Understanding the Past and Present of America's Attempts to Link Highway Finance and Social Welfare Programs : The Case of Empowerment Zones and Enterprise Communities in the Context of ISTEA : 特集アメリカ福祉国家とグローバル化(3)

Understanding the Past and Present of America's Attempts to Link Highway Finance and Social Welfare Programs: The Case of Empowerment Zones and Enterprise Communities in the Context of ISTEA

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▶ **Abstract**

This paper explores how mobility and access have been linked (through federal investments in highway infrastructure) to state and local economic development and social welfare service delivery in the United States. Specifically, the analysis examines the attempted utilization of highway grants-in-aid and their conditions of award to influence non-highway policy goals through the empowerment zone and enterprise city program during the period 1998 through 2009.

Grants-in-aid are a "tool" used by the US national government to accomplish national policy goals indirectly. By granting funds to state and local governments, the federal government utilizes other entities to accomplish it goals. This relationship has been called "Third Party Government". Another entity, between the national government and citizens performs tasks necessary accomplish nation policy goals. Such multi-government delivery mechanisms can avoid centralizing policy and service delivery at the national level, while maintaining flexibility and program adaptability. However, decentralized service delivery systems may also fail to accomplish national goals because central control is diffuse and dependent on compliance of grantees with grantor requirements.

The conclusions of the paper suggest that US highway grant conditions can be utilized to indirectly influence related policy goals. However, that influence, at this time, has declined for a number of reasons. One key reason, as Professor Tim Conlan argues, is the periodic flow of centralization and decentralization forces in American federalism. Another, more influential and specific, factor is that the targeting of resources tends to decrease when dedicated revenues decline and program costs increase. In such times, budgetary decision-making and policy maker interest tend to focus on primary program goals and less on possible leveraging of program spending in related policy areas.

Introduction

Financing highway infrastructure in the United States is an inherently multi-governmental process. The federal government finances approximately 25% of highway expenditures (construction and maintenance) and the remainder is largely provided by state and local governments. In a few instances, private sector and not-for-profit entities may assist with financing and operating infrastructure (there are privately owned facilities). Ownership of facilities is almost entirely state and local (the federal government does not own any facilities with the exception of public lands highways (parks, forest, and other federally protected lands)). Indian tribal governments own some infrastructure on tribal reservations.

Infrastructure funding sources are diverse in nature. At the federal level the predominant revenues are motor fuel taxes, excise taxes and fees and general fund revenues (since 2008). State and local governments utilize the same sources plus sales and income taxes, excise fees, borrowing and other specialized revenues.

> States use a remarkable variety of taxes and fees to support roads and bridges ... as well as other transportation modes such as public transit, rail, aviation, ports, and pedestrian and bicycle projects ... These revenue sources include state fuel taxes, vehicle fees, sales taxes, tolls, mode-specific revenues, and an assortment of other sources such as congestion pricing, cigarette taxes, and state lotteries. In addition to revenues used by DOTs and other state agencies, a number of quasi-public entities, such as turnpike or port authorities, collect and use specific revenues to support some elements of the overall transportation system ...[1)]

> Local governments use a wide range of revenue sources for transportation projects, such as general revenues, tolls, and a diverse array of local-option taxes and fees that have been authorized in state law. Local fuel taxes, registration fees, development impact fees, dedicated property and sales taxes, special assessment districts, severance taxes, and other sources have all been used for local transportation projects and services[2)].

Private and not-for-profit organizations largely use private funds and/or borrowing to obtain needed resources.

The purpose of highway infrastructure investments is largely mobility and access

1) American Association of State Highway and Transportation Officials, "Transportation Governance and Finance: 50 State Review of State Legislatures and Departments of Transportation", November 2016, p. 57.

2) American Association of State Highway and Transportation Officials (AASHTO), "Transportation Governance and Finance: 50 State Review of State Legislatures and Departments of Transportation", AASHTO, November 2016, p. 78.

for the traveling public. Mobility serves personal and commerce transport interests. Access creates opportunities to serve location-based activity such as commerce and tourism.

This paper explores how mobility and access have been linked (through federal investments in highway infrastructure) to state and local economic development and social welfare service delivery. Specifically, the analysis examines the attempted utilization of highway grants-in-aid and their conditions of award to influence non-highway policy goals such as economic development, urban form and socio-economic conditions in the 1990s. I am specifically concerned with whether the empowerment zone and enterprise city program is linked or associated with highway programs.

The conclusions of the paper will suggest that grant conditions can be utilized to indirectly influence related policy goals. However, that influence, at this time, has declined for a number of reasons in the arena. One key reason, as Professor Tim Conlan argues, is the periodic flow of centralization and decentralization forces in American federalism. Another, more influential and specific, factor is that the targeting of resources tends to decrease when dedicated revenues decline and program costs increase. In such times, budgetary decision-making and policy maker interest tend to focus on primary program goals and less on possible leveraging of program spending in related policy areas.

Policy and Process in America

In the American public policy making process there are a nominal set of policy categories that have existed historically. Titles such as education, transportation, labor, commerce, foreign policy, etc. have typified the "types" of policies produced by legislative and executive action. These historical categories, which grew out of the early 20th Century social and economic context, persist both as a reflection of convenience and familiarity and of the way Congress has organized itself (standing committees in the House and Senate) to focus on policy issues, political interests and advocates in society. The reality is that such divisions of policy types have evolved dynamically both in our understanding of how policy problems might be solved and the interests/advocates who care about their solution.

An example of such evolution is transportation. In the 19th century transportation was largely a matter of horse drawn, rail or maritime activity. As technology evolved

in the 20th Century auto, bus, truck and air options emerged along with their attendant types of infrastructure investment. Localized financing through private investment and/or state and local programs gave way to increasing federal engagement and funding. General fund revenues initially supported the federal role but gave way to dedicated funding (1956) focused on ensuring that the direct beneficiaries of public investment paid for their benefits and to reduce economic inefficiency.

The federal role in highway infrastructure arose out of interstate commerce and supporting American agriculture and industry by providing interconnected hard surfaced facilities that would facilitate goods movement and access to markets. As America industrialized, freight movement by rail and truck became more important. Post WW II the return to a peacetime economy and economic prosperity empowered many Americans to take to the roads in pursuit of leisure and recreation. Automobile usage grew exponentially, at the expense of public transit utilization and pedestrian travel. The emergence of a major tourism dimension to the economy created a whole new rationale for public highway investments. Trucking and air transport became major competitors to rail freight movement and demanded road connections.

With technological change came changes in human settlement patterns. Rural and small-town life has been replaced by urban and big city development and associated economic activity. At the end of the 20th Century we added to the mix of transport concerns emerging forms of information technology and communications, largely because of the way they affected commerce, economic development/activity and human settlement/work. Public transportation policy has evolved from a focus primarily on the required infrastructure to support individual modes of transport (roads, airports, rail lines, etc.) to include the safety and utility of vehicle types; the implications of technological advancement on transport patterns (driverless vehicles); the interaction of modes in conveying passengers, materials and information; the substitution of modes (trucks for rail, air for trucks and rail) and settlement patterns (single passenger autos giving way to mass transport in highly urbanized areas). Recently, we have added distracted driving and driverless vehicles to the dimensions of transport policy.

The point is that policy categories are subject to change as society, the economy, technology and our understanding of the relationships among these dimensions change. The broader contextual aspects of policy challenges get reflected in policy processes and individual policies. For US highway transportation policy, what once was a

focus solely on an individual mode (auto, transit, freight, etc.) has now become a far more complex intermodal socio-economic policy field where we worry about how shifts in global migration and economic patterns will affect manufacturing in middle America as jobs and economic activity shift to other locations. In the Unites States financing highways has also been impacted by the structure of the American federal system and the unique tax tradition of beneficiaries should pay for benefit received.

The Tools of Government

In 2002 Lester Salamon coined the concept of "third party government". By "third party" he meant the utilization of indirect mechanisms (tools) for achieving government policy goals through third party actors (not-for-profit, other governments, and the private sector). Tools can take many forms but one of the most prominent is the "grant-in-aid". Grants provide an indirect means for a grantor to incentivize other actors to produce policy and program results by providing revenues to them in return for program implementation actions[3].

One of the key characteristics of tools is their "action" mechanism, i.e., how do they condition or direct recipients to take the right actions consistent with grantor expectations. Grant actions are achieved through "conditions of aid", i.e., the policy and programmatic guidance provided by the grantor to the grantee through mechanisms such regulations and program guidance. Conditions of aid can be multi-dimensional in nature, addressing legislative direction, direct programmatic implementation requirements, and indirect programmatic guidance. An example of direct legislative guidance would be a matching requirement stipulating that recipients match grantor funding at a certain rate. In the world of highway finance, state and local governments must provide 10% of eligible project costs in return for the federal payment of 90% of total eligible project costs. Another example of legislative requirements would be the direction that funds can only be spent on "federal-aid highways," i.e. highways classified as eligible for the receipt of federal funding. Similarly, restrictions in law can direct funding toward certain projects such as bridges, air pollution reduction, operation and maintenance, etc.

An example of direct program guidance can be found in regulations that guide

3) Lester Salamon, The Tools of Government, Oxford University Press, 2002. See chapter 1 for a discussion of the concept of tools, their origin and challenges.

how recipients utilize funding to accomplish legislative direction. Legislative language, in the US experience, is not always very precise or clear. Often it requires administrative agencies, charged with implementing programs, to issue regulatory clarification and guidance to elaborate and explain legislative language. An example here would be Chapter 23 of the US Code of Federal Regulations[4]. This chapter contains highway requirements that affect the expenditure of federal highway funding. A specific case would be Metropolitan Planning Organizations, which are required legislatively. Defining what these organizations are, how they should be structured, and their role in identifying projects is accomplished largely through regulatory language and additional guidance issued by the Federal Highway Administration (FHWA).

Another direct requirement would be to select projects for funding that improve performance of the transportation system. The Moving Ahead for Progress in the 21st Century Act (MAP-21) was the 2014 authorization of the US surface transportation program. It directed grant recipients to expend federal transportation dollars where they would most enhance the performance of the federal-aid highway system in their jurisdictions. The definition of "performance" has required almost three years of effort by the federal government to issue clarifying regulations[5]. It was overtaken by both the Fixing America's Surface Transportation (FAST) Act (2015) and the election of a new president in 2016.

An indirect tool mechanism can be either legislative or regulatory in nature, often from a related governmental policy initiative. Examples would be "Empowerment Zones and Enterprise Cities[6]". Arising in the 1990's as a federal policy initiative associated with the US Department of Housing and Urban Development, these zones and cities were specified as targets for social welfare funding that would aid poor and minority communities. Leveraging these funds by encouraging the connection of funding for related project expenditures was an approach attempted by the Clinton Administration's effort to address urban poverty[7]. For example, highway expenditures that would improve access to transportation options, job centers, or new markets would also enhance total spending for zones and cities. Hence, the Clinton Administration en-

4) 23 Code of Federal Regulations, Chapter 1, Subchapter E, Part 450 addresses the required metropolitan planning process and the requirements for an MPO.

5) 23 CFR 450.134 details the requirements for performance based metropolitan planning

6) Omnibus Reconciliation Act of 1996 (PL 103-66) August 10, 1993.

7) See 24 CFR 597 and Executive Order 13005 May 21, 1996.

couraged targeting of highway funding that would improve transportation facilities and options for zones and cities. For the most part, because legislation did not specifically require this linkage, this was an indirect and advisory direction given by US HUD to its funding recipients and the FHWA to its grantees[8].

Sometimes legislative and regulatory guidance from one policy program to another could have the effect of law and be more compelling. Such cross-policy linkages have been identified as "cross-cutting and cross-over mandates[9]." Cross cutting mandates typically come from a single piece of legislation but apply to ALL federal policies and programs. Such a mandate would be the requirement of the National Environmental Protection Act (NEPA) to consider the environmental impact of all "significant federal actions[10]". The application of NEPA to highway funding is both a product of federal regulations and court decisions.

A cross over mandate exists where the effectiveness of one policy is enhanced or ensured by requiring actions consistent with it by other programs or regulations. The National Highway Beautification Act[11] achieved its goals by reducing available highway funding to states that did not address billboards along their interstates. Similarly, the utilization of seatbelts under state law was addressed by provisions in the highway program reducing available highway funding to states without primary seat belt laws. The key point here is that conditions of aid significantly affect program implementation directly and indirectly.

The federal-aid highway program has often been characterized as a "federally assisted state and local program" suggesting that state and local priorities were the most important. This characterization arises out of both the primary responsibility of states and localities to build, operate and maintain highways (including project selection)[12].

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8) See the discussion in Edner, Sheldon and McDowell, Bruce, "Surface-Transportation Funding in a New Century: Assessing One Slice of the Federal Marble Cake," Publius, Vol 32, No 1, (Winter 2002), p. 21.

9) Posner, Paul, The politics of unfunded mandates: whither federalism?, Washington, DC, Georgetown University Press, 1998.

10) National Environmental Policy Act 42 U. S. C. §4321 et seq. (PL 91-190) January 1, 1970.

11) Highway Beautification Act of 1965 (created 23 USC 131 which is known as the Highway Beautification Act) October 22, 1965.

12) Edner, Sheldon and Critchfield, Matthew, "The Rush to Pave: Adapting the Federally Aided Highway Network to ARRA", in Conlan, Timothy J., Paul L. Posner, Priscilla M. Regan, Governing Under Stress: The Implementation of Obama's Economic Stimulus Program, Washington,

It is also attributed to the dedicated funding source for the highway program (the motor fuel tax and its Highway Trust Fund). The "user pays" aspect of the federal fuel tax is tied to the number of gallons purchased by the automobile user and the allocation of funding to each state by formula. This has created an image of State "entitlement" to the funds. The formulas were a means of identifying state shares of revenues produced and highway needs. Over time, states began to look upon the federal gas tax revenues generated within their borders as "their" money and many began to argue politically for at least as much federal funding as they generated in federal gas tax revenue.

If every state received exactly the funding it generated there would be no redistribution of funds across states to provide funding for national priorities. Hence, over the past thirty years there has been an ongoing political tension in the legislative re-authorization and annual funding appropriation processes between "donor" and "donee" states. Donor states wanted more of their gas tax dollars returned to them. Donee states needed more funding to assist with projects that had relatively greater national importance than local benefit. An example would be funding for highways in South Dakota. The state has significant cross-national travel by trucks and automobiles. It would never generate sufficient gas taxes to fund their share of the interstate highway system without reallocation of gas taxes from donor states.

American Federalism, Grants and Social Welfare

As Professor Tim Conlan has observed, grants-in-aid have facilitated federal government participation in many domestic governmental services, which were not enumerated powers of the Congress under the Constitution. He writes:

> Under the concept of dual federalism, governmental functions such as education, law enforcement, and social welfare services were presumed to be the exclusive domain of the states. However, the Supreme Court upheld the constitutionality of federal grants for non-enumerated purposes, through an expansive interpretation of Congress's general power to "tax and spend for the general welfare", coupled with a belief that state participation in such grants was presumed to be voluntary. The resulting system of intergovernmental aid thus gave rise to an era of intergovernmental collaboration and cooperation, but it had substantial centralizing effects on the US federal system[13].

DC, Georgetown University Press, 2016, pp. 65-84.

13) Timothy J. Conlan, "Federalism and Policy Instability: Centralization and Decentralization in Contemporary American Federalism," Revue française de science politique (English Edition),

Professor Conlan further suggests that this reliance on indirect tools is reinforced by America's political culture. This culture reflects America's long-term ambivalence concerning direct government involvement in societal and economic affairs.

> Thus, political context and issue framing can elicit dramatically different political responses from the public, depending on the use of phrasing, anecdotes, or slogans. In public welfare policy, for example, public opinion polls have shown consistent support for government assistance to people in need. When the term "welfare" is used in place of aid to the needy, however, public support drops considerably, due to negative connotations associated with welfare programs[14].

American experiments with ways to cast and reframe policy issues have had a significant effect on the institutional character of the relationship between Federal, state and local governments. Professor Robertson attributes this to the politics of political compromise as Americans and their political leaders have attempted to resolve difficult political questions[15]. For Professor Conlan it means "...federalism remains a remarkably fluid institution even after 200 years of evolution. This malleability reflects the dual nature of federalism, which is both an institution and a process[16]."

Federal-Aid Highway Funding in America

President Barack Obama signed the current American surface transportation legislation into law on December 4, 2015. Known as the Fixing America's Surface Transportation Act (FAST Act; P. L. 114-94), the law funds highways, public transit, trucking and rail projects, activities and programs for a five-year period. The Congressional Research Service summarized the funding provisions of the Act as follows:

> The act's authorization totaled roughly $305 billion for FY2016 through FY2020. This included $233 billion for highways and highway safety, $61 billion for public transportation, and more than $10 billion for Amtrak[17].

Vol. 64, No. 2, The American State (2014), pp. 30.

14) Timothy J. Conlan, "Federalism and Policy Instability: Centralization and Decentralization in Contemporary American Federalism," Revue française de science politique (English Edition), Vol. 64, No. 2, The American State (2014), pp. 44.

15) Robertson, David, Federalism and the Making of America, New York, NY, 2012, p. 1.

16) Timothy J. Conlan, "Federalism and Policy Instability: Centralization and Decentralization in Contemporary American Federalism," Revue française de science politique (English Edition), Vol. 64, No. 2, The American State (2014), pp. 47.

17) Congressional Research Service, "Surface Transportation Funding and Programs Under the Fixing America's Surface Transportation Act (FAST Act; PL 114-94), February 18, 2016, Summary.

Funding for highways and transit specifically comes from two sources: the Highway Trust Fund (HTF) and general fund revenues. The HTF was created in 1956 and funded through dedicated motor-fuel (gas and diesel primarily) taxes based on the concept that users (beneficiaries) of the highways should pay for the benefit they received. Fuel taxes generated were sequestered in the HTF until authorized for use by legislative action. Authorizations have been periodic since 1956, sometimes lasting for five and six years, sometimes for one year or less (where Congress could not agree upon the terms and content of reauthorizing language). The federal gas tax was last increased in 1993 to 18.4 cents per gallon and has remained fixed since. Beginning in 2008, revenues were insufficient to cover outlays leaving Congress to either reduce outlays or increase revenues. Legislators chose the latter option and transferred general funds to the HTF to cover shortfalls. The Congressional Research Service suggests that Congress could not agree on either an increase in the gas tax or an alternative funding source for the HTF. Hence, they identified almost $70 billion in budgetary offsets to support the transfer of an equivalent amount from the general fund to the HTF to support five years of funding[18].

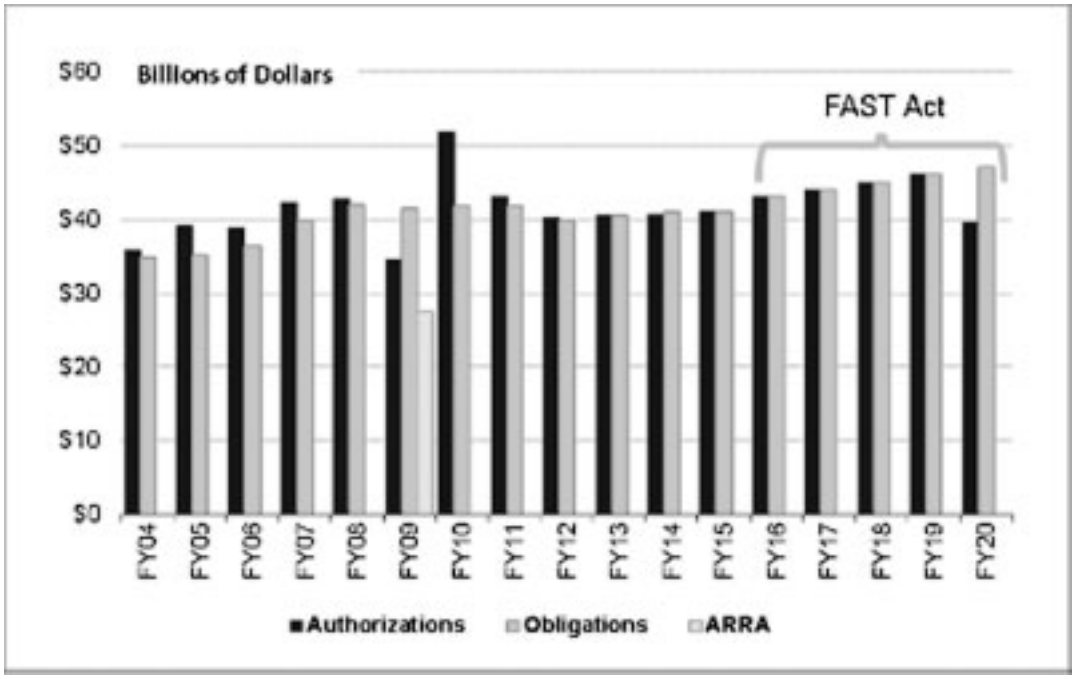
The Congressional Research Service summarized the provisions of the FAST Act as building upon the previous multiyear reauthorization bill, the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141, 2014). Among the FAST Act's major attributes are:

- $225 billion authorized from the HTF over five years, an average of $45 billion annually, for Federal Highway Administration (FHWA) programs;
- $61 billion authorized from the HTF and the general fund, an average of $12.2 billion per year, for Federal Transit Administration (FTA) programs;
- A major redirection of funding toward highway freight projects via a new formula program and a competitive grant program;
- Direct funding for the Transportation Infrastructure Finance and Innovation Act (TIFIA) program of $275 million, down from $1 billion in FY2015;
- Competitive grant component added to the Bus and Bus Facilities Program;
- Provisions on intercity passenger rail transportation included in a surface transportation act for the first time; and
- No project earmarks[19]."

18) Congressional Research Service, "Surface Transportation Funding and Programs Under the Fixing America's Surface Transportation Act (FAST Act; PL 114-94), February 18, 2016, Summary. See also The Eno Foundation, "Highway Trust Fund 101", June 2015, for an historical summary.

HTF funding since FY2004 is illustrated in the figure below which is drawn from FHWA data.

Figure 1. Federal-Aid Highway Funding: FY2004-FY2020



- Notes: Totals are unadjusted for inflation. The FY2009 authorization figure reflects rescission of $8.708 billion, and the FY2010 figure reflects the restoration of the rescission. Authorizations are contract authority. Obligations are annual FAHP obligation limitations plus exempt obligations. ARRA refers to funding under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). FY2020 authorization column reflects the $7.569 billion rescission scheduled for July 1, 2020, under Section 1438 of the FAST Act. Also see Federal Highway Administration, Financing Federal-Aid Highways, FHWA-PL-07-017, Washington, DC, March 2007, pp. 17-18, http://www.fhwa.dot.gov/reports/financingfederalaid/financing_highways.pdf. This report also summarizes the financing and programmatic changes under the FAST Act for both highways and transit. [20]

Logic of Motor Fuel Funding

The origin of the Highway Trust Fund in the Highway Revenue Act of 1956 (P.L. 84-627) created the first dedicated revenue source to fund highway infrastructure[21].

19) Congressional Research Service, "Surface Transportation Funding and Programs Under the Fixing America's Surface Transportation Act (FAST Act; PL 114-94), February 18, 2016, Summary.

20) Congressional Research Service, "Surface Transportation Funding and Programs Under the Fixing America's Surface Transportation Act (FAST Act; PL 114-94), February 18, 2016, p. 5.

21) "The 1956 Act created the budgetary mechanism to ensure that specific highway user excise taxes would be dedicated to the HTF, which is the primary funding stream for the federal highway program. The 1956 Act authorized the HTF through the end of fiscal year 1972. Legislation

As the Eno Foundation's Highway Finance 101 report explains, the availability of a dedicated funding source for highways has been of significant importance with every reauthorization since 1956[22]. The logic of the motor fuel tax was tied philosophically to the question of who should pay and what was fair:

> Arguments for and against utilizing general fund revenues to support surface transportation investments are diverse. The arguments in favor include:
> - Promoting better transportation infrastructure
> - Some benefits of improved infrastructure are distributed more broadly than to just users
> - Small changes in tax rates have the potential to raise huge additional amounts of revenue for infrastructure with minimal administrative cost.
>
> The principal argument against utilizing general revenues is that they do not promote efficient use of the system[23].

The 1993 increase in the national gas tax to 18.4 cents per gallon also dedicated five cents of the increase to funding public transit. To some advocates the public transit dedication, and some earlier diversions to reduce the national debt, broke the linkage with the pay for benefit received logic of motor fuel taxation since transit riders were not contributing any of the motor fuel tax funds. However, other analysts and advocates argued that the improvement of transit services would aid transit-dependent riders who lacked any adequate services and automobile users who would find less competition for the use of roads. This latter argument would grow increasingly compelling over time as cost increases in highway construction reduced public ability to build new, dedicated guide-ways and increasingly drove highway agencies to focus on

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has periodically extended the imposition of the taxes and their transfer to the HTF. MAP-21 extended the imposition of the user taxes and their transfer to the HTF through September 30, 2016.

The HTF is a financing mechanism established by Congress that accounts for transportation related excise taxes that are collected by the federal government and are hypothecated for expenditure on surface transportation. When the HTF was created, those revenues were dedicated only to highways, but in the 1970s Congress allowed some HTF revenues to fund transit. In 1983, the Mass Transit Account was created within the HTF. Since its creation, a share of the HTF's revenues have been credited directly to the Mass Transit Account. HTF Revenues that are not dedicated to the Mass Transit Account are colloquially referred to as the Highway Account.". See Eno Foundation, "Highway Finance 101", p. 4.

22) Eno Foundation, "Highway Finance 101", June 2015, p. 5

23) The Congressional Budget Office, "The Highway Trust Fund and the Treatment of Surface Transportation Programs in the Federal Budget", June 2014, p. 8-9.

operation and maintenance of existing facilities.

More importantly, however, this "break" in the logic of highway finance opened the door to new thinking in transportation finance. Five cents for transit made thinking about multimodal and intermodal projects for surface transportation potentially viable. It also facilitated a shift to thinking about the broader consequences and impacts of highways. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1993[24] authorized the first ever transfer of highway funds to build transit projects. It also put a premium on looking holistically at transportation networks and systems rather than individual projects and modes. This enabled linking and leveraging modal transport investments with overall transport system and urban area development. At the same time, the newly elected Clinton Administration was re-emphasizing the need to tackle urban issues through such means as empowerment zones and enterprise cities. ISTEA also shifted the federal role away from individual modal investments, and most importantly the Interstate Highway system, to linking clean air and environmental protection to the impacts of highway investments. The utilization of transit and other alternative transport investments would reduce sprawl and air pollution, help clean up brownfields, and alleviate other social ills in cities.

Empowerment Zones and Enterprise Communities

Originating in England in the 1970s, Empowerment Zones and Enterprise Communities became official US policy in the 1990s under President Clinton[25]. First authorized by statute in 1993 (the Omnibus Budget Reconciliation Act of 1993 (PL 103-66, August 10, 1993)), Congress has authorized designation of zones/communities three times (EZ-1993, 1997, 1999; EC 1993 and 1997; RC-2000)[26]. Each designation has reflected a different mix of tools utilized to facilitate local level activity in support of promoting economic development in low-income minority areas. "For example, the nine initial EZs each received tax incentives and grants of $100 million (urban) and $40 mil-

24) Intermodal Surface Transportation Efficiency Act of 1991 (PL 102-240) December 18. 1991.

25) Gonzalez, Oscar R. and Marples, "Donald J., Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p. 5.

26) Gonzalez, Oscar R. and Marples, "Donald J., Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p. 1.

lion (rural), whereas the 95 initial ECs each received tax benefits and smaller grants of $2.95 million for smaller urban counties and rural communities. Renewal Communities (RC) did not receive grants, but benefitted from wage credits, and tax investment incentives. Eligibility varied depending on levels of population, unemployment, and poverty[27]." As with the highway program the "tools of government" were indirect and intended to incentivize local governments and the private sector to invest in economic activity that would address the poverty of each designated area and support stronger economic activity.

While authority for the program appears to persist, funding for it does not. With the end of the Clinton Administration and Republican control of the Whitehouse under President Bush, interest in an urban agenda waned. The last funding for the program emerged in 2000 with the Renewal Community authorization and funding under the Consolidated Appropriations Act for Fiscal Year Ending September 2001 (PL 106-554). Funding was in the form of tax expenditures that incentivized businesses, through tax credits, to undertake economic expansion within the zone. "Renewal Communities encouraged local businesses to hire local residents, open branches, and expand their business activities in designated areas. The incentives included employment credits, a zero percent tax on capital gains, increased tax deductions on equipment purchases, accelerated real property depreciation, and other incentives, and programs such as bonds to finance school programs ...[28]"

Direct administration of the EZEC program was undertaken by four federal agencies: HUD, HHS, USDA and the IRS. Each has played a different role under the respective reauthorization that empowered them. The following Congressional Research Service chart portrays these differences[29]:

27) Gonzalez, Oscar R. and Marples, Donald J., "Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p. 1.

28) Gonzalez, Oscar R. and Marples, Donald J., "Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p. 8.

29) Gonzalez, Oscar R. and Marples, Donald J., "Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p. 4.

Table 2. Program Administration by Federal Agency

Federal Agency	Program	Benefits
HUD	EZ, EC	Economic Development Initiative and Section 108 benefits under Community Development Block Grants
USDA	EZ, EC	Social Services Block Grants for rural communities
HHS	EZ, EC	Social Services Block Grants for urban communities
IRS	RC	Tax Benefits

Source: http://www.hud.gov/offices/cpd/economicdevelopment/programs/rc/index.cfm.

Each agency issued regulatory guidance that provided direct interpretation of the authorizing legislation. Additionally, as my colleague Bruce McDowell and I pointed out in 2002, there was a very indirect effort on the part of the Clinton Administration to link, through internal directive, related programs, e.g., ISTEA planning and program funds with EZ/EC initiatives.

> One of the indirect consequences of the ISTEA changes was the awakening of interest in transportation funding on the part of non-transportation interest groups. The Clinton administration fostered an undeclared policy of quietly developing integrated urban programs. In this effort, DOT's surface-transportation programs became a beacon for urban-interests. U.S. DOT became a player in welfare-to-work issues, brownfield programs, empowerment zones and enterprise communities, housing, other similar activities. The DOT planning program requirements with their 16 enumerated factors, suggested that transportation could be utilized to serve a number of interrelated social policy goals, among these was air quality by virtue of its hard-wired connection to sanctions where clean-air standards were exceeded. Other perspectives were touted in addition, and some even called ISTEA the planners full employment act, suspecting that comprehensive metropolitan and planning was about to take a great leap forward[30].

HUD, which was the lead housing entity, felt that all of the ISTEA planning factors needed to be addressed. Indeed, glimmers of the defunct 701 planning program that HUD had formerly administered began to emerge in their program guidance. More importantly, however, the significant increase in transportation funding and the new flexibility of funding enticed many interests to 'lust' after these potential urban resources.

> The cumulative effect of these efforts was to arouse an entirely new cast of players, who clamored for access to the transportation planning process. Supported by stronger public

30) Edner, Sheldon and McDowell, Bruce, "Surface-Transportation Funding in a New Century: Assessing One Slice of the Federal Marble Cake," Publius, Vol 32, No 1, (Winter 2002), p. 21.

> involvement processes adopted by the FHWA and the FTA, metropolitan and statewide planning processes (newly required by ISTEA) focused on engaging a broader range of community interests. For MPOSs traditionally focused on physical facilities, the new players and funds from HHS posed new challenges. In the end, new money was not in great supply for social program interests, but expectations were raised very high by the promise of coordinating federal programs and leveraging multiple funding pots[31].

Professor Liebschutz attributed the character of the Clinton approach to a gradual shift through the 1980's of moving from the funding of places to people. In her 1995 article she examined the character of the new EZEC program and argued that the new democratic administration was moving toward an even more "indirect" set of tools in urban programs.

> The EZ/EC program incorporates federal leadership in setting national goals with "maximum feasible flexibility" for states and localities to implement them. The result is an intergovernmental approach to local revitalization that combines federal mandates for inclusive and comprehensive planning with decentralized interpretation and implementation[32].

While federal leadership would point the direction, the heavy lifting of accomplishing the tasks would fall to localities. They would do the planning and accomplish needed outcomes through a bottom-up effort engaging all segments of the community. One additional difference from the urban programs of the 1970s was the reengagement of the states, which had been ignored in earlier programs[33].

Peter Eisinger, in a 1998 piece, argued:

> The data indicate, however, that with a few exceptions, municipal programs did not experience the huge cuts in the middle Clinton years that they had suffered in the (1980s) ... Federal funding of programs that benefit cities could be described as approaching a steady state, with substantial changes only at the tails of the distribution. One implication for the cities is that although they do not stand to lose even more federal dollars, it is unlikely that a return to the patterns of the pre-Regan era will occur. Nothing in the patterns of federal aid in the 1990s suggests that city governments will be able to relax their habits of fiscal self-reliance[34].

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31) Edner, Sheldon and McDowell, Bruce, "Surface-Transportation Funding in a New Century: Assessing One Slice of the Federal Marble Cake," Publius, Vol 32, No 1, (Winter 2002), p. 22.

32) Liebschutz, Sarah F., "Empowerment Zones and Enterprise Communities: Reinventing Federalism for Distressed Communities", Publius, Vol. 25, No. 3, (Summer, 1995), p. 119.

33) Liebschutz, Sarah F., "Empowerment Zones and Enterprise Communities: Reinventing Federalism for Distressed Communities", Publius, Vol. 25, No. 3, (Summer, 1995), p. 120.

34) Eisinger, Peter, "City Politics in an Era of Federal Devolution," Urban Affairs Review, Vol 33, No 3, January 1998, p. 314.

Linking the Liebschutz and Eisinger articles suggests that the Clinton national urban agenda was a shift to a less direct and aggressive urban and social welfare effort and strategy. Put in the context of Salamon, the tools of federal action were becoming even more indirect and third party in character. Eisinger was predicting that there was actually consistency between the formal devolution efforts of the Reagan Administration and the Clinton Administration's in-direct urban agenda and that it would continue into the future. His prediction was not far off. With only the passage of the American Recovery and Reinvestment Act of 2009 (ARRA) (PL 111-5) as an exception, the first two decades of the 21st Century would not see much that would reflect a re-emerging interest in a new urban agenda. Although elements of ARRA would echo the urban grant programs of the 1970s, the Act's primary focus was the recession of 2008. There was no orchestrated social welfare or urban focus.

This indirect approach may have contributed to the ambiguity of the EZEC program accomplishments. The Congressional Research Service reviewed both federal and academic analyses of program accomplishments in its 2011 report. Their findings suggest that while EZEC tools produced activity in the zones and communities, distinguishing the effect of the program from general improvements in the economy was difficult at best[35]. The CRS attributed this in part to the relatively small size of the program.

Interim Assessment of the Highway/EZEC Linkage

In the decade of the 90s the highway and EZEC programs were part of President Clinton's attempt to resurrect the democratic urban policy agenda of the 1970s. Rather than a top down federal effort to tackle the issues facing metropolitan areas, the President's agenda with these two programs was more indirect. The surface transportation program reflected a major effort to retool the program away from supporting only autos toward a more multi-modal, environmentally sensitive program with substantial state and local flexibility in the utilization of grant funds. The EZEC program was even more indirect relying only partially on grants and more on tax incentives to encourage private sector investment in low-income minority communities. In both cases,

35) Gonzalez, Oscar R. and Marples, "Donald J., Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p. 16.

the programs reflected an emerging swing in America's federalism experience back toward decentralization, away from heavy-handed national leadership.

Efforts to integrate these program initiatives were made administratively and indirectly. In the absence of a direct legislative mandate, the EPA, HUD and DOT attempted to encourage state and local actors to link the planning and utilization of transportation funding and the EZEC, plus other available federal funds, to tackle social welfare and urban issues. Organized interests focused on improving conditions in urban areas sought to become part of the transportation decision process and to encourage the utilization of highway and transit funding to support urban revitalization efforts. These efforts did not make much progress under President Clinton. It took almost three years to implement the provisions of the ISTEA program, largely because the degree of change it appeared to bring to highway investments was not as significant as the advocates had hoped. Key elements of the program remained under the control of the states, which faced significant shortfalls in highway funding. While social and environmental groups sought to gain access to highway funding decision processes, they were confounded by its complexity and most importantly the long lead-time highway investments required before projects became a reality. Rather than a clear, strategic and well lead effort to retool federal third party efforts in these two areas, what emerged was far more chaotic and reflected what Professor Robertson has called the unresolved political conflicts in American federalism[36]. Indeed, what many social advocates hoped would be a golden opportunity to link investments across policy areas, became bogged down by resistance to change and the degree of effort needed to implement it.

> As we look at the state of American federalism, the pending reauthorization of the surface-transportation program presents a reflection of the increasingly complex political tug-of-war for control of the policy agenda. Traditional stakeholders, such as the American Association of State Highway and Transportation Officials and the American Public Transportation Association, find themselves struggling with policy initiatives from new aspirants to federal funding. It has not been uncommon for these organizations to lament the loss of their traditional "special relationship" with the FHWA and FTA. Special interest lobbying also has fueled the earmarking process as a means of building coalitions that can achieve passage of a bill (authorization or appropriation). Increasing earmarks, add-ons, special studies, and expanded eligibilities are symptomatic of both a growing diffu-

36) Robertson, David, Federalism and the Making of America, New York, NY, Routledge, 2012, chapter 1.

sion of the public purpose and federal role in the transportation policy agenda[37].

Indeed, as the 20th century drew to a close, the future of the surface transportation program was in great doubt. Future reauthorizations would prove difficult to achieve, in some cases requiring multiple continuing resolutions by Congress to keep funding available before reauthorization was finally achieved (see below). The reason for a continuing federal role in transportation would be called into question by the completion of the interstate highway network and an increasingly ambiguous rationale for a future national program. States facing increasingly difficult highway financing challenges would seek to make sure that the federal motor fuel taxes collected within their boundaries were fully returned to them in federal grant allocations. Questions would be raised about whether there was a continuing need for a federal program and whether the federal gas tax should be abandoned so that the states could re-impose it in their own tax revenue programs. Finally, the 21st century would usher in a new Administration with a new agenda that de-emphasized federal efforts to directly fund or administer solutions to social issues. One of the results of a changing federal policy agenda was to allow the EZEC program to fade into obscurity. Even more importantly, the new Republican regime would soon be immersed in a middle-east war that would demand major funding increases.

Surface Transportation and EZEC Funding in the 21st Century

Post-1956, major authorizations of the federal surface transportation program have occurred periodically. Since 1991, the reauthorizations have been:

1991 Intermodal Surface Transportation Efficiency Act (ISTEA)
1998 Transportation Efficiency Act for the 21st Century (TEA-21)
2005 Safe, Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
2012 Moving Ahead for Progress for the 21st Century (MAP 21)
2015 Fixing Americas Surface Transportation Act (FAST Act)

Both TEA-21 and SAFETEA-LU experienced delays in subsequent re-authorizations and had to be extended through congressional continuing resolutions (CRs): twice for TEA-21 (2003 to 2005) and nine times for SAFETEA-LU (2009 to 2014). The struggle for reauthorization was a product of several things:

37) Edner, Sheldon and McDowell, Bruce, "Surface-Transportation Funding in a New Century: Assessing One Slice of the Federal Marble Cake," Publius, Vol 32, No 1, (Winter 2002), p. 24.

1) Partisan politics between Congress and the Executive
2) A war in Iraq and Afghanistan which consumed resources
3) Anti-tax increase sentiment for the motor fuel tax
4) Political uncertainty as to the need for a federal role and program
5) Beginning in late 2007, but clearly evident in 2008, an economic recession.

In 2009, driven by the need to restart the economy, the American Recovery and Reinvestment Act (ARRA) provided a supplementary transportation authorization of $40 billion in funding for both FY2009 and 2010[38]. This supplemental effort took pressure off of future reauthorizations, even though it did not tackle the emerging question of a permanent revenue source for the HTF.

In 2008, for the first time, expenditures overwhelmed the HTF exceeding available revenues and forcing Congress to transfer general revenues to the trust fund to balance the account.

> In the past 10 years, outlays from the Highway Trust Fund have exceeded revenues by more than $52 billion, and outlays will exceed revenues by an estimated $167 billion over the 2015-2024 period if obligations from the fund continue at the 2014 rate (with adjustments for future inflation) and the expiring taxes on fuels and heavy vehicles are extended at their current rates. Since 2008, lawmakers have addressed those shortfalls by transferring $54 billion, mostly from the general fund of the Treasury, to the Highway Trust Fund. Under current law, the trust fund cannot incur negative balances, nor can it borrow to cover unmet obligations. To match the trust fund's resources with it's spending, lawmakers could choose to authorize additional transfers, reduce spending for surface transportation programs, boost the fund's revenues, or adopt some combination of those approaches[39].

The Congressional Budget Office estimated that to fund the already committed obligations against the HTF would require raising motor fuel taxes 10-15 cents per gallon beginning in FY2015 (after adjusting for inflation this would bring the purchasing power to the level of 1993)[40]. To keep the HTF at the average level of funding prior to 2015

38) The American Recovery and Reinvestment Act of 2009, Title XVI, Section 1600. See Edner, Sheldon and Matthew J. Critchfield, "The Rush to Pave: Adapting the Federally Aided Highway Network to ARRA, in Conlan, Timothy J., et. al., Governing Under Stress: The Implementation of Obama's Economic Stimulus Program, Washington, DC Georgetown University Press, 2016, Chapter 4 for a discussion of ARRA's highway provisions implementation.

39) Congressional Budget Office, "The Highway Trust Fund and the Treatment of Surface Transportation Programs in the Federal Budget", June 2014, p. 1.

40) Congressional Budget Office, "The Highway Trust Fund and the Treatment of Surface Transportation Programs in the Federal Budget", June 2014, p. 8.

would require $18 billion transferred to the HTF (to cover the then estimated shortfall and leave a balance of $4 billion in the highway account and $1 billion in the transit account). In FY2016 an additional $13 billion would be needed, increasing gradually to $18 billion by 2024 to maintain spending adjusted for inflation[41].

While the EZEC program retained its authorization into the 21st century, the practical effectiveness of the program ended with the beginning of the Bush presidency in 2001. No new authorizations or appropriations were made, although minor extensions of the law were authorized to liquidate funding through 2009. While Congress continued to like the program, the competition for funds was stiff and President Bush was not an advocate. Consequently, the program has effectively come to a quiet end. Since the link to highway funding was informal at best and there were no direct requirements in the surface transportation program to target zones or communities, the EZEC effort came to an end in 2001 with only the expenditure of its already appropriated funding or authorized tax credits continuing[42].

Could a Revived EZEC Program Link to the Highway Program in the Future

The irony of the early 21st Century for highway finance lies in the contrast between the growing ambiguity of the need for a specific national highway program and the emergence of a more general link between the national economy and adequate investment in infrastructure. At the same time, the pay for benefit revenue stream of highways is failing as a productive revenue source, leaving all levels of government searching for an alternate means to pay for highways specifically and infrastructure generally to support the economy. A coincidental impact may be the breakdown in the isolating modal policy silos of highways, transit, rail, air, etc. broadening to focus on a more integrated approach to infrastructure produced by shifting technology and travel behavior (VMT reduction/stabilization, settlement patterns and Millennials, etc.).

The challenge of adequate infrastructure investment reflects a broader perspective than more traditional investments by mode. Socially and politically we are beginning to

41) Congressional Budget Office, "The Highway Trust Fund and the Treatment of Surface Transportation Programs in the Federal Budget", June 2014, p. 8.

42) Gonzalez, Oscar R. and Marples, Donald J., "Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis", Congressional Research Service, #R41639, February 14, 2011, p 1.

think beyond a single dominant mode to the overall performance of our systems generally. The growing recognition, that unlike the mid-20th century when the auto was the dominant driver of transport, we are beginning to focus on the overall systemic productivity of infrastructure.

> "In a growing economy," a Congressional Research Service paper notes, "infrastructure should hold its own, but other data show that that has not been the case. While total government spending on infrastructure adjusted for inflation increased from $92 billion in 1960 to $161 billion in 2007, it actually declined from $1.17 per capita in 1960 to $0.85 per capita in 2007." According to one expert, "From 1950 to 1970 we devoted 3 per-cent of GDP to spending on infrastructure ... Since 1980 we have been spending well less than 2 percent, resulting in a huge accumulated shortfall of needed investment." Just since 2002, the Congressional Budget Office (CBO) estimates, inflation-adjusted spending for highways at all levels of the federal system has fallen by 19 percent.
>
> The problem runs from top to bottom. Political wrangling and dysfunction mean that the federal government has ceased to be a reliable partner and an effective leader. Furthermore, the rise in federal interest payments, the increase in entitlement spending, and the decline in traditional sources of government revenue, such as the gasoline tax, mean that competition for limited resources is fierce[43]."

In a more comprehensive way, the Tax Foundation observed:

> This shortfall renders the United States less competitive in the global market. The World Economic Forum's 2014-15 Global Competitiveness Report ranks the overall quality of U.S. infrastructure 12th in the world, down from seventh place just eight years ago. We rank poorly in every category, with especially low marks for the quality of our roads, ports, railroads, and-most precipitously-air transport infrastructure and electricity supply. As the Urban Land Institute succinctly put it: "To be competitive in today's world, it is imperative to invest in infrastructure[44]."

Galston and Puentes identified four distinct benefits to reducing the infrastructure financing shortfall:

1. Boosting the creation of jobs, especially for middle income and less well educated workers,
2. Enhancing economic growth while reducing business overhead through transport efficiency,
3. Improving urban connectivity between people, jobs, goods, and ideas,

43) William A. Galston and Robert J. Puentes, "Infrastructure Issues and Options for the Trump Administration" Chapter 8 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 90-91.

44) William A. Galston and Robert J. Puentes, "Infrastructure Issues and Options for the Trump Administration" Chapter 8 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 92.

4. Reduce greenhouse gas emissions[45].

In the 2016 Presidential election, one of President Trump's campaign themes was the need for a major infrastructure investment program. At the end of 2017 that idea appeared to have stalled politically.

The Eno Foundation argued in 2014:

> Beyond these funding challenges, fundamental problems also remain in the way the U. S. government makes transportation investment decisions. Many of these well-documented problems are rooted in the relationship between the way funds are raised and the way they are spent. A tendency to approach transportation planning and investment in terms of modal divisions (e. g., public transit vs. highways) and tensions over how much federal funding is returned to states relative to how much they pay into the HTF in gas tax revenues ... are two examples of systemic problems with the existing surface transportation program that are directly related to the way the program is funded. Instead of allocating funds to states or programs that target a particular federal interest or goal, federal funds are distributed to states and transit authorities by formula and are designated for use on specific modes. At the same time, the donor-donee issue leads to persistent battles among members of Congress over whether their states are receiving a "fair" share of HTF funding relative to their gas tax contributions. These challenges have historically overshadowed substantive arguments over policy and hindered the tying of federal funds to national goals or performance measures."
>
> Even though the current structure is not working, Congress and stakeholders have little incentive to change it. In fact, many groups have worked tirelessly to maintain the status quo"[46].

The Foundation's observation is a realistic recognition that deeply entrenched political interests benefit from the status quo despite changing circumstances that indicate a need to change. The inertia of this status quo protectionism is very high and is often produced by shortsighted, self-interested thinking that fails to acknowledge factual changes. An example was pointed out in a recent Congressional Budget Office analysis:

> Spending on highways does not correspond very well with how the roads are used and valued. Almost all federal spending for highways occurs through formula grants to state and local governments, and historically, less than half of the funding has been tied directly to the amount of travel on the roads. Although data from the past 20 years show

45) William A. Galston and Robert J. Puentes, "Infrastructure Issues and Options for the Trump Administration" Chapter 8 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 92.

46) Eno Foundation, "How We Pay for Transportation: The Life and Death of the Highway Trust Fund", December, 2014, Executive Summary.

> that, on average, pavement quality is improving, fewer bridges have deficiencies, and highway fatalities occur less frequently, those averages mask differences between urban and rural areas and between Interstate highways and other roads, differences that sometimes are not reflected in spending[47].

In other words, the political realities of crafting surface transportation legislation readily adjust to the need to balance out resource allocations among interests independent of where the "needs" are.

A broader factual challenge to the traditional politics of highway finance has emerged from America's changing travel behavior:

> Highway use has grown substantially over the past 30 years ... Vehicle-miles traveled have roughly doubled, whereas the number of lane-miles has increased only slightly. In recent years, however, the growth of travel abated, at least in part because of the recent recession and slow recovery and perhaps because of the aging population and lower rates of driving among younger drivers. In terms of vehicle-miles traveled per person, highway use in 2015 was comparable with what it was in 2000. The shares of highway use for moving people and for moving goods have remained fairly constant over the past three decades, although truck traffic has grown slightly faster than total vehicle-miles traveled[48].

Robert Reid made an even more compelling case for the change in travel:

> First, the wear and tear on the nation's aging roads and bridges have definitely increased as the number of miles driven increased, but the gas tax rate remained static, thus failing to keep pace with the need for maintenance and capacity improvements. And while the number of vehicle miles has increased steadily, not just over the past 20 years but also since the end of World War II, that increase has apparently come to an end. Vehicle miles peaked in 2007, explained *A New Direction,* which pointed out that "Americans drive no more miles today than we did in 2004 and no more miles per person than we did in 1996." Thus the steady and seemingly automatic increases in vehicle miles that each year added revenue to the trust fund despite the lack of inflation indexing can no longer be counted on. And several factors could keep vehicle miles below 2007 levels until at least 2040, the report explained. These include the recent faltering economy, high unemployment, and a decline in per capita driving by the so-called Millennial Generation-those born between 1983 and 2000－as well as shifting attitudes toward transportation that make Millennials "less reliant on driving" than previous generations, the report noted[49].

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47) Congressional Budget Office, "Approaches to Making Federal Highway Spending More Productive", February 2016, p. 1.

48) Congressional Budget Office, "Approaches to Making Federal Highway Spending More Productive", February 2016, p. 9.

49) Robert L. Reid, "The Federal Gas Tax: How much, How much Longer?", Civil Engineering, February 2014, p. 55-56.

The implications of Reid's argument are two fold: 1) the need for transportation investment has shifted to maintenance and repair away from adding to highway system capacity and 2) reduced VMT threatens the pay-for-benefit logic of highway finance simply through falling demand which could further reduce revenues. The Congressional Budget Office sees this shift as having a different economic impact:

> Investment in highways has made a significant positive contribution to economic growth. Studies of the economic returns from public investment in highways have found that the construction of the Interstate System was associated with sizable gains in productivity, especially for industries that use the road system relatively intensively. However, subsequent capital spending on roads has had a much smaller impact. As both the scope and age of the highway system in the United States have increased, greater attention has been given to the potential benefits from repairing and rehabilitating existing roads[50].

An additional logical contradiction for highway policy emerges in the locus of where needs are greater and costs are higher:

> Primary goals of highway spending are to make transportation less expensive, faster, more reliable, and safer. The success of the highway system in meeting those goals depends, of course, on how the system is used. Highway use is concentrated on the Interstates and in urban areas, and highway performance-particularly in terms of traffic congestion, pavement quality, and bridge quality-is generally poorer on those roads (although they are often safer). However, spending per vehicle-mile traveled is typically greater for highways in rural areas[51].

To summarize the status of emerging highway policy and needs, the requirements for highway investment, specifically, are changing as a product of stabilizing (perhaps declining) demand and shifting from new system development to operation and maintenance. As a consequence, the impacts of infrastructure are also changing, becoming less economically impactful. Relatively lower levels of investment are needed to ensure the smooth operation of the existing system. In this context, highway transport investment becomes part of the broader investment approach to all infrastructure and less directly compelling as a single investment strategy. Hence, while investments, as Galston and Puentes argued above, can make improvements to the economy they are not as directly beneficial to the maintenance of mobility and access. To some extent this further explains why Congress has found it hard to enact new highway legislation in

50) Congressional Budget Office, "Approaches to Making Federal Highway Spending More Productive" February 2016, p. 14.

51) Congressional Budget Office, "Approaches to Making Federal Highway Spending More Productive", February 2016, p. 9.

the past 15 years and why it has been hard to increase the gas tax.

The Gas Tax and Pay for Benefit Received

The current 18.4 cents per gallon federal motor fuel tax has remained constant since 1993. In 2014 the Congressional Budget Office estimated that if the tax had been adjusted to increase with inflation, the current tax would be 30 cents per gallon higher[52]. There has been little incentive to increase this tax in the past twenty-four years for a couple of reasons. One has been the general distaste for any form of tax increase. President Clinton was in office for the last increase and had to fight very hard to get it. President Bush campaigned against tax increases and for reduced federal spending. Moreover, his middle-east initiatives demanded a significant portion of any new resources and spending. President Obama came into office at the height of the recession and tax increases were perceived as detrimental to economic recovery.

Another explanation for not increasing the fuels taxes rests with the productivity of the tax. Kenneth Schlieth, in a report on the implications of electric vehicles for gas revenues, argues that:

> Results for electric vehicle (EV) market penetration have shown increasing sales, but EVs have resulted in very little impact on gas tax revenues. As of August 2015, the lost gas tax revenue from EV sales of 365,000 vehicles is shown to be $71.9 million or a loss of 0.23% Current assessment is that in 15 to 25 years EVs could make an impact on revenue. Policies and programs that aim to increase revenue streams for highway funding as a result of EVs are under discussion in some states. Options being considered are fee-based travel, increased direct taxes and surcharges on vehicle purchases
>
> The report also examines the implications and needs in HTF funding. According to numerous references, the HTF has experienced a continuing shortfall that is attributed to three major factors; more fuel efficient internal combustion engine (ICE) vehicles, the fact that federal gas rates has not risen since 1993 and the increased cost in highway construction and repairs[53].

Schlieth also observes that if Congress and the President choose to retain the motor fuels tax as the primary national strategy that both federal and state governments will

52) Congressional Budget Office, "The Highway Trust Fund and the Treatment of Surface Transportation Programs in the Federal Budget", June 2014, p. 8. The diesel fuel tax which is currently 24.4 centers per gallon would have increased to 40 cents.

53) Kevin Schleith, Implications of Electric Vehicles on Gasoline Tax Revenues" Electric Vehicle Transportation Center, Research and Innovative Technology Administration, US DOT, December 2015, p. 2.

"…need to create and implement transportation revenue generation strategies that may not rely entirely on the gasoline tax[54]." Another negative facing the national financing strategy is just the huge increase in costs associated with highway construction and repair; almost 63 percent between 1993 and 2013[55].

The issue is just as complex at the state and local level. Prior to the passage of the FAST Act, Federal annual spending for highway capital was approximately $44 billion with state/local capital funding at about $48 billion. Operation and maintenance expenditures by state and local governments were at $70 billion versus $3 billion for the federal government[56]. In 2016 AASHTO did an analysis of state and local governance and highway finance. When looking at the state level the report concluded:

> When state experts were asked in the survey research for this report to identify their greatest challenges to effective transportation policy and planning, a single theme dominated their responses: funding constraints. For years, states have struggled with chronic gaps between transportation revenues and investment needs for reasons that include aging infrastructure, cost inflation, and declining gas tax revenues. In particular, survey respondents identified uncertainties in Federal funding, especially past the end of the FAST Act, shortfalls in state transportation revenues, and the challenges of ensuring that limited resources are allocated efficiently, wisely, and well[57]."

The AASHTO report suggests that the experience at the local level is no different than the states in exploring new revenue sources. However, that said, the reality is that financing highway infrastructure through all levels of government and the private sector is a common experience in terms of challenge:

> Unfortunately, states, cities, and the private sector face many of the same problems, as does the federal government in filling that gap. For one, they all face political challenges in raising revenues for transportation. While these challenges might be diminished as needs grow and the federal role stagnates, they will still be challenging to overcome. For example, a recent study by the Eno Center for Transportation and the Bipartisan Policy Center estimates that states would be able to replace only 60% of their highway

54) Kevin Schleith, Implications of Electric Vehicles on Gasoline Tax Revenues" Electric Vehicle Transportation Center, Research and Innovative Technology Administration, US DOT, December 2015, p. 2.

55) Reid, Robert, "The Federal Gas Tax: How Much, How much longer?", Civil Engineering, February 2014, p. 55.

56) Congressional Budget Office, "Approaches to Making Federal Highway Spending More Productive" February 2016, p. 6.

57) AASHTO, "Transportation Governance and Finance: 50 State Review of State Legislatures and Departments of Transportation", November 2016, p. 48.

funding if federal funding were cut by 35%[58]. "

Put another way, eliminating the federal role in transportation finance would not lead to state and local governments generating revenues to replace federal spending completely and the total government spending would be reduced.

Looking for a New Paradigm in Highway Programs and Finance

As I observed earlier, the ARRA was a 2008 alternative to a full re-authorization of the surface transportation program. For FY2009 and 2010, ARRA more than doubled the available funding for highways and transit. However, it was neither a national recommitment to funding infrastructure for the long haul or an answer to the funding dilemma.

> In the face of these challenges, the past eight years have proved that Washington can still advance infrastructure ideas, but many efforts have failed to move the dial enough. The period began with the American Recovery and Reinvestment Act of 2009 (ARRA), an enormous public works program that at times had questionable project selection criteria[59].

MAP-21 started a process of refining the highway and transit program structure and administrative process:

> Historically, FHWA and Federal Transit Administration (FTA) delivered most of the federal surface transportation funds to state DOTs, MPOs, and transit operators via formulas specified by statute for each program. These formulas have always been a major issue during the authorization process, with the question of how much each state will receive back from the funds that its residents pay into the HTF, often characterized as "equity," being especially controversial. In MAP-21, Congress took a new approach for formula funding for programs administered by FHWA, while maintaining "equity" among the states: 1) it authorized nearly $38 billion per year for six core programs, 2) it divided those funds among the states based on FY2012 levels, guaranteeing a return of at least 95 percent of the funds that each contributed into the HTF, and 3) it distributed those funds to states by formula for all programs. In addition, MAP-21 established general, qualitative performance goals for federal highway programs in the areas of safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays.

58) Joshua Schrank and Paul Lewis, "Federal Role in State Transportation Finance", Transportation Research Record: Journal of the Transportation Research Board, No. 2345, Transportation Research Board of the National Academies, Washington, D. C., 2013, pp. 10.

59) Tomer, Adie and Joseph Kane, "Short-and Long-Term Strategies to Renew American Infrastructure", Chapter 9 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 101.

> MAP-21 also mandated a process by which the US DOT, state DOTs, and MPOs establish specific performance measures and targets in most of the specified highway goal areas[60]."

These changes created greater flexibility for state and local decision-makers and shifted the funding focus from projects to improvements to system performance. In reducing the number of funding stovepipes, the Act continued a trend begun in 1993 with ISTEA's reduction in program categories (a secondary road category was eliminated) and introduction of funding transfers:

> Until MAP-21, most of the funding was authorized in programmatic "stovepipes" framed around the different transportation modes. MAP - 21 still has substantial modal stovepipes, but has fewer sub-modal stovepipes because of the elimination or defunding of 12 highway programs, with funding consolidated into six "core" areas for highways, plus eight other special-purpose programs (for ferries, "Transportation Alternatives," work-zone safety, etc.). Program recipients (state departments of transportation (DOTs), Metropolitan Planning Organizations (MPOs), and transit operators), can transfer much of the funding from highways to transit and vice-versa, and also between programs, albeit with conditions. Much of the funding may also be used for ferryboats, bicycling, carpooling, vanpooling, and pedestrian travel-and certain programs may be used for funding intercity passenger and freight rail, barges, and airport access[61]."

The consequence of these changes was to allow decision makers to focus on the overall performance of the system rather than finding projects that could be funded through authorized funding pots. The likelihood is that important projects will be more likely to be funded rather than projects, the only virtue of which was that they were eligible. The changes are also consistent with the increased reliance on general funds to support infrastructure:

> The gasoline tax is an indirect user fee and at its current level, which is low relative to the price fluctuations consumers regularly see at the gas pump, has virtually no effect on demand. Moreover, since 1991, Congress has repeatedly violated the principle that revenue collections through the gas tax should define an overall floor and ceiling for federal transportation spending (in the sense that no more and no less than the full amount of cumulative motor fuel and truck tax proceeds should be directed to transportation projects). Congress first violated this principle by dedicating a portion of gas tax revenues to deficit reduction in the 1990s and, then more recently, by bailing out the HTF with infusions from the General Fund. Finally, in the context of a highly complex and in-

60) Nigro, Nick and Cindy Burbank, "A Primer on Federal Surface Transportation Reauthorization and the Highway Trust Fund", Center for Climate Energy Solutions, January, 2014, p. 4.

61) Nigro, Nick and Cindy Burbank, "A Primer on Federal Surface Transportation Reauthorization and the Highway Trust Fund", Center for Climate Energy Solutions, January, 2014, p. 3-4.

terdependent transportation network, efforts to promote equity in the distribution of HTF funding have encouraged a fragmented approach to transportation investment in which the focus is on modal divisions and geographic formulas rather than on funding the projects that would most effectively advance national transportation objectives[62]."

The biggest contributions of the FAST Act were to retain the program changes of MAP-21 and ensure funding for a five-year period. However, the Act did not increase the gas tax or resolve the long term funding questions, relying instead on general fund transfers to the HTF funded by budgetary savings from non-transportation programs.

In December 2015, Congress approved the first long-term transportation bill in nearly a decade, dubbed Fixing America's Surface Transportation (FAST) Act, which provides more certainty for local spending but also falls short in advancing multimodal planning efforts and developing durable sources of funding. Other federal efforts, including DOT's Ladders of Opportunity initiative, the Environmental Protection Agency's Clean Water rule, and the Federal Communications Commission's expanded Lifeline program, have helped improve economic opportunity, environmental sustainability, and digital connectivity, but more work remains[63].

Future Options for the Surface Transportation Program and HTF

There is no clarity regarding the future of the surface transportation program. The current law provides a renewed federal commitment to funding infrastructure but not a resolution of how to do it. The question of adequate financing at all levels of government remains. At the most general level the options are relatively clear:

Accordingly, the findings of this study highlights three potential solutions:

1. Adjust spending to match revenues,
2. Adopt a hybrid funding approach that relies on both general funds and gas tax revenues, or
3. Eliminate the HTF and pay for surface transportation exclusively through the General Fund[64]."

Reducing spending to match current revenues is inadequate at all levels of government. Funding everything through general funds may be premature fiscally and politically (especially given the Republican tax plan at the end of 2017). The Congressional

62) Eno Foundation, "How We Pay for Transportation: The Life and Death of the Highway Trust Fund", December, 2014, Executive Summary.

63) Tomer, Adie and Joseph Kane, "Short-and Long-Term Strategies to Renew American Infrastructure", Chapter 9 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 101.

64) Eno Foundation, How We Pay for Transportation: The Life and Death of the Highway Trust Fund", December, 2014, Executive Summary.

Research Service followed the same general logic, with some refinements, in its recent report:

> This report begins with a discussion of the problems associated with the trust fund financing system (which supports both federal highway and public transportation programs) and then explores possible options for financing surface transportation infrastructure. Among the key points:
>
> - Raising motor fuel taxes could provide the highway trust fund with sufficient revenue to fully fund the program in the near term, but it may not be a viable long-term solution due to expected future declines in fuel consumption.
> - Replacing current motor fuel taxes with a fuel sales tax or a fee based on vehicle miles traveled (VMT) raise a variety of financial and administrative concerns.
> - The political difficulty of adequately financing the highway trust fund could lead Congress to consider the desirability of changes to maintain the trust fund system or eliminating it altogether. Such changes might involve a reallocation of responsibilities and obligations among federal, state, and local governments.
> - Interest in improving transportation infrastructure with private and non-grant funding sources, such as tolls, public-private partnerships (PPPs), and federal loan programs is increasing, but many projects may not be well suited to alternative financing[65]."

There are still some administrative tweaks available to Congress that will ease the pressure on the states:

> In view of the issues associated with federal funding for state surface transportation programs, it is worth considering states' ability to act on their own to raise revenue. The federal government gives states virtually unlimited freedom to impose or raise fuel and vehicle excise taxes, except that the federal government has historically limited states' ability to raise revenue by strictly prohibiting (a) tolling of Interstate and other federal aid highways besides toll roads that have existed since the original Interstate system and (b) commercialization of Interstate rest areas. MAP-21 loosened the historic restrictions on tolling, however, by allowing states to toll newly constructed interstate highways, but only as long as the affected facility has the same number of toll-free lanes after construction as before along with other conditions. Since many states are not expanding highway capacity, this limitation places a significant restraint on states, which need sizable revenue increases just to reconstruct aging highways and bridges. MAP-21 also added a requirement that all federal-aid highway tolling provide for interoperability of electronic toll collection by October 1, 2016[66]."

Three approaches that the Congress could consider would make highway spending more

65) Robert S. Kirk and William J. Mallett, "Funding and Financing Highways and Public Transportation," Congressional Research Service, September 23, 2013, Summary.

66) Nigro, Nick and Cindy Burbank, "A Primer on Federal Surface Transportation Reauthorization and the Highway Trust Fund", Center for Climate Energy Solutions, January, 2014, p. 10.

productive：

1. Have the federal government－or allow states or private businesses to－charge drivers directly for their use of roads more often, including charging them more for using roads when traffic is more congested；
2. Allocate funds to states on the basis of the benefits and costs of specific programs and projects；and
3. Link spending more closely to performance measures－such as ones for traffic congestion or road quality－by providing additional funds to states that meet standards or penalizing states that do not[67]．"

Further it is not clear whether these current "experiments" would add substantially to the revenues available to state and local governments, both in terms of revenue productivity and the political challenges of adopting them broadly[68]．

Congestion pricing, public private partnerships, pollution taxes and other elements of transportation finance can all be a part of the funding picture. But none, alone, is the big picture solution to the financing question：

> The next administration and Congress should adopt a two-pronged infra-structure strategy to (1) advance immediate proposals that build on existing reform efforts and (2) begin to develop new platforms for long-term policy change. Federal leaders are at a crucial inflection point to advance reforms across a variety of infrastructure sectors and geographic scales, where they should continue to draw inspiration from regional innovations and best practices[69]．"

> Looking further down the road, many who support a higher gas tax today also concede that the gas tax itself will eventually have to be replaced by a better-designed and more modern method of financing the nation's surface transportation programs. ASCE, for example, has long supported an increase in the gas tax. However, the more important goal "is to provide a reliable, long-term source of funding to the Highway Trust Fund, and there is a list of many different options available to do that," ... Among those options, the most frequently discussed idea involves a switch from the current gas tax to a tax or fee based on the number of miles a vehicle travels--a VMT tax so to speak[70]．"

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67) Congressional Budget Office, "Approaches to Making Federal Highway Spending More Productive" February 2016, p. 1.

68) Schrank, Joshua and Paul Lewis, "Federal Role in State Transportation Finance", Transportation Research Record：Journal of the Transportation Research Board, No. 2345, Transportation Research Board of the National Academies, Washington, D. C., 2013, pp. 10.

69) Adie Tomer and Joseph Kane, "Short-and Long-Term Strategies to Renew American Infrastructure" Chapter 9 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 101-102.

70) Robert L. Reid, "The Federal Gas Tax：How much, How much Longer?", Civil Engineering, February 2014, p. 58.

Even broader strategies have been proposed:

> Instead, a comprehensive approach should balance greater public investment with policy reforms. Economic, social, and environmental challenges vary considerably from place to place, meaning the country can no longer afford to deploy federal spending programs that aim for geographic equity. One approach laid out here attempts to address these core demands, using federal investments and regulations to empower metropolitan areas and states to invest in improved transportation access, cleaner water, modern data networks, and more well-paying jobs. These short-and long-term proposals will ensure the country does not miss the opportunity to build the assets that will deliver a stronger economy for future generations[71]."
>
> As policymakers consider both short-and long-term solutions for funding surface transportation infrastructure, four key principles can help them evaluate various approaches and address the needs of all levels of government:
>
> 1. **Falling revenue forces hard choices.** Transportation investment challenges will not be easily solved .....
> 2. **Financing is not funding.** Financing measures, such as municipal bond issuances, infrastructure banks, and public-private partnerships, play a prominent role in transportation policy discussions. But while financing is a vital tool for building transportation infrastructure, it is not, by itself, a funding solution. Ultimately, borrowed funds need to be repaid by using taxes, tolls, fees, or other revenue sources.
> 3. **Rethink the roles of all levels of government.** The purpose and role of federal transportation funding have not been clearly determined since the completion of the interstate highway system in the early 1990s. Any reassessment of the federal role should take into account the fiscal conditions of all levels of government and also consider how states and localities might change the way they fund surface transportation infrastructure to best complement a revised federal approach.
> 4. **Partnership is essential to confronting challenges.** The various levels of government should communicate and operate as partners. States and localities need to know what to expect from the federal government; in turn, the federal government needs to understand the challenges other jurisdictions face and how policies and procedures might affect them[72].
>
> Markets alone can't come close to achieving these goals. Infrastructure requires fundamental choices on land use. In the twentieth century, for example, conscious decisions by mayors, governors, and Congress (backed, of course, by the intense lobbying of big oil and the auto industry) opted to use urban land for roads and highways rather than trolleys and light rail. Now we need conscious decisions to opt out of carbon-based ener-

71) Tomer, Adie and Joseph Kane, "Short-and Long-Term Strategies to Renew American Infrastructure" Chapter 9 in Michael O. Hanlon, Brookings Big Ideas for America, Brookings Institution Press, 2017, p. 108.

72) The Pew Charitable Trusts, "Intergovernmental Challenges in Surface Transportation Funding" September 2014, p. 2.

gy and transport systems in favor of clean energy and electrification[73]. ”

There is little doubt that the challenges of fixing the transportation infrastructure system are unlikely to be resolved by short-term fixes or simple tax increases. The policy questions above and beyond adequate financing suggest major revisions to our social and economic setting and priorities. Further, as we contemplated emerging technologies such as driverless autos and new forms of propulsion technology we may not have the concepts to determine who or what should pay and how much.

The Implications for Linking Transportation Finance and Social Welfare Programs

The simplest conclusion is that with the disappearance of the EZEC program it would be almost impossible to forge a link to the surface transportation program. If Congress were to reauthorize it and the President to champion it, there would be a chance but its time seems to have passed. Inconclusive accomplishments are not likely to generate champions and under the current Trump Presidency and Republican Congress, the likelihood is that social welfare programs are more likely to be reduced.

Just as important is the uncertain future of the surface transportation program's funding. Without a clear and productive revenue source, transportation will have to contend with other programs for funding. The transportation community is unlikely to look favorably on sharing its portion of general funds or a hard won new, dedicated funding stream. While multi-modalism and the successes of linking transportation to other urban issues may attract some interested advocates, the transportation stakeholders are more likely to protect what they have and hope to find new resources.

Despite President Trump's campaign for a new infrastructure program effort, there is little indication yet as what it will be. Proposals have surfaced to fund a new $200 billion private investment effort but that amount of funding is far less than what is needed. More to the point, experience to date with public private investments has been less than stellar. There have been some successes but nothing on a large scale. Further, there have been many problems with private financing.

Another challenge is emerging from our evolving understanding of what our transportation needs and future will be. Maintaining what we have more effectively is very

73) Sachs, Jeffrey, Building the New American Economy: Smart, Fair and Sustainable, Columbia University Press, 2017, p. 30-31.

different from building substantial new infrastructure projects. The benefits are less tangible and more difficult to ascertain. Political support is harder to find. Add to the mix, emerging new technologies such as driverless vehicles and the issue of who benefits may be even more intangible.

If we step back to a more general level and look at the use of grants as a delivery tool, we can offer the following thoughts.

1. Indirect efforts such as those taken by the Clinton Administration in the 1990s to link programs and their funding sources appear to be less successful and enduring. Legislative and/or administrative mandates to link program implementation together are more likely to produce results that endure.
2. Creating stronger goal congruence across stakeholder groups in apparently related but disparate programs can create stronger advocacy for linking program implementation. The social welfare and urban constituencies for EZEC saw the transportation resources as new tools for their agenda. The transportation stakeholders saw the EZEC constituency as pirates attempting to steal already inadequate resources. In the absence of shared goals, administrative program linkages will be relatively frail.
3. With programs that face an uncertain future, particularly with regard to funding but also longevity, advocates are likely to focus first on preservation and secondarily on attempts to leverage other program resources. At a minimum, the constant process of attempting to ensure the future will consume tremendous amounts of political and financial resources.
4. It appears the increasing hyper–partisanship of America is creating barriers to cross policy integration efforts. Compromise and finding common points of interest are disappearing. Additionally, consistent policy agendas and political leadership are also in scarce supply.
5. Finally, the changing socio–economic forces affecting contemporary society are shifting the definition of the policy problems we face. Constituencies are struggling to maintain their current political position and status in the face of emerging new issues and their constituencies. America remains a pluralistic society with a fragmented political system that struggles to find political consensus. It is often easier to oppose others than find consensus around issues.

The potential for the broad gauge linking of social welfare and transportation in Ameri-

ca is small at best and probably unlikely in the near future. America's reliance on third party delivery systems diffuses political power and rewards incremental rather than large-scale change. The politics of contemporary America is not conducive to integrating agendas across policy stovepipes.