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Will Increased Highway Funding Help Rural Areas? By Dennis M. Brown. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Agriculture Information Bulletin Number 753.

Abstract

Rural areas in the United States stand to benefit from new highway funding legislation, especially the South. The Transportation Equity Act for the 21st Century (TEA-21) authorizes sharply increased funding for major roads and is the single largest public works bill in U.S. history. Over a 6-year period, it will provide \$171 billion to build new roads, widen lanes, put in new interchanges, and construct bridges. Under TEA-21, some spending discrepancies will be addressed and resolved for States that contribute more money into the Federal Highway Trust Fund than they receive in benefits.

Keywords: Federal-aid highways, Federal highway investments, Highway Trust Fund, Federal transportation policies, rural transportation, rural development, highway funding formula, TEA-21, ISTEA, donor States, recipient States.

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Summary

The Transportation Equity Act for the 21st Century (TEA-21), signed into law in June 1998, sharply increases funding for major roads compared with the previous legislation, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The single largest public works bill in U.S. history, TEA-21 provides \$171 billion for the Nation's highways through 2003, increasing States' annual share of highway funds by 45 percent, on average.

Investing in highways has often been viewed as an effective economic development strategy, particularly for underdeveloped rural areas. Many of the Nation's rural roads have fallen into a state of disrepair, with nearly 50 percent of county roads and 45 percent of local bridges rated as inadequate for existing travel patterns. Approximately 920,000 miles of roads are eligible for Federal funding out of a total national network of 3.9 million miles. Roads eligible for Federal aid include those in the National Highway System, a 163,000-mile network of the most important roads in the country, such as interstates and other principal arteries covered under the Surface Transportation Program.

TEA-21 guarantees that each State will receive at least a 90.5-percent return on the share of money it contributes to the Highway Trust Fund, providing a minimum level of aid for all States. According to convention, "donor States" are those which contribute more into the Highway Trust Fund than they receive back in benefits. Conversely, "recipient States" receive more in Federal highway aid than they contribute to the Trust Fund. For example, under the previous legislation, South Carolina (donor State) received the least amount of highway funding per dollar contributed, at 73 cents. Alaska (recipient State) received \$5.03 per dollar contributed. States that were donors under ISTEA collectively receive a larger increase in funding under TEA-21 than States that were recipients. Eighty percent of donor States under ISTEA will receive funding increases of 50 percent or more under TEA-21, while only 30 percent of recipient States under ISTEA receive increases of this size.

Many of the States receiving big funding increases are located in the South. Rural highway spending is positively correlated with employment gains in the manufacturing sector, so rural manufacturing-dependent counties in the South may particularly benefit from the increased funding. Mining-dependent counties may also benefit from increased funding since three out of four of these types of counties are located in States receiving big increases. Rural communities that are highly dependent on highways due to their remote locations, such as those in the Rocky Mountain West, may also benefit from TEA-21.

Appalachian States should also benefit from TEA-21, since the legislation provides \$2.25 billion from 1999 to 2003 for the Appalachian Development Highway System, a program that funds construction of highways and access roads in Appalachia. Rural residents and industries located there, such as mining and manufacturing, as well as tourism, recreation, and service industries, may benefit. Rural roads nationwide will also benefit from the \$148 million National Scenic Byways Program, which offers technical assistance and grants to States for the development of recreational use roads.

By increasing the share of Federal aid to States with large rural populations, TEA-21 may result in relatively large increases in highway funding for rural areas nationwide, assuming that States pass on to rural areas a proportionate share of these funds. In particular, providing more money for donor States could help address rural economic inequities and help finance transportation infrastructure improvements there since many donor States tend to have relatively poor rural populations. These changes could also help address the growing highway demands associated with rapidly growing areas in the South and West, possibly alleviating traffic congestion and bringing about further gains in economic efficiency. While increased funding for rural areas will not guarantee development, it increases the likelihood that such development can occur.

Will Increased Highway Funding Help Rural Areas?

Dennis M. Brown

Introduction

In June 1998, the Federal-aid highway program was reauthorized with the enactment of the Transportation Equity Act for the 21st Century (TEA-21). The new highway legislation, which authorizes sharply increased funding for major roads, is the single largest public works bill in U.S. history, providing \$171 billion for the Nation's highways from 1998 to 2003 and increasing annual State highway apportionments by 45 percent, on average.

The purpose of this report is to examine Federal highway funding in the context of rural transportation needs and Federal transportation policy. It begins with a discussion of the importance of highways for rural development and provides a general overview of the highway funding formula, which distributes aid to States. Next, various limitations of the formula are highlighted, and spatial patterns of funding based on previous funding levels are described. A key question examined here involves whether the recently passed legislation, which provides for relatively larger funding increases to donor States (those that contribute more to the Highway Trust Fund than they take from it), helps address rural highway problems. Other TEA-21 provisions that are particularly important for rural areas are also examined. The report concludes with an analysis of the TEA-21 legislation and examines how changes in the funding formula may affect rural areas.

Why Is Federal Highway Investment Important for Rural America?

Investing in highways has often been viewed as an effective economic development strategy, particularly for underdeveloped rural areas. Activities such as building new roads, widening existing lanes, putting in new interchanges, or constructing bridges can result in numerous benefits for nonmetro areas, including improved access to services and jobs for rural residents, better access to customers for businesses, and reduced transportation costs (Brown, 1999). Other potential benefits include reductions in travel time, decreased vehicle operating costs, safety and environmental gains, and cost savings for local consumers as goods and services become more competitively priced. If an improved highway network leads to expansion or diversification of a local area's economic base, it may also bring higher wages for workers and greater net income for owners of local businesses.

In recent years, the Nation's rural road network has fallen into a state of disrepair in many areas, with nearly 50 percent of county roads and 45 percent of local bridges rated as inadequate for existing travel patterns (U.S. Department of Agriculture [USDA], 1996). Similar conditions exist for other classes of rural roads. Such deficiencies are especially acute in rural areas that have recently attracted significant numbers of in-migrants, such as high-amenity areas, retirement destinations, and some exurban areas. Added population pressures and increased congestion in these areas put stresses on all types of public infrastructure, but few are as visible as the transportation systems. Transportation infrastructure deficiencies are also evident in some poor rural communities whose lack of sufficient revenue for road maintenance limits the communities' economic development potential.

Federal funding for highways provides money for roads deemed to be of national importance. Approximately 950,000 miles of roads are eligible for

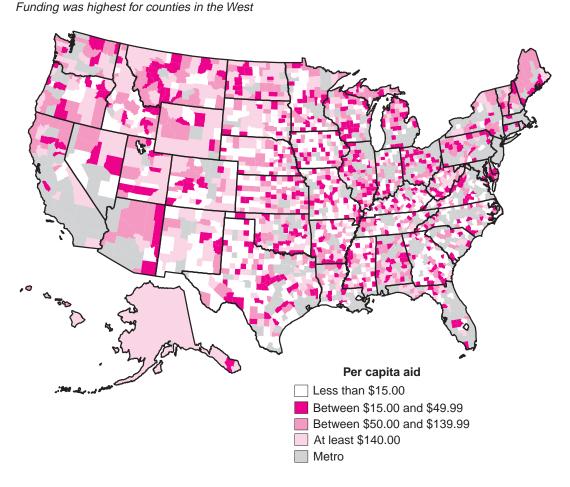
Federal funding out of a total national network of 3.9 million miles. Roads eligible for Federal aid include those in the National Highway System, a 163,000-mile network of the most important roads in the country, such as interstates, as well as other principal arteries covered under the Surface Transportation Program, a block-grant-type program. Each State decides how to allocate Federal-aid funds to highway projects within the State. The result is that the amount of money available locally to nonmetro areas varies considerably, with nonmetro per capita funding highest for areas in the West (fig. 1).

According to economic theory, national economic efficiency requires that Federal transportation investments overcome anticipated underinvestment by localities in their transportation systems. The anticipated underinvestment in local areas partly results from a failure to consider nonlocal benefits (externalities) when making local investment decisions. Also, in

places with relatively high highway construction and maintenance costs and low local tax bases, effective local demand for highways may be reduced below that which is optimal for national economic efficiency. Rural areas often incur high per capita highway costs because their roads and bridges serve scattered populations of smaller communities. In addition, local tax bases and highway investments are expected to be low in places that, for equity reasons, the Federal Government may want to help develop in order to raise local incomes and economic well-being. Thus, Federal highway aid can be important for reasons of both efficiency and equity.

Federal highway assistance can also help ensure that minimum safety and environmental air pollution standards are maintained in all places. Failure to meet these standards can result in reductions in highway aid, a potentially important incentive given the amount of Federal highway aid received by the States.

Figure 1
Nonmetro per capita highway aid, FY96, under ISTEA (old legislation)



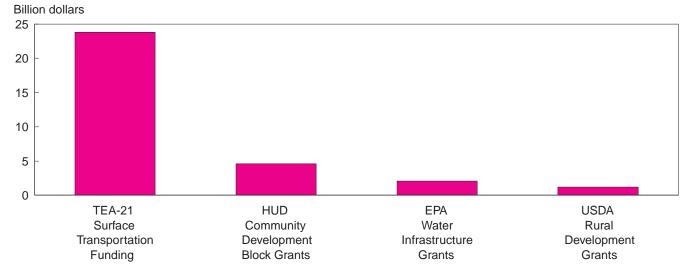
Source: Calculated by the Economic Research Service using Census Bureau data.

The Highway Trust Fund Uses a **Complicated Allocation Formula**

TEA-21 authorized \$23.8 billion for Federal-aid highways during fiscal year 1998, which is more than triple the combined funding available for USDA Rural Development grant programs, Environmental Protection Agency (EPA) water infrastructure grants, and Housing and Urban Development (HUD) Community Development Block Grants (fig. 2).¹ According to the most recent data available, approximately one-third of total Federal-aid highway money is spent in rural areas, accounting for \$7.7 billion in fiscal year 1997 (U.S. Department of Transportation, 1997). Given the relatively large magnitude of Federal highway funding, the mechanism for allocating funds to States and localities takes on great importance.

Most Federal highway aid is disbursed through the Highway Trust Fund, established in 1956 by the Federal-Aid Highway Act and the Highway Revenue Act. The Federal Highway Trust Fund allocates money to the States through the Federal-aid highway program (formally referred to as the Highway Planning and Construction program), a block grant program that allows States a wide degree of latitude in Historically, each State's share under the Federal-aid highway program has been determined through the Federal highway funding formula, a complex series of calculations that are periodically revised by Congress. The base formula is composed of a series of calculations, whose sum produces a final allocation for each State (U.S. General Accounting Office, 1995). The bulk of funding is for specific programs set up to channel aid to the States for a variety of uses, such as providing capital funding for the Nation's most heavily used roads, maintaining interstates, and fixing bridges. Other calculations are designed to balance aid so that individual States that would otherwise have been disadvantaged in funding are eligible for additional resources. These include partial reimbursements for States that provide more in highway gas tax receipts than they receive back in Federal highway aid.

Funding for selected development grant programs, FY98 Surface transportation funding is, by far, the largest Federal development grant program



Source: Calculated by the Economic Research Service using Census Bureau data.

determining how and where the money is spent. Cash inflows to the Trust Fund come from a variety of Federal excise taxes levied on motor fuel, rubber products, and heavy vehicles, with the single most important source of receipts being the Federal gasoline fuel tax, currently set at 18.4 cents per gallon and accounting for about 60 percent of Federal highway receipts in 1997 (U.S. Department of Transportation, 1997). Federal funding is restricted for use on capital expenditures, such as construction and reconstruction of roads. Regular maintenance on non-interstate roads, including pothole patching and snowplowing, must be funded through other sources.

Appropriations for Federal-aid highways are traditionally close to 100 percent of authorized levels.

The Highway Funding Formula Has Been Criticized

The U.S. General Accounting Office (GAO) recently described the formula as cumbersome, relying on factors and data that, in some cases, are outdated and have little relevance today (U.S. General Accounting Office, 1995). For example, one of the factors used to determine funding allocations is the number of miles of postal roads in each State, a factor that has little relevance today.

The formula also attempts to meet a relatively large number of objectives, some of which are in conflict with one another. For example, one objective is to return funds to the States where the revenue is collected, based on the principle that popular support will be greater for a project if taxpayers see that their money is being spent on their behalf. At the same time, the program must address national goals and deal with "externalities," which often require redistributing

resources from one State to another. In addition, the formula has sought to safeguard each State's historical funding levels, a recognition that it may be difficult to enact legislation that reduces funding for some States. Reconciling these and other conflicting goals is impossible, so compromises have resulted. Over time, these compromises have created unintended consequences as conditions have changed to the detriment of one group or another. This may help to explain why large, rapidly growing States in the South and Southwest, such as Texas and Florida, have received proportionally less aid than States in the Northeast with minimal population growth, such as New York and Pennsylvania.²

TEA-21 attempts to redress this funding imbalance by stipulating that every State be guaranteed at least a 90.5-percent return on the share of money it provides to the Trust Fund (under the Minimum Guarantee

Table 1--Largest highway-aid programs under TEA-21 (Title I)

More than 80 percent of funding goes to five programs

Funding category	Total funding level (1998-2003)	Percentage of total	
	(billion dollars)		
Minimum Guarantee	35.1	20.5	
(States guaranteed at least a 90.5-percent return)			
Surface Transportation Program	33.3	19.5	
(Main Federal-aid highway program)			
National Highway System	28.6	16.7	
(163,000-mile network of heavily traveled roads,			
including interstates)			
Interstate Maintenance Program	23.8	13.9	
(Provides money for maintenance on interstates)			
Bridge Program	20.4	11.9	
(Provides funding for bridges on public roads)			
High-Priority Projects Program	9.3	5.5	
(Funds 1,850 high-priority projects)			
Congestion Mitigation and	8.1	4.7	
Air Quality Improvement Program			
(Helps meet requirements of Clean Air Act)			
Appalachian Development Highway	2.3	1.3	
System			
(Provides money for roads in Appalachia)			
Other programs	10.2	6.0	
(Other smaller programs)			
Total	171.1	100.0	

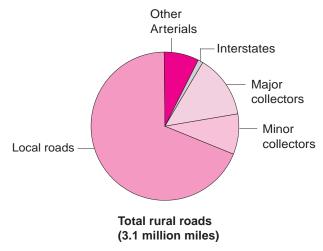
Source: U.S. Department of Transportation, 1998. *Transportation Equity Act for the 21st Century: Moving Americans into the 21st Century.*

² Spatial patterns of Federal highway funding are examined in greater detail in the following section of this report.

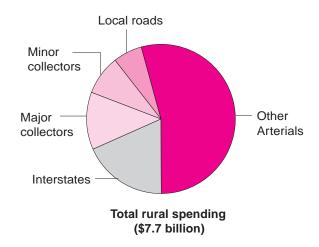
Figure 3 Rural road mileage and Federal aid by functional class, FY97, under ISTEA (old legislation)

Most funding went to nonlocal roads

Local roads and minor collectors make up 77 percent of rural roads . . .



... but received only 15 percent of rural Federal highway funds



Source: Calculated by the Economic Research Service using U.S. Department of Transportation data.

Program) (table 1). This significant change will affect rural and urban areas differently, depending on each particular State.

Under the Surface Transportation Program (STP), the second largest highway aid program covered by TEA-21, all roads are eligible for Federal funding except those classified as local or rural minor collectors.³ For rural areas, this funding definition is restrictive because the majority of rural public roads (about 77 percent, based on mileage) are classified as local or rural minor collectors and are therefore ineligible for regular Federal STP funding (fig. 3).4 Without access to this major source of highway funding, some rural

areas may have significant unmet local transportation needs. One solution is to provide for greater flexibility in classifying rural roads, perhaps reclassifying some roads as major collectors. Doing so would offer rural areas greater use of Federal transportation funds under the formula.

TEA-21 continues aid for the smallest rural communities under the STP "special rule" that targets highway funds to areas with populations less than 5,000. Although this is an important source of funding for some rural areas, it fails to take into account that many rural communities have populations greater than 5,000, and are therefore ineligible for funding under this set-aside.

³ Eligibility is determined according to provisions in the highway legislation. Roads eligible for Federal aid include: arterials (the highest functional classification), urban collectors, and rural major collectors. See U.S. Department of Transportation (1989) for a formal definition of the different classes of roads.

⁴ These roads are eligible for limited rural set-aside funds. In contrast, about 70 percent of urban roads (based on mileage) are ineligible for Federal STP funding, as measured by the financial classification of roads.

Highway Funding Under ISTEA

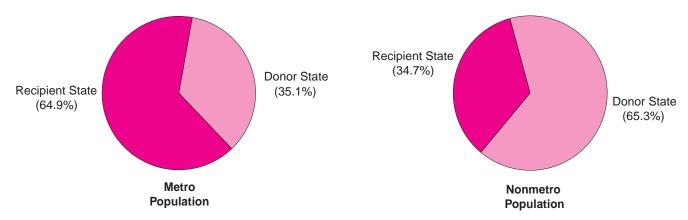
Under the previous highway legislation, ISTEA (Intermodal Surface Transportation Efficiency Act of 1991), which covered 1992-97, there existed considerable variation in State-level highway funding. In 1996, "donor States," which, by definition, receive less in Federal highway aid than they contribute in Federal gas tax revenue, accounted for the majority (65 percent) of the Nation's nonmetro residents, but only a minority (35 percent) of metro residents (fig. 4). Donor States included 8 of the 10 States with the largest nonmetro populations in 1996. Donor States were generally widely dispersed geographically throughout the Nation, but were especially concentrated in the South, West, and Great Lakes areas (fig. 5). South Carolina received the least amount of highway funding per dollar contributed, just \$0.73.

In contrast, "recipient States," which, by definition, receive more in Federal highway aid than they contribute to the Trust Fund, accounted for the majority of metro residents (65 percent), although they also included many States whose populations were predominantly nonmetro. Most of the nonmetro recipient States had both relatively small absolute numbers of people and large percentage shares of nonmetro residents, such as Montana and Wyoming. But some recipient States, such as Iowa, Arkansas, and West Virginia, had more substantial nonmetro populations, numbering more than 1 million residents each. Recipient States were largely concentrated in the Northeast, northern Great Plains, and Rocky Mountain States. Alaska had the highest relative level of funding, \$5.03 per dollar contributed.

Figure 4

Donor and recipient State shares of metro and nonmetro population, 1996

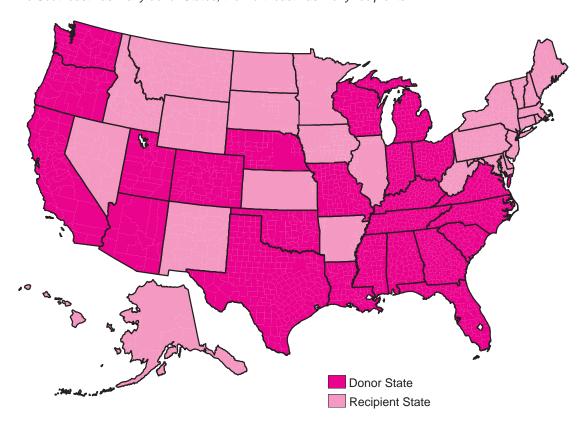
Most nonmetro residents live in donor States, which receive less in Federal highway aid than they contribute in taxes



Source: Calculated by the Economic Research Service using data from the U.S. Department of Transportation and the Bureau of the Census.

Figure 5 Donor and recipient States under ISTEA (old legislation), 1992-1997

The Southeast has many donor States, the Northeast has many recipients



Source: Senate Environment and Public Works Committee.

How Will the Recently Passed Highway Legislation Change Things?

The new highway legislation provides sharply increased funding for the Nation's highways, a record \$171 billion over the next 6 years, which translates into a 45-percent increase over previous funding levels. The legislation also contains new provisions that ensure that gas tax revenues are earmarked for their intended purpose and are not allowed to accumulate in the Highway Trust Fund.

TEA-21 also guarantees that each State will receive at least a 90.5-percent return on the share of money it contributes to the Trust Fund. This represents a significant change in the funding formula since it provides a minimum level of aid for all States, and it especially benefits the 20 States that received less than a 90.5-percent return on funds contributed to the Trust Fund under ISTEA. Moreover, while many States under the new legislation will continue to provide more money in gas tax receipts than they receive back in highway aid, and others will still get back more than they contribute, the gap between donors and recipients narrows under TEA-21.

Under the new legislation, the general pattern of funding remains in place, with most States maintaining their relative rankings in terms of aid received. However, donor States are the main beneficiaries. States that were donors under ISTEA collectively receive larger proportional funding increases under TEA-21 than States that were former recipients. Eighty percent of donor States under ISTEA will receive funding increases of 50 percent or more under TEA-21, while only 30 percent of recipient States under ISTEA receive increases of this size.

As a group, donor States under TEA-21 have lower per capita nonmetro incomes than the rest of the Nation and fewer road miles per nonmetro resident that are eligible for Federal highway funding than recipient States (table 2). The nonmetro population grew 60 percent faster in these States than in the rest of the Nation during 1990-96. Hence, with rapid population growth and relatively low highway funding, some rural communities in donor States may have inadequate resources to meet their growing transportation needs. The new legislation may help to address this problem (although it does not explicitly target assistance to rapid growth nonmetro communities).

Table 2--Characteristics of donor and recipient States under TEA-21

Largest nonmetro States are donors

	Federal Hig	hway aid		Per capita	Eligible road	Nonmetro	
State	Per dollar contributed (1998-2003)	Per capita* (Nonmetro) (1998-2003)	Nonmetro population (1996)	nonmetro income (1995)	miles per 100,000 nonmetro residents (1996)	population growth rate (1990-96)	
	Dollars	Dollars	Rank	Rank	Rank	Rank	
Donors							
Alabama	0.92	386	18	39	14	32	
Arizona	0.91	616	35	48	8	3	
Arkansas	0.92	254	19	40	16	26	
California	0.91	2,255	24	33	6	11	
Colorado	0.92	426	33	12	11	4	
Florida	0.91	1,186	26	24	12	9	
Georgia	0.91	397	3	34	49	15	
Illinois	0.92	470	6	28	32	44	
Indiana	0.91	373	13	17	33	29	
Kentucky	0.91	226	5	45	44	23	
Louisiana	0.91	386	23	47	28	40	
Maryland	0.91	1,075	41	8	13	19	
Michigan	0.91	490	11	27	45	25	
Mississippi	0.92	171	7	46	39	31	
Missouri	0.92	361	10	41	48	24	
Nebraska	0.97	253	30	15	38	41	
New Jersey	0.94	N/A	50	50	N/A	N/A	
North Carolina	0.90	305	2	25	25	17	
Ohio	0.91	424	4	22	43	27	
Oklahoma	0.92	308	20	43	23	38	
Oregon	0.92	339	27	26	22	10	
South Carolina	0.91	373	22	37	19	22	
Tennessee	0.90	345	9	29	21	16	
Texas	0.91	624	1	38	31	18	
Utah	0.92	443	37	44	26	2	
Virginia	0.91	455	16	32	42	30	
Washington	0.92	491	28	14	5	7	
Wisconsin	0.99	313	12	21	29	20	
Recipients							
Alaska	5.14	875	42	6	1	14	
Connecticut	1.52	1,395	45	1	35	37	
Delaware	1.54	883	47	10	17	5	
Hawaii	2.01	434	44	9	2	8	
Idaho	1.41	248	29	36	36	6	
Iowa	1.04	198	14	13	37	46	
Kansas	1.02	267	21	20	20	47	
Maine	1.01	187	31	16	41	42	
Massachusetts	1.01	5,363	48	4	10	28	
Minnesota	1.06	278	17	19	47	35	
Montana	2.08	387	34	31	7	12	
Nevada	1.14	826	46	5	24	1	
New Hampshire	1.27	310	38	3	46	34	
New Mexico	1.14	349	32	49	15	13	
New York	1.19	173	15	23	34	45	
North Dakota	1.83	465	40	35	4	48	
Pennsylvania	1.21	710	8	18	30	33	
Rhode Island	2.18	1,895	49	2	40	49	
South Dakota	2.01	391	36	30	9	39	
Vermont	1.76	301	39	7	18	36	
West Virginia	1.41	279	25	42	27	43	
Wyoming	1.50	540	43	11	3	21	
Donor Average	0.91	386	1,376,737	17,090	1,732	6.61	
Recipient Average	1.41	389	463,355	18,615	1,854	4.12	

^{*}Per capita aid is total State aid for 1998-2003 divided by the nonmetro population of each State for 1996. Source: Calculated by Economic Research Service using data from U.S. Dept. of Transportation and the Census Bureau.

TEA-21 Increases State Funds

Many of the States receiving big funding increases (increase of 40 percent or more) are located in the South (fig. 6). Research indicates that rural highway spending is positively correlated with employment gains in the manufacturing sector (Carlino and Mills, 1987), so rural manufacturing-dependent counties in the South may particularly benefit from the increased funding (table 3). Mining-dependent counties may also benefit from increased funding since three out of four of these types of counties are located in States receiving big increases (increase of at least 50 percent).

TEA-21 also provides more funding to the States with the largest nonmetro populations, with the five largest (measured in absolute terms) nonmetro population States receiving larger funding increases than the national average. This should particularly benefit the South and parts of the Midwest, which have large numbers of rural residents. Parts of the Rocky Mountain West also received big increases under TEA-21. This could significantly benefit those rural

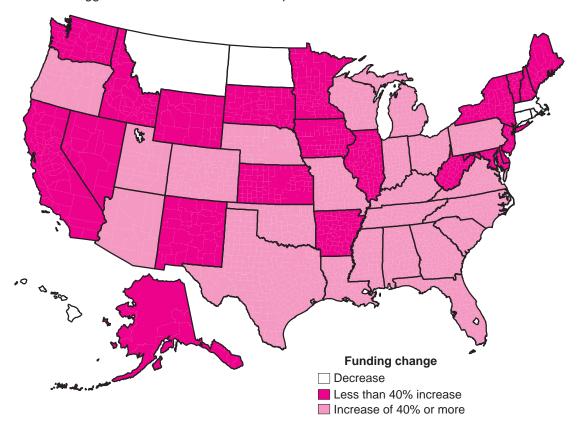
communities that are highly dependent on highways due to their remote location.

Farming is the most important nonmetro economic activity in many States receiving smaller increases in aid. These States are concentrated in parts of the Midwest and the Northeast.

Several States have switched from recipient to donor status, including Arkansas, Illinois, Maryland, and New Jersey. Overall, 22 States are now recipients, while 28 are now donors (fig. 7). Donor States continue to be clustered in the rapidly growing areas of the Nation, that is, the South and parts of the West, as well as in the Great Lakes region. Recipient States are still concentrated in the Northeast, the northern Rockies, and the Great Plains.

In summary, many of the States with the largest rural populations have been donor States under ISTEA, so by increasing the share of Federal aid to these States, TEA-21 may result in relatively large increases in highway funding for rural areas nationwide, assuming

Figure 6 Percentage change in State funding (in real terms) under TEA-21 versus ISTEA Gains are biggest for States in the South and parts of the Midwest and West



Source: House Transportation and Infrastructure Committee.

that States pass on to rural areas a proportionate share of these funds. While increased funding for rural roads will not guarantee development, it increases the likelihood that such development can occur.

Because donor States tend to have rural areas with relatively low incomes (and many of these areas have relatively low tax bases), increasing their share of funding should help reduce fiscal inequalities. In the

past, States having large numbers of relatively lowincome rural residents received less Federal highway money per capita than recipient States, but their shares will increase under the new legislation. Giving more money to donor States may also address the relative disadvantage these States have had in terms of eligible road miles per rural resident, while also providing resources for more effectively dealing with their significant population growth demands.

Table 3--County types by State-level changes in highway funding under TEA-21

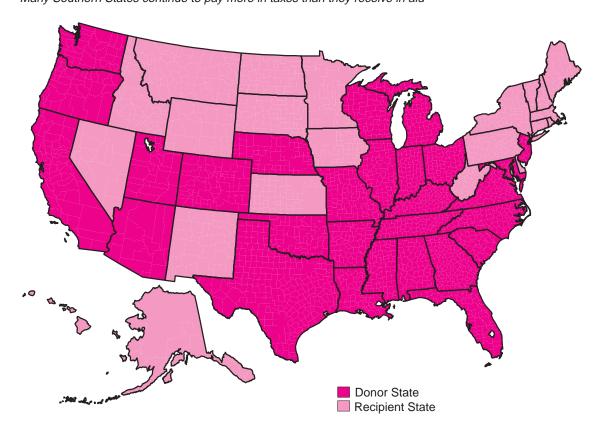
Manufacturing is an important nonmetro industry among States with big funding increases

	Funding chang	e category		
	Increase of at least	Increase less		
County type	50 percent	than 50 percent	Decrease	
		Number of counties		
Nonmetro	1,425	848	3	
Farming	281	275	0	
Mining	107	39	0	
Manufacturing	356	150	0	
Government	165	79	0	
Services	196	124	3	
Nonspecialized	312	172	0	
Not Classified	8	9	0	
Metro	470	328	11	

Source: Calculated by ERS using Census Bureau data.

Figure 7 Donor and recipient States under TEA-21, 1998-2003

Many Southern States continue to pay more in taxes than they receive in aid



Source: Senate Environment and Public Works Committee.

TEA-21 Affects Rural Areas in Other Ways

For many rural households, lack of transportation limits access to employment opportunities and health and child care and reduces the choices available when shopping for food and other items. Labor shortages have been increasingly common in hospitality, food service, and other industries in close proximity to rural areas with surplus labor, and there has been increased pressure to find jobs for welfare recipients with welfare-towork legislation. These factors have combined to bring greater attention to public transportation (mainly bus and van service) needs in rural areas.

TEA-21 increases 1999 funding for the main rural transit program (Section 5311) by 32 percent over 1998 levels, to nearly \$180 million, which is almost double the percentage increase received by urban transit programs. Funds for this program are apportioned in relation to each State's nonurban population, and can be used for capital projects, operating expenses, and meeting State and project administration requirements. In 1996, the States with the largest nonmetro populations were Texas, North Carolina, and Georgia.

Rural transit's share of funds available under the Nation's transit funding formula increased 16 percent. Significantly, transit funding increases are, for the first time in the program's history, guaranteed or "walledoff," assuring transit an estimated 80-percent return on authorized funding levels (in contrast, highways have traditionally received nearly 100 percent of authorizations). This represents a significant change because in the past (under ISTEA) rural public transit appropriations were often considerably less than authorized amounts.

Funding increases will likely benefit rural residents who rely on transit as a means of getting to and from medical appointments, child care facilities, and jobs. In particular, rural businesses, such as those in the service industry that rely on public transit as a source of transportation for their workers, will likely benefit. Nonmetro service-dependent counties are found throughout the Nation, with significant clusters located in parts of the West and the Midwest.

The new legislation also provides \$2 million in 1999 for the Rural Transportation Accessibility Incentive Program, which supports "over-the-road" bus service. This program is designed to help bus operators finance capital and training costs associated with complying with U.S. Department of Transportation regulations on intercity bus service. Funding for this program is to be distributed through a competitive grant selection process. TEA-21 provides \$5.3 million in 1999 for the Rural Transit Assistance Program, which is designed to promote delivery of safe and effective transit service in rural areas.

A new Access to Jobs program will provide \$150 million in 1999 for transportation programs that offer access to jobs. Under this program, 20 percent of program funds (\$30 million) is reserved for rural areas (with populations less than 50,000). Important considerations in allocating funds include the number of welfare recipients in the target area, the extent to which applicants demonstrate coordination with existing public and human services transit agencies, and the degree of innovativeness of specific approaches. Rural areas with large numbers of service-dependent industries, in particular, may benefit from this program.

Other Rural Provisions in TEA-21

The new legislation has several provisions that deal specifically with rural areas. TEA-21 includes language that encourages more consultation between local officials and States in the State transportation planning process, specifically stating that, "each State shall, at a minimum, consider, with respect to nonmetropolitan areas, the concerns of local elected officials." This provision is significant because it reflects a recognition on the part of Federal officials of the importance of rural involvement in transportation planning issues. This should help rural areas to compete more equally with urban areas. In particular, the use of regional development organizations (although not mandated) could help foster more active participation of local officials and the public in the planning process.

TEA-21 provides a total of \$2.25 billion from 1999 to 2003 for the Appalachian Development Highway System, a program that provides aid for the construction of highways and access roads in Appalachia. This program benefits rural residents and industries located in Appalachia, such as mining and manufacturing, as well as tourism, recreation, and service industries. The new legislation also provides \$148 million for the National Scenic Byways Program, which offers technical assistance and grants to States for the development of recreational use roads, which are located primarily in rural areas.

TEA-21 continues to fund "transportation enhancement" (TE) activities, that is, environmental, recreational, and general project development activities, through a 10-percent set-aside from STP funds. Some have argued that TE funding takes scarce resources away from rural (and urban) highway needs by using money for programs other than roads and bridges. Others contend that enhancements are important for rural businesses, and that greater flexibility is needed in allowing their use for a wider variety of economic development projects. TEA-21 allows a State to transfer a portion of its TE funds to other programs.

Conclusions

The Federal-aid highway program has been the main source of funding for the Nation's most important roads for over four decades, facilitating the development of a far-reaching road network that has significantly contributed to rural economic development. Some rural areas, however, have historically received lower levels of highway funding than other areas. For example, many Southern States, where many rural residents reside, received less in per capita aid than other regions, yet these same Southern States have tended to be donor States, receiving less in Federal highway aid than they contribute in gas tax revenue.

Under TEA-21, overall funding has increased significantly for the Nation as a whole, and donor States, many of which have large rural populations, collectively receive bigger proportional funding increases than recipient States. However, because Federal highway aid continues to be allocated to the States, which then individually decide how to use the money, it remains difficult to say definitively how these funding increases will affect rural areas. Simply increasing aid to those States with large rural populations will not necessarily provide more money for nonmetro transportation projects. Likewise, even if money can be effectively targeted to rural areas, increased funding for rural roads will not guarantee development. But increasing the share of Federal aid to these States is an important change in the pattern of funding because it makes available more money to States with large rural populations. Hence, it may result in relatively large increases in highway funding for rural areas nationwide, assuming that States pass on to rural areas a proportionate share of these funds.

Funding changes may benefit parts of the South. In particular, manufacturing- and mining-dependent rural counties, many of which are located in the South, stand to benefit from the additional funding. Because donor States tend to have relatively poor rural populations, more money for these States could help address rural economic inequities and help finance improvements in areas that currently have inadequate transportation infrastructure, which may lead to increases in economic equity and efficiency. These changes could also help address the growing highway demands associated with rapidly growing areas in the South and West, possibly alleviating traffic congestion and bringing about further gains in economic efficiency.

Further Readings

Brown, Dennis M. 1999. Highway Investment and Rural Economic Development: An Annotated Bibliography. Bibliographies and Literature of Agriculture No. 133. U.S. Department of Agriculture, Economic Research Service.

Carlino, Gerald A., and Edwin S. Mills. 1987. "The Determinants of County Growth," Journal of Regional Science 27 (1), pp. 39-54.

U.S. Department of Agriculture, Agricultural Marketing Service. 1996. Rural Roads and Bridges: Condition and Status of Roads. September.

U.S. Department of Transportation. 1989. <i>Highway Functional Classification: Concepts, Criteria and Procedures.</i> March.
1992. Financing Federal-Aid Highways. May.
1995. Intermodal Surface Transportation Efficiency Act of 1991: A Summary. July.
1997. Highway Statistics. October.
U.S. General Accounting Office. 1995. <i>Highway</i>

Funding: Alternatives for Distributing Federal Funds. GAO/RCED-96-6. November.