

Whitepaper

Principles for Improving Transportation Options in Rural and Small Town Communities



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Contents

Contact Us	2
Authors	2
Introduction	4
» Defining Terms	4
» Types of Rural Communities	5
» Transportation in Rural America	6
Challenges: A Closer Look	8
» Transportation Safety and Public Health	8
» Local Self-Determination	8
» Regional Connectivity	9
» Public Transportation	11
» State and Local Funding	11
Principles for Action in Rural America	12
» Involve Rural Communities in Planning for their Future	12
» Case Study: Land-use Planning in Florida	13
» Case Study: Corridor Planning in Rural New Jersey	14
» Case Study: Rural Planning Organizations: Southeast Tennessee RPO	14
» Improve Conditions on Existing Infrastructure	15
» Case Study: Complete Streets in Basalt, Colorado	16
» Case Study: Katy Trail, Missouri	16
» Improve Transportation Safety	17
» Case Study: Safety Programs in Mendocino, California	17
» Case Study: Improving Safety in Isanti County, Minnesota	17
» Improve and Restore Freight Rail Connections	18
» Case Study: The Southern Tier Extension Railroad	18
» Invest in Public Transportation and Paratransit Services	19
» Case Study: Mobility Management Planning in Vermont	20
» Case Study: Human Services in Southeast Alaska Independent Living (SAIL)	20
» Case Study: Successful Transit in Bozeman, MT through Coordination	21
» Case Study: Transit Options in Northwest Connecticut	21
» Case Study: Rural Paratransit & ITS in Texas' Capital Area	22
» Provide Intercity and Multimodal Transportation Connectivity	22
» Case Study: Intercity Bus Service in Washington State	22
» Case Study: Mason City Airport as Intermodal Facility	24
» Case Study: Economic Benefits of Passenger Rail in Northern Montana	24
Conclusion	26
References for Further Information	27

Introduction

Nowhere is it more important to take a smarter and more strategic approach to transportation than in rural and small town communities. The current system for planning, building, and maintaining transportation infrastructure in rural areas falls short of meeting the need for access within small cities and towns and their surrounding regions to jobs, shops, services, education, and healthcare.

This paper, developed in consultation with numerous representatives of the interests of small cities, towns and rural areas, provides a discussion of these challenges and addresses the need to provide a more effective transportation system in rural and small town America. The report identifies principles for improving mobility in these areas and profiles best practices that highlight potential solutions. The promising strategies for responding effectively to support economic and community development and provide basic mobility include a diversity of geographic areas and many population sizes. While variations in cultural, geographic, and economic conditions make each area unique, smaller communities are increasingly recognizing that an integrated approach to community development is a key to long-term prosperity and quality of life.

Defining Terms

“Rural” is a catchall term that can cover a wide range of cultural, geographic, and economic contexts. For example, what is considered rural in a state with low population density, like Montana, may not

resemble what is considered rural in a state with a much higher density, like Massachusetts. However, for the purposes of this paper, the term “small and rural communities” refers to communities below 20,000 people, but could include those up to about 50,000 people located far from metropolitan areas.

This definition is consistent with the Department of Transportation, which classifies rural areas in two ways. Roads located outside an area with a population of 5,000 are classified as rural highways. For planning purposes, areas outside of metropolitan areas of 50,000 or greater populations are considered rural areas and small towns. By DOT classifications, rural areas represent¹:

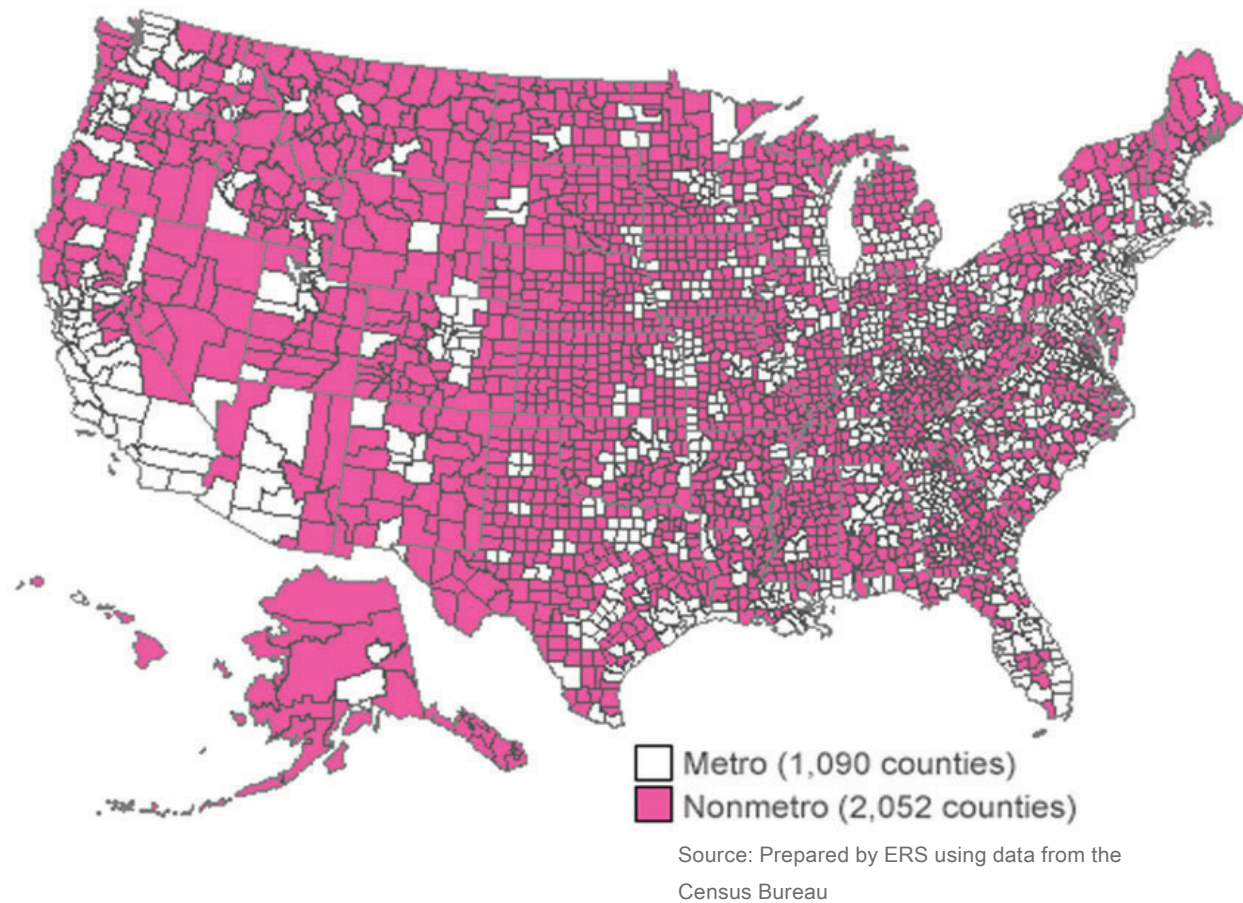
- 83% of the nation’s land,
- 21% of population
- 18% of jobs
- 2,400 of 3,000 counties

According to official US Census Bureau definitions, rural areas comprise open country and settlements with fewer than 2,500 residents while urbanized areas contain an urban nucleus of 50,000 or more people. However, most counties, whether metropolitan or nonmetropolitan, contain a combination of urban and rural areas. Small towns and cities are urban clusters of at least 2,500 but less than 50,000 persons.

In small towns and rural areas, counties are typically the active political jurisdictions; they are also frequently used as basic building blocks for areas of economic and social integration. The following

¹ Federal Highway Administration, Planning for Transportation in Rural Areas. Available at: <http://www.fhwa.dot.gov/Planning/rural/planningfortrans/2ourrts.html>

Nonmetropolitan and Metropolitan Counties in the United States, 2003



map shows the location of non-metropolitan and metropolitan counties in 2003 using classification from the US Census Bureau.

Types of Rural Communities

Most rural US counties can be classified into three main community types organized by their economic engine, population, and rate of growth. It should be noted, however, that many rural communities do not fit these broad typologies and in general most have a mix of several economic drivers.

Of the 2,436 rural counties, 600 (25%) can be

classified as exurban – that is, located on the fringe of a metropolitan area -- 558 (23%) can be classified as destinations for tourism or recreation, and 1,279 (53%) can be classified as production communities.² Production communities are dependent on mining, manufacturing, or farming.

Generally, the growing counties tend to be either exurban counties (i.e., dependent on an adjacent urban center) or destination counties (i.e., natural amenities attract tourists, seasonal residents, and retirees). Exurban communities exist throughout

² National Cooperative Highway Research Program, Best Practices to Enhance the Transportation-Land Use Connection in the Rural United States

the country and rely on their close proximity to urban areas for access to jobs and retail, service, health, and education needs. Exurban communities have the highest employment levels and median household income of the three community types.

Destination communities are centered on natural resource amenities and attract seasonal residents, retirees, and tourists. The economic base is a service economy, focused on providing access to amenities and recreation and leisure activities. These communities are most often found in the far West, Upper Great Lakes, and New England.

Production communities are focused on a single industry, many of which are experiencing decline (agriculture, manufacturing, and mining). They have little economic diversity and are often geographically isolated. Many of these communities are found in the Great Plains, Corn Belt, Mississippi Delta and Appalachia. Production communities are experiencing rapid job loss and consequentially cannot retain young and highly educated segments of the population.³ These communities are also facing a rapidly aging population, which will require different economic and transportation approaches in the near future.

Transportation in Rural America

Rural communities face a number of challenges in providing accessibility, the transportation connections between the community and its needs, and livability, the characteristics that make

the community a desirable place to live. These challenges are amplified by global changes in the economic marketplace as well as demographic shifts within the US. Nearly every community struggles with insufficient funding to maintain and improve substandard or unpaved roads, improve public transit services, and upgrade or replace substandard and deteriorating bridges. Another challenge comes from the wear and tear on highways by the increasing load of truck traffic, as freight has shifted away from rail.

For many rural and small communities, changing demographics will require new approaches to increasing available travel options. Non-metropolitan areas have higher proportions of older and lower-income citizens who could directly benefit from increasing the availability of viable transportation options. These groups, including persons with disabilities, often remain isolated in their homes with few options for getting around.

Issues of urban sprawl, farmland preservation, and air and water quality have already pushed their way to the forefront of policy debates at both the national and local levels. These environmental concerns have substantial impacts on the economies of production communities, in particular. According to USDA's National Resources Inventory (NRI), from 1992 to 2003 more than 21 million acres of rural land were converted to developed use - more than half of that conversion was scattered agricultural land.⁴ Rural areas and small towns are particularly vulnerable to increasing economic insecurity, volatile energy

4 USDA's National Resources Inventory (NRI) Database. Available online at: <http://www.nrcs.usda.gov/technical/NRI/2003/nri03landuse-mrb.html>

prices, and a lack of transportation choices due to low-density development.

Along with these challenges come numerous opportunities to reclaim the character of historic towns and cities, to preserve and protect farmland that can support the growing movement toward local-serving agriculture, to capitalize on new inter-city rail investments, and many more. The nation is long overdue for a transportation policy that promotes and supports the revival and long-term health of rural America. The forthcoming authorization of the federal transportation law offers the chance of a generation to rethink the way we plan, build, maintain, and improve our transportation system to benefit small towns and rural areas.

Challenges: A Closer Look

Transportation Safety and Public Health

Residents of small towns are more likely to be hurt or killed on the transportation system than those in urban areas. The traffic fatality rate on non-Interstate rural roads in 2003 was 2.72 deaths for every 100 million vehicle miles of travel, compared to a traffic fatality rate on all other roads in 2003 of 0.99 deaths per 100 million vehicle miles of travel.⁵ Truck traffic on rural roads and railroad crossings are ongoing safety issues, as well as maintenance and repair concerns. Finally, despite lower levels of physical activity and active transportation, rural areas have disproportionately higher crash and fatality rates for pedestrians and also poorer public health outcomes, with higher levels of obesity than their urban counterparts.

Many rural areas have experienced declines in population as particularly younger residents have migrated to urban centers to seek employment. In these cases, the rural area has been left with a mature road system that is a legacy from a time when there was a larger population. In many parts of rural America, the condition of facilities is suffering. Approximately 40 percent of county roads are not properly maintained and nearly half the rural bridges longer than 20 feet are currently

structurally deficient.⁶

Increases in safety can be achieved through reductions in truck traffic, engineering roads for lower speeds, and educating drivers about the risks associated with drunk driving. However, these safety measures, currently funded through federal and state programs, have proven inadequate to address the challenges. Too often they focus on shifting driver or pedestrian behavior and building wider, larger roads that actually encourage speeding. Indeed, safety improvements on rural non-Interstate routes have lagged behind those on all other routes since 1990. From 1990 to 2003, the fatality rate on all roads, excluding non-Interstate rural roads, decreased by 32 percent, while those on routes declined by only 21 percent.⁷

Improving public health is linked directly to encouraging active transportation with safe and attractive pedestrian and bicycle facilities. This is particularly a concern for those with few other options, such as the elderly, the disabled, and the young. To reach destinations and everyday needs, these groups must travel on unsafe infrastructure and alongside highways with excessive travel speeds.

Local Self-Determination

Rural communities are buffeted by outside forces seemingly beyond their control. One of those forces often comes in the form of state Departments of

5 Growing Traffic in Rural America: Safety, Mobility and Economic Challenges in America's Heartland. March 2005. The Road Information Program (TRIP).

6 Federal Highway Administration, Planning for Transportation in Rural Areas. Available at: <http://www.fhwa.dot.gov/Planning/rural/planningfortrans/2ourrts.html>

7 Growing Traffic in Rural America: Safety, Mobility and Economic Challenges in America's Heartland. March 2005. The Road Information Program (TRIP).

Transportation. DOTs decide whether to build a highway or not, where to route the highway and whether they will design that road to be hospitable to surrounding neighborhoods.

Highways often prove to be the lifeline of rural communities. But just as often, bypass roads prove the undoing of historic town centers, shifting the economic activity away from them while promoting a form of spread-out development that exacerbates the dependence on long car trips. Transportation investments focused on improving street connectivity, pedestrian and bicycle facilities, and transit service to community focal points assists small towns in facilitating reinvestment and economic development. However, state and federal policies too often overlook these small, focused projects in favor of larger investments in bypasses, highway expansion, and new road construction. Small towns are rarely consulted in the state transportation planning process by which transportation investment decisions are made regarding public funds. Further, these areas often lack the staff and resource capacity to provide more than the most cursory review and coordination when it is requested by the state.

While some communities have succeeded in revitalizing their town centers or main streets, others, remained hampered by bypasses that divert economic activity from their small towns, and others still are threatened by new bypass proposals. Programs such as the National Trust for Historic Preservation's Main Street program work with communities to use their best assets to promote economic development while protecting the community's historic character, but the need

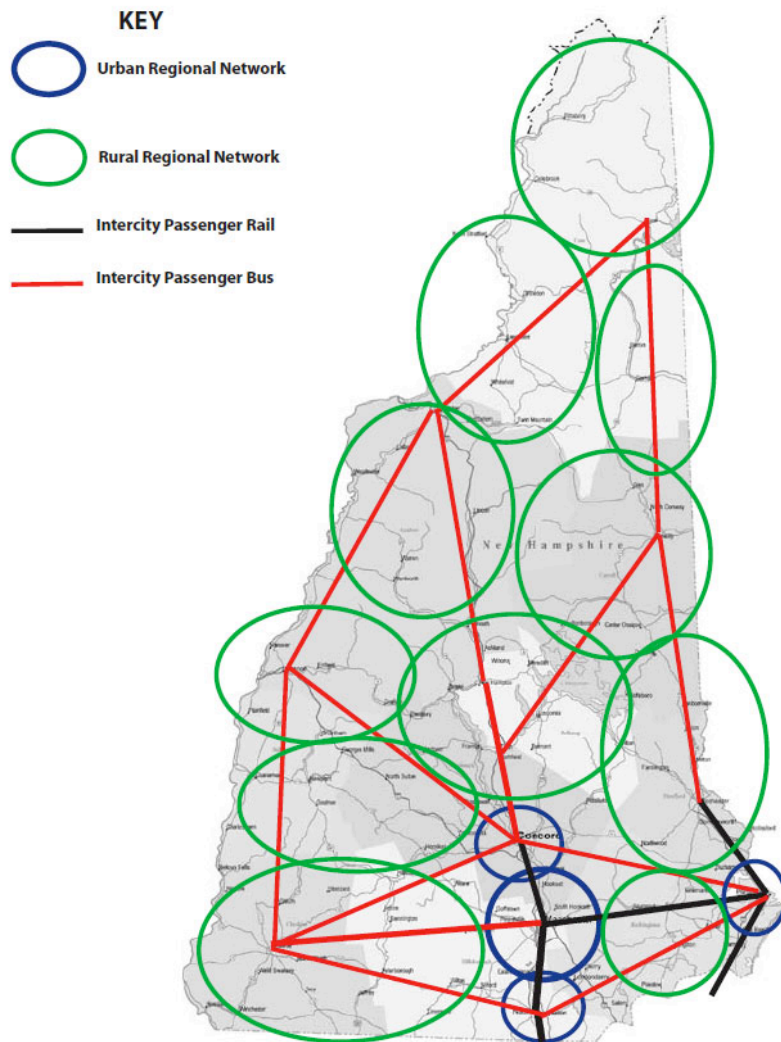
far exceeds available resources.⁸ Current federal law includes some assistance for restoring safe conditions for walking and reclaiming damaged streetscapes in the form of the Transportation Enhancement program. But here again the need outstrips demand as regulatory barriers and state-level decision-making limit communities' ability to make progress.

Most rural areas and small towns lack the resources to hire planners and designers to create the comprehensive plans and strategies to make the most of highway investments while preventing the damage from poorly planned development and abandonment of existing town centers and neighborhoods.

Regional Connectivity

Providing access to opportunity differs depending on geographic and economic factors. Small or rural communities close to larger cities may be growing quickly with a lot of commuting activity, and may be concerned with preserving residents' access to employment and educational opportunities. At the same time, more remote communities face the challenges of declining economic activity and retaining residents who are seeking career opportunities or a post-secondary education in urban areas. Some destination communities may rely on tourism as an economic base, and providing regional transportation opportunities for visitors to reach these communities is essential to enhancing

8 Andersen, J; Mahmassani, H S; Helaakoski, R, M A; Walton, C M; Harrison, R. The Economic Impact of Bypasses. Transportation Research Record. p. 144-152. <http://pubsindex.trb.org/document/view/default.asp?lbid=382636>



The importance and potential of regional connectivity is seen here in the Community Transportation Association of America's desired vision for regional connectivity in New Hampshire.

Graphic: Community Transportation Association of America

and supporting that economic growth.

Intercity bus can be a critical element in the rural transportation system that allows residents access to the greater region and into larger cities. In predominantly rural states, intercity passenger bus services often function as the only source of

intercity passenger transportation and may also serve as daily, scheduled freight service. Though Congress first authorized the Rural Intercity Bus Program - Section 5311 (f) - in 1979 to maintain these vital services, the program has been under-funded and unable to ensure that all state's intercity bus needs are being met.

Amtrak passenger rail service is also a key option for regional connectivity. Rail service enables all-weather, fixed schedule mobility to urban areas and other rural areas. While the bulk of Amtrak's service is to metropolitan destinations, Amtrak also serves around 180 destinations in non-metropolitan communities. These scheduled services are vital to many communities and require additional investment and support to ensure that small towns are provided sufficient services at convenient travel times and receive timely access to major urban areas and regional destinations.

The Community Transportation Association of America created a visual representation of the importance of regional connectivity. Using New Hampshire as an example the map below shows how comprehensive intercity bus service branching off of passenger rail system has the ability to connect the entire state. Rural regional network services provide localized mobility options, while trunk lines connect regions within the state to cities and employment centers.

The regional connectivity of goods movement is another critical function of the transportation system serving rural and small town Americans. The heaviest concentration of interstate or intrastate goods movement is along the interstate highway corridors and the vast majority of manufactured goods are currently shipped into and out of states by truck. While the network of roads and highways connecting rural regions and small towns to larger metropolitan regions is generally sufficient, the additional wear and tear on this aging infrastructure from heavy-duty vehicles requires constant monitoring and maintenance to ensure safety.

Freight railroad is an efficient and environmentally friendly mode that has seen steady consolidation in recent years. The restructuring of the rail industry has led to the abandonment of many branch lines, cutting off freight service to many rural areas and leading to an increase in on-road truck travel. The consolidation of smaller rail companies also caused maintenance to lapse on less-used rail lines in many rural areas. Railroads also pose challenges to rural areas as many grade crossings are dangerous and in need of safety improvements.

Public Transportation

Although many associate public transportation with large areas, local bus, paratransit, medical transport and other services play a vital role for people in rural communities. The U.S. Department of Agriculture's Economic Research Service found that public transportation service exists in 60 percent of rural counties, but service is limited; about two-thirds operate in a single

county or town. However, transit use is also on the rise. According to the American Public Transportation Association, more than 10 billion trips were taken nationwide on local public transportation in 2006, and ridership for rural and small urban systems grew about 20 percent between 2002 and 2005.⁹ Transit trips may be necessary for people who cannot drive, do not own cars, or where congestion makes driving difficult or unpredictable. In addition, access to transit can have a substantial impact on a region's economy and environmental quality.

State and Local Funding

Many rural communities have declining populations and with that a diminished tax base to support funding for maintenance and preservation of the expansive system of roads and bridges. Funding new or upgraded roads outside the federal-aid system to enhance the operations of large-scale agriculture or tourist attractions is difficult.

⁹ Transit and Air Quality Make a Connection. April 2007. National Association of Development Organizations (NADO).

Principles for Action in Rural America

If rural areas are going to receive the support they need to address these myriad challenges, the next federal authorization must establish clear objectives for programs and investments designed for less-populous communities. The following section outlines principles for reforming federal policy to address the mobility challenges in rural areas, and provides real-world examples of efforts that have worked, and could work elsewhere.



Involve Rural Communities in Planning for their Future

A great deal of the challenges outlined above arise from the difficulty that small communities have

in raising the resources needed to be effective participants in planning for transportation projects and their corresponding effects on development.

Transportation planning should integrate considerations around various modes (car use, walking, bicycling, transit) as well as strengthen support for land-use plans and economic development goals. Transportation planning may also provide a forum for coordinating interests and actions with other governments, such as the surrounding county, adjacent cities and towns, and/or nearby metropolitan areas. Recognizing that the transportation system must integrate long-term projects to improve the network connectivity throughout the region, a robust planning process can prioritize investments, coordinate activities, and foster a multi-modal approach. Some areas around the country have found regional planning in non-metropolitan areas has been an effective means to integrate these discussions about investments, policy, and projects.

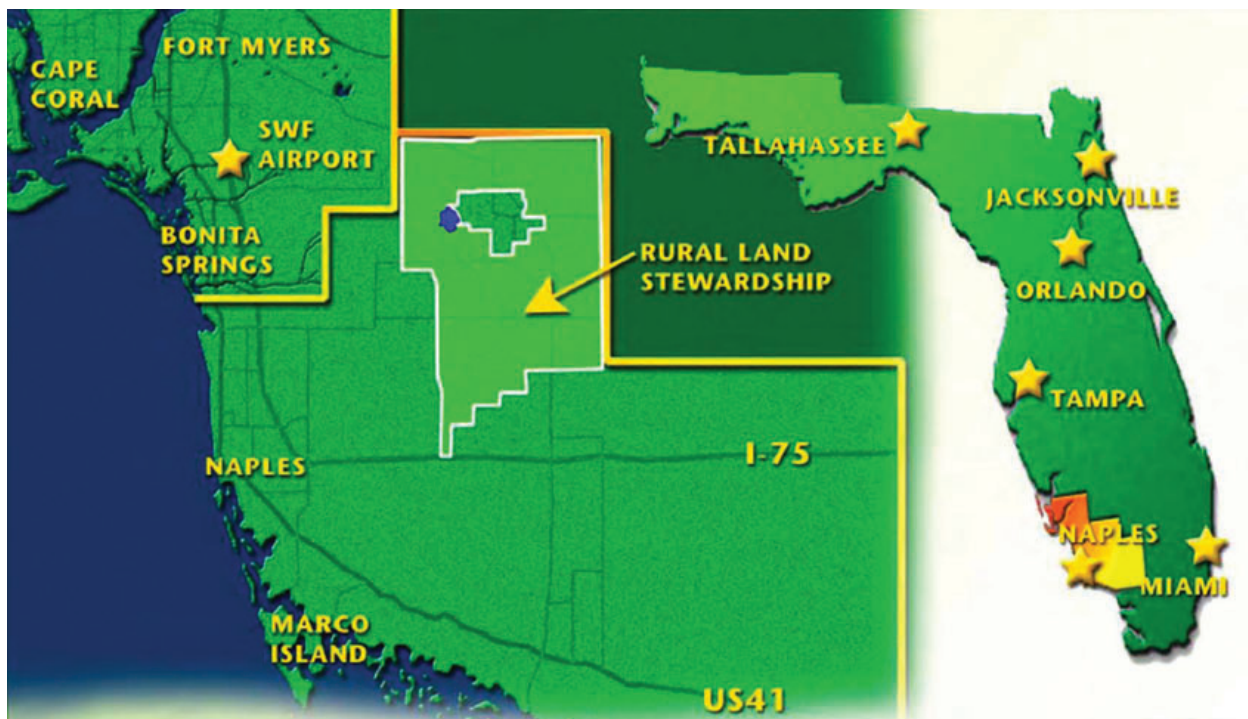
Many smaller communities have found that maintaining their traditional, town-centered development patterns – which were designed to put homes, businesses, churches and civic life in close proximity to one another -- can reduce their need to be on the road, especially when reliable public transportation service exists. With help from planners and designers, smaller communities can adopt policies and practices to integrate their land use and transportation goals while preserving the rural character and landscape of the region. Areas that are subject to high development pressures and have strong agricultural ties such as the state of New Jersey are taking active efforts to manage growth

and development. New Jersey's smart growth plan, called Future in Transportation (FIT) is just one example of statewide planning. NJ FIT preserves rural corridors by acquiring open space in rural areas in order to prevent sprawling development.

Case Study: Land-use Planning in Florida

Between 1974 and 2002 more than 2.8 million acres of farmland in Florida were converted to non-agricultural uses. In 2001, the Florida legislature

created the Rural Land Stewardship Area Program, allowing and encouraging counties to set aside areas where special planning efforts would be made to preserve farm and forest land. Rural land stewardship is a local government, incentive-based large scale planning process that seeks to conserve agricultural land and natural resources on agricultural land. This is accomplished by providing incentives to direct growth in a manner compatible with rural character and rural economies. After several successful pilot initiatives, the legislature in 2004 made the Rural Land Stewardship program permanent.¹⁰



Source: Urban Land Institute

¹⁰ Florida Department of Community Affairs. <http://www.dca.state.fl.us/fdcp/DCP/RuralLandStewardship/index.cfm>

Case Study: Corridor Planning in Rural New Jersey

Route 57 is a 20-mile long, two-lane highway in mostly rural Warren County in the Highlands area of northwest New Jersey. The corridor terminates at each end at small urban centers (Phillipsburg and Hackettstown) with a regional town (Washington) in the middle. Most of the road runs through rural areas with extensive farmland, scenic vistas, and small villages with considerable architectural value. The whole area is coming under development pressure from the expanding New York—New Jersey metropolitan area.

In 2000, the New Jersey Department of Transportation (NJDOT) initiated a corridor study of the entire Route 57 corridor with a view toward developing strategies to preserve mobility and deter sprawl development. NJDOT determined that promoting “centered” development and preserving open space in the region, as called for by the State Development and Redevelopment Plan, would also lessen future demands for highway widening.



After the corridor project, the streets feature wide shoulders and attractive landscaping.

Area residents participated in extensive scenario planning workshops, which yielded a preferred growth scenario that would focus development in town centers and dispersed villages while preserving the farms and open spaces that make the region special. Residents were provided with an “implementation toolkit” to move forward with, including suggested planning and zoning measures and support for the development of a scenic byway proposal. NJDOT committed to purchasing “scenic parcels” along the highway to prevent their development, to investing in infrastructure improvements in the main towns, and to implementing traffic calming measures in the small villages. These measures included installing visual “cues” to encourage drivers to slow down in these settled areas – narrowing the striped traffic lanes, applying a colored surface to the shoulders, and putting in signs and landscaping as “gateways.” Other state agencies also agreed to cooperate to support the local plan.¹¹

Case Study: Rural Planning Organizations: Southeast Tennessee RPO

In order to comply with federal guidelines requiring the involvement of rural officials in project planning and selection Tennessee Department of Transportation (TDOT) created 12 Rural Planning Organizations (RPO). The Southeast Tennessee RPO members must grapple with environmental concerns as well as unique issues like using nearby waterways as freight corridors. Participants indicate that their power to advocate for their communities’

¹¹ Mark Stout. Transportation for America

transportation needs is greater within the RPO. As a direct result of RPO advocacy TDOT has funded a study of improvement options within “Corridor K” a vital connection between Chattanooga, TN and Asheville, NC.¹²

Improve Conditions on Existing Infrastructure

Rural regions and small towns depend to a large degree on state DOTs – which in turn receive large sums of federal support – to maintain their existing roads, bridges and other assets. These communities often find that state resources are more limited than they might be, because developing areas siphon off resources for construction of new highway facilities. Some states have responded responsibly by establishing “fix it first” policies.

Simply put, “fix it first” means making reinvestment in what already exists the top priority. Expansion, growth, and new construction come only after existing infrastructure has been taken care of properly.¹³ Regular maintenance such as filling potholes, applying protective coatings, and snowplowing all ensure a longer lifespan for roads. Similarly, regular repair, more intensive resurfacing, reconditioning or reconstruction of a roadway ensure that little problems that can be handled in a cost-effective manner are not neglected and allowed to become expensive major projects.

As important as it is to ensure high-quality conditions for motorists, it is equally critical to ensure the safety and comfort of those who walk or bicycle in smaller cities and towns. Many communities have adopted complete streets policies that ensure transportation agencies routinely design and operate the entire right of way to enable safe access for all users. Places with complete streets policies are making sure that their streets and roads work for drivers, transit users, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities. In rural areas, complete streets may include sidewalks, bike lanes or wide paved shoulders, special bus lanes, comfortable and accessible transit stops, frequent pedestrian crossing opportunities, median islands, accessible pedestrian signals, and curb extensions. While a complete street in a rural area may look quite different from a complete street in a highly urban area, both are designed to balance safety and convenience for everyone using the road.

Rail-banking is an innovative program that preserves system conditions by banking railroad corridors no longer in active use. Many of these corridors become rail trails creating recreational opportunities, popular with bicyclists and hikers.

12 Southeast Tennessee Transportation: Positioning the Chattanooga Region in the Global Economy. NADO. <http://www.ruraltransportation.org/files/chattanooga.pdf>

13 1000 Friends of Wisconsin. http://www.1kfriends.org/Transportation/Transportation_Policy/Fix-it-First/Myths_&_Facts/Myths_&_Facts.htm

Case Study: Complete Streets in Basalt, Colorado

Basalt, Colorado, a town of 2,500 located about 25 miles from Aspen, adopted a Complete Streets policy in 2005. The town also adopted a Complete Streets design manual outlining overall street design requirements. The design manual aims to provide a comprehensive toolkit for the creation of safe, pleasant, efficient, interesting, and active mobility corridors. Basalt seeks to preserve its commitment to walkability and address pedestrian needs. The 34-page document classifies street types and functions and design criteria for historic, bicycle, pedestrian, lighting, and infrastructure facilities.¹⁴



In Basalt, Colorado complete streets policies and street design have increased the number of sidewalks.

Case Study: Katy Trail, Missouri

Stretching from Clinton, Missouri to St. Charles, Missouri, the 225-mile Katy Trail is the longest rails-to-trails project in the country. The Rail Trail stretches across most of central Missouri, following the Missouri River. It also highlights one

of the state's historical assets – the Lewis and Clark expedition trail. Built on the former corridor of the Missouri-Kansas-Texas (MKT) Railroad, known as the Katy, it was converted into a trail after the rail line ceased operation in 1986. The National Trails System Act enabled the Missouri Department of Natural Resources to acquire the right-of-way. The trail is maintained as a state park and is popular for its biking and hiking opportunities. It connects many downtowns along the route and has spurred economic development - bike shops, other retail and B&Bs in close proximity to the trail have all flourished.¹⁵



The Katy Trail follows the Missouri River and provides scenic views for hikers and bikers.

¹⁴ www.basalt.net/planningPdf/StreetsFinal.pdf

¹⁵ <http://www.mostateparks.com/katytrail/generalinfo.htm>

Improve Transportation Safety

The evidence that rural, non-Interstate roads are more dangerous than those in more-developed areas is clear. Roads are important to travelers in small and rural communities, regardless of whether they are car drivers, transit passengers, pedestrians, or cyclists. Best practices in road design have evolved greatly in the last decade or so, and the “one-size-fits-all” convention has been replaced with a “context sensitive” approach.

A number of factors make rural roads more dangerous including road width and personal driver behavior. For example, wide roads built for high speeds coupled with unsafe driver speeding create an environment that produces more frequent and more severe crashes. Experience has shown that road design features that take into consideration the surrounding land-uses, community needs, and long-term development plans often have significant secondary benefits. For example, paved shoulders on rural roads have been found to extend road life and improve safety for drivers.

Advances in roadway and signage design for older adults and people with visual impairments can reduce the incidence of vehicular accidents and prolong the time they can drive. In the year since increasing the size of street-name signs, repainting median strips, installing larger and brighter stoplights, upgrading walk lights, and adding left-turn lanes along one busy street, Detroit saw a 35 percent drop in injury crashes for drivers age 65 and older and a four percent drop for drivers age 25

to 64.¹⁶ While Detroit is far from rural, the same design ideas apply in communities large and small.

Case Study: Safety Programs in Mendocino, California

Mendocino, California, an agricultural community 100 miles north of San Francisco, made its roads safer in a low-tech, low cost way: increasing signage. Many of the rural roads in the county were built along property lines; many of the curves are not up to code because they are too severe. The Mendocino County Department of Transportation decided the most cost effective route to lower speed and increase safety was to make drivers more aware of road conditions through consistent signing and markings.¹⁷ Over a six-year period Mendocino County decreased its crashes by 42%.

Case Study: Improving Safety in Isanti County, Minnesota

The Isanti County Safe Cab program is a collaborative effort between the East Central Regional Development Commission, local bars, and community groups to provide safe and affordable alternatives to drinking and driving. The service works by providing cab services to bar patrons who have had too much to drink. The costs are split between the partners. The program has been successful and is in great demand, from 2007-2008 requests from bars and restaurants rose 33% while

¹⁶ The Policy Book: AARP 2004 Public Policies, 10-08.

¹⁷ Public Roads Federal Highway Administration

Isanti was the only county in Minnesota to report a decline in DUI arrests. The program has become a national model on how to lower DUI arrests and prevent deaths and injuries in a cost effective way.¹⁸



The Mendocino County Department of Transportation Engineers survey potential locations for additional signage.

David Page, Florida LTAP

Improve and Restore Freight Rail Connections

Over the last few decades, the development of globalized, trade-dependent supply chains has led to substantial growth in the demand for efficient, long-distance freight movement. The U.S. transportation system moved, on average, 53 million tons of freight worth \$36 billion each day in 2002; a figure which is expected to grow to 102 million tons by 2035.¹⁹ The movement of goods production offshore has led to the abandonment of many rural branch lines and the loss of rail freight service to some areas of the country. This results in increasing truck traffic on rural roads, ultimately increasing road maintenance needs, and

reducing the financial stability of areas dependant on long-distance goods movement but located far from main line railroads.

Statewide and regional planning efforts that focus on opportunities for economic development include the movement of freight as a key transportation investment. Strategic interstate design and intelligent transportation technologies are available to address chokepoints in freight corridors. The regional economic benefits of targeted investments in the freight system include better regional and national connectivity, increasing business taxes and revenues, and localized job creation.

Case Study: The Southern Tier Extension Railroad

The Southern Tier Extension is a 145-mile long rail line through western New York and Pennsylvania. The Southern Tier West Regional Planning and Development Board rehabilitated the line, located in an area where the primary economic activity includes agriculture and a variety of manufacturing. This project was a collaborative effort by multiple stakeholders, including private entities, school districts, local, county, state, and the federal government, to rehabilitate a dormant mainline railroad extension. The project addressed deferred maintenance issues, such as the washout seen in the before and after photographs, through a capital rehabilitation of the line. The results were positive; since 2001, the number of shippers using the line has increased from one to 20 and traffic increased

¹⁸ NADO 2008 Excellence in Regional Transportation Awards

¹⁹ U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 2.2, 2007.

from 75 to 54,000 annual carloads.²⁰



Southern Tier Extension Railroad before and after revitalization.

Invest in Public Transportation and Paratransit Services

Public transportation is vital in rural communities, where many residents may be elderly or poor, and either lack cars or the ability to drive. The nature of public transportation service in smaller cities and towns, naturally, differs substantially from higher-population regions. To succeed in

rural communities, public transportation often must operate flexible schedules and routes, and it often is an amalgam of various services. Indeed, coordination of overlapping services – such as medical and senior transport, employer shuttles and the like – can be one of the major challenges. Rural public transportation can also be improved by land-use decisions that concentrate important services like jobs, retail, schools, and healthcare in the towns' center. As gas prices continue to rise, public transportation and the mobility options it provides are also a needed economic relief for families.

The ability to travel within and between communities is essential to maintaining independence, health, and social connections, in short, in ensuring a meaningful quality of life. Those without access to appropriate mobility options, such as walking; obtaining rides with family, friends, volunteers or neighbors; public transportation; and transportation provided in connection with services from community agencies and the healthcare system, are more likely to experience isolation or rely on institutionalized care.

“Mobility management planning” is the term applied to techniques for coordinating a “family of transportation services” to reach a wide range of customers (see Vermont case study). This approach differs from traditional transit systems that are built on the principle of unified regional service coverage. A “family of transportation services” is a wide range of travel options, services, and modes that are matched to community demographics and

²⁰ NADO 2008 Excellence in Regional Transportation Awards
<http://66.132.139.69/uploads/excbook08.pdf>

needs.²¹

One of the SAFETEA-LU requirements is that projects from grantees under the Elderly Individuals and Individuals with Disabilities (Section 5310), Job Access and Reverse Commute (JARC) (Section 5316), and New Freedom Initiative (Section 5317) grant programs must be part of a “locally developed Coordinated Public Transit-Human Services Transportation Plan.” These transportation plans must be developed through a process that includes representatives of public, private, and non-profit transportation services, human services providers, and the general public. Transportation coordination can help to provide more trips for human service agency and nonprofit organization consumers and the general public, and link them to life-supporting employment and services.

Case Study: Mobility Management Planning in Vermont

The state of Vermont is unrivaled in its coordination efforts. The system includes all modes of transit, covers both urban and rural areas and includes a statewide brokerage for non-emergency Medicaid transportation, job training, and welfare-to-work clients. The Vermont Public Transit Authority (VPTA), a private nonprofit corporation, contracts with nine community transportation agencies to act as coordinating bodies and/or transportation providers for their respective service areas. One of the most important programs is the Medicaid/Reach Up program, which provides non-

emergency Medicaid transportation to Vermont residents through a statewide brokerage operation. Coordination efforts also focus on achieving cost efficiency so that transit providers can maintain their level of operations without additional funding.²²

Case Study: Human Services in Southeast Alaska Independent Living (SAIL)

Last-minute trips, as well as trips outside of public transit’s service area and hours, for persons with disabilities and seniors in Juneau are now possible thanks to the SAIL Taxi Voucher Program. SAIL and Juneau Taxi & Tours joined forces via government grants to create the Taxi Voucher Program, allowing persons with disabilities or age 60 and older to ride for 40 cents on the dollar.²³

Registered persons (via a short application) are able to purchase vouchers that can be used to pay for taxi rides with Juneau Taxi and Tours. Each voucher has a \$3 value, but only costs the consumer \$1.20. Vouchers are used to pay the fare for those who call



SAIL Taxi vouchers enable residents to reach critical destinations.

21 United We Ride. http://www.unitedweride.gov/Mobility_Management_Brochure.pdf

22 TCRP Toolkit for Rural Community Coordinated Transportation Services

23 Transportation Priorities for Older Americans and For Persons with Disabilities. Nelson Nygaard [Forthcoming Report]

and ride with Juneau Taxi & Tours, including their new wheelchair-accessible taxicab. Grant funders include the City and Borough of Juneau, State of Alaska, and the federal government.

Case Study: Successful Transit in Bozeman, MT through Coordination

Transit planners in Bozeman, Montana enhanced transit services for residents by leveraging existing programs and increasing funding to fill in service gaps. In the past Gallatin County's paratransit service was operated by the city's Human Resources Development Council and provided services to county residents, while Montana State University coordinated a shuttle bus service to connect the local campus and the Big Sky Resort for visitors and employees. Although these options provided some mobility, the public transit system was not serving all the needs of the region's residents and the two systems were not coordinated. Gallatin County and Bozeman city leaders created a plan for system upgrades that combined city, county, and university investments with increased funding from the state's rural transit program. The service upgrade and expansion also established a new intercity route to connect Big Sky with Bozeman. The new expanded route also included new buses and a rebranding of the system aimed at making transit accessible and desirable to Bozeman and Gallatin County residents. The result is first-class, fare-free transportation that substantially boosted ridership and received positive feedback from

students, residents and tourists alike.²⁴

Case Study: Transit Options in Northwest Connecticut

The Northwest Connecticut Transit District is headquartered in Torrington, Connecticut and connects 16 towns in Connecticut's most rural county, Litchfield. The transit service is a mix of fixed-route, demand-responsive service and commuter options to employment sites. The service evolved from two independently operated demand-response services for older persons and people with disabilities in Torrington and Winchester, Litchfield's two most populous towns. Incremental changes have increased the service area and number of people served. In the 1980s the Litchfield towns united and formed the Northwestern Connecticut Transit District to expand service beyond older citizens and people with disabilities. Funding from the Connecticut Department of Transportation enabled the service to purchase vehicles. The Rural Transit system created five transit routes operating



The Northwest Connecticut Transit District serves many of Northwest Connecticut's residents.

Photo: Community Transportation Association of America

24 Community Transportation. Community Transportation Association of America

on a flexible-route structure and resulting in steadily increasing ridership. The latest innovation, funded in part by the Job Access and Reverse Commute federal program, was Job Links CT connecting workers with employment locations and expanding commuter options.²⁵

Case Study: Rural Paratransit & ITS in Texas' Capital Area

The Capital Area Rural Transportation System in the greater Austin has is using state-of-the-art technology to centralize reservations, scheduling, dispatching and operations of its largely demand responsive system. CARTS serves nine predominantly rural counties, reaching 123 communities across 7,500 square miles and providing fixed-route transit, inter-county, commuter and on-call services. About 75% of trips are paratransit trips, on-call services for senior citizens and disabled individuals. Using a sophisticated radio-data communications network and computer-assisted scheduling, CARTS provides advance reservation, shared ride van service with its Community Transit system to thousands of Central Texas customers. With an investment in sophisticated two-way radio system and computerized scheduling CARTS can provide more efficient scheduling and services that in turn improves customers level of service.²⁶

Provide Intercity and Multimodal Transportation Connectivity

Intercity bus service is especially crucial to providing services for communities in which air or passenger rail options are not readily available or affordable. Federal and state subsidies have supported these services for more than 50 years. Beginning in 1991, with the Intermodal Surface Transportation Efficiency Act, rural intercity bus began receiving dedicated federal funding. Intercity bus connects those with the least mobility options: Its riders tend to be younger or older than riders on other common modes, have lower incomes, and limited vehicle availability. Passenger transportation in rural areas is provided by a variety of private sector, not-for-profit organizations, and various public agencies. The only supplier of passenger rail service is Amtrak, serving approximately 180 destinations in non-metropolitan communities. Some rural residents are also able to use scheduled air service for business, medical, and social trips. The Essential Air Service subsidy program ensures that some small, isolated rural communities have passenger air service.

Case Study: Intercity Bus Service in Washington State

Washington State Department of Transportation is an excellent example of far reaching intercity bus service achieved through public-private partnership. In 2005, the city of Walla Walla lost their intercity bus service when Greyhound made significant cuts in rural and unprofitable services.

25 Community Transportation. Community Transportation Association of America.

26 http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/13784.html#_Toc29270673

In 2006, WASHDOT received approval from the Federal Transit Administration to use private capital investment as local match funds for the new Travel Washington intercity bus routes. Their local match funding now comes from the capital investments made by Greyhound. Traditionally, local matching funds were needed for each individual route and provider and were difficult for local communities to secure. This new funding structure allows buses to serve much of rural Washington. The project uses the FTA 5311 (f) Private Match option, allowing

the operator of the Grapeline, servicing Walla Walla and Pasco, to receive full reimbursement for the operating deficit.²⁷

As the map of Washington State intercity bus service shows, a system to trunk lines and feeder routes has been used to link small towns and rural areas to regional centers. The regional transportation centers are then linked to major cities, airports, and other connection points.



Graphic: Washington Department of Transportation

27 Washington Department of Transportation. <http://www.wsdot.wa.gov/Transit/Intercity/News.htm>

Case Study: Mason City Airport as Intermodal Facility

Collaboration between Jefferson Lines, an intercity bus provider and the Mason City Airport resulted in the small regional airport becoming an intermodal facility. Mason City, Iowa, is a town of 30,000 about 2 hours south of Minneapolis. The Mason City Airport is a regional airport that is supported with funding through the Essential Air Service program. The town has intercity bus service provided by Jefferson Lines to a number of locations, including 3 daily runs to Minneapolis. Jefferson Lines worked with the owner of the restaurant located at the airport to convince the port authority to allow the bus to use the airport as a station stop. With the approval of the port authority Jefferson Lines moved a customer center to the airport which provides a convenient place for rural demand response services to transfer passengers, purchase tickets, and connect with the local transit system. The increase in traffic allowed the restaurant to stay open and the connection of the regional airport and intercity bus line made the services more useful and useable to people in the smaller surrounding communities.²⁸



Photo: Mason City Government

Case Study: Economic Benefits of Passenger Rail in Northern Montana

The Empire Builder is an Amtrak passenger line running through Northern Montana that serves 12 Montana communities. A study for the Montana Department of Transportation found:

- Amtrak's Empire Builder is an essential transportation service for which there is, by and large in most of the Montana communities served, no reasonable alternative.
- Direct spending by Amtrak-using nonresident travelers in Montana and by Amtrak is conservatively estimated to total between \$5.3 and \$5.7 million annually.
- The re-spending of these dollars in Montana is conservatively estimated at \$0.515 million personal income for Montana residents annually, which in turn generates 30 Montana jobs. As an example, the Empire Builder supports bus service at Amtrak transfer points at Whitefish, Cut Bank and Shelby, and BNSF fueling facilities and various retail establishments in Havre, not to mention jobs associated with lodging and recreation at Glacier National Park and other locations in Montana.
- The benefits (money saved, automobile costs avoided, lower accident probability, reduced highway maintenance, etc.) associated with using Amtrak intercity transportation total at least \$7.6 million annually.
- Expenditures by nonresident Empire

Builder passengers in Montana result in the addition of \$135,000 annually to state and local tax revenues.



Overarching all of these economic benefits, Amtrak's Empire Builder as an institution is no small part of everyday life to many Montanans who live in rural isolation along the line and who depend upon it. The study concludes that Montana residents living in areas where population density can be as low as one person per square mile receive important quality of life benefits from Empire Builder that those who live in metropolitan areas take for granted. DOT interviewers asked Montana mayors and residents "What would be the impact if Amtrak service is cancelled?" The consistent answer: "Devastating."

Conclusion

Rural and small communities face a mix of economic development, public health, housing, and transportation challenges that are not being met under existing national policy. The next federal transportation authorization provides an opportunity to meet some of these needs by creating an integrated, regional approach to long-term planning and short-term project selection. The next-generation federal authorization must establish clear objectives that include goals for programs and investments that apply expressly to less-populous communities. Transportation for America and the Rural Roundtable participants will continue to work using these principles for reforming federal policy to address the mobility challenges in rural areas. The real-world examples of efforts that have worked, and could work elsewhere described in this paper demonstrate the desire for innovative solutions that lie ahead.

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