather an inherent economy of trucking which, for the sake of economic efficiency, ought to advantage trucking in its competi-

this cross-subsidy is by far the most persuasive.³²⁶

The gas tax can also be evaluated in progressivity terms. In the early years of the federal gas tax in the 1920's, the tax was frequently justified on the grounds that its burden fell most heavily on those with the greatest ability to pay³²⁷—hardly an unpersuasive rationale in light of the then-prevailing patterns of automobile ownership. But given more contemporary patterns of car ownership, the rationale can only be regarded as erratic as it is applied to a highway program established in 1956. The gas tax is progressive at the bottom of the income scale, since those households which own no cars, and hence purchase no gasoline, generally have low incomes. Twenty-seven percent of all households were carless in 1956,³²⁸ that figure declining to 19 percent today.³²⁹ The tax is also progressive, in a way, at the top, since those households with two cars or more (12 percent in 1956,³³⁰ 34 percent today³³¹) are generally of a high income status. However, within the large category of one-car households (61 percent in 1956,³³² 47 percent today³³³), the tax seems wildly regressive; one would guess that for these households gas tax payments are only randomly related to household wealth or income.³³⁴

Remaining for consideration is the alternative of financing out of general revenues. Except to the extent that society benefits from Interstate construction in ways *not* derivable from the immediate benefit received by the Interstate motorists,³³⁵ the use of general revenues is totally lacking in any benefit justification; a System financed out of general revenues would subsidize motoring in a rather unpalatable way. Viewed in progressivity terms, the general revenues alternative is more attractive at the federal

tion with railroads. In urban public transport, buses enjoy a comparable advantage over rail transit.

On the issue of differential taxation of large and small vehicles, see notes 202-03 and accompanying text *supra*.

326. Strangely, while the American Railroad Association was represented during the 1954-56 period by a competent and articulate economist, he all but ignored this, his strongest argument. See, e.g., 1955 House Hearings, *supra* note 62, at 1042-55 (testimony of Burton H. Behling).

327. See BURCH, *supra* note 25, at 71.

328. AUTOMOBILE MANUFACTURERS ASS'N, AUTOMOBILE: FACTS AND FIGURES 36 (37th ed. 1957).

329. MOTOR VEHICLE MANUFACTURERS ASS'N OF THE U.S., INC., AUTOMOBILE FACTS AND FIGURES 1975, at 32 (1975).

330. AUTOMOBILE MANUFACTURERS ASS'N, AUTOMOBILE: FACTS AND FIGURES 36 (37th ed. 1957).

331. MOTOR VEHICLE MANUFACTURERS ASS'N OF THE U.S., INC., AUTOMOBILE FACTS AND FIGURES 1975, at 32 (1975).

332. AUTOMOBILE MANUFACTURERS ASS'N, AUTOMOBILE: FACTS AND FIGURES 36 (37th ed. 1957).

333. MOTOR VEHICLE MANUFACTURERS ASS'N OF THE U.S., INC., AUTOMOBILE FACTS AND FIGURES 1975, at 32 (1975).

334. Likewise, within the class of all two-car families, the relationship between gas tax payments and family income is probably random.

335. H.R. Doc. No. 54, 87th Cong., 1st Sess. 4-6, 61-151 (1961).

level than at the state level, since for federal purposes general revenues consist of a quite progressive income tax, while for state purposes it refers to a less progressive compound of income and sales taxes.

All things considered, which of the three alternatives for Interstate financing was most in the public interest remains, in public finance terms, an open question. Tolling does not profess to be relevant to progressivity; it ranks high in benefit-equity; and its efficiency characteristics are generally complex, but on the whole rather negative, particularly for the System's urban routes. The gas tax earns mixed marks across the board. Federal general revenues is the most progressive method of the three, but it makes no contribution to either benefit-equity or efficiency. In these ambivalent circumstances, why did the Eisenhower Administration rule out tolls, despite the President's stated preference? The traditional, institutional, and political reasons for this have been indicated above.³³⁶ Having rejected tolls, why did the Administration insist on highway-user taxes rather than general revenues? The answer lies partly in the following syllogism: highway-user taxes made possible the Trust Fund; trust funds did not then appear in the official federal budget; and the President was committed to holding down the federal budget.³³⁷ This reasoning, of course, was concerned with images rather than reality; in any event, the exclusion of trust funds from the official budget was a fortuity which has since been corrected. Perhaps the lesson of the entire experience is that when basic principles of public finance do not clearly point to a particular financing alternative, the choice among alternatives is especially likely to turn on factors which public finance would ordinarily regard as extraneous.

The Ford Administration's 1975 proposal³³⁸ for modification of Interstate financing would alter the existing Interstate scheme by diverting up to 3 cents of the 4-cent gas tax away from the Trust Fund and into general revenues. Whether there is justification for a special tax on motorists, the revenues of which are not earmarked for highway expenditure, is a question closely tied to the present fuel crisis, with all its extraordinary foreign policy and cartel-economic circumstances; as such, that question is beyond the scope of this Article.

2. *The Trust Fund*

A common accusation against the Highway Trust Fund has been that it is a device insidiously masterminded by the highway lobby in order to provide a continuing bonanza to the automobile.³³⁹ It should be clear that

336. See notes 178-79 *supra*.

337. See *New Roads*, *supra* note 13, at 16.

338. See note 241 *supra*.

339. See, e.g., MOWBRAY, *supra* note 14, at 18-30 (chapter 2 is entitled "Magical Highway

this accusation misrepresents historical reality. A classical function of trust funds has been to render tax increases acceptable to those who will bear the tax burden by assuring these taxpayers that the tax revenues will be spent for their benefit.³⁴⁰ Highway-user taxes were drastically increased by the 1956 Act, and the Trust Fund, formalizing the linkage principle, helped make these tax increases politically feasible.³⁴¹ Whether the Interstate System, as financed by the highway-user taxes channeled into the Trust Fund, would in truth be of benefit to the various highway interests, involved close questions as to the ratio between benefits and burdens. The calculations performed by most of the relevant interests came out negative in 1955, but positive in 1956. Even in 1956 the petroleum industry remained antagonistic to the basic idea of linking gas tax revenues to federal highway expenditure taxes. The industry regarded the repeal of the federal gas tax as its overriding legislative goal, and it reasoned that tying the gas tax to the highway program would politically eliminate the possibility of such a repeal.³⁴²

Increased motoring since 1956 certainly has meant increased revenue available through the Trust Fund for highway purposes; the total federal highway program grew from \$2.875 billion in fiscal year 1959³⁴³ to \$5.325 billion in fiscal year 1973,³⁴⁴ an increase of about 85 percent. During that interval, however, the total federal budget increased by 350 percent³⁴⁵ and the gross national product grew by almost 300 percent.³⁴⁶

Trust Fund"); Adams, *The Shameful State of Transport*, READER'S DIGEST, Feb. 1975, at 61, 66 (Rep. Brock Adams is a member of the Transportation Subcommittee of the House Commerce Committee).

340. See Nelson, *Policy Analysis in Transportation Programs*, in SUBCOMM. ON ECONOMY IN GOVERNMENT OF THE JOINT ECONOMIC COMM., 91ST CONG., 1ST SESS., THE ANALYSIS AND EVALUATION OF PUBLIC EXPENDITURES: THE PPB SYSTEM, pt. 3, at 1118 (Joint Comm. Print 1969).

341. Opponents of the Ford Administration's 1975 legislative package legitimately can argue that its proposed 3-cent gas tax diversion dishonors 1956 commitments. See note 241 *supra*.

342. See *1956 House Ways and Means Comm. Hearings*, *supra* note 189, at 537-38. Three years later the petroleum industry waged a vigorous but vain battle against the 1-cent increase in the gas tax needed to prevent the Interstate program from sputtering to a halt. See *1959 House Hearings*, *supra* note 233, at 206-14. Agreeing with the industry were Senators of the stature of Albert Gore, Russell Long, and Eugene McCarthy, who concluded that motorists should not be required to shoulder any further federal taxes; any new Interstate funds, they argued, should be drawn from general revenues. See S. REP. No. 903, 85th Cong., 1st Sess. 25-26 (1959).

As for the industry's reasoning concerning the Trust Fund as affecting the chances for gas tax repeal, Congress' 1971 repeal of the auto excise tax (a tax never tied to the Trust Fund) supports the industry's political logic.

343. Federal-Aid Highway Act of 1956, ch. 462, §§ 102(a), 108(b), 70 Stat. 374, 378 (\$2 billion for the Interstate program and \$875 million for A-E-C). Excluded from these calculations is federal assistance for forest highways, national park highways, and other relatively minor special items.

344. Federal-Aid Highway Act of 1968, Pub. L. No. 90-495, § 2, 82 Stat. 815; Federal-Aid Highway Act of 1970, Pub. L. No. 91-605, § 105, 84 Stat. 1715.

345. From \$70 billion in 1956 to \$268 billion in 1974. See U.S. OFFICE OF MANAGEMENT AND

Hence, one cannot automatically say that the Trust Fund has provided the highway program either with excessive funding or with more funding than it would have received from the congressional process absent the Trust Fund device. Finally, even if the 1956 Act has worked out in ways that have benefited many motorists and motoring interests, the Trust Fund cannot possibly be called a "subsidy to Detroit,"³⁴⁷ at least if "subsidy" is used in its conventional sense.³⁴⁸ Motorists contribute every penny that the Trust Fund distributes. Moreover, at the time of the 1956 Act there was a 10 percent federal excise tax on automobiles.³⁴⁹ The Act declined to tie this tax in with the highway program and its Trust Fund; rather, all the proceeds of the tax were allowed to continue to flow into the general treasury. The same is true for the proceeds of the federal excise taxes on lubricating oil and auto parts and accessories, and half of what was then the 10 percent excise tax on new trucks and buses. In 1958, the first full year under the 1956 Act, the Trust Fund collected \$2.082 billion in highway-user taxes, while \$1.395 billion of such taxes went into general revenue.³⁵⁰ The auto excise tax was repealed (without much consideration of highway-finance issues) in 1971,³⁵¹ but in fiscal year 1975, \$200 million of Trust Fund revenues can be spent under the federal "urban system" program for public transportation, this sum increasing to \$800 million in fiscal 1976.³⁵²

BUDGET, THE BUDGET OF THE UNITED STATES GOVERNMENT: FISCAL YEAR 1976, at 366 (1975). A change in the method of calculation was made during the Johnson years and is responsible for a significant fraction of this increase.

346. From \$409 billion in 1956 to \$1,224 billion in 1973. *Id.*

347. See, e.g., C. ALEXANDER, *HOLDING THE LINE: THE EISENHOWER ERA, 1952-1961*, at 42 (1975); Shepard & Wright, *The Auto Industry*, ATLANTIC, Dec. 1974, at 24-25; Oberbeck, Book Review, NEWSWEEK, Dec. 31, 1973, at 32 (reviewing E. ROTHSCHILD, *PARADISE LOST: THE DECLINE OF THE AUTO-INDUSTRIAL AGE* (1973)).

348. Some economists might say that Interstate motorists are "subsidized" in the sense that they are not required to bear the cost of the "externalities" of their motoring, chiefly the externalities of pollution and congestion. As for the congestion "externality," the "subsidy" terminology should be deemed inappropriate, since congestion costs, while they may be caused by motorists, are also borne by motorists. See also note 318 *supra*. Even as for pollution, many economists reject the value-laden "subsidy" language and the question-begging "externality" phrase; they would instead speak in terms of how to efficiently deal with the "costly interaction" of activities which are not fully compatible. See, e.g., Demsetz, *When Does the Rule of Liability Matter?*, 1 J. LEGAL STUDIES 13, 25 (1972). In any event, whatever the nature of the problem, it is a problem presently shared by all highway building programs in America and hence says nothing about the Interstate program in particular.

349. See Tax Rate Extension Act of 1956, ch. 115, § 3(a)(2), 70 Stat. 66.

350. See 1959 House Hearings, *supra* note 233, at 107. Taking 1970, for example, as a typical, more recent year, the (then) 7% auto excise tax raised \$1.694 billion, a sum equaling more than one-third of the \$4.378 billion which was distributed from the Trust Fund during that year. MOTOR VEHICLE MANUFACTURERS ASS'N OF THE U.S., INC., 1972 AUTOMOBILE FACTS AND FIGURES 72, 78 (1972).

351. Revenue Act of 1971, Pub. L. No. 92-178, § 401(a)(1), 85 Stat. 530; see Bruce-Briggs, *Mass Transportation and Minority Transportation*, PUB. INTEREST, Summer 1975, at 43, 52.

352. Federal-Aid Highway Act of 1973, Pub. L. No. 93-87, §§ 104(a)(2), 121(a), 87 Stat. 251,

The realities may well be quite different at the local level,³⁵³ but at the federal level the Trust Fund did not end the traditional excess of motorists' taxes over highway expenditures.

Apart from the general subsidy argument, it has also been more selectively claimed that within the Interstate program a subsidy is received by the urban segments of the System.³⁵⁴ It is certainly true that the Interstate program, like any highway program fueled by highway-user taxes, harbors significant cross-subsidies. Whether, in particular, an urban cross-subsidy exists is an empirical question to be answered with the assistance of relevant data. On the expenditure side, the Clay Committee had estimated that of the \$27 billion required for the entire System, \$15 billion (or 55 percent) would be needed for its urban routes.³⁵⁵ This estimate has proven to be far off the mark in absolute terms, but accurate relatively. Forty-eight percent of all federal Interstate funds disbursed as of summer 1974 had been spent on urban routes; that figure was expected to rise to 53 percent (almost \$38 billion) by the time of the System's completion at the end of the decade.³⁵⁶ On the revenue side our primary concern is with the gas taxes contributed to the Trust Fund.³⁵⁷ Government statistics show that in 1971, of all vehicle miles driven on the Interstate System, a fraction less than 50 percent were on the urban Interstates;³⁵⁸ of the vehicle miles driven on all the nation's roads, 52 percent were in urban areas.³⁵⁹ On the rural Interstates, 15 miles per gallon is the average gas consumption, while on the urban Interstates the estimated average is 13;³⁶⁰ the rural-urban gas mileage differential for non-Interstate driving is almost certainly greater. Taken together, these facts largely negate the idea of a substantial urban subsidy; if anything, they suggest that as measured against the standards of government

259-60. See also the Ford Administration's gas tax diversion proposal discussed in note 228 *supra*.

353. As of 1960, over \$528 million of city general revenues were being spent annually for highways. COMMITTEE ON ECONOMIC DEVELOPMENT, DEVELOPING METROPOLITAN TRANSPORTATION POLICIES 47 (1964). BURBY, *supra* note 14, at 69, cites figures which suggest a higher total.

354. See FRIEDLAENDER, *supra* note 12, at 132-33. See also Prof. Lawrence Stone's essay, *The Energy Crisis: A New Case for Tax Reform*, L.A. Times, Aug. 29, 1974, § 2, at 7, col. 6.

355. See CLAY COMMITTEE REPORT, *supra* note 149, at 18.

356. Telephone interview with Henry Paterick, Federal Highway Administration official, July 16, 1974.

357. While the special large-vehicle taxes mostly can be assigned to rural driving, the rationale for these taxes is that large vehicles wear out the roadway more quickly. See note 202 *supra*. Hence, these taxes should be ignored in striking the urban-rural balance. Sixty-nine percent of Trust Fund revenues come from the gas tax, 11% from the tire taxes. MOTOR VEHICLE MANUFACTURERS ASS'N OF THE U.S., INC., 1972 AUTOMOBILE FACTS AND FIGURES 76 (1972).

358. FEDERAL HIGHWAY ADMINISTRATION, HIGHWAY STATISTICS 1971, at 82 (1972).

359. *Id.* at 81.

360. Telephone interview with Henry Paterick, Federal Highway Administration official, July 16, 1974.

programs generally, the apportionment of costs between urban and rural is strikingly equitable.

3. *The Interstate System as System*

A fundamental fact about the Interstate program—and a fact which sharply distinguishes it from the earlier *A-B-C* program, and from most other federal grant-in-aid programs as well—is that it is concerned with a closed system of facilities with predetermined locations. This is a fact which one overlooks at his peril. Congress itself is capable of ignoring it, and when this happens the result can be the frustration of congressional attempts to improve the program. For example, when Congress stipulated in the 1962 Act that all urban freeways approved for federal funding must be “based on a continuing comprehensive transportation planning process,”³⁶¹ it failed to express any clear intent that the urban Interstates approved in 1955 be ignored so that the urban transportation planning could proceed on a clean slate. The unfortunate consequence has been that in most metropolitan areas the planning process has tended to regard the 1955 Interstate freeways as “committed,” *i.e.*, to be accepted by the planners as a given.³⁶²

An insufficient regard for the closed system fact is conducive to the lodging of inappropriate complaints against the program. The Governor of California and the Task Force of the Governor of Massachusetts have recently charged that Interstates are being built in those states not because they are good investments, or even good highway investments, but rather because the states cannot afford to turn down the 90 percent federal share.³⁶³ But this assessment unduly ignores the fact that the 1944 and 1956 Acts together allow the construction of Interstates only along those routes specifically endorsed as worthy by both the states and the

361. Federal-Aid Highway Act of 1962, Pub. L. No. 87-866, § 9, 76 Stat. 1148, *as amended*, 23 U.S.C. § 134(a) (1970) (“carried on cooperatively by state and local communities”). The highway plan itself is to be “properly coordinated with plans for improvements in other forms of transportation and . . . formulated with due consideration of [the] probable effect on the future development of [the metropolitan area].” *Id.*

362. See Cafferty, *Urban Goals and Priorities: The Increasing Role of Transportation Planning*, 25 TRAFFIC Q. 309, 313 (1970); Morehouse, *The 1962 Highway Act: A Study in Artful Interpretation*, 35 J. AM. INSTITUTE OF PLANNERS 160 (1969). For an instance of this phenomenon in Los Angeles, see Los Angeles Regional Transportation Study, 1980 Progress Report, 1967 (study prepared for the California Dep’t of Public Works and the Southern California Ass’n of Governments).

363. See Governor’s Task Force on Transportation, Report to Governor Sargent on Immediate Action Opportunities, Jan. 1970, at 5-6; Goff, *U.S. Meddling in State Affairs Hit by Brown*, L.A. Times, Aug. 16, 1975, § 2, at 1, col. 1. See also R. GOODMAN, AFTER THE PLANNERS 74 (1971) (the “‘90-10’ formula makes for an irresistible inducement for states to build highways almost anywhere just to get their hands on the subsidy”).

Bureau in their 1947 and 1955 designations.³⁶⁴ A noted economist, discussing trust funds generally and the Highway Trust Fund in particular, has criticized them for supplying a program with increasing revenues even after the program's benefits have passed the point of diminishing cost-benefit returns;³⁶⁵ it is frequently said of the Highway Trust Fund that it is mindlessly self-perpetuating.³⁶⁶ These criticisms founder on the fact that the Interstate System—the Trust Fund's primary beneficiary—has been approved explicitly in its 40,000 (now 42,500) mile totality by Congress; indeed, under the Highway Revenue Act of 1956, the Trust Fund is itself designed to survive until—but only until—the Interstate System is completed.³⁶⁷ As for the complaint about continuing funding, one might just as well object to the 1962 San Francisco bond issue for having provided continuing, unreviewed funding for the construction of BART.

At least, this BART analogy would obtain if it were true that Congress was on solid policy ground in conceiving of all the Interstate routes as a unitary, integrated system. Plainly, however, this conception was not at all inevitable, since it is clear that the Interstate System was easily capable of staging and segregation. From the analyses in *Toll Roads and Free*

364. In the case of both Los Angeles and Boston, the 1955 designations were themselves based on metropolitan freeway plans earlier developed by state and local officials. See JOINT BOARD FOR THE METROPOLITAN MASTER HIGHWAY PLAN, THE MASTER HIGHWAY PLAN FOR THE BOSTON METROPOLITAN AREA (1948); R. ZETTEL, FEDERAL HIGHWAY LEGISLATION OF 1956 AND ITS IMPACT ON CALIFORNIA 7 (1957).

The state-federal Interstate cost breakdown is of course 10-90; in view of the state's obligation to "maintain" System routes (see note 164 *supra*), the overall state-federal breakdown is more like 20-80. It is clear that the ratio of in-state benefits to out-of-state (or purely national) benefits accruing from the typical Interstate freeway is considerably higher than 20-80. See notes 409-36 and accompanying text *infra*. But see F. MICHELSON & T. SANDALOW, GOVERNMENT IN URBAN AREAS 1196 (1969). In light of this imbalance in ratios, the states have a clear incentive to seek Interstate routes that are not necessarily nationally cost-beneficial. Note, however, that the 1944 Congress, acting on the basis of the *Interregional Highways* map, approved a 40,000-mile system (which it later enlarged to 42,500 miles), and that the federal highway agency gave its approval, mainly in 1947 and 1955, to all of the Interstate routes. These approvals carried the implicit federal judgments that the Interstate routes are in fact cost-beneficial from a national perspective. One can argue, of course, that the federal cost-benefit judgments should be rendered more nearly on a route-by-route basis, and at a time reasonably close to the beginning of a particular freeway's construction. I agree with this argument, which is really one version of the more general point developed below regarding the preplanned structure of the Interstate program. See text accompanying notes 368-84 *infra*.

365. Nelson, *Policy Analysis in Transportation Programs*, in SUBCOMM. ON ECONOMY IN GOVERNMENT OF THE JOINT ECONOMIC COMM., 91ST CONG., 1ST SESS., THE ANALYSIS AND EVALUATION OF PUBLIC EXPENDITURES: THE PPB SYSTEM, pt. 3, at 1119 (Joint Comm. Print 1969).

366. *E.g.*, MOWBRAY, *supra* note 14, at 20-21; Note, *A Cure for the Highway Epidemic: A Balanced Subsidy*, 5 SUFFOLK L. REV. 902, 909 (1971).

367. Act of June 29, 1956, ch. 462, § 209(f)(1), 70 Stat. 398. The 1956 Act provided that completion would be accomplished in 1972; the 1975 Ford Administration proposal gives up on setting a specific date. See text accompanying note 241 *supra*.

*Roads*³⁶⁸ and *Interregional Highways*,³⁶⁹ one can infer that a national system of considerably less than 40,000 miles could have made sense in ordinary transportation terms.³⁷⁰ The System's urban Interstates could easily have been classified and ranked in terms of their contribution to the System's general purposes.³⁷¹ As emphasized above, in the 1944 and 1956 Acts, Congress imposed a 42,500 mile *limitation* on the System. What should be repeated here is that the 42,500-mile figure also functions, in some general way, as an *obligation* to undertake and complete the entire System.³⁷²

This is the obligation which creates the problem, especially with the urban Interstates. The following section will discuss the extent to which the urban Interstates have been responsible for serious incidental consequences in urban areas. Objectively regarded, the 1956 Act, in establishing the Interstate program, was significantly deficient in its failure to take these side effects into account. As the next section will show, it certainly is not true that nobody knew anything about these consequences prior to 1956. Nevertheless, the relevant knowledge was quite scattered, and the public's understanding of urban freeways was certainly limited. It was only the actual post-1956 undertaking of the Interstate program which provided the necessary stimulus for intense, specific thinking about urban freeways and their modern role. Notable early responses to this stimulus were: among urban professionals, a conference in Hartford, Connecticut, in 1958;³⁷³ among the lay public, the first of the urban controversies, which broke out in Reno in the same year;³⁷⁴ and within the executive branch, the Bragdon 1959-60 review.³⁷⁵ Experience is, of course, the great educator; as one study of the 1960's Great Society observes, "[a]lmost by definition, a new social program is likely to be hobbled at first by the lack of knowledge and experience of those charged with its design and operation."³⁷⁶

The truth of this observation, as born out by the Interstate System, serves to counsel caution in the launching of major new social endeavors.

368. BUREAU OF PUBLIC ROADS, TOLL ROADS AND FREE ROADS, H.R. DOC. NO. 272, 76TH CONG., 1ST SESS. (1939).

369. See note 121 *supra*.

370. See notes 113-26 and accompanying text *supra*. Back in 1960, Moynihan observed that the System was being built in "fragments strewn across the continent," with virtually no effort to concentrate on the System's most important routes. This, Moynihan thought, reflected the absence of even a "minimum of businesslike management." *New Roads*, *supra* note 13, at 17.

371. See text accompanying notes 419-24 *infra*.

372. See text accompanying notes 223 and 289-99 *supra*.

373. See text accompanying notes 649-51 *infra*.

374. See H.R. REP. NO. 292, 86TH CONG., 1ST SESS. (1959).

375. See notes 263-85 and accompanying text *supra*.

376. Ginzberg & Solow, *Some Lessons of the 1960's*, PUB. INTEREST, Winter 1974, at 211, 215.

By the same token, once such endeavors have been launched, it is especially desirable to subject them to prompt, continuing, and thorough review, so as to take advantage of the new "knowledge and experience" acquired in their early implementation.³⁷⁷ Yet the Interstate program—its momentum established by the 1956 Act—has enjoyed a quasi-statutory immunity against reevaluations of this sort. By 1960, 4 years into a 35-year program, the President of the United States, deciding that he profoundly disliked the program's urban component, nevertheless was forced to conclude that "his hands were virtually tied."³⁷⁸ By the mid-1960's the consensus favoring the urban portion of the program had crumbled, yet the federal urban-freeway campaign continued. In 1976 urban freeways are still being built essentially because they seemed like a good idea back in 1955—and this is an arrangement one is hard pressed to justify. The Governors of California and Massachusetts³⁷⁹ do have a valid complaint: today they are substantially bound by the decisions rendered (or concurred in) by their predecessors of 20 years ago. Of course, the 1956 Act can be partly defended against complaints of this sort by pointing out that the Act contemplated that all the Interstates would be completed by 1972. But this is a defense the effect of which is to draw attention to the important fact that since 1956 the character of the Interstate program has drastically changed—from a 16-year \$27 billion effort into a program covering upwards of 35 years and costing as much as \$184 billion. Congress has never been given a real chance to pass judgment on whether a program of this expanded magnitude is really worthwhile, since from 1958 through 1973 the time and cost increases have been presented to Congress piece by piece, each time with at least the implicit assurance that no further increases would be necessary.³⁸⁰

As a general matter, congressional efforts at overseeing the Interstate program have not proven especially successful. The urban Interstate controversies have been raging ever since the late 1950's; Congress has responded to them not by reexamining basic freeway policy, but rather by enacting certain route substitution and route deletion rules which modify, if somewhat haphazardly, what could be thought to constitute the System's original integrity.³⁸¹ New social and environmental values emerged during the 1960's. In giving recognition to these values, Con-

377. Consider the enormous literature on "feedback" and the necessity thereof in public programs. *E.g.*, J. FRIEDMANN, RETRACKING AMERICA 194-222 (1973); H. KAUFMAN, ADMINISTRATIVE FEEDBACK (1973); K. WEBB & H. HATRY, OBTAINING CITIZEN FEEDBACK (1973).

378. See text accompanying note 282 *supra*.

379. See text accompanying note 363 *supra*.

380. Only in 1975 was Congress given any reasonable information concerning the effects of future inflation on the cost of the System.

381. See 121 CONG. REC. H. 12,953 (daily ed. Dec. 18, 1975) (comments of Rep. William H. Harsha).

gress abstained from challenging the Interstate program directly. Instead, it chose to superimpose upon that program a patchwork of strings and conditions; this has encumbered the program in ways which have made it extremely ineffective as a freeway-building effort. Currently loaded down by all these burdens, and with so many of its remaining urban routes buffeted by criticism, the entire program has been placed in a defensive and conservative posture which is ironically contrary to its initial ambitious, forward-looking orientation.

The glory of the Interstate program is that it involves a dramatic and explicit instance of the federal government attempting to plan ahead in a grand-scale, long-term way. There is an underside to this glory, however. Political scientists repeatedly advise us that for several reasons long-range planning is not feasible in a democratic society.³⁸² Our cumulated Interstate experience can be read as indicating that when the circumstances do permit such planning, what it produces are extremely uneven results. The entire post-1956 Interstate program is one that could have been structured along very different lines, allowing it to proceed ahead deliberately by short-to-medium run increments. Political problems aside,³⁸³ this would have been the wiser course. The Ford Administration's 1975 proposal seeks to establish priorities for remaining Interstate construction in accordance with "the national significance" of a particular route and how "essential" it is to the "connectivity" of the System as a whole.³⁸⁴ While this is an intelligent step, the proposal comes 20 years too late.

III. THE URBAN INTERSTATES

A. THE RATIONALES

A glance at the experience in other motorized countries verifies what already should be clear—that a nationwide system of freeways need not include freeways within cities. The German autobahnen, planned and begun by the Third Reich,³⁸⁵ follows the practice of bypassing rather than

382. See generally A. ALTSHULER, *THE CITY PLANNING PROCESS* (1965); C. LINDBLOOM, *THE INTELLIGENCE OF DEMOCRACY* (1965). Of special interest are Professor Banfield's comments on the impossibility of predicting future values. Banfield, *The Uses and Limitations of Metropolitan Planning in Massachusetts*, in 2 *TAMING MEGALOPOLIS* 710 (H.W. Eldredge ed. 1967).

383. Where a particular state scheduled to receive no Interstates at all in the first stage, the votes from the state's congressional delegation would be hard to obtain.

384. See Dep't of Transportation 1975 Documents, *supra* note 72, Section by Section Analysis at 11. The highway bill passed by the Senate incorporated this proposal. See S. 2711, 94th Cong., 1st Sess. § 107(c) (1975). The House approved a weaker version. H.R. 8235, 94th Cong., 1st Sess. § 102(b) (1975). It was the House's version which was then accepted in conference and approved by the full Congress. Federal-Aid Highway Act of 1976, Pub. L. No. 94-280, § 102, 90 Stat. 425.

385. See 3 H. HOLBORN, *A HISTORY OF MODERN GERMANY* 750-51 (1969).

entering German cities.³⁸⁶ The English network of motorways, which has been developing in earnest since the early 1960's, avoids intrusions into England's metropolitan areas; sometimes, as with London, not even a circumferential bypass is provided.³⁸⁷ Given the technology of the automobile, it seems entirely feasible to separate intercity from intracity road building. The automobile—unlike, for example, the railroad car—is a vehicle which can quite conveniently transfer from one vehicle-carrying facility to another as it comes into the city.³⁸⁸ From a national perspective, intercity freeways would appear to foster "interstate commerce" in ways which intracity freeways do not, and the exclusion of the urban Interstates could have reduced the program's anticipated costs by more than 55 percent.³⁸⁹ A figure of no less authority than President Eisenhower apparently believed that the program had adopted a bypass strategy.³⁹⁰ Why was that strategy rejected? What purposes were understood as being served by the inclusion of all the urban routes?

One of the rationales for the urban Interstates³⁹¹ repeatedly mentioned during 1954-56 may surprise the reader. The 1956 Act added "Defense" to the title of the Interstate System.³⁹² One feature of this "defense" element was that military equipment and personnel could be easily transported from one military location to another on the intercity freeways. Military usefulness of this sort had been one of the factors looked at in designating the Interstate System back in 1947,³⁹³ and it was later singled out by President Eisenhower in his memoirs.³⁹⁴ The urban freeways, it was said, would serve an additional defense purpose—civil defense—in the sense of the evacuation of the urban population in the event of a nuclear attack. The cause of urban evacuation was argued explicitly by the representatives of the big cities,³⁹⁵ but only after it had

386. See AMERICAN AUTOMOBILE ASS'N, CENTRAL EUROPE AND SCANDANAVIAN MAP (1973).

387. See AMERICAN AUTOMOBILE ASS'N, BRITISH ISLES AND IRELAND MAP (1973).

388. See L. MUMFORD, THE URBAN PROSPECT 98 (1968).

389. See text accompanying note 162 *supra*.

390. See text accompanying notes 264-66 *supra*.

391. All the rationales build on the freeway's greater vehicle-carrying capacity. See note 515 *infra*.

392. Federal-Aid Highway Act of 1956, ch. 462, § 108(a), 70 Stat. 378.

393. See Levin, *Federal Aspects of the Interstate Highway Program*, 38 NEB. L. REV. 377, 400-03 (1959).

394. "And motorists by the millions would read a primary purpose in the signs that would sprout up alongside the pavement: 'In the event of an enemy attack, this road will be closed . . .'" D. EISENHOWER, MANDATE OF CHANGE 549 (1962). See also 1955 Senate Hearings, *supra* note 28, at 567-73 (testimony of Army Chief of Transportation Maj. Gen. Paul Yount); *id.* at 62-63 (testimony of Bureau Commissioner Curtiss). The Department of Defense, however, rebuffed suggestions that part of the System's cost be charged against the Department's budget. Turner Interview. Representative Fallon, the author of the "National Defense" language in the System's title, indicates that he regarded it as political window-dressing. Fallon Interview.

395. See, e.g., 1955 House Hearings, *supra* note 62, at 654-55 (American Municipal Association policy statement).

been ranked as a high priority by the Clay Committee³⁹⁶ and spotlighted by President Eisenhower in his message to Congress transmitting the Committee's report.³⁹⁷

In the 1970's for a variety of reasons,³⁹⁸ this civil defense idea seems quite preposterous, and by 1972 it had been more-or-less officially abandoned even by the Federal Highway Administration.³⁹⁹ As early as 1958, Lewis Mumford was asserting that the entire national defense rationale for the 1956 Act had been nothing more than a "specious guise."⁴⁰⁰ However, if one examines the 1954-56 legislative history, taking it in the context of the civil defense assumptions prevailing during those years,⁴⁰¹ one is led to two conclusions: first, that it is wrong to impugn the

396. CLAY COMMITTEE REPORT, *supra* note 149, at 5.

397. *Id.* at iv.

398. For one thing, given the congestion on freeways when the work force descends on them at rush hour, one can't even begin to imagine the congestion if an entire urban population suddenly and simultaneously sought access to the freeways in an evacuation attempt. Also, much of the reason we now sense that rationale as silly is that, whether rightly or wrongly, we no longer seriously worry much about nuclear strikes against American cities. In the middle 1950's—shortly after Korea, not that long after the close of World War II, and long before the cathartically favorable resolution of the Cuban missile crisis—the possibility of a nuclear attack was on everyone's mind. See, e.g., the first paragraph in N. MAILER, *The White Negro*, in ADVERTISEMENTS FOR MYSELF 338 (1959). To regain perspective, we do well to recall that as late as 1961, in the midst of the Berlin crisis, President Kennedy seriously proposed in a nationally televised speech a massive program of building family and neighborhood bomb shelters. See PUBLIC PAPERS OF THE PRESIDENTS OF THE UNITED STATES: JOHN F. KENNEDY, 1961, at 536-37 (U.S. Government Printing Office 1962). In the 1950's there was wide agreement that civil defense should be a major determinant of domestic policy; many urban planners were willing to call for a halt on all growth in our major metropolitan areas and even a partial relocation of their existing population in order to reduce our nuclear vulnerability. See, e.g., Augur, *Decentralization Can't Wait*, in PLANNING 1948, at 27 (Am. Soc'y of Planning Officials 1948); Kelly, *The Necessity for Dispersion*, 19 J. AM. INSTITUTE OF PLANNERS 20 (1953).

For an excellent discussion of the ambivalence in the federal government's current civil defense effort, see Wall Street Journal, June 23, 1975, at 1, col. 1.

399. See Federal Highway Administration, Resource Book on the Federal-Aid Highway Program, Sept. 1971. This is a public relations document which, in listing the benefits of the Interstate System, omits civil defense altogether.

As a general matter, the entire "defense" element of the Interstate System has been badly neglected. Because of "bureaucratic delay and inefficiency" within both the Bureau and the Department of Defense, "which might well serve as a textbook example of how a government should not be run," the Interstates were built between 1956 and 1960 with overpasses so low (14 feet) as to restrict their usefulness for missile and rocket transportation; moreover, the 1960 increase to 16 (rather than 17) feet "was controlled almost entirely by budgetary considerations rather than military requirements." H.R. REP. NO. 363, 87th Cong., 1st Sess. 37-38 (1961). As John Burby notes, "'Defense' provided military escort for the trust fund," but it has "since been dropped from common usage in describing the network." BURBY, *supra* note 14, at 92.

400. Mumford, *The Highway and the City*, ARCHITECTURAL RECORD, Apr. 1958, at 179.

401. Most important was the assumption that there would be from 2 to 7 hours warning before any nuclear attack. See OWEN, *supra* note 79, at 229; Peterson, *Plans for Evacuating a Large City in Case of Atomic Attack*, 10 TRAFFIC Q. 38 (1956). It was not until later that

good faith of the civil defense rationale,⁴⁰² and second, that despite this good faith, in the important quarters civil defense was regarded as a mere "bonus" benefit for an urban program whose basic benefits lay elsewhere.⁴⁰³

The legislative record quite adequately sets forth these basic benefits. For almost everyone the essential point about the urban Interstates was that they would serve as "extensions" of the basic intercity routes on the Interstate System, collecting or distributing within cities traffic heading towards or coming from the nonurban Interstates. It would be unsatisfactory, the idea went, to connect Indianapolis and Cincinnati with Interstate 74, which can be driven in less than two hours, if the motorist must pick up I-74 on the outskirts of Indianapolis and get off it on the outskirts of Cincinnati, thereby subjecting himself to an additional two hours of intrametropolitan driving on the ordinarily congested streets of those two major cities.⁴⁰⁴ This "extension rationale," or at least a variation of it, had been pressed most vigorously in *Interregional Highways* back in 1943.⁴⁰⁵ The urban maps contained in the *Yellow Book*⁴⁰⁶ verify that the

developments in guided missile technology made this assumption obsolete (although these developments were somewhat foreseeable as far back as 1956 (see OWEN, *supra* note 79, at 229)).

402. When General Clay testified before the Senate subcommittee in 1955, he conceded that the urban Interstates would not be completely effective for civil defense, but he still asserted they would provide a "very excellent opportunity to do a considerable amount of evacuation," and that his concern was not merely for anticipatory evacuation, but also for an orderly evacuation and rehabilitation of the city subsequent to a nuclear attack. *1955 Senate Hearings, supra* note 82, at 405. Clay was strongly supported on these issues by the testimony of the federal Administrator of Civil Defense, who introduced a consultant's study to help show that the civil defense "performance" of urban freeways would be "quite impressive." *Id.* at 591-93.

403. In 1955-56 it had been argued that the System's defense rationale warranted funding out of general revenues. See text accompanying notes 167-69 *supra*. Rejection of this financing scheme by Congress and the Administration indicates that they conceived of the Interstates as intended to fulfill ordinary highway transportation purposes. A discussion between Senator Gore and the Bureau Commissioner in 1955 narrowed down their differences—Gore stating that civil defense was merely "incidental," the Commissioner rejecting that adjective, but conceding that the urban routes still would be necessary parts of the System even if civil defense were of no concern. *1955 Senate Hearings, supra* note 82, at 687. Compare *id.*, at 405, 574-79 (Senator Estes Kefauver), with *id.* at 687 (Senator Strom Thurmond).

404. See *1944 House Hearings, supra* note 31, at 74 (testimony of Massachusetts Public Works Commissioner Herman MacDonald); *1955 Senate Hearings, supra* note 82, at 672. See also 1955 Bureau Memorandum, *supra* note 136, at 2, enumerating the Bureau's criteria for the reserved 2,200 urban miles: "All additions must be located to serve interstate routes effectively either as feeders thereto or distributors therefrom. Routes which are principally for local service without direct relation to the interstate system cannot be considered."

405. See INTERREGIONAL HIGHWAYS, *supra* note 121, at 56-59. This document reported that "on main highways at the approaches to any city," the traffic is especially heavy. A "common impression" is that urban bypass routes would effectively reduce the congestion at these approach points, but this is a "fallacy," since

a very large part of [this] traffic originates in or is destined to the city itself. It cannot be bypassed. . . . In general, the larger the city the larger is the proportion of the traffic on the main approach highways that is thus essentially concerned with the city. . . .

rationale is, in some minimum map-sense, a nonwaivable requirement for every one of the urban Interstates. Each urban Interstate ties in with one of the System's intercity routes either directly or (occasionally) via another urban Interstate. The typical urban Interstate—unless it is a mere "spur" or unless there are topological barriers—connects up with an intercity Interstate at each of its ends; and the obvious function of such spurs is to afford the smaller cities access to the regular Interstate passing by a few miles away. The Miami map shows only one Interstate entering the city from the north and halting in midcity;⁴⁰⁷ Indianapolis, on the other hand, is rather thoroughly crisscrossed and encircled by Interstates.⁴⁰⁸ This is entirely sensible in basic extension terms. For obvious geographic reasons only one of the intercity Interstates reaches Miami, and reaches it only from the north; but Indianapolis, with its convenient midwestern location, is the origin of I-69 heading north towards Flint, and a midway-point for three other Interstates: I-65 from Chicago to Louisville, I-74 from Bloomington to Cincinnati, and I-70 from St. Louis to Columbus.

While the extension rationale was quite prominent in 1943-44 and 1954-56, in the discussions during those periods an additional benefit was also seen in the urban Interstates: these Interstates would help meet the internal transportation needs of the metropolitan areas themselves. It should be made clear that the cities never questioned or disputed the extension rationale; quite to the contrary, they cherished it insofar as it gave them a handle with which to argue for federal funding for one kind of expensive urban project long before Congress had become willing to invest in local facilities on a more general basis.⁴⁰⁹ However, especially during the 1955-56 period, the cities were insistent on advising Congress that the urban Interstates were also essential if the cities were to

Furthermore, of this city-concerned traffic, the largest single element originates in or is destined to the business center of the city.

Id. at 58-61. Therefore, to perform their extension function, the urban Interstates must at least approach that business center.

This reasoning is a "variation" of the purer extension reasoning in the sense that it is concerned with the traffic on a highway as that highway approaches a major city. This traffic certainly does include many vehicles which have departed from (or passed nearby) some other metropolitan area. However, it also includes large numbers of vehicles whose trips have originated not within the metropolis itself, but still within the larger "region" for which the metropolis serves as the center. See Friedmann & Miller, *The Urban Field*, 31 J. AM. INSTITUTE OF PLANNERS, 312 (1965). If the Baltimore-Washington data in *Interregional Highways* is representative, almost half of the traffic on highways approaching major cities is intraregional rather than interregional in character.

406. BUREAU OF PUBLIC ROADS, GENERAL LOCATION OF NATIONAL SYSTEM OF INTERSTATE HIGHWAYS (1955).

407. *Id.* at 14.

408. *Id.* at 22.

409. Telephone interview with Randy Hamilton, July 24, 1973. Hamilton was the American Municipal Association (AMA) delegate to the Clay Committee staff during 1954-55.

cope with their own transportation problems.⁴¹⁰ Section 116(b) of the 1956 Act ultimately read in part as follows:

Insofar as possible in consonance with this objective [the "prompt completion" of the System], existing highways located on an interstate route shall be used to the extent that such use is practicable, suitable, and feasible, it being the intent that local needs, to the extent practicable, suitable, and feasible, shall be given equal consideration with the needs of interstate commerce.⁴¹¹

Within a year after the Act was signed the Bureau had worked out an interpretation of the "equal consideration" clause of section 116(b), one which held that in planning "the System as a whole and each segment thereof," the needs of "so-called local traffic" and the needs of "so-called interstate commerce traffic" should be given "the same amount of consideration."⁴¹² Section 116(b) was, however, capable of a reading quite different from that given it by the Bureau. That alternative reading, building on the syntax of the entire sentence in which the clause appears, would suggest that "local needs" should be given "equal consideration" only on the specific question of whether to include "existing highways" on the Interstate System, rather than building new highways in new locations.⁴¹³ This narrower reading of section 116(b) was endorsed by both BOB and General Bragdon during the 1959-60 White House review.⁴¹⁴ The section 116(b) issue, having been vigorously debated back and forth between Bragdon and the Bureau of Public Roads, eventually wended its way to the Department of Justice, where an Assistant Attorney General reached the conclusion that either of the section 116(b) interpretations could be defended as a law, and therefore that the choice between them should be determined by policy considerations—about which the Justice Depart-

410. See notes 485-508 and accompanying text *infra*.

411. Federal-Aid Highway Act of 1956, ch. 462, § 116(b), 70 Stat. 385 (codified at 23 U.S.C. § 101(b) (1970)).

412. Bureau of the Budget, Report on Legislative Intent with Respect to the Location of Interstate Routes in Urban Areas and The Concept of Local Needs in Section 116 of the Federal-Aid Highway Act of 1956, Annex No. 6, at 11 (1957) (unpublished memorandum in the Office of Management and Budget library, Washington, D.C.). "Equal consideration," the Bureau of Public Roads further opined, did not mean an "exact equality" of local and interstate traffic. *Id.*

413. See *id.*, Annex No. 5, at 3. As the BOB report correctly notes, the step-by-step legislative history of § 116(b) is ambiguous, as were later statements about § 116(b) by various Senators and by the Federal Highway Administrator. *Id.*, Annex No. 5, at 1-4. Frank Turner indicates that Senator Robert Kerr had a hand in § 116(b), and that his concern was for existing highway incorporation. Turner Interview. The last sentence of § 116(b) called on the Bureau of Public Roads to prepare a report on its compliance with § 116(b); the Bureau's report, submitted in 1958, dealt only with existing highway incorporation. H.R. Doc. No. 74, 86th Cong., 1st Sess. (1959). The Bureau's basic conclusion was that 72% of the Interstate System should be in new locations. *Id.* at 12.

414. See text accompanying notes 263-85 *supra*.

ment would itself have nothing to say.⁴¹⁵

But why the intensity of this debate? Cannot urban Interstates handle extension and intrametropolitan traffic at one and the same time? If so, why should we not want them to? This in essence was the position taken by the Bureau during the 1959-60 period.⁴¹⁶ In considering this position, we should take note of General Clay's present views.⁴¹⁷ Clay now indicates that his Committee contemplated only extension-oriented freeways,⁴¹⁸ that section 116(b) introduced the intrametropolitan idea, and that in so doing section 116(b) perverted his Committee's understanding and launched an urban program which Clay himself deplors. With Clay's views in mind, it proves possible to identify several areas in which acceptance of the intrametropolitan rationale does make a difference in the formulation of Interstate policy.

The first of these policy areas involves, quite simply and importantly, the number of the urban Interstates. Clearly the freeway mileage needed for extension purposes alone is much less than the mileage required if those freeways are intended for both extension and intracity traffic. Any urban freeway obviously can handle some "extension" traffic, and as indicated, every urban Interstate has some extension tie-in.⁴¹⁹ But despite this, and despite the stubborn claims in a 1970 position paper prepared by the Federal Highway Administration,⁴²⁰ it seems undeniably true that a significant number of the urban Interstates can be arguably worth their cost only if the accommodation of intrametropolitan traffic is considered to be one of their major intended benefits. In fact, traffic counts on particular urban Interstates indicate that 82 percent of all vehicles driving thereon carry in-state license plates.⁴²¹ During the 1959-60 White House review, General Bragdon, in rejecting the intrametropolitan rationale which he thought attributable to section 116(b), was able to recommend the dele-

415. See H. Kaltenbach, Memorandum for the Record, Jan. 29, 1960 (Bragdon Files, Eisenhower Papers, Eisenhower Library).

416. See B. Tallamy, Comments on Recommendations 1 Through 13 Regarding "Basic Concepts and Criteria" Contained in Draft Interim Report Dated January 9, 1960, Entitled "Progress Review of National System of Interstate and Defense Highways," (undated memorandum) (Bragdon Files, Eisenhower Papers, Eisenhower Library).

417. Clay Interview.

418. See note 613 and accompanying text *infra*.

419. See text accompanying notes 407-08 *supra*.

420. See Federal Highway Administration, Stewardship Report on Administration of the Federal-Aid Highway Program 1956-1970, in *Hearings on Report on the Status of the Federal-Aid Highway Program Before the Subcomm. on Roads of the Senate Comm. on Public Works*, 91st Cong., 2d Sess. 98-114 (1970), arguing that each and every Interstate under controversy at the local level was "essential" to the "continuity" or the "integration" of the overall Interstate System.

421. Telephone interview with Bob Finch, Federal Highway Administration official, July 3, 1975. This figure is only suggestive, since almost all states contain more than one metropolitan area. Finch's figure for the rural Interstates is 76%.

tion from the System of 1,700 miles of urban routes.⁴²² In 1967 Lowell Bridwell, then Federal Highway Administrator, stated in congressional testimony that not only the Embarcadero Freeway in San Francisco but every one of the urban Interstates then in controversy was not necessary for a "continuous or connected system;" each of them instead was due "to the statutory requirement of equal consideration to local traffic needs."⁴²³ The standards which Congress recently has employed in enacting its route substitution and public transit provisions reveal a congressional understanding that not all of the designated urban Interstates are "essential" to a "unified and connected Interstate System."⁴²⁴

Another policy area where full acceptance of an intrametropolitan rationale clearly makes a difference concerns the number of freeway lanes.⁴²⁵ While a four-lane freeway divided two and two might suffice in a

422. See text accompanying notes 274-75 *supra* Moynihan, who apparently had interviewed Bragdon (see Letter from Daniel Moynihan to General Bragdon, Dec. 21, 1959 (Bragdon Files, Eisenhower Papers, Eisenhower Library)), asserted in his 1960 article that § 116(b) was resulting in the "construction of [urban] arterial highways only by courtesy connected with interstate system." *New Roads*, *supra* note 13, at 19.

423. 1967 House Hearings, *supra* note 144, at 42.

While Bragdon and Bridwell are correct in their assessment of the influence of the intrametropolitan rationale on urban Interstate mileage, they are in error in attributing that mileage to § 116(b) (Moynihan makes the same error (see note 422 *supra*)). The fact is that almost all the freeways in question, including the Embarcadero itself, had been designated in 1955 and published in the *Yellow Book*. This apparently confirms that General Clay's position notwithstanding, the intrametropolitan rationale had been a significant part of the Interstate program well prior to 1956 and § 116(b). One can find traces of this rationale as far back as *Interregional Highways*. The original state and federal emphasis on rural roads, that report noted, had led to a situation in which the greatest traffic deficiencies were those in cities; therefore, it reasoned, the federal priority should now be on roadbuilding in cities. INTERREGIONAL HIGHWAYS, *supra* note 121, at 3: The Bureau Commissioner, when asked in 1955 whether the urban Interstates to be designated later that year would serve extension or intrametropolitan traffic, twice answered "both." 1955 Senate Hearings, *supra* note 82, at 686, 677.

424. Substitutions and trades are allowed only if the original Interstate is not "essential" in this way. 23 U.S.C. §§ 103(e)(2), (4) (Supp. III, 1973). The substitutions and trades which have been approved by the Secretary of Transportation (see text accompanying notes 300 and 308 *supra*) indicate his agreement in specific cases with the general understanding of Congress that many routes are not so "essential."

The aspect of the Ford Administration's proposal relevant to this issue is mentioned in the text accompanying notes 436 *infra*.

425. The two rationales could also possibly differ on the location of a particular freeway within a city, since the city's internal traffic flow might be out of line with the flow of traffic into the city from without. See BURCH, *supra* note 25, at 235. But it appears that locational mismatches of this sort seldom occur in the real world, and that extension-oriented freeways usually satisfy intracity needs rather well. In the entire record of the urban Interstates, one can find barely a suggestion that extension reasoning has resulted in the placement of freeways which inadequately accommodate intrametropolitan traffic needs (the one suggestion is in E. HORWOOD & R. BOYCE, STUDIES OF THE CENTRAL BUSINESS DISTRICT AND URBAN FREEWAY DEVELOPMENT 99 (1959)). The C program's 1955 change from an intrametropolitan to an extension rationale (see text accompanying notes 57-62 *supra*) is bewailed by Burch as an urban disaster. BURCH, *supra* note 25, at 235. Yet in all the weeks of 1955 Congressional hearings, urban representatives mentioned this

particular case if only intercity traffic were considered, eight lanes might be a minimum if the freeway were to handle local urban traffic as well.⁴²⁶ This lane matter is of special interest because it reveals how pursuit of the intrametropolitan rationale can interfere—and in the real world twice daily does interfere—with the achievement of the extension purpose. Anyone leaving San Diego in midafternoon for Los Angeles along I-5 will find that the free flow of his intermetropolitan trip will be curtailed by the Los Angeles metropolitan rush-hour traffic that clogs the freeway from Long Beach on north.

The lane question also contains an interesting element of complexity which calls for examination. Even if the urban interstate is intended exclusively for extension travel and even if four lanes would suffice for extension travel, one must wonder whether there is any way to prevent local traffic from entering the freeway. If not, the extra lanes would need to be built anyway, if only to protect the interests of the extension traffic. In fact, there is a way to render the Interstate unattractive to local traffic: by limiting the number or frequency of entrance-exit interchanges. Intercity travel means long trips and hence will not be greatly influenced by interchange placement; but since local travel means short trips, the extent of local travel's freeway utilization does become a function of interchange frequency.

On the issue of interchanges, and possibly lanes as well, the Bureau concluded, in considering the 1956 Act, that its interpretation of section 116(b) required it to revise its policies so as to render them more generous to the interests of local motorists. The resulting additions in urban and Interstate miles and urban interchanges (and possibly lanes) may have been in the vicinity of 63 percent.⁴²⁷ When the cost of the entire System, calculated at \$25 billion in 1956, was re-estimated by the Bureau at \$41 billion in 1958, \$4 billion of this \$14 billion increase stemmed from the various changes in the System, including (but not limited to) the additions of interchanges and lanes.⁴²⁸

Multi-billion dollar expenditures⁴²⁹ are of course major matters in and

change only once, and then perhaps with some disappointment, but with no sense of demoralization or dismay. *1955 House Hearings, supra* note 62, at 810-11 (testimony of Shephard A. Magedson, Administrative Assistant to Comptroller of City of Milwaukee).

426. See FRIEDLAENDER, *supra* note 12, at 84.

427. BUREAU OF PUBLIC ROADS, 1958 INTERSTATE COST ESTIMATE, H.R. DOC. NO. 300, 85th Cong., 2d Sess. 8 (1958), states that the Bureau's interpretation of § 116(b) led it to increase the number of interchanges, grade separations, and frontage roads. Frank Turner confirms that there were lane additions as well. Turner Interview. The general figure on increases which the Bureau's report sets out is 63%.

428. BUREAU OF PUBLIC ROADS, 1958 INTERSTATE COST ESTIMATE, H.R. DOC. NO. 300, 85th Cong., 2d Sess. 8 (1958).

429. Four billion dollars, plus the cost of the pre-§ 116(b) intrametropolitan-oriented urban Interstate routes. See note 421 and accompanying text *supra*.

of themselves. But cost, important as it may be, is not the only issue at stake in the decision whether to consider intrametropolitan in addition to intermetropolitan needs. At a very general level, the reason for building the entire Interstate System is the high-quality, high-volume transportation service which modern freeways provide. There is a world of difference, however, between the two rationales in their implications for federal urban policy. One rationale expresses a federal interest in city roads only insofar as they are adjuncts of a nationwide intercity highway system; the other rationale exalts the city as the entity whose needs the federal program is designed to fulfill. This analysis may initially suggest the appeal of the intrametropolitan rationale;⁴³⁰ however, the analysis must then be expanded in order to give recognition to the serious side effects which freeways produce in urban areas. Each urban Interstate will bring about some of these effects, and therefore the more Interstates built within a metropolitan area the more widespread these effects will be. Also, while these effects can be minimized if a freeway is designed to carry extension traffic only, they will be at their greatest if the freeway is deliberately designed to accommodate intrametropolitan traffic. It is the fully intrametropolitan freeway which will have the greatest impact, for example, on metropolitan development and on the plight of public transit. General Bragdon was gradually learning of these urban effects during 1959, and General Clay is certainly aware of them now. Both of these men also knew that the Interstate program organized during 1954-56 was poorly equipped to cope with these effects. Bragdon and Clay are only partly correct in believing that the intrametropolitan rationale entered the urban program via section 116(b); but they are entirely right in thinking that the full acceptance of that rationale was a major policy choice, and also a cause for significant concern.

Bragdon, of course, was in a position to challenge this rationale during the 1959-60 White House review, and in mounting his challenge he was led to question the Bureau's revised policies on lanes and interchanges. Long negotiating sessions between Bragdon and the Bureau ensued, and these negotiations eventuated in agreements on the lane and interchange issues.⁴³¹ During the course of the negotiations Bragdon

430. See BURCH, *supra* note 25, at 235.

431. On lanes, the agreement was the Bureau would promulgate a standard limiting the Interstates to not more than four lanes in cities of less than 400,000 population, not more than six lanes in cities of less than 1 million, and not more than eight in larger cities. On interchanges, the agreed-upon standard stipulated that interchanges in urban areas should be at least 2 miles apart, 4 miles apart in suburban areas, and 8 miles apart in rural areas. Both these standards were to be cast in the form of guidelines rather than fixed rules. Deviations from the lane guideline could be approved only by the Bureau's Washington office and only if several rigorous-appearing criteria were satisfied, including the inadequacy of public transportation and more conventional urban highways as ways of accommodating the projected travel needs. Departures

retreated from his strongest positions;⁴³² moreover, the agreements themselves, whether Bragdon realized this or not, amounted to a basic victory for the Bureau in the general policy dispute which underlay the specific lane and interchange issues. That is, the lane and the interchange policies which the agreements embody seem eminently well-suited for freeways which quite effectively cater to intrametropolitan traffic.⁴³³ What appears true on paper is substantiated in reality; to my knowledge, every urban Interstate constructed since 1960 is regarded locally as an essential part of the local transportation system.

In another application of his general reasoning, during the 1959-60 review Bragdon also recommended the deletion from the System of 1,700 miles of urban routes,⁴³⁴ the routes which he thought could be justified only in intrametropolitan rather than extension terms. Here again Bragdon was unsuccessful, since he was unable to secure the President's approval of this recommendation.⁴³⁵ The Bragdon effort thus essentially failed on every front. The urban Interstates accordingly survived the Eisenhower Administration with their intrametropolitan rationale fully intact, an equal partner in the urban program. It was not until 1975 that this rationale was again seriously questioned. The Ford Administration's 1975 proposal, with respect to the urban Interstates yet to be constructed,

from the interchange standard would not need to be referred to Washington, but under no circumstances could interchanges be spaced closer together than 1 mile in urban or 3 miles in rural areas. See Interim Report, *supra* note 89, at 22-24.

These agreements are still in effect. See Federal Highway Administration, Instruction Manual for Preparation and Submission of the 1974 Estimate of the Cost of Completing the Interstate System, Jan. 1973, at 22-27.

432. On the lane matter he had at one time favored a rule of no more than four lanes on freeways in cities of less than 1 million, and no more than six in larger cities no matter what their size. See J.S. Bragdon, Fifth Draft of First Interim Report on Progress Review of the National System of Interstate and Defense Highways, Dec. 28, 1959, at 5 (Bragdon Files, Eisenhower Papers, Eisenhower Library). On interchanges he had evidently once argued for a minimum spacing of 4 (or perhaps even 8) miles. Turner Interview. Additionally, Bragdon wanted fixed rules, not mere guidelines. Whether the 1960 agreements also embodied significant concessions by the Bureau is hard to say. The agreements did commit the Bureau to issue official standards on matters which until then had been dealt with informally. Frank Turner's recollection, however, is that the agreed-upon standards were largely consistent with the practices which were occurring in the field anyway. In the late 1950's highway officials believed that four lanes in one direction were the most with which ordinary drivers could safely cope; an eight-lane maximum thus was in accordance with accepted tenets of freeway engineering.

433. Partly this is because in their post-1960 administration these "guidelines" have turned out to be remarkably porous. Proposals for up to 10 lanes for urban Interstates have been routinely approved, so long as traffic counts are high enough. Telephone interview with William Chin, design official in the Federal Highway Administration Regional Office in San Francisco, Aug. 23, 1974. The absolute rule on 1-mile interchange spacing often has been honored in the breach, especially in California. *Id.* Back in 1960, the Bureau was in a much better position than Bragdon to estimate this porosity of implementation.

434. See text accompanying notes 274-75 *supra*.

435. See text accompanying note 282 *supra*.

seeks to give a strong priority to those urban routes needed for the "integrity of a connected Interstate network," and to postpone effectively into the indefinite future the funding of routes which basically "provide commuter service."⁴³⁶

To assess the full meaning of Bragdon's failure to curtail the intrametropolitan rationale in 1960—a failure which allowed that rationale to flourish for the ensuing 15 years—requires some understanding of the collateral effects of the urban Interstates. These effects, and the claims concerning them, comprise the topic under discussion for the remainder of this Article.

B. THE INDICTMENT

1. An Overview and Preliminary Analysis

During the 2 years of activity preceding the 1956 Act, the American Association of State Highway Officials, under the leadership of its president, Alf Johnson, urged inclusion of the urban routes in the System.⁴³⁷ By the time of his retirement from AASHO in 1972, however, Johnson had recanted, stating for publication that the inclusion of the urban Interstates had been a legislative mistake.⁴³⁸ General Clay has similarly disowned the urban Interstates,⁴³⁹ and President Eisenhower was distinctly unhappy when he belatedly learned what they were all about.⁴⁴⁰ In reaching their conclusion, these individuals were in one way or another responding to a set of criticisms of the urban Interstates which had begun to surface in the late 1950's, and which have been pressed with mounting vigor since the mid-1960's in a body of writings often nourished by freeway controversies at the community level. These are the criticisms which were collectively referred to in the Introduction as the "indictment" entered against the urban Interstates, an indictment which is of special importance because of the acceptance it has secured from a wide segment of public opinion.⁴⁴¹

The indictment's initial charge, a historical-political one, is that the urban portion of the Interstate program as established in the 1956 Act is attributable to the machinations of the highway lobby. The indictment then posits that the urban Interstates have failed to achieve their stated purpose of relieving urban traffic congestion. It next proceeds in several

436. See Dep't of Transportation 1975 Documents, *supra* note 72, Explanation at 2-4.

437. *Hearings on Urban Highways Before the Subcomm. on Roads of the Senate Comm. on Public Works*, 90th Cong., 1st Sess., pt. 1, at 154 (1967).

438. Cameron, *How the Interstate Changed the Face of the Nation*, FORTUNE, July 1971, at 78, 125.

439. See text accompanying notes 417-18 *supra*.

440. See text accompanying notes 265-66 *supra*.

441. See notes 13-15 and accompanying text *supra*.

counts to itemize a number of ways in which the effects of the urban Interstates have been unfortunate, if not perverse. The urban Interstates have polluted our air, ravaged the urban environment, and ruined its parks and open spaces. They have worked to destroy viable minority low-income neighborhoods and callously have evicted staggering numbers of residents and small businessmen. They are the cause of the disastrous decline of urban public transportation. They have brought about a dysfunctional suburbanization of the country's metropolitan areas with no regard for proper principles of city planning. While many of these evils were the objects of congressional or administrative reforms instituted in the late 1960's, these reforms arrived too late, have attempted no more than amelioration, and often have failed even in this modest endeavor.⁴⁴²

A further question involved in the indictment concerns the extent to which the various adverse effects which the indictment identifies were appreciated back in 1956. This is a question on which the literature is divided—Moynihan in 1960 proclaiming that the effects in fact were appreciated, Moynihan in 1970 insisting that they were hidden from view.⁴⁴³ Some support for Moynihan's 1970 position can be found in the posture in which the Interstate issue was presented to the federal government in the mid-1950's. The Interstate System had, after all, been signed into law in 1944 and had been designated administratively in 1947 and 1955. By 1954 a more-than-trivial amount of construction work had been completed or at least commenced. The desirability of the Interstate System having been established both in Congress and in the executive branch, the immediate issue facing the federal government in 1955 and 1956 involved the financing and administration of the Interstate program.⁴⁴⁴ Had the sequence of events not narrowed the Interstate issue in this way, it can probably be assumed that federal consideration of the merits of the System would have been at least somewhat more extensive and ambitious.

The thin treatment of the Interstate System by the 84th Congress additionally can be explained in terms of the public understanding of urban freeways in the 1950's. The short of the matter is that during that period, urban freeways were regarded widely as an obvious, uncomplicated "good." In the nation's newspapers, editorial support for the Inter-

442. See, e.g., Hartman, *Relocation: Illusory Promises and No Relief*, 57 VA. L. REV. 745 (1971).

443. See text accompanying notes 17-18 *supra*.

444. In this vein, see General Clay's statement, at the outset of his committee's hearings, that the need for the System had already been authoritatively determined, and that therefore his committee's chief concern would be for the financing and the governmental organization of an Interstate program. President's Advisory Committee on a National Highway Program, Minutes of Public Hearings, 1955, at 1 (unpublished document in the Dep't of Transportation library, Washington, D.C.).

state program was warm and virtually unanimous;⁴⁴⁵ the Hearst chain was especially enthusiastic.⁴⁴⁶ As for the "liberals," their "litany" during the 1950's was "Better Schools, Better Hospitals, Better Roads."⁴⁴⁷ The few conservatives who opposed the Interstate program (for the reason that it unduly federalized a highway-building function which the states were willing and able to perform) nevertheless volunteered their agreement with the urban portion of the program, on grounds of the overwhelming needs of urban traffic.⁴⁴⁸ The mid-1950's intellectual community can be represented by Wilfred Owen, the Brookings Institution's urban transportation specialist, whose 1956 book, *The Metropolitan Transportation Problem*, is still regarded as a "classic."⁴⁴⁹ While that book expresses both a concern for public transportation and a reservation about freeway traffic generation,⁴⁵⁰ one of its basic conclusions was that urban freeways constitute a vital "improvement" in urban transportation generally necessary if cities are to be successful in "adapt[ing] to the automotive age."⁴⁵¹ Other liberal intellectuals found the Interstate issue so entirely obvious as to be not even worthy of mention. During the entire 1954-56 period, *New Republic* ran only one four-paragraph article on the Interstate legislative effort, and this article's sole policy statement was that "everyone agrees that new highways are needed."⁴⁵² In an influential 1958 essay evaluating the Eisenhower Presidency, William Shannon concluded, with no mention of the 1956 Act, that the Eisenhower era should be assessed as "the time of the great postponement" in which "no national problem [has been] advanced importantly toward solution nor its dimensions significantly altered."⁴⁵³

If all the charges in the indictment were completely true, one might be inclined to agree that the 1956 Act was a disastrous exercise in blissful mid-fifties urban ignorance. However, a closer analysis of the 1956 Act, its

445. See LEAVITT, *supra* note 14, at 40.

446. See letter from President Eisenhower to William Randolph Hearst, Jr., Jan. 28, 1957, in EISENHOWER DOCUMENTS, *supra* note 12, at 562, recognizing the Hearst chain's "decisive part [in the chain of events] which culminated in the passage of the Federal-Aid Highway Act."

447. *New Roads*, *supra* note 13, at 14.

448. See, e.g., Moley, *The Clay Highway Plan*, NEWSWEEK, Mar. 21, 1955, at 112.

449. LUPPO, COLCORD & FOWLER, *supra* note 12, at 188.

450. OWEN, *supra* note 79, at 67-104, 107-09.

451. *Id.* at 31, 40-54, 105-14.

452. *Construction Ahead*, NEW REPUBLIC, May 16, 1955, at 5. In the 1970's, *New Republic* articles regularly spoke out against the Interstate program. See, e.g., Hall, *Highways vs. Environment: The Long Island Fight*, NEW REPUBLIC, May 12, 1973, at 17; *Cracks in the Cement*, NEW REPUBLIC, Sept. 30, 1972, at 10.

453. Shannon, *Eisenhower as President: A Critical Appraisal of the Record*, COMMENTARY, Nov. 1958, at 390. In 1972, Shannon, now an editorialist for the *N.Y. Times*, authored a long article for the Sunday Magazine section lambasting the Interstate program and indicating that its initiation was "easily the most significant domestic act of the Eisenhower Administration." Shannon, *The Untrustworthy Highway Fund*, N.Y. Times, Oct. 15, 1972, § 6 (Magazine), at 210.

legislative evolution, and its early implementation indicates the inadequacy of such an appraisal. In reporting below on what such an analysis had yielded, this Article will first identify a compensating virtue found in the 1956 Act which its urban critics have ignored. The Article will then briefly sketch the results of that analysis as applied to several of the indictment's counts. In Subsection (2), the remaining counts will be examined at greater length and in greater detail.

a. *Public hearings*: When measured against contemporary urban values, the 1956 Act deserves positive credit for at least one of its provisions. It was section 116(c) of that Act which introduced into Title 23 the requirement that a local public hearing be held for all federal-aid urban highways.⁴⁵⁴ A tracing of the somewhat flukish legislative history of this provision,⁴⁵⁵ however, makes it difficult to discern what its inclusion in the

454. Federal-Aid Highway Act of 1956, ch. 462, § 116(c), 70 Stat. 385, as amended 23 U.S.C. § 128 (1970).

455. Section 116(c) amended § 13 of the Federal-Aid Highway Act of 1950, ch. 912, 64 Stat. 791, which had mandated a public hearing for every federal-aid highway "bypassing any city or town." (It is said that this 1950 provision was due to Senator Dennis Chavez, chairman of the Senate Public Works Committee, who had become annoyed when a federally aided realignment of a state highway had taken business away from a bar owned by his brother-in-law (Turner Interview)). After positing the public hearing requirement, § 13 went on to require that the state highway department "certify" to the Bureau that it had considered the bypass's "economic effects"; this made clear that "economic effects" was the issue which it was the purpose of the hearings to explore. These post-1950 public hearings, although thus quite limited in both their number and their scope, were regarded as a nuisance by state highway officials. The public hearing issue was not raised in 1955-56 only because the Administration's 1955 bill, as well as the 1955 Fallon bill reported out to the House, would have rendered § 13 inapplicable to Interstate projects; the idea apparently was that the public hearings produced delay which was at odds with the goal of achieving the prompt completion of the Interstate System. State highway officials supported this amendment with public statements which exhibited an unabashed arrogance. See, e.g., *1955 Senate Hearings*, supra note 82, at 391-92. See also *1956 House Public Works Comm. Hearings*, supra note 155, at 76. On the Senate side, the Gore bill, approved by the Senate in 1955, contained a section specifically reaffirming (and somewhat clarifying) the existing § 13 public hearing requirement. The bill which finally passed the House in 1956 backed away from the Fallon proposal by eliminating any mention of public hearings; it accordingly would have preserved § 13 as it was. See H.R. REP. NO. 2436, 84th Cong., 2d Sess. 36 (1956). The Senate's 1956 bill included basically the same reaffirming and clarifying section which the Senate had approved the year before.

There thus were certain differences between the House and Senate bills, but these differences were both minor and technical. Note, then, what happened in conference. The conferees, while accepting the syntactic format of the Senate version, added new words to that version so as to impose the public hearing requirement whenever a highway either "bypasses or enters into" an urban area. What it was that occasioned in conference this sharp change of direction—quite foreign to the conference's supposed function of resolving or compromising House-Senate differences—has not been disclosed, although one source indicates that the new provision was authored in a mellow due process mood by Senator Francis Case. (Turner Interview). That the change of direction was not given careful thought is suggested by the fact that the conference bill (and hence the Act) did not expand the scope of the public hearing beyond the issue of "economic effects"; this is a sensible limitation for hearings on bypass highways, but an arbitrary limitation for hearings on urban highways generally. The congressional outcome

1956 Act truly revealed about the congressional understanding of the urban situation.

b. *Air pollution*: The urban Interstates have induced motoring,⁴⁵⁶ and to that extent can be held responsible for the air pollution which urban motoring produces. However, the steady flow of freeway driving results in the emission of less carbon monoxide and fewer hydrocarbons than the stop-and-go driving done on ordinary city streets.⁴⁵⁷ All one can confidently say about the net effect of the urban Interstates upon urban air quality is that it is uncertain. In the mid-fifties the general public was not particularly aroused about air pollution;⁴⁵⁸ moreover, the extent of the automobile's contribution to this pollution was just beginning to be publicly understood⁴⁵⁹—and was not yet understood in Congress, as 1955 congressional hearings reveal.⁴⁶⁰ The theory of the photochemical nature of urban smog which suggested the significance of the automobile had been developed in 1949 by Dr. Haagen-Smit of the California Institute of Technology.⁴⁶¹ In 1954 Haagen-Smit, mindful of the constant-speed

must have led many state highway officials to rue their preference to press the public hearing issue; and "outraged" Robert Moses "fulminated" against § 116 in a 1957 report-to-the-citizenry in Harper's. Moses, *The New Superhighways: Blessing or Blight*, HARPER'S, Dec. 1956, at 27, 31, discussed in SCHNEIDER, *supra* note 14, at 95-96.

Congress amended § 128 in 1968, opening up the public hearing to all the proposed urban highway's "social," "environmental," and "urban planning" effects. Federal-Aid Highway Act of 1968, Pub. L. No. 90-495, § 24, 82 Stat. 828. As virtually his last official act in office, Transportation Secretary Alan Boyd administratively bifurcated the § 128 public hearing into an early hearing on the highway's general location and a later hearing on the issues of precise location and highway design. See 23 C.F.R. pt. 1, app. A (1974). The resulting "two-hearing procedure" has become a valuable element of citizen participation in the final planning of the urban Interstates. See B. KELLEY, *THE PAVERS AND THE PAVED 135-40* (1971). But see Mashaw, *The Legal Structure of Frustration: Alternative Strategies for Public Choice Concerning Federally Aided Highway Construction* 122 U. PA. L. REV. 1, 22-24 (1973).

456. See text accompanying notes 515-31 *infra*.

457. See Federal Highway Administration, Resource Book on the Federal-Aid Highway Program, Sept. 1971, at 103 (finding a 2:1 ratio). But see Schneideman, Cohn & Paulson, *Air Pollution and Urban Freeways: Making a Record on Hazards to Health and Property*, 20 CATH. U.L. REV. 5, 10 (1970), who claim that freeway driving fares badly in the emission of nitrogen oxide; I have been unable to document this.

458. An exception is Los Angeles, where by 1955 "smog" had already become a controversial political issue. See J. FLICK, *THE CAR CULTURE* 222-23 (1975).

459. See AIR POLLUTION FOUNDATION FINAL REPORT, 12, 24 (1961). In 1956, a sociologist dismissed as an antiquarian "prejudice" the idea that automobiles might be detrimental to human health. Allen, *The Automobile*, in F. ALLEN, H. HART, D. MILLER, W. OGBURN & M. NIMICOFF, *TECHNOLOGY AND SOCIAL CHANGE* ch. 6 (1956).

460. *Hearings on S. 890 and S. 928 Before a Subcomm. of the Senate Comm. on Public Works*, 84th Cong., 1st Sess. (1955). For example, an industrial spokesman referred to the "popular view" that "industry" was the "sole [air pollution] offender," and spokesman conceded that there was a "certain logic" in this view, since industrial pollution was so conspicuous on a smokestack-by-smokestack basis. *Id.* at 248.

461. See A. HAAGEN-SMIT, REPORT TO THE LOS ANGELES COUNTY AIR POLLUTION CONTROL DISTRICT, *THE ANALYSIS OF AIR CONTAMINANTS* (1949).

factor but apparently in the dark about traffic generation, published his conclusion that "[t]he construction of freeway is . . . an excellent means towards the reduction of exhaust fumes."⁴⁶²

c. *Residential displacement*: According to one estimate, the Interstate System is responsible for the displacement of 1 million persons.⁴⁶³ Relocation assistance was first provided by the 1962 Act, and was then bolstered in 1968 and 1970.⁴⁶⁴ By these years, however, much of the harm had already been done, for the 1956 Act itself contained no relocation provisions.⁴⁶⁵ It has been asserted that the 84th Congress "never discussed" the relocation question.⁴⁶⁶ This assertion is false. Prodded by the forceful testimony of New York City's Robert Moses,⁴⁶⁷ the bills considered by the House in 1955 and then approved by the House in 1956 would have rendered family relocation expenses includable within highway "construction" costs for purposes of federal funding;⁴⁶⁸ for the Interstate program, this would have entailed a 90 percent federal share of payments made to relocatees. However, in the Senate in 1956, this provision was deleted by the Public Works Committee when it marked up the House's bill.⁴⁶⁹ On the Senate floor, Senator Herbert H. Lehman's amendment to reinstate the House's provision was defeated by a voice vote,⁴⁷⁰ and in conference the House acceded to this deletion.⁴⁷¹ The House conferees' willingness to accede on this one issue is typical of the kind of horse trading which characterizes conferences,⁴⁷² but the reasons for the Senate's hostility to the House's provision have never been adequately explained.⁴⁷³ One factor which surely did not help was the

462. See Haagen-Smit, *The Control of Air Pollution in Los Angeles*, ENGINEERING & SCIENCE, Dec. 1954, at 11, 15.

463. See A. ALTSHULER, *THE CITY PLANNING PROCESS* 339 (1965).

464. See note 246 *supra*.

465. Compare the 1956 Act's allowance of federal reimbursement for relocation payments made to public utilities. See text accompanying note 226 *supra*.

466. R. CONNERY & R. LEACH, *THE FEDERAL GOVERNMENT AND METROPOLITAN AREAS* 52 (1960).

467. *1955 House Hearings*, *supra* note 62, at 404-05. Moses' reasoning was quite practical. Displacements were a potential source of major opposition to the badly needed urban Interstates. "Generous" relocation assistance—assistance which even goes "beyond being merely just and fair"—would be an effective way of buying off that opposition. See also CARO, *supra* note 14, at 847-49.

468. For the 1956 bill, see H.R. REP. NO. 2022, 84th Cong., 2d Sess. 15-16, 24 (1956).

469. See S. REP. NO. 1965, 84th Cong., 2d Sess. 17 (1956).

470. See 102 CONG. REC. 9227-28 (1956).

471. See H.R. REP. NO. 246, 84th Cong., 2d Sess. 37 (1956).

472. Fallon Interview.

473. Just weeks before voting on the Federal-Aid Highway Act of 1956, the Senate had approved the Housing Act of 1956, which had rendered relocation costs eligible for federal funding in the federal-aid public housing program. Act of Aug. 7, 1956, ch. 1029, § 305, 70 Stat. 1110.

Senator Gore opposed the Lehman amendment on the Senate floor on the grounds that his committee had not considered the relocation issue. 102 CONG. REC. 9228 (1956). This is totally false: his committee had explicitly rejected the House's relocation proposal.

absence of any strong lobbying organization able to represent the interests of the potential displacees.⁴⁷⁴

d. *The urban environment*: It is true that parklands and shorelines have been disproportionate victims of the urban Interstates. This was a result which highway officials quite purposefully and openly strived for,⁴⁷⁵ and their purposes in this regard cannot be casually dismissed. Parklands are free of buildings, residences, businesses, and city streets. Constructing a freeway through a dense urban area results in enormous problems of human displacement and inconvenience. It also runs up an immense eminent domain bill, given the need to pay for the value of buildings and for the termination of access.⁴⁷⁶ By locating the freeway in a park, all of this expense is avoided. Parklands, of course, possess their own important urban value, which one would expect the appropriate park authority to seek to protect. Whether a state highway department has the power to condemn land already devoted to a public use by another agency is a question of state law. The priority which state law often attached to freeways in such a situation⁴⁷⁷ was plainly vulgar, but the blame for this cannot be placed on Congress.

e. *Low-income communities*: It is also true that in the 1955 designations a disproportionate number of Interstates were routed through low-income neighborhoods. This also was to a large extent purposefully done, and for reasons openly stated. The federal urban renewal legislation of 1954 had rested on the basic premise that slums were in essence a problem of deteriorated buildings, rather than a problem of the low-income of those buildings' inhabitants. The solution, therefore, was to tear down these buildings and replace them with structures housing useful civil activities.⁴⁷⁸ Crude as this premise now seems, it was embraced in the mid-1950's by city planners, whose "physical determinism" it vali-

474. By contrast, the public utilities lobbied quite effectively and over a period of several years. See Federal-Aid Highway Act of 1954, ch. 181, § 11, 68 Stat. 74; EISENHOWER DOCUMENTS, *supra* note 12, at 550; 1955 Senate Hearings, *supra* note 82, at 895-943.

475. See INTERREGIONAL HIGHWAYS, *supra* note 121, at 69: "The valley of a small stream penetrating a city may offer excellent opportunity for the location" of a freeway. See also AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, A POLICY ON ARTERIAL HIGHWAYS IN URBAN AREAS 89-90 (1957); INTERREGIONAL HIGHWAYS, *supra* note 121, at 62; 1955 Bureau Memorandum, *supra* note 136, at 9.

476. On eminent domain liability for limitation of access, see Van Alstyne, *Just Compensation of Intangible Detriment: Criteria for Legislative Modifications in California*, 16 U.C.L.A. L. Rev. 491, 493-505 (1969).

477. See CAL. STS. & HIGHWAYS CODE § 103.5 (West 1969), construed in *People ex rel. Dep't of Pub. Works v. City of Los Angeles*, 179 Cal. App. 2d 558, 4 Cal. Rptr. 531, appeal dismissed, 364 U.S. 476 (1960). The rule stated in this section has since been modified. CAL. CIV. PROC. CODE § 1241.7 (West Supp. 1975); see Note, *California Code of Civil Procedure Section 1241.7: Protecting Public Parks from Highway Intrusion*, 23 HASTINGS L.J. 949 (1973).

478. See L. FRIEDMAN, GOVERNMENT AND SLUM HOUSING ch. 4 (1968).

dated,⁴⁷⁹ and by all significant segments of public opinion.⁴⁸⁰ The urban renewal premise was in turn employed by highway officials, who concluded that locating a valuable freeway through a "blighted" or "decadent" slum area constituted a positive social good.⁴⁸¹ There are additional considerations which explain the placement of freeways in low-income neighborhoods. In the mid-1950's city planners believed that urban Interstates would have a beneficial effect on many inner-city neighborhoods: because through traffic would be diverted to the Interstates, ordinary city streets would become "quiet and safe" and more suitable for neighborhood use.⁴⁸² Finally, some freeways scheduled in 1955 to run through upper- or middle-class neighborhoods were later rerouted through poverty neighborhoods after affected residents in the original locations exerted their political influence. As one commentator has noted, urban freeways "follow the geographical path of least political resistance."⁴⁸³ There is perversity here, but it lies with our entire political system rather than any particular federal program.

2. Particular Counts

a. *The political configuration:* The indictment's political claim is that the urban portion of the Interstate program was thrust upon American cities by the highway lobby.⁴⁸⁴ As history, however, this claim lacks accuracy. The truth is that it was the cities themselves which championed and indeed insisted on the urban Interstates. The cities' spokesman in this regard was the American Municipal Association (AMA)—the organization which served as the principal representative of the city in federal matters

479. See H. GANS, *PEOPLE AND PLANS* 25, 61 (1968).

480. Liberals wanted public housing, but they also definitely wanted urban renewal. Conservatives approved of urban renewal because of its favorable implications for central city property values and its opportunities for the urban renewal developers. For some, the point was that urban renewal would accomplish "Negro removal." See generally L. FRIEDMAN, *GOVERNMENT AND SLUM HOUSING* (1968).

481. AMERICAN ASS'N OF STATE HIGHWAY OFFICIALS, *A POLICY ON ARTERIAL HIGHWAYS IN URBAN AREAS* 89 (1957). See also P. Healey, Jr., *The Cities' Responsibility in the New Highway Program*, Mar. 4, 1957, at 8 (paper delivered at the 18th annual Highway Conference) (copy on file with the author); Clarkeson, *Urban Expressway Location*, 7 *TRAFFIC Q.* 252, 257 (1953); Lochner, *The Integration of Expressways with Other Urban Elements*, 7 *TRAFFIC Q.* 346, 351 (1953).

Urban renewal's ugly aspect was not without influence: according to Alf Johnson some city officials expressed the view in the mid-1950's that the urban Interstates would give them a good opportunity to get rid of the local "niggertown." Johnson Interview.

482. See, e.g., CLEVELAND CITY PLANNING COMM'N, *CLEVELAND TODAY . . . TOMMORROW* 31 (1950); McElhiney, *Evaluating Freeway Performance in Los Angeles*, 14 *TRAFFIC Q.* 296, 306-11 (1960); Winter, *Development of a Freeway System in Los Angeles Metropolitan Area*, 3 *TRAFFIC Q.* 105, 117 (1949).

483. See A. DOWNS, *URBAN PROBLEMS AND PROSPECTS* 218 (1970). See also MOWBRAY, *supra* note 14, at 178-79.

484. E.g., LEAVITT, *supra* note 14, at 80.

during the 1950's.⁴⁸⁵ When the proposal to provide financing for the Interstate System was first presented in 1954, the AMA, in the words of its then Executive Director, "seized upon the idea."⁴⁸⁶ A resolution endorsing the urban Interstates carried by a 90 percent vote at the AMA's Annual Congress in December 1954,⁴⁸⁷ and a similar but even more strongly worded resolution was approved unanimously in the late 1955 meeting after Congress had failed to act.⁴⁸⁸ Mayor Albert Cobo of Detroit, in 1955 testimony for the AMA, stated that urban freeways were "necessities," and that a good urban freeway was "a picture of beauty."⁴⁸⁹ President Eisenhower's message to Congress had listed the relief of existing (and prospective) "traffic jams" as a major purpose of the Interstate System.⁴⁹⁰ Before the House and Senate committees the AMA's representatives—mostly big-city mayors—pounded away with the argument that traffic jams are worst within cities, and therefore urban Interstates are entitled to the highest priority.⁴⁹¹ Nashville Mayor Ben West told the Senate in 1955 that the increase of the federal share to 90 percent was indispensable to get the Interstate job done.⁴⁹² In the 1956 hearings, Mayor West advised the House committee that "[w]e in the cities just cannot wait any longer. The situation is beyond being critical and is now approaching the point where 'desperate' would be a more adequate word to describe our needs."⁴⁹³ Congress was advised that in the view of Mayor Thomas D'Alesandro of Baltimore, "[t]raffic strangulation within cities is the major problem facing the country," a problem which further congressional delay would only exacerbate.⁴⁹⁴ Three years later when word leaked out that the President had ordered a review of the urban Interstates,⁴⁹⁵ the position of the AMA remained unchanged—if anything, it had become more adamant. Ben West, again representing the AMA, advised a congressional committee that the deletion of urban routes from the Interstate System

485. See S. FARKAS, URBAN LOBBYING 63-65 (1971). While the AMA historically had given "insufficient weight" to the interests of the larger cities (see *id.* at 37), in its 1954-56 highway efforts big city mayors provided its leadership. The organization changed its name to the National League of Cities in 1964. *Id.*

486. See P. Healey, Jr., The Cities' Responsibility in the New Highway Program, Mar. 4, 1956, at 3 (paper delivered at the 18th annual Highway Conference) (copy on file with the author).

487. 1955 Senate Hearings, *supra* note 82, at 194.

488. 1956 House Public Works Comm. Hearings *supra* note 155, at 125.

489. President's Advisory Committee on a National Highway Program, Minutes of Public Hearings, 1955, at 1 (unpublished document in the Dept't of Transportation library, Washington, D.C.). Robert Moses testified in a similar vein for the Conference of Mayors. *Id.* at 48-50.

490. CLAY COMMITTEE REPORT, *supra* note 149, at iv.

491. See, e.g., 1955 House Hearings, *supra* note 62, pt. 1, at 686 (testimony of Cleveland Mayor Anthony Celebrezze).

492. 1955 Senate Hearings, *supra* note 82, at 194.

493. 1956 House Public Works Comm. Hearings, *supra* note 155, at 123.

494. *Id.* at 134.

495. See notes 263-85 and accompanying text *supra*.

would be "a terrible and tragic mistake;"⁴⁹⁶ he went on to warn that "the Nation's cities will fight any such proposal to the bitter end."⁴⁹⁷

If the big cities thus presented themselves publicly as true believers in the urban Interstates, there is little evidence that the prospect of these Interstates made either state highway officials or the highway construction industry especially happy. The inclusion of urban freeways within the Interstate System seems somewhat contrary to the construction industry's economic interests. Consider the Clay Committee's own figures—\$12 billion for approximately 33,000 freeway miles in rural areas (\$364,000 per mile), and \$15 billion for about 7,000 miles in urban areas (over \$2 million per mile).⁴⁹⁸ Part of the cost difference between urban freeways and rural freeways results from the greater number of lanes in cities, a factor which does redound to the benefit of the construction interests. The greatest part of the difference, however, is attributable to land acquisition costs, which are low in the countryside but astronomical within cities; land acquisition was known in 1956 to be often 50 percent and sometimes as high as 80 percent of the total freeway cost.⁴⁹⁹ To the extent that funds available to a highway program are allocated to land-intensive urban freeways rather than construction-intensive rural freeways, the highway construction industry clearly suffers.

The position of the state highway departments is likewise capable of refinement. As previously noted, until 1956 these departments were generally characterized by a significant anti-city (and especially anti-big city) bias or orientation.⁵⁰⁰ From their experience during the postwar years, state highway officials were probably more aware than anyone of the complexity of urban freeways—even if the complexities which they had encountered were primarily of a technical and engineering nature. From the standpoint of such officials, how much simpler and more satisfactory it was to build freeways in the open countryside. If anything, the real surprise may be that the state officials, speaking through AASHO and Alf Johnson, supported the urban Interstates at all.⁵⁰¹ There are

496. 1959 House Hearings, *supra* note 233, at 376.

497. *Id.* See also *id.* at 374 (testimony of Glenn Richards, Chairman of the AMA's Highway Committee). The White House was bombarded by letters from city mayors protesting the possibility of any such deletions. See, e.g., letter from Toledo Mayor John Yager to President Eisenhower, Aug. 17, 1959 (Pyle Files, Eisenhower Papers, Eisenhower Library).

498. See note 162 *supra*. The greater frequency of entrance-exit interchanges in urban areas adds enormously to cost. By 1973, the cost of an average rural Interstate mile was \$1-2 million, while the cost of an average metropolitan Interstate mile was \$15-20 million. Gray, *Section 4(f) of the Department of Transportation Act*, 32 Md. L. REV. 327, 377 (1973).

499. See 1956 House Public Works Comm. Hearings, *supra* note 155, at 86. Not only does an urban right-of-way have a high fair market value, but the eminent domain liability for remainder damage and termination of access can be immense in cities.

500. See text accompanying notes 77-81 *supra*.

501. See text accompanying note 437 *supra*.

several possible explanations for this support,⁵⁰² but of all these the political explanation is the most interesting. Alf Johnson's basic goal was congressional approval of the Interstate program. He appreciated that to secure such approval it would be advantageous to establish the broadest possible coalition favoring the program and to hold down the number of the program's enemies. Johnson was aware that cities fervently wanted the Interstates within urban areas. If urban freeways were included within the System, the cities could be enlisted in the coalition supporting the legislation; were urban freeways left out, the cities would have been politically furious. He also knew that opposition to the urban routes—either in Congress or in the public at large—was trivial.⁵⁰³ Johnson's conclusion that the urban routes should be included in the System was thus grounded in considerations of political strategy.⁵⁰⁴

Certain lessons can be drawn from this discussion. Recent commentary has been rife with allegations that almost every American city has been a "casualty" of the Interstate program,⁵⁰⁵ and that the 90-10 federal funding⁵⁰⁶ amounts to fiscal "blackmail" committed by the federal government against the cities.⁵⁰⁷ Whatever the actual consequences of the urban Interstates, these allegations are very misleading. If cities have been "casualties," the injuries have been largely self-inflicted.⁵⁰⁸ If the financial arrangements constitute "blackmail," it is a variation of blackmail in which the victim connived with the blackmailer. Whether the cities rightly understood the urban public interest is, of course, another question, to be considered separately. However, a basic initial point is that cities regarded the Interstate program as a way of rectifying what they saw as

502. Possible explanations include the states' willingness to accept the cities' claims as to the need for urban freeways.

503. See text accompanying notes 445-51 *supra*. During all the congressional hearings in 1955 and 1956, the urban portion of the Interstate program was objected to by only one organization—the Private Truck Council of America (see 1955 Senate Hearings, *supra* note 82, at 883-84)—an organization which did not wield significant political influence.

There was, as it happens, one official in the White House who preferred only a minimal urban component for the Interstate System—General Bragdon. However, during the 1954-56 period, Bragdon's position on the urban Interstates was, at bottom, a corollary of his toll position. See J.S. Bragdon, OUTLINE OF A PLAN FOR A U.S. NATIONAL HIGHWAY SYSTEM TO BE FINANCED PRIMARILY BY REVENUE BONDS, EITHER U.S. OR STATE, UPON ELECTION BY EACH STATE; OR BY A STATE AS A FREEWAY, UNDER CERTAIN CONDITIONS, at 2 (unclated memorandum) (Bragdon Files, Eisenhower Papers, Eisenhower Library). Once Bragdon's general toll recommendations had been rejected, his reservations about the urban Interstates could be conveniently ignored.

504. Johnson Interview. Since the urban Interstates have developed into a clear political liability for the Interstate program, one can easily understand why Johnson now wishes they had been left out.

505. Dunhill, *The Freeway Versus the City*, ARCHITECTURAL F., Jan. 1968, at 73.

506. See note 363 and accompanying text *supra*.

507. Kheel, *Subway Power: New York's Defense Against Oil Blackmail*, NEW YORK, Nov. 5, 1973, at 51.

508. Ms. Dunhill's statement that cities "awakened only slowly to their own defense," (Dunhill, *Reconciling the Conflict of Highways and Cars*, REPORTER, Feb. 8, 1968, at 22), is thus quite insufficient.

serious imbalances in traditional highway programs. At the time Congress came to consider the Interstate issue in the 1950's, urban motorists were expending far more in state gas tax payments than they were receiving back by way of urban highways provided by the existing state highway programs.⁵⁰⁹ The 25 percent share allocated to the urban C projects by the federal program had been thought unduly low even in 1944,⁵¹⁰ and population shifts subsequent to 1944 made the 25 percent figure seem increasingly unfair. To city officials these state and federal inequities were both substantial and galling.⁵¹¹ An AMA study published in January 1955 asserted that "among inter-governmental fiscal relationships none are of greater perennial interest to municipal officials than those having to do with highways."⁵¹² Cities were eager to secure their "rightful share" of highway program expenditures,⁵¹³ and the \$15 billion budgeted for urban freeways by the Clay Committee was seen as a dramatic step in the right direction.⁵¹⁴

b. *Traffic generation*: The general proposition at the heart of all the traffic justifications for the urban Interstates was that freeways allow a freer flow of traffic,⁵¹⁵ and hence are able to shorten driving times and reduce traffic congestion. The critics of the urban Interstates have sought to rebut this proposition, as it is applied to the urban Interstates, by contending that urban freeways "generate" traffic—traffic of such volume that the pre-free-way congestion levels are quickly (or at least eventually) reestablished.⁵¹⁶

In the early 1950's the American experience with urban freeways was relatively limited.⁵¹⁷ The traffic generation factor, however, had already been noted by the Bureau,⁵¹⁸ and was beginning to be frequently discus-

509. See J. MEYER, J. KAIN & M. WOHL, *THE URBAN TRANSPORTATION PROBLEM* 61-63 (1965).

510. See BURCH, *supra* note 25, at 223-24.

511. *Hearings on the National Highway Study Before the Subcomm. on Roads of the House Comm. on Public Works*, 83d Cong., 1st Sess., pt. 1, at 123, 127-31, 144-45, 151, 169-70 (1953) (testimony of various city officials).

512. AMERICAN MUNICIPAL ASS'N, *LOCAL GOVERNMENT'S SHARE OF STATE-COLLECTED HIGHWAY FUNDS AND REVENUES* 3 (1955).

513. *Id.* at 4.

514. Healey Interview. By 1955, in recognition of the expenditure imbalance, about a dozen states had developed rebate or exemption schemes for urban motorists. See AMERICAN MUNICIPAL ASS'N, *LOCAL GOVERNMENT'S SHARE OF STATE-COLLECTED HIGHWAY FUNDS AND REVENUES* 3 (1955).

515. A freeway lane is capable of handling up to 2,000 vehicles per hour. See Rainville, *The Importance of Urban Transit and Its Effective Capacities*, in *READINGS IN URBAN TRANSPORTATION* 172, 175 (G. Smerk ed. 1968).

Because of the absence of pedestrians, cross-traffic, and visual distractions, freeways are also much safer than ordinary city streets; the safety point was relied on by those supporting the urban Interstates. See, e.g., *1956 Senate Hearings*, *supra* note 212, at 193 (testimony of Baltimore Mayor Thomas D'Alesandro, Jr.).

516. E.g., CARO, *supra* note 14 at 897; the excellent presentation in A. DOWNS, *URBAN PROBLEMS AND PROSPECTS* ch. 7 (1970); LEAVITT, *supra* note 14, at 38-39.

517. See text accompanying notes 83-85 *supra*.

518. See the excerpt from a 1956 Bureau document in Memorandum, Jan. 13, 1960 (no author indicated) (Bragdon Files, Eisenhower Papers, Eisenhower Library).

sed. Walter Blucher, a well-known urban planner, had by then made known his downcast views as to the complete futility of urban freeway building.⁵¹⁹ In other writings it is possible to detect, especially retrospectively, an undercurrent of concern about generation.⁵²⁰ Nevertheless, most of the discussion remained upbeat.⁵²¹ At that time, New York City was leading the nation in freeway building, and Robert Moses, its Public Works Commissioner, confidently predicted that "we can lick congestion," in the title of a 1956 article.⁵²² The one empirical study made, published in July 1956, considered Chicago's Edens Expressway. Its conclusion was that there was "some evidence" of traffic generation, but that absent unusual circumstances such generation was not "highly marked."⁵²³

There is a possible demurrer to the generation claim which is entitled to consideration here. Assume a freeway whose generated traffic does succeed in restoring prefreeway congestion. What the mechanistic language of "generation" obscures is that such a freeway does work to social advantage by satisfying citizen transportation preferences which would otherwise remain unfulfilled or "latent." As Professor Wohl points out, those who without the freeway would have declined to make a certain useful trip, or made it at a less convenient hour, are allowed to make the trip after all, or at a more convenient hour.⁵²⁴ Individuals also are afforded a greater latitude of residential and occupational choice; they can live further away from work and, with the help of freeways, keep the time of their commute within acceptable limits.⁵²⁵

Professor Wohl's demurrer suffers, however, from two defects. The first concerns its policy. There may be good reasons for regretting the greater residential and occupational dispersion to which the demurrer refers. Also, some of the new freeway driving to which the challenge refers will involve trip-takers who previously had been patrons of public transportation; their withdrawal from the public transportation market may limit

519. His views were published in a law review, of all places. Blucher, *Moving People*, 36 VA. L. REV. 849, 849-50 (1950).

520. See the articles by Casey, Elder, and Smith, excerpted in SCHNEIDER, *supra* note 14, at 198-99.

521. The articles excerpted by Schneider all reached basically affirmative conclusions on urban freeway building. Casey, *Integrated Transportation Program*, 10 TRAFFIC Q. 416 (1956); Elder, *Houston's Urban Expressways*, 3 TRAFFIC Q. 166, 172-73 (1949); Smith, *Support for the Traffic Program*, 5 TRAFFIC Q. 38 (1951). See also OWEN, *supra* note 79, discussed in the text accompanying notes 449-51 *supra*.

522. Moses, *We Can Lick Congestion*, in FREEDOM OF THE AMERICAN ROAD 47 (Ford Motor Co. 1956).

523. Mortimer, *The Influence of Expressways*, 10 TRAFFIC Q. 318, 328-29 (1956).

524. Wohl, *Must Something Be Done About Congestion?* 25 TRAFFIC Q. 403, 405-06 (1971).

525. That the urban Interstates have led to such dispersing consequences is acknowledged in the text accompanying notes 592-96 *infra*.

public transportation's ability to avail itself of economies of scale. The demurrer's second defect lies in its inadequacy as an historical explanation. It is clear that what Congress *understood* it was doing in approving the urban Interstates was reducing or preventing urban traffic congestion.⁵²⁶ Had Congress believed that these Interstates merely would permit more urban drivers to encounter the same congestion, it might well have been unwilling to approve the \$15 billion (now \$60 billion) urban portion of the Interstate program.

It is therefore appropriate to assess the factual correctness of the generation claim. On the merits the conventional wisdom is currently all on the side of the generationists. To pick an example almost at random, a recent *New Yorker* article states that "like most other cities, Atlanta discovered a few years ago that all the expressways it had been building were adding to the congestion rather than reducing it."⁵²⁷ But is it really true that our experience since 1956 has completely vindicated Blucher's 1950 expression of futility? Clearly, from a 1976 vantage point, the Moses title is ludicrous. Moreover, it seems certain that the urban Interstates have induced more traffic than highway planners had originally predicted—which does mean that travel-time gains have been less than expected. Nevertheless, today's conventional wisdom significantly overstates its case. It is only at rush hour that the flow of traffic on an urban Interstate does not move reasonably freely; rush hour apart, the urban Interstates have been remarkably successful in increasing average vehicle speeds. The only real debate, therefore, concerns conditions at rush hour. On this issue, Federal Highway Administration figures indicate that the introduction of freeways in major metropolitan corridors generally has resulted—even at rush hour—in measurable decreases in average driving times.⁵²⁸ While the Administration's arithmetic is frequently primitive,⁵²⁹ on this one factual issue there is no convincing counterdata, and my personal observations in several metropolitan areas are in harmony with the Administration's findings.

No one could deny, of course, that complaints about today's freeway congestion are both numerous and vociferous, and it might well be that today's freeway motorists are as irritated by congestion as the ordinary city-street motorist of 20 years ago. Any such irritation parity, however, can be adequately explained in ways consistent with the analysis above.

526. *But cf.* 1955 Senate Hearings, *supra* note 82, at 50-51.

527. F. Powledge, *A New Politics in Atlanta*, *NEW YORKER*, Dec. 31, 1973, at 33.

528. Federal Highway Administration, Resource Book on the Federal-Aid Highway Program, Sept. 1971, at 13, 223-27; Department of Transportation, *Traveltimes in Urban Areas*, May 15, 1968 (internal memorandum) (copy on file with the author).

529. See Wohl, *Public Transit Pricing, Financing, and Subsidy Principles*, 27 *TRAFFIC Q.* 619, 621-22 (1973).

A freeway may inspire in the motorist an expectation of high speed which at rush hour it is unable to deliver; since the ordinary city street produces no such expectation, the motorist does not suffer any equivalent sense of aggravation when the street is filled with traffic.⁵³⁰ Also, in today's society, transportation is one urban problem out of which the affluent citizen cannot buy his way. By placing his residence in the suburbs he is able to escape neighborhood squalor, serious crime, inferior schools, undesirable neighbors, and air pollution at its inner-city worst. That very suburban choice, however, commits him to an arduous commuting cycle which, in light of the amenities to which he is otherwise accustomed, is bound to strike him as offensive.⁵³¹

c. *Public transportation*: Another accusation leveled against the urban Interstate program is that it has hastened the decline of public transportation,⁵³² and more generally that it ignored the entire question of urban public transportation in launching a major enterprise in urban private transportation.⁵³³ In Moynihan's 1960 judgment the 1956 Act was "lunatic" in this latter regard.⁵³⁴ On the merits it seems reasonable to assume that the urban Interstates have damaged the cause of public transit in at least two ways: first, by making the auto alternative for the trip to work more attractive,⁵³⁵ and second, by encouraging a decentralization of the metropolitan area which makes it harder for public transportation to provide adequate service.⁵³⁶ It is, however, quite difficult to measure the exact extent of that damage. Public transit passengership had been plummeting ever since the end of World War II—from 23.3 billion in 1945, to 17.2 billion in 1950, to a shocking 11.5 billion in 1955⁵³⁷—a passenger loss of 11.8 billion and over 50 percent. Between 1960 and 1970, with the urban Interstates opening up one after the other, patronage slipped from 9.4 billion to approximately 7.3 billion—a loss of more than 2 billion and more than 20 percent.⁵³⁸ Since the decline in patronage decelerated very

530. Compare the different and (in my view) less persuasive "expectation" argument advanced in Meyer, *Urban Transportation*, in *THE METROPOLITAN ENIGMA* 41, 48-49 (J. Wilson ed. 1968). See also Bruce-Briggs, *Mass Transportation and Minority Transportation*, *PUB. INTEREST*, Summer 1975, at 43, 48-49.

531. See SCHWARTZ, Book Review, 19 U.C.L.A. L. REV. 148, 157 n.35 (1971).

532. See, e.g., *A New Federal Stab at Aiding Mass Transit*, *BUS. WEEK*, Jan. 26, 1974, at 52, for a temperate recent statement of this claim.

533. See Hall, *The Long Island Fight*, *NEW REPUBLIC*, May 12, 1973, at 17. See also H. Mertins & D. Miller, *Urban Transportation Policy: Fact or Fiction*, June 1970, at 5, 8 (Occasional Paper No. 2 of the Urban Transportation Institute of Syracuse University).

534. *New Roads*, *supra* note 13, at 19.

535. See SCHNEIDER, *supra* note 14, at 69; Goodwir, *The Democratic Way*, 7 *TRAFFIC Q.* 456, 463 (1953).

536. See SCHWARTZ, Book Review, 19 U.C.L.A. L. REV. 148, 157-59 (1971).

537. See W. OWEN, *THE ACCESSIBLE CITY* 27 (1972). Corresponding with this public transit passenger loss was an increase over 75% in the number of registered automobiles between 1945 and 1953. See CLAY COMMITTEE REPORT, *supra* note 149.

538. See W. OWEN, *THE ACCESSIBLE CITY* 27 (1972).

significantly during 1960-70, absent additional evidence the urban Interstates cannot reliably be blamed for more than a fraction of this 1960-70 decline.

If the 1956 Act is faulted because it failed to provide funding for public transportation, the truth is that in both 1944 and 1956 a general federal subsidy for public transportation was not a politically available option.⁵³⁹ Many of the reasons for this are policy-neutral. The public transit industry earned high profits during World War II and nationwide was still in the black (although only slightly) in 1955-56.⁵⁴⁰ Public transit subsidies were controversial and unpopular at the local level,⁵⁴¹ let alone at the federal. With the exception of a few large metropolitan areas, transit systems generally were privately owned,⁵⁴² and federal grants to private companies would obviously be problematical. While Congress had approved both the *C*⁵⁴³ and the urban Interstate programs, these were far from decisive as precedents for any federal public transit subsidy. For one thing, the highway program, financed as it was after 1956 from special highway-user taxes, made no demands on general revenue. Moreover, until the breakthroughs of the mid-1960's, Congress remained extremely wary of deeply involving the federal government in affairs which were "purely urban."⁵⁴⁴ While a public transit program would definitely founder on this reluctance, the *C* and urban Interstate programs did not, since they were conceived of as mere elements of a more general, nationwide highway system.⁵⁴⁵

Additionally, the 1955-56 period was, for somewhat fortuitous reasons, a singularly unfortunate time for Congress to be reaching decision (even implicitly) on the respective roles of automotive and public transportation. It happens that 1955 and 1956 were decisive years for the development of the American automobile and public attitudes. From the end of the war through 1954, Detroit had done little but tinker with its basic

539. It should be made clear that a thriving federal program currently exists for the support of urban public transportation. See National Mass Transportation Assistance Act of 1974, 49 U.S.C. § 1602(a) (Supp. IV, 1974), amending 49 U.S.C. § 1602(a) (1970). This program did not involve major sums of money until the 1970's.

540. In 1955, industry operating income totaled over \$55 million, down from \$148 million in 1945. AMERICAN TRANSIT ASS'N, '73-'74 TRANSIT FACT BOOK 4 (1973). Industry profits equaled 1.75% on investment. 1956 House Ways and Means Comm. Hearings, *supra* note 189, at 421.

541. See Smith, *Maintaining the Health of Our Central Business Districts*, 8 TRAFFIC Q. 111, 119 (1954).

542. In 1956, only 42 of the 1,600 urban transit companies operating in the United States were publicly owned (although the public systems tended to be in the larger metropolitan areas). See 1956 House Ways and Means Comm. Hearings, *supra* note 189, at 420 (statement of George Anderson, Executive Vice President, American Transit Association).

543. See text accompanying notes 45-64 *supra*.

544. The phrase is drawn from Hanson, *Congress Copes with Mass Transit, 1960-64*, in CONGRESS AND URBAN PROBLEMS 347 (F. Cleaveland ed. 1969).

545. See text accompanying notes 404-36 *supra*.

product, which was boxy and sedate. The 1955 models—introduced in late 1954⁵⁴⁶—achieved a daring breakthrough both mechanically and stylistically. Their V-8 engines were endowed with far more horsepower than those of their predecessors, and their automatic transmissions were vastly improved. Their bodies were long, low, and “streamlined,” and came adorned with the kind of frillish innovations—wraparound windshields, new forms of two-toning—that succeeded, for better or worse, in exciting the American consumer’s imagination. Auto sales soared from 5.4 million in 1954 to a record-shattering 7.4 million in 1955,⁵⁴⁷ and one study fixes 1955 as the beginning of the “golden era” of the American automobile⁵⁴⁸ (an era which the fuel crisis has probably brought to a close⁵⁴⁹). In his congressional testimony General Clay was inclined to extol the automobile,⁵⁵⁰ and a normal Congressman could easily assume the triumph of the automobile as the basic American mode of urban transportation.

A closer examination of the 1956 Act and its legislative evolution suggests, however, that Congress was not wholly insensitive to the situation of public transportation,⁵⁵¹ and that the responsibility for any public transit deficiencies in the 1956 Act should probably be placed on the shoulders of other organizations. In the years between the conception of the Interstate program and the 1956 Act, the American Transit Association (ATA)⁵⁵²—the major national representative of local transit operators—and the American Institute of Planners (AIP) had adopted, coordinated, and presented to the public an interesting and legitimate position: the interests of automotive and public transportation could be “accommodated” and “reconciled” by proceeding ahead with urban freeways while

546. See, e.g., the advertisements in *LIFE*, Nov. 22, 1954, at 19-30; *id.*, Nov. 29, 1954, at 6-7, 34-35, 50-51, 80-81, 129, 158-59; and the news story, *First Entirely New 1955 Cars*, *id.*, Nov. 1, 1954, at 49. Actually, Buick and Oldsmobile had changed their designs a year earlier, and the Oldsmobile had been the “hottest car” during 1954. *Id.*

547. *WARD'S AUTOMOTIVE YEARBOOK* 131 (1973).

548. J. JEROME, *THE DEATH OF THE AUTOMOBILE* 25 (1972). Jerome reminds us that:

Consumer interest in the new cars was positively frenzied: in those days the annual introduction of the new models had become, for most of America, an event ranking with the Homecoming Day of the local high school football team. *Id.*

The suburban narrator of a recent John Updike story reminisces about the 1950's: “Guiltlessness. Our fat Fifties cars, how we loved them, revved them: no thought of pollution.” J. UPDIKE, *When Everyone Was Pregnant* in *MUSEUMS AND WOMEN*, 32 (1972).

549. See *Has Detroit Learned Its Lesson?*, *BUS WEEK*, Oct. 5, 1974, at 64 (cover story); *The Painful Change to Thinking Small*, *TIME*, Dec. 31, 1973, at 18 (cover story).

550. *1955 Senate Hearings*, *supra* note 82, at 396; *1955 House Hearings*, *supra* note 62, at 128, 143. See also *1955 Senate Hearings*, *supra* note 82, at 160-61 (AASHO testimony).

551. *But cf.* M. DANIELSON, *FEDERAL-METROPOLITAN TRANSPORTATION POLITICS AND THE COMMUTER CRISIS* 28-44 (1965) (discussing congressional enactment of railroad legislation in 1958).

552. This organization is now called the American Public Transportation Association.

at the same time incorporating into their design a variety of public transit facilities, including special turnouts and platforms for buses, exclusive bus lanes, and use of the freeway's median strip for rapid transit.⁵⁵³

During those early years, the ATA-AIP position won many adherents. In Los Angeles, for example, the original freeway plan devised in the 1940's contemplated "rapid transit" buses on all freeways and surface rail on "certain" freeways.⁵⁵⁴ In recent years the "accommodation" concept has been implemented in an interesting fashion. Because of the urban mass transportation capital grant program originally approved by Congress in 1964, rail rapid transit now runs in the median strip of Chicago's Dan Ryan Expressway.⁵⁵⁵ An exclusive bus lane, funded under a provision in the Federal-Aid Highway Act of 1970,⁵⁵⁶ now is part of the San Bernardino Freeway in Los Angeles.⁵⁵⁷ In these recent implementations the accommodation concept is proving sound. The Dan Ryan line is regarded as a success by the Chicago Transit Authority.⁵⁵⁸ Professor Hilton, a severe critic of the federal urban transportation program generally, singles out federally funded freeway bus lanes for commendation,⁵⁵⁹

553. See, e.g., *Forward to AMERICAN INSTITUTE OF PLANNERS, URBAN FREEWAYS* (1947) (a document prepared with the assistance of the American Transit Association); *1944 House Hearings, supra* note 31, pt. 2, at 687-94 (testimony of Charles Gordon, Managing Director, ATA); DeLeuw, *Mass Transportation at the Local Level*, in *PLANNING* 1949, at 134-39 (Am. Soc'y of Planning Officials 1949); Hyde, *Moving People in Urban Areas*, in *PLANNING* 1953, at 68, 72 (Am. Soc'y of Planning Officials 1953); *Planning for Metropolitan Transportation*, 18 *J. AM. INSTITUTE OF PLANNERS* 75, 78-79 (1952); Kaufman, Book Review, *J. AM. INSTITUTE OF PLANNERS*, Spring 1948, at 39.

554. See Malley & Breigovel, *Urban Freeways*, *J. AM. INSTITUTE OF PLANNERS*, Fall 1948, at 23, 24-26; Winter, *Development of a Freeway System in the Los Angeles Metropolitan Area*, 3 *TRAFFIC Q.* 105, 107 (1949).

Since the building of a freeway itself requires the acquisition of a broad right-of-way and also the termination of access on surface streets, the extra cost of acquiring the land for a rail route is only a fraction of the cost which a rapid transit agency would be required to incur were it to condemn a right-of-way on its own.

In the late 1940's, Robert Moses successfully fought back an effort to build a rail route in a median strip of the Van Wyck Expressway in New York City. See CARO, *supra* note 14, at 904-08.

555. See G. HILTON, *FEDERAL TRANSIT SUBSIDIES: THE URBAN MASS TRANSIT ASSISTANCE PROGRAM* 66-67 (1974).

556. Act of Dec. 31, 1970, Pub. L. No. 91-605, tit. I, § 111(a), 84 Stat. 1719 (codified at 23 U.S.C. § 142 (1970)).

557. See L.A. Times, June 3, 1974, § 2, at 1, col. 5. On Mar. 15, 1976, an exclusive bus (and carpool) lane was opened on the Santa Monica Freeway in Los Angeles. Another is planned for the Hollywood Freeway (*id.*, May 4, 1974, § 1, at 1, col. 4). In Paris, France, lanes are now reserved for buses along 43 miles of Parisian boulevards; the early returns on patronage increases are quite favorable. See *id.*, May 30, 1974, § 1-A, at 6, col. 1.

The difficulties with the recent Diamond Lane on the Santa Monica Freeway in Los Angeles make clear the desirability of including such a lane in the freeway's original design, rather than imposing it on an already congested freeway.

558. See G. HILTON, *FEDERAL TRANSIT SUBSIDIES: THE URBAN MASS TRANSIT ASSISTANCE PROGRAM* 69 (1974). Professor Hilton seems skeptical about this assessment.

559. *Id.* at 18.

and Professor Kain suggests they are an excellent way "to improve urban transportation at practically no cost."⁵⁶⁰

An accommodation idea of considerable value thus was formulated as early as 1944 and was refined and widely discussed in the decade that followed. Yet this was an idea which went wholly unmentioned during the 1954-56 legislative deliberations. What accounts for this oversight? The basic explanation seems to be one which is concerned with the operation of interest group politics. Interest groups perform at least two important functions in a democracy. First, as wielders of effective political influence, they provide representation for interests which do not receive adequate representation through our system of electing Congressmen on a territorial basis. Additionally, they serve as sources of information, supplying Congressmen with useful data of which they would otherwise, for lack of access, remain ignorant.⁵⁶¹ An adequate explanation for the omission of the special facilities idea from the 1954-56 debate and the eventual 1956 Act is that for one reason or another the idea was not presented to Congress by any of the interest groups which might have been expected to do so. Urban planners generally were committed to the idea, but their organization, the AIP, did not yet see itself in political terms; during the relevant years, it maintained neither a Washington office nor a Washington representative.⁵⁶² As for the American Municipal Association,⁵⁶³ in 1955, Mayor Dilsworth of Philadelphia, a city whose public transportation problems were prematurely acute, urged the AMA to adopt a resolution favoring the inclusion of "right-of-way for public transit" within every federally supported urban highway.⁵⁶⁴ The AMA rejected this proposal. According to its Executive Director, during 1955 the AMA's

big concern was to persuade Congress to enact legislation to establish the Interstate Highway System, and every effort was made to present a united front by all interests favoring such a system. Anything that smacked of diversion of highway user taxes to other purposes, even such a related one as right-of-way for public transit, might break the ranks of that united front.⁵⁶⁵

What about the American Transit Association? Having virtually origi-

560. Kain, *How to Improve Urban Transportation at Practically No Cost*, 20 *PUB. POLICY* 335, 349-57 (1972).

561. See C. LINDBLOOM, *THE POLICY-MAKING PROCESS* 66 (1968).

562. Howard Interview.

563. See note 485 and accompanying text *supra*.

564. See M. DANIELSON, *FEDERAL-METROPOLITAN TRANSPORTATION POLITICS AND THE COMMUTER CRISIS*, 96 (1965).

565. Letter from Patrick Healey (now a senior consultant at the NLC) to the author, July 20, 1973 (on file with the author). In 1957, with the 1956 Act already on the books, the AMA finally adopted a somewhat watered-down version of the Dilsworth proposal. See M. DANIELSON, *FEDERAL-METROPOLITAN TRANSPORTATION POLITICS AND THE COMMUTER CRISIS*, 97 (1965).

nated the special facilities idea in its 1944 congressional testimony,⁵⁶⁶ why did it let the idea lie dormant during 1954-56? A sufficient reason is that during this period the ATA was strongly supporting another legislative proposal, the logic of which effectively prevented it from also making the special facilities argument. This ATA proposal was that transit operators be exempted from the highway-user tax increases which the highway legislation anticipated.⁵⁶⁷ Given its keen interest in its tax exemption proposal, the ATA was obviously disabled from also arguing that the Interstate program should incur special expenses for the sake of public transit. Indeed, the strategy of the exemption issue further required the ATA to downplay the extent to which public transit vehicles, even absent special facilities, would find occasion to travel on federally aided urban highways in general and the urban Interstates in particular.⁵⁶⁸

If the ATA thus chose to substitute the tax proposal for its earlier special facilities proposal, a related point is that the congressional response to the ATA tax proposal diminishes the charge that Congress slighted or disparaged public transportation during its 1955-56 deliberations. The initial Fallon bill in 1955 did not include a public transit tax exemption. However, after the ATA presented its position in the hearings on that bill, the Public Works Committee included such an exemption in the bill sent by the committee to the House floor.⁵⁶⁹ The 1956 House bill contained a similar exemption;⁵⁷⁰ indeed, ATA representatives collaborated with the House Ways and Means Committee staff in working out its details and mechanics.⁵⁷¹ The exemption attracted little attention as the bill passed the House. However, in the Senate, Senator Byrd's Finance Committee rejected the exemption, arguing that 55 percent of the Interstate funds would be spent in cities,⁵⁷² that public transit vehicles could be expected to regularly utilize the urban Interstates, and that if this exemption were approved it would be necessary to include exemptions for other economically distressed concerns which would otherwise encounter the new taxes.⁵⁷³

566. See *1944 House Hearings*, *supra* note 31, pt. 2, at 687-94 (testimony of Charles Gordon).

567. See, e.g., the ATA's statements and testimony in *1955 House Hearings*, *supra* note 62, at 1283-89; *1956 House Ways and Means Comm. Hearings*, *supra* note 189, at 420-28; *1956 Senate Hearings*, *supra* note 212, at 151-53.

568. See, e.g., *1956 House Ways and Means Comm. Hearings*, *supra* note 189, at 425.

569. H.R. 7474, 84th Cong., 1st Sess. § 4(h) (1955), explained in H.R. REP. NO. 1336, 84th Cong., 1st Sess. 22-23 (1955).

570. See H.R. 10660, 84th Cong., 2d Sess. §§ 206(a), 208(b)(1) (1956), explained in H.R. REP. NO. 1899, 84th Cong., 2d Sess. 7, 26-28 (1956).

571. See *1956 Senate Hearings*, *supra* note 212, at 150.

572. See note 162 and accompanying text *supra*.

573. See S. REP. NO. 2054, 84th Cong., 2d Sess. 5 (1956). See also 102 CONG. REC. 9233 (1956) (statement of Sen. Byrd).

It is important to recognize that the Senate Finance Committee's analysis was entirely sound as far as it went. If the analysis was to be regarded as other than dispositive, the reason would need to be in some special congressional concern for public transportation. On the floor of the Senate, such concern was in fact forthcoming. Senators Wayne Morse and George Smathers expressed solicitude for the "low income groups, who necessarily ride on public transportation systems," and for the "housewives, clerks, stenographers, elevator operators, and others" who have no other means of transportation.⁵⁷⁴ Other Senators joined in with similar statements.⁵⁷⁵ An effort to amend the Byrd Committee's bill on the Senate floor to conform it to the House bill was stymied for parliamentary reasons,⁵⁷⁶ but the tenor of the Senate's discussion seemed sympathetic to the exemption idea. In conference it was the Senate which effectively receded; the conference bill provided that urban transit would pay neither the extra penny of the per gallon fuel tax nor the tax on over 26,000-pound vehicles.⁵⁷⁷ (These exemptions have remained in the law ever since, and have been expanded to cover the later increases in the fuel and vehicle taxes.⁵⁷⁸) In short, the 1956 Congress gave the transit lobby everything it asked for, even though the reasoning which the lobby offered in support of its request was clearly underwhelming.

Whether the ATA behaved wisely at the time in pressing for the tax exemption rather than for special facilities is a question one cannot answer confidently. A tax exemption is for most purposes a functional equivalent of a subsidy (or some related form of public expenditures).⁵⁷⁹ However, this equivalence is better understood today than it was in the mid-1950's, and it always has been better understood by tax lawyers and economists than by the general public.⁵⁸⁰ If the transit lobby wanted the most help it could get from the 1956 Act, there was considerable strategic value in choosing the exemption course. On the other hand, the exemption which it managed to secure did not help rail rapid transit operators, since they were not consumers of the highway-user items whose taxes Congress was considering increasing. The ATA's exemption proposal also did not make a difference to publicly owned transit systems: by virtue of notions of intergovernmental tax immunities, federal statutes imposing

574. 102 CONG. REC. 9230-31 (1956).

575. See, e.g., *id.* at 9230 (remarks of Sen. Gordon Allott).

576. *Id.* at 9231.

577. H.R. REP. NO. 2436, 84th Cong., 2d Sess. 16, 17, 40, 41-43 (1956).

578. See 26 U.S.C. §§ 4483(c), 6421(b) (1970).

579. See, e.g., Surrey, *Tax Incentives as a Device for Implementing Government Policy: A Comparison with Direct Government Expenditures*, 83 HARV. L. REV. 705 (1970).

580. The Supreme Court itself has opined that there is a constitutional difference between a subsidy and a tax exemption. See *Walz v. Tax Comm'n*, 397 U.S. 664, 674-75 (1970). The Court's point may be that the public perceives an exemption as much different from a subsidy, and that such matters of public perception are relevant to establishment clause questions.

taxes on highway users had always exempted the public transit operators, and this exemption was conceded in every one of the 1955 and 1956 proposals, as well as in the ultimate 1956 Act.⁵⁸¹ One should note that while only 42 of approximately 1,600 transit carriers were publicly owned in 1956, they tended to be located in the larger metropolitan areas.⁵⁸² Moreover, in the years since 1956, public takeovers have been occurring frequently. According to a recent tabulation there are now 185 publicly owned systems nationwide, accounting for 91 percent of all urban transit trips.⁵⁸³ Since this public ownership trend was already in progress in 1956, the ATA's position does seem shortsighted; however, the ATA's institutional position in the mid-1950's may have inhibited it from basing its action on any public ownership assumptions.⁵⁸⁴

d. *Urban development and planning*: The urban development accusations against the Interstate System charge that it has purposefully fostered the suburbanization of our metropolitan areas and contributed to the decline of central cities, without any regard for principles of urban planning.⁵⁸⁵ These accusations build on what is now understood to be an important and undeniable truth: transportation exerts a powerful influence upon the patterns of urban development. The modes of transportation in American cities until the middle of the 19th century consisted only of walking, supplemented by private horse-drawn carriages. The result was a highly concentrated urban settlement. Since in the 1970's public transportation is frequently heralded as a device for increasing population density,⁵⁸⁶ there is irony in the fact that during the 19th century it was successive breakthroughs in public transportation technology which permitted and determined the initial stages of urban dispersal. By mid-century the omnibus (a 15-passenger vehicle drawn by two horses) and steam-driven commuter rail had become common, and they were followed by electric streetcars in the late 1880's. The consequence of these developments was a significant relocation of residences along the lines of the public transit service. Electrically driven elevateds and subways

581. See, e.g., 26 U.S.C. § 4483(a) (1970). See also 102 CONG. REC. 9232 (1956) (remarks of Sen. Hubert Humphrey).

582. See *1956 House Ways and Means Comm. Hearings*, supra note 189, at 420 (statement of ATA).

583. AMERICAN TRANSIT ASS'N, '73-'74 TRANSIT FACT BOOK 9 (1973).

584. The vast majority of transit operators during that period were private operators and desired to remain so. Public takeovers were generally regarded as a last resort justifiable only by economic necessity. Indeed, one of the ATA's arguments in 1956 was that, unless transit was exempted from the new highway-user taxes, those taxes, by discriminating against the private carrier, would lead to undesirable public takeovers of economically marginal transit operations. See 102 CONG. REC. 9232 (1956).

585. See, e.g., MOWBRAY, supra note 14, at 61-73; *New Roads*, supra note 13, at 19.

586. See, e.g., Lisco, *Mass Transportation: Cinderella in Our Cities*, PUB. INTEREST, Winter 1970, at 52, 56-57.

opened in four cities between 1892 and 1909.⁵⁸⁷ The extent to which public transportation controlled urban activity is revealed by the extraordinary fact that as late as 1925, only 1 percent of developed land within all of the New York metropolitan area was located more than 1 mile from a railway station.⁵⁸⁸

The rapid rise of the automobile harbored dramatic implications, inasmuch as the automobile was conducive to a dispersion of residences both much "flatter"⁵⁸⁹ and more extended from the city center than previous types of public transportation could ever have achieved. In this way the automobile was responsible for the modern suburb. This fact was well understood by *Interregional Highways*, which noted that "[s]uburban home developments have been made attractive largely by the possibilities of quick and individual daily transportation thus afforded,"⁵⁹⁰ and that "[s]uburban business centers have followed the clustering of suburban homes."⁵⁹¹

The fact that automobiles are privately and individually owned clearly has reduced government's power to regulate metropolitan growth. It by no means has eliminated that power, however, since even in the automobile age the pace and location of urban development still can be considerably controlled by the placement of public highways (which, in this setting, become the relevant publicly provided facility). Sensitive to this point, *Interregional Highways* diagrammed how the outward growth of Baltimore, Washington, and Chicago in the 20th century had been governed by the location of highways.⁵⁹²

Freeways, with their greater vehicle-carrying capacity, can be especially potent in their developmental consequences. While Los Angeles may be an extreme (or at least an unusual) case, the effect of freeways on Los Angeles urban patterns has been so salient as to require comment. The rapid population growth in the San Fernando Valley can be attributed largely to the opening of the San Diego, Golden State, and Hollywood Freeways; the San Diego and Santa Ana Freeways were the catalyst for the emergence of Orange County.⁵⁹³ All of these Los Angeles freeways,

587. See Tarr, *From City to Suburb: The "Moral" Influence of Transportation Technology*, in AMERICAN URBAN HISTORY 202-10 (A. Callow ed. 2d ed. 1973).

588. BURCH, *supra* note 25, at 17 n.16.

589. The word is from Kain, *The Distribution and Movement of Jobs and Industry*, in THE METROPOLITAN ENIGMA 28 (J. Wilson ed. 1968).

590. INTERREGIONAL HIGHWAYS, *supra* note 121, at 53-54.

591. *Id.* at 54. The report also took note of the central city's decay and the inefficient decentralization which the suburbanization process may entail. *Id.* at 53-54.

592. *Id.* at 54-55.

593. See generally Alexander, *Too Little, Too Late, Too Bad*, in CRY CALIFORNIA, Spring 1968, at 7.

except the Hollywood, are included within the Interstate System.⁵⁹⁴ If one considers the urban Interstates in American cities generally, two complementary points seem eminently clear. First, the urban Interstates encourage the dispersal of jobs and residences away from the central city⁵⁹⁵ into suburban locations, inasmuch as they substantially minimize the access advantage which central city locations would otherwise enjoy. Second, they encourage job and residential locations in new outer suburbs rather than in established inner suburbs, since they help neutralize the access advantage that inner suburb locations would otherwise enjoy.⁵⁹⁶

Overall, the urban Interstates thus do produce very substantial suburbanizing effects. Substantial as these effects may be, however, they are still capable of overstatement, and overstatements of this sort have become common. Typical is a recent article in *Fortune* which, while conceding that "many factors" have contributed to metropolitan suburbanization, nevertheless asserts that ultimately it is the Interstate System which "has made this transformation possible."⁵⁹⁷ In evaluating this assertion, one must keep in mind that it was not until 1956 that Congress undertook to finance the Interstate System, and that the ribbon on the first urban Interstate constructed with 1956 financing was apparently not cut until 1959.⁵⁹⁸ Yet a year earlier, in 1958, it had been possible for the editors of *Fortune* to publish a book called *The Exploding Metropolis*—a title which purported to describe the suburbanizing phenomenon which had been in process ever since the close of World War II. All available data support the *Fortune* editors' observations.⁵⁹⁹ The real suburban explosion was one which had already occurred by 1959. That explosion came about

594. The Santa Ana Freeway was completed before 1956, when the Interstate System was still part of the federal-aid primary program. See text accompanying note 146 *supra*.

595. By customary usage, "central city" refers to the entire municipality which forms the center of a metropolitan area. Thus the "central business district" or "downtown" typically comprises only a small portion of the central city.

In Los Angeles, "central city" occasionally is used in the sense of "central business district" (see, e.g., the sign on 6th Street near the Harbor Freeway).

596. These assessments are congruent with the predictions offered by John Howard in COMMUNITY GROWTH—IMPACT OF THE FEDERAL HIGHWAY PROGRAM, Nov. 20, 1957 (paper prepared for 63d National Conference on Government of the National Municipal League) (copy on file with the author).

Los Angeles may provide an exception of sorts to the text's second point: the Santa Monica and San Diego Freeways have vitalized the City's West Side, the area including the Westwood, Century City, and Brentwood neighborhoods.

597. Cameron, *How the Interstate Changed the Face of the Nation*, FORTUNE, July 1971, at 78-80. See also Abe, *A New Perspective on Urban Transportation*, 29 TRAFFIC Q. 531, 533-34 (1975).

598. Turner Interview.

599. See, e.g., WILBUR SMITH & ASSOCIATES, FUTURE HIGHWAYS AND URBAN GROWTH 13 (1961).

by virtue of the confluence of a number of factors other than freeways.⁶⁰⁰ One of these, to be sure, was a transportation factor—soaring auto sales. The other factors were somewhat distinct from transportation—including massive scale single-family home construction in the suburbs (as abetted by federal housing practices⁶⁰¹); new industrial technology which favored locating new industrial facilities on (comparatively) low-cost suburban land; and even television, which by allowing families to receive entertainment within their living rooms, diminished their need to locate their residences close to public entertainment facilities. Since the suburban explosion was in full force by the late 1950's, the typical assertion that the urban Interstates rank as the fundamental cause of the explosion is one which must be rejected.⁶⁰² More appropriate assessments of the urban Interstates should instead be couched in terms of their having sustained, accentuated, and prolonged that explosion.⁶⁰³

These suburbanizing consequences are, of course, substantial, and lead to the next issue: whether they were perceived and intended by those who established the Interstate program. According to Moynihan in 1960,⁶⁰⁴ William Whyte,⁶⁰⁵ and others who have followed their lead,⁶⁰⁶ the answer is an emphatic "Yes." Such a conclusion finds no support, however, in the history of the 84th Congress. The surprising fact is that in the thousands of published pages of that history, there is not a single mention of the suburbanizing influence of the urban Interstates, and only two passages in which the entire suburban issue is even brushed.⁶⁰⁷ Nor does the Moynihan-Whyte view find significant support in the record of White House consideration of the Interstates; my study of the relevant White House papers reveals only one minor instance in which notice was taken of the Interstate's suburbanizing tendencies.⁶⁰⁸ In fact, Moynihan and Whyte themselves do not claim to find the requisite suburbanizing intent in Congress or the White House, but rather in the *Report of the Clay*

600. The following is drawn in part from J. MEYER, J. KAIN & M. WOHL, *THE URBAN TRANSPORTATION PROBLEM* 10-18 (1965).

601. See F. WIRT, B. WALTER, F. RABINOWITZ & D. HIENSLER, *ON THE CITY'S RIM: POLITICS AND POLICY IN SUBURBIA*, 178 (1972).

602. This is a point which I have previously suggested to Professor Rabinovitz. See *id.* at xvii, 179.

603. For similar reasons—and this is an important point—it will not be possible to detect the full impact of the urban Interstates built during the 1960's until perhaps 1990.

604. *New Roads*, *supra* note 13, at 19.

605. Whyte, *Urban Sprawl*, in *THE EXPLODING METROPOLIS* 133, 144 (1958).

606. E.g., LUPO, COLCORD & FOWLER, *supra* note 12 at 184.

607. See *1955 House Hearings*, *supra* note 62, at 763-65 (statement of the American Manufacturing Ass'n); 102 CONG. REC. 9234 (1956) (statement by Sen. Byrd regarding the Highway Revenue Act of 1956).

608. See Memorandum from J.S. Bragdon to the Council [of Economic Advisors], Subject: Data Bearing on a National Highway System, Nov. 2, 1954 (Bragdon Files, Eisenhower Papers, Eisenhower Library) (listing suburban growth as a "collateral benefit" of the Interstate program).

Committee, whose members they identify as the "sponsors" and "planners" of the Interstate program.⁶⁰⁹ In particular, what Moynihan and Whyte zero in on is one passage in the *Report's* Conclusion.⁶¹⁰ This passage both applauds the suburbs and suggests an awareness of how highways and automobiles contribute to suburban growth. Nevertheless, it cannot reasonably bear the full interpretative weight which Moynihan and Whyte seek to place upon it. For one thing, their claims concerning the "sponsorship" role of the committee are quite inaccurate. The committee understood that its responsibility was to consider the Interstate program's financing and administration, not its general desirability;⁶¹¹ even on these financing and administration issues, the committee's key recommendations were entirely rejected by Congress.⁶¹² Additionally, in the main text of its report the committee explains and justifies the urban Interstates exclusively on grounds of their "extension" function;⁶¹³ the intrametropolitan passage highlighted by Moynihan and Whyte appears only in the Conclusion—clearly a rhetorical add-on.⁶¹⁴

The conclusion therefore must be that the suburbanization potential of the urban Interstates was given very deficient consideration during the 1954-56 period. It does *not* follow from this conclusion, however, that the relevant policymakers gave no thought at all to the entire question of the effect of the urban Interstates on metropolitan structure. To the contrary, many of these officials were guided or influenced by one specific and

609. See Whyte, *Urban Sprawl*, in *THE EXPLODING METROPOLIS* 133, 144 (1958); *New Roads*, *supra* note 13, at 19.

610. We are indeed a nation on wheels and we cannot permit these wheels to slow down. Our mass industries must have moving supply lines to feed raw materials into our factories and moving distribution lines to carry the finished product to store or home. Moreover, the hands which produce these goods and the services which make them useful must also move from home to factory to store to home.

Our highway system has helped to make this possible. We have been able to disperse our factories, our stores, our people; in short, to create a revolution in living habits. Our cities have spread into suburbs, dependent on the automobile for their existence. The automobile has restored a way of life in which the individual may live in a friendly neighborhood, it has brought city and country closer together, it has made us one country and a united people.

But, America continues to grow. Our highway plan must similarly grow if we are to maintain and increase our standard of living. There can be no serious question as to the need for a more adequate highway system. Only the cost and how it is to be met poses a problem.

CLAY COMMITTEE REPORT, *supra* note 149, at 26.

611. Clay Interview. See also General Clay's statement at the outset of his committee's hearings. President's Advisory Committee on a National Highway Program, Minutes of Public Hearings, 1955, at 1 (unpublished document in Dep't of Transportation library, Washington, D.C.).

612. See text accompanying notes 184-93 *supra*.

613. The urban Interstates are to be "feeder and distribution" routes which will "render the interstate system more effective." CLAY COMMITTEE REPORT, *supra* note 149, at 14-15.

614. The "Conclusion" section, however, was written personally by General Clay. Clay Interview.

interesting idea. Somewhat apart from the suburbs (whether outer or inner), there remains the issue of the welfare of the central business district (as distinguished from the entire central city).⁶¹⁵ The current position is that the urban Interstates have contributed in the decline of downtown, and are in this regard blameworthy.⁶¹⁶ As long ago as 1961, the Department of Commerce (in which the Bureau was then lodged) stated in an official document that the decline of downtown was an "intangible cost" of the Interstate System.⁶¹⁷ This position is, as it happens, in direct conflict with an idea which was widely accepted in the mid-1950's. That idea, as expressed by big-city mayors,⁶¹⁸ urban-oriented Senators,⁶¹⁹ downtown businessmen's associations,⁶²⁰ and the 1957 Administrator of the Interstate program,⁶²¹ was that the urban Interstates were essential to the survival or the revitalization of the central business districts, which were then perceived as afflicted with dreadful traffic troubles—as suffering from "dry rot," in Senator McNamara's language.⁶²²

Notwithstanding its inconsistency with the current position, this 1950's idea may well be correct—and certainly is correct in particular metropolitan areas. Consider the metropolis which possesses an inner belt, an outer belt, and freeway radials—all the product of the Interstate program.⁶²³ Clearly such a freeway network renders downtown more accessible and hence more attractive (other things being equal). Even in those metropolitan areas (such as Los Angeles) where the freeway network resembles a grid,⁶²⁴ the grid tends to be "bent" in the direction of downtown, enhancing its accessibility. These metropolitan Interstate networks clearly were designed with improved downtown accessibility in mind. In the past several years, many downtown areas have witnessed major office-space building booms.⁶²⁵ Employment declined in many central cities between the end of the war and 1960, but in the years since

615. See note 595 *supra*.

616. See generally MOWBRAY, *supra* note 14, at 59-92; SCHNEIDER, *supra* note 14, at 51-58.

617. H.R. DOC. NO. 54, 87th Cong., 1st Sess. 6 (1961).

618. *E.g.*, 1955 House Hearings, *supra* note 62, at 412 (testimony of Houston Mayor Roy Hofheinz). Alf Johnson indicates the city officials frequently spoke of the need to "ventilate" the central business district. Johnson Interview.

619. *E.g.*, 101 CONG. REC. 6895 (1955) (remarks of Sen. Pat McNamara).

620. See Dennis, *Impact of the Federal Highway Program*, in PLANNING 1957, at 45-56 (Am. Soc'y of Planning Officials 1957) (chairman of the Committee on the Downtown, Rochester, N.Y.).

621. See address by Federal Highway Administrator Bertram Tallamy, Symposium on "The New Highways: Challenge to the Metropolitan Region," Hartford, Conn. Sept. 9, 1957 (copy on file with the author).

622. 101 CONG. REC. 6895 (1955).

623. See WARNER, *supra* note 23, at 39-40, 43.

624. See *id.* at 43.

625. In some cities the boom achieved such momentum that builders overreacted, leading to an excess of office space today. See *Empty Spaces*, NEWSWEEK Mar. 18, 1974, at 104-06.

1960 almost every central city has registered slow but steady employment increases.⁶²⁶ Assuredly, employment levels throughout the metropolitan area have increased, and therefore downtown employment has declined as a percentage of metropolitan employment. But given both the population growth within the typical metropolitan area and the limited physical boundaries of the central business district, this could hardly be otherwise. Moreover, while the number of downtown jobs has held constant, the composition of the downtown work force has changed in important ways. The number of downtown factory workers and insurance company clerks has skidded downwards, while the number of executives, professionals, and others in "control" positions has risen sharply.⁶²⁷ Since white collar professionals have been substituted for workers and clerks, it is quite possible that the actual economic power concentrated in the central business district has resisted decline.⁶²⁸ What the fate of downtowns would have been had none of the urban Interstates been built is a question difficult to ponder.⁶²⁹ Certainly, however, one plausible hypothesis is that without the urban Interstates many downtowns would have fallen victim to serious atrophy.⁶³⁰

The preceding discussion has been an attempt to determine the impact of urban freeways on urban development. This discussion draws attention to another objection to the 1956 Act: its lack of any requirement that the urban Interstates be consistent or coordinated with urban planning.⁶³¹ Back in 1943, *Interregional Highways* had devoted several pages

626. See B. HARRISON, *URBAN ECONOMIC DEVELOPMENT: SUBURBANIZATION, MINORITY OPPORTUNITY, AND THE CONDITIONS OF THE CENTRAL CITY* ch. 2 (1974). Harrison's data are for central cities generally, but their suggestion is that downtown job growth has been even more pronounced. *Id.* at 27-31.

627. See J. MEYER, J. KAIN & M. WOHL, *THE URBAN TRANSPORTATION PROBLEM* 10-18 (1965).

628. Given the nature of "power" as a concept, one cannot make nice distinctions between "absolute" power and "relative" power.

629. As are all historical questions cast in the "what if" form.

630. Professor Nelson may concur. Nelson, *Policy Analysis in Transportation Programs*, in SUBCOMM. ON ECONOMY IN GOVERNMENT OF THE JOINT ECONOMIC COMM., 91st CONG 1st SESS., *THE ANALYSIS AND EVALUATION OF PUBLIC EXPENDITURES: THE PPB PROGRAM*, pt. 3, at 1118 (Joint Comm. Print 1969). A 1958 study of the probable effects of urban freeways on the central business district had been equivocal. E. HORWOOD & R. BOYCE, *STUDIES ON THE CENTRAL BUSINESS DISTRICT AND URBAN FREEWAY DEVELOPMENT* ch. 9 (1959). There has been surprisingly little research done since then on the freeway central business district issue. See FEDERAL HIGHWAY ADMINISTRATION, *ECONOMIC AND SOCIAL EFFECTS OF HIGHWAYS*, 10 (1972).

631. See, e.g., M. SCOTT, *AMERICAN CITY PLANNING SINCE 1890*, at 539 (1969) ("In the largest construction program in American history the planning profession and the planning function had been overlooked"), and Paul Ylvisaker's 1959 statement that in light of the Interstate program city planners are a "beaten profession" (quoted in *New Roads*, *supra* note 13, at 20).

It was not until the 1960's that urban planning conditions became boilerplate in federal grant-in-aid programs; still, there were certain pre-1956 federal law planning precedents, particularly in the urban redevelopment program. See Mandelker, *The Comprehensive Planning Requirement in Urban Renewal*, 116 U. PA. L. REV. 25 (1967).

to insisting that a city's freeway plan should be "so applied as to promote a desirable urban development";⁶³² it referred to the ongoing efforts of city planning commissions and urged the establishment of special metropolitan authorities to plan the Interstates.⁶³³ This entire portion of the document was watered down—indeed, just about watered away—by the Bureau in its important 1955 memorandum.⁶³⁴ The route location work at the state level had been carried out in 1955 by state highway departments. Generally, these departments were narrowly engineering-minded. Only 19 of them had even taken the modest first step of setting up a separate urban division.⁶³⁵ Many of the state departments, in making their route selections, did not even bother to confer with elected city officials, let alone with the less politically influential city planners.⁶³⁶

Eventually, in section 134 of the 1962 Highway Act, Congress established a requirement that after July 1, 1965, all federally aided urban highways be based on a "continuing comprehensive transportation planning process carried on cooperatively by States and local communities."⁶³⁷ The urban planning objection focuses, therefore, on the absence of planning during the 1955-65 decade. With the objection so narrowed down, there are two reasons why it really is *not* very damaging. First, the objection's assumptions concerning the efficacy of comprehensive planning—so prevalent, especially at the federal level, during the 1960's—are almost certainly unwarranted. In 1968, a dozen years after the 1956 Act, Professor Banfield could reasonably claim that there was not a single city—let alone a metropolitan area—in which comprehensive planning had even begun to live up to its billing as a governor of urban development.⁶³⁸ Seven years later, with the possible exception of Boston,⁶³⁹ this generalization still holds true. Among academicians a clear disillusionment concerning comprehensive planning theory has now set in; comprehensive planning is "an idea whose time has come and

632. INTERREGIONAL HIGHWAYS, *supra* note 121.

633. *Id.* at 56, 70-71.

634. 1955 Bureau Memorandum, *supra* note 136, at 10.

635. OWEN, *supra* note 79, at 58. The AMA was well aware that this absence of urban divisions magnified the likelihood of insensitive urban freeway building. But while in the 1956 hearings the AMA raised the issue of federally requiring the departments to establish such divisions, it specifically asked Congress to defer consideration of this issue until a later time. 1956 *House Public Works Comm. Hearings*, *supra* note 155, at 127.

636. Healey Interview; Clay, *Main Street 1969; Miracle Miles or a Big Mess?*, 23 J. AM. INSTITUTE OF PLANNERS 131, 132 (1957); see Kaufman, Book Review, J. AM. INSTITUTE OF PLANNERS, Spring 1948, at 39.

637. Act of Oct. 23, 1962, Pub. L. No. 87-866, § 9(a), 76 Stat. 1148 (codified at 23 U.S.C. § 134 (1970)).

638. Banfield, *The Uses and Limitations of Metropolitan Planning in Massachusetts*, in 2 TAMING MEGALOPOLIS 710 (H.W. Eldredge ed. 1967).

639. See Schwartz, Book Review, TRANSPORTATION, Dec. 1973, at 432, 435-56.

gone.⁶⁴⁰ The planning undertaken pursuant to section 134 reinforces this disillusionment. That this planning has been lackluster and ineffective was the finding of a major Department of Transportation study;⁶⁴¹ not a single urban Interstate has been withdrawn on grounds of its incompatibility with section 134 planning.⁶⁴²

Second, even if planners had been professionally and effectively involved in the 1955 effort, there is little reason to believe that the 1955 *Yellow Book* maps would have come out significantly different. What is important to recognize is that the hostility to freeways which is now endemic among planners is most decidedly a post-1956 phenomenon. If anything, freeways were historically the planners' darling. The very term "freeway" was coined in 1930 by an urban planner, who predicted that the term's referent was such an essential facility that the term itself would quickly become a staple in the planner's vocabulary.⁶⁴³ A 1971 essay by a liberal political scientist opines that the Boston freeway system, which originally had been approved by state and local authorities in 1948, amounted to a triumph of the "logic of the technician" over the "logic of the planners."⁶⁴⁴ There may be a conflict of "logics" presently, but not in 1948; a metropolitan planner who reviewed the Boston plan in that year found it "sensible," "comprehensive," and "well reasoned."⁶⁴⁵ A reading of the planning literature published between 1944 and 1956⁶⁴⁶ reveals that planners were paying little attention to the metropolitan implications of urban freeway building;⁶⁴⁷ in many ways, *Interregional Highways* stands

640. *Id.* at 435.

641. See Cafferty, *Urban Goals and Priorities: The Increasing Role of Transportation Planning*, 25 *TRAFFIC Q.* 309 (1971). My own research strongly supports this conclusion. During the summer of 1971 I spent 2 weeks closeted in a Federal Highway Administration office in Washington, D.C., reading planning reports prepared and submitted pursuant to § 134.

642. Telephone interview with Vincent Paparella, Federal Highway Administration official, Jan. 13, 1976. Part of the reason § 134 planning has been ineffective is that it has thought itself required to accept the designated urban Interstate as "committed" and hence not subject to real question. Given the momentum, legal and otherwise, which the Interstate program had acquired by the 1960's, it was simply too late to introduce any significant planning requirement.

643. Bassett, *The Freeway—A New Kind of Thoroughfare* *AM. CITY*, Feb. 1930, at 95. Edward Bassett was then President of the National Conference on City Planning.

644. LUPO, COLCORD & FOWLER, *supra* note 12, at 216 (discussion by Prof. Colcord).

645. Kaufman, Book Review, *J. AM. INSTITUTE OF PLANNERS*, Spring 1948, at 39. In a similar vein, see Dill, *The Cincinnati Metropolitan Master Plan*, 14 *J. AM. INSTITUTE OF PLANNERS* Winter, 1948, at 19-24.

646. I have read through all the issues of the *Journal of the American Institute of Planners* for these years, as well as each annual volume of the *American Society of Planning Officials*. The only article extensively critical of the urban Interstates was written by, of all people, the editor of *Better Roads* magazine. Nelson, *Expressways and the Planning of Tomorrow's Cities*, in *PLANNING* 1950, at 117 (*Am. Soc'y of Planning Officials* 1950).

647. The suburbanizing tendencies of the Interstates were noted only occasionally and never given extensive consideration. A favorable verdict on the urban Interstates was rendered by an urban planner. Van Tassel, *Economic Aspects of Expressway Construction*, 20 *J. Am.*

as a major breakthrough from which the latter planning literature quickly receded. In fact, during the period between the 1944 and 1956 Acts, far from raising doubts about the urban Interstates, urban planners had been "begging" Congress to provide Interstate financing.⁶⁴⁸

It was only subsequent to the 1956 Act that urban planners (and other urban experts) began to develop their reservations about urban freeways and their opposition to the urban Interstates. A conference on the urban Interstates was convened in Hartford in late 1957 by the Connecticut Life Insurance Co., which was embarrassed by its recent shift of office headquarters from downtown Hartford to the suburbs.⁶⁴⁹ Much to the surprise of its organizer,⁶⁵⁰ this conference turned into a confrontation between urban planners and highway officials; the latter reacted with dismay when certain planners called for a moratorium on all urban freeway building until the needed urban planning was completed.⁶⁵¹

INSTITUTE OF PLANNERS 83 (1954). Typical of the superficiality is Malley & Breivogel, *Urban Freeways*, J. AM. INSTITUTE OF PLANNERS, Fall 1948, at 23, whose discussion consists of a virtual plagiarism of one sentence from *Interregional Highways*. There is a reasonably strong statement by Norton in *The Expressway Dilemma*, J. AM. INSTITUTE OF PLANNERS, Fall 1948, at 36, but it only takes the form of a one-page "abstract." The need for coordinating the urban Interstates with comprehensive urban planning was likewise occasionally mentioned, but only superficially. See, e.g., Forster, Book Review, J. AM. INSTITUTE OF PLANNERS, Spring 1947, at 38-39.

Coordination with land use planning was strongly recommended in OWEN, *supra* note 79, at 218-25. But the primary purpose of such land use planning, according to Owen, was to control population so that highway officials could accurately predict and adequately handle future traffic demand. While Owen was sensitive to the neighborhood or "micro" issues which planning can deal with, he gave little attention to freeways as a general determinant of metropolitan development.

A three-part essay by Lewis Mumford, *The Sky Line* [of New York City], NEW YORKER, Mar. 19, 1955, at 85, Apr. 2, 1955, at 97, and Apr. 16, 1955, at 78, makes clear that Mumford, alone among the urban experts of the mid-1950's, appreciated the developmental potency of urban freeways. However, Mumford's view that the "high-density city is obsolete" (Apr. 16, 1955, at 79) has not worn well, and his call for an entirely "new metropolitan pattern" (*id.*) probably placed him beyond the pale of practical politics.

648. This, according to an address delivered by AIP ex-President John Howard, reprinted in PLANNING 1957, at 97 (Am. Soc'y of Planning Officials 1957). See also Forster, Book Review, 13 J. AM. INSTITUTE OF PLANNERS 38, 39 (1947) (approval of Interstate System "gratifying").

Howard's 1957 address went on insightfully to predict many of the adverse effects of the urban Interstates. However, during the late 1940's, Howard himself had supervised the preparation of a master plan for the City of Cleveland, which was eventually approved by the city's Planning Commission in 1950. CLEVELAND CITY PLANNING COMM'N, CLEVELAND TODAY . . . TOMMORROW (1950). That plan was entirely in harmony with the 1947 and 1955 Interstate designations for Cleveland (BUREAU OF PUBLIC ROADS, GENERAL LOCATION OF NATIONAL SYSTEM OF INTERSTATE HIGHWAYS 65 (1955)), and its accompanying text reflects few of the concerns voiced by Howard in 1957. See CLEVELAND CITY PLANNING COMM'N, CLEVELAND TODAY . . . TOMMORROW 30-33 (1950). The plan did emphasize, however, the importance of improved public transit. *Id.* at 34-37.

649. Owen Interview.

650. *Id.*

651. See W. OWEN, CITIES IN THE MOTOR AGE 37-38 (1959). Highway officials countered with a conference of their own at Syracuse University in which urban issues could be recognized and discussed but in a less threatening atmosphere. This conference is briefly described in Holmes,

Modern planning thinking on urban freeways essentially dates from that Hartford conference. An urban planning recommendation was urged unsuccessfully by General Bragdon as part of the 1959-60 White House review of the urban Interstates.⁶⁵² The planning idea was then picked up by the Kennedy Administration, and after a gyration or two⁶⁵³ finally found itself in the 1962 Act.

CONCLUSION

What a review of the preceding sections verifies is that Interstate realities are considerably more complex than the indictment would suggest. Those realities are decidedly multifarious, and they certainly are resistant to the kinds of simplifications which characterize the indictment. As for air pollution, traffic generation, public transit, and urban development, the facts are distinctively subtle, and lend intermediate support—but no more than that—to the indictment's broad-brush claims. The assumption that in the 1956 Act Congress proceeded in a state of benign urban innocence is valid in some cases (again, air pollution), but at least partly invalid in others (e.g., public transit and relocation); the legislative history of the 1956 Act is not quite so bland as the 1970 Moynihan would have us suppose. For some of the other adverse consequences of the Interstate program (e.g., the damage done to the environment and to low-income neighborhoods), there are explanations which may not excuse, but which at least enable us to understand. If there was a moving-party "heavy" for the urban Interstates, it was the cities themselves rather than the highway lobby—a fact which makes one wonder whether that moving party should be regarded as a "heavy" after all. The sympathetic congressional response to the transit industry's only request in 1956—a request of considerable economic importance to many transit operators—places an important caveat on the claim that Congress was insensitive to the public transit cause. Since urban freeways then carried the city planners' seal of approval, there is little merit in the idea that the 1956 Act subverted the planners' collective wisdom. It is often said that what our cities need is "balanced transportation systems"; a measure of balance is also needed in the appraisal of our existing transportation programs.

Even with the help of such balance, however, it remains unmistakably true that the Interstate program has been responsible for serious harms in

The State-of-the-Art in Urban Transportation Planning, or How We Got There, TRANSPORTATION, Mar. 1973, at 379, 384-87.

652. See text accompanying note 276 *supra*.

653. *Joint Report to the President by the Secretary of Commerce and the Administrator of the Housing and Home Finance Agency, 1962*, in READINGS IN URBAN TRANSPORTATION 282, 292 (G. Smerk ed. 1968); *A Message from the President of the United States, 1962*, in *id.*, at 304, 308.

urban areas. In the years since 1956, with the Interstate program rolling ahead, we have become more and more aware of the nature and full extent of those harmful consequences. What this in turn re-emphasizes is the point discussed at the end of Part II: Congress, in committing itself to a grand, long-term scheme, sacrificed the opportunities for thoroughgoing review of the program once it had begun and for the appropriate adjustment of the program on the basis of such review. Part II's conclusion was that in the Interstate case the benefits of advance planning have been outweighed by the cost of those sacrificed opportunities. This Part's analysis of the complexities of the urban Interstates, based on the 20 years of our post-1956 experience, fortifies that conclusion.