August 2010

Transportation Reboot:

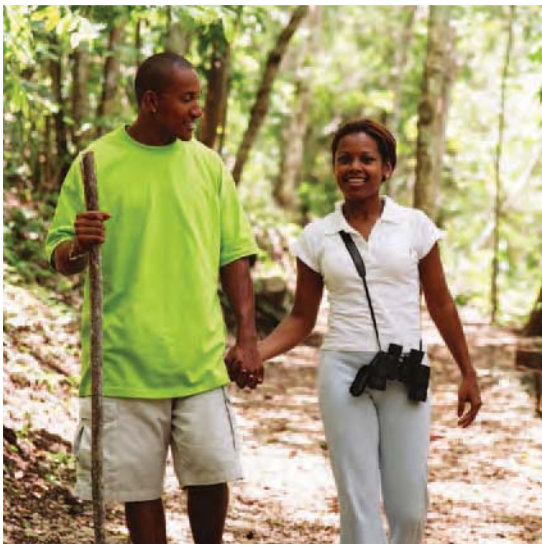
Restarting America's Most Essential Operating System

The Case for Capacity: To Unlock Gridlock, Generate Jobs, Deliver Freight, and Connect Communities









Connecting Rural and Urban America

http://ExpandingCapacity.transportation.org

PART 3 OF A SERIES

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

AASHTO
THE VOICE OF TRANSPORTATION

Acknowledgements

Much of the material cited in this report, including the estimates of capacity increases required, is drawn from research published in May 2007 by the Transportation Research Board's National Cooperative Highway Research Program (NCHRP). The report, *Future Options for the Interstate and Defense Highway System*, can be accessed at http://onlinepubs.trb.org/onlinepubs/trbnet/acl/NCHRP_20-24_52Task10_NCHRPFinal.pdf.

The objective of the research project was to develop a potential vision for the future of the U.S. Interstate Highway System. The report was prepared by a study team led by David Gehr and Steve Lockwood of PB Consult, Gary Maring of Cambridge Systematics, Inc., Kevin E. Heanue, and Alan E. Pisarski.

The research was sponsored by AASHTO and the Federal Highway Administration, and was guided by a panel chaired by Harold E. Linnenkohl, Georgia DOT (retired); and included Allen D. Biehler, P.E., Secretary, Pennsylvania DOT; John F. Conrad, P.E., Washington State DOT; Dr. David J. Forkenbrock, University of Iowa; Dr. Clay McShane, Northeastern University; Debra L. Miller, Secretary, Kansas DOT; Thomas E. Norton, Colorado DOT (formerly); Kenneth Orski, Urban Mobility Corporation; Dr. Bruce E. Seely, Michigan Technological University; MG David A. Sprynczynatyk, North Dakota Army National Guard; and LTG Kenneth R. Wykle, National Defense Transportation Association.

The analysis period considered in the *Future Options* report was the 30 years from 2005 to 2035. The National Surface Transportation Policy and Revenue Study Commission, in its 2008 report, *Transportation for Tomorrow*, looked at what the country's surface transportation needs would be by 2050. In order for this report to be comparable to that of the National Commission's, AASHTO based its findings on the research conducted by PB, Cambridge Systematics, Pisarski, and Heanue, but presented its recommendations using the 2050 time horizon. We have also updated the travel demand forecasts using more recent data from *AASHTO's 2009 Bottom Line Report*.

Additional information in the report was gleaned from *Commuting in America III*, authored by Alan E. Pisarski under a joint project of the National Cooperative Highway Research Program (NCHRP) and the Transit Cooperative Research Program (TCRP) and published in October 2006.

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Foreword

AASHTO Executive Director
John Horsley



John Horsley
Executive Director

Providing Access and Connections for All of America

The United States is a big country. Sprawling metropolises, rural farmland, and small towns dot the landscape. They are all connected by the country's highway system, providing a lifeline of support for workers, farmers, freight carriers, and tourists.

Improving connectivity for the 60 million Americans who live in rural areas is just as important as improving mobility for those who live in metropolitan areas. Twenty percent of the overall U.S. population lives in rural areas—a population equal to that of the 100 largest cities in America, from New York with 8.3 million residents, to Boise, Idaho with 205,000. Every American is important to the national economy, whether they raise cattle, harvest wheat, deliver wind turbines, maintain ski slopes, manufacture cars, or manage a computer network.

Yet in policy discussions, the need to improve connectivity outside metropolitan areas is too often overlooked. Rural states are essential to the nation's success, not only to meet the needs of their own citizens, but also to maintain their part of the national network on which the U.S. economy depends. Highways across rural states are a "bridge" for traffic between population centers for people and freight. Simply put, they connect all Americans; urban and suburban, as well as rural.

So How Can We Achieve the Connectivity We Need?

The answer is clear: by addressing the capacity needs of rural America; providing connections to new and emerging centers of population and commerce; improving access for travel, recreation, and tourism industries; and for homeland security, by assuring reliable access to defense installations and critical industries. This is how we will create a transportation system that will serve our needs well into the 21st century.

This report outlines the many reasons good transportation to connect rural and urban America must be a national priority.

"Roads and bridges are probably the most fundamental form of infrastructure for any community, providing transportation to both commodities and people, connecting businesses to suppliers and consumers, and connecting residents to critical public services, such as health, education, and emergency services."

—U.S. Department of Agriculture

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Connecting Rural and Urban America:

Key Findings



Riders on the City of Houston, MO, Transit Bus

Photo courtesy of Transit Marketing LLC.

American highways are the thread connecting life in the cities, towns, and farmlands; the connections that ensure the safety and security of our country. Yet in policy discussions, the need to improve connectivity outside metropolitan areas is too often overlooked.

Rural states are essential to the nation's success, not only to meet the needs of their own citizens, but also to maintain their part of the national network on which the U.S. economy depends. Highways across rural states are also a "bridge" for traffic between population centers for people and freight. Simply put, they connect all Americans; urban and suburban, as well as rural.

Additional transportation capacity is needed to connect rural and urban America.

- Most Interstates were planned 60 years ago, yet little new capacity has been added.
- America needs to add new capacity to:
  - ✓ Improve connectivity and mobility for rural America;
  - ✓ Improve access for the travel, recreation, and tourism industries;
  - ✓ Enhance and expand rural transit opportunities;
  - ✓ Provide connections to new and emerging centers of population and commerce; and
  - ✓ For homeland security, assure reliable access to defense installations and critical industries.

Meeting the needs of a changing and growing rural economy will require the United States to expand its highways and transportation options.

- Narrow, two-lane, rural roads, many built in the 1960s and 1970s, cannot safely carry the kinds of trucks and commercial vehicles now moving across America's heartland.
- The nation's 2.2 million farms produced $365 billion in 2008, including crops, livestock, and forestry products. As the U.S. and world populations grow, this will only increase, accelerating the need for better access to markets.

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- The renewable fuels industry and wind farm electric energy production are essential if our nation is to reduce its dependence on foreign oil. An excellent highway transportation network in rural areas is essential to support agriculture and the development of energy resources.
- Trade between the United States and Canada and Mexico is expected to increase from $637 billion in 2009 to $760 billion by the end of 2010. In 2009, approximately 70 percent of this trade by value was moved by truck, much of it on rural highways.
- Since the Interstate was launched in 1956, the nation has grown from a population of 165 million to 308 million—and is expected to reach 420 million by 2050.

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Markets such as this one in Charleston, WV, help support local farmers.

Photo courtesy of Leah Appel

Rising demand in rural areas, particularly from the growing elderly population, is creating an increasing need for more transit service in rural America.

- In 2008, almost one out of eight people aged 65 and older lived in rural areas. This elderly population exceeds 9.6 million people.
- Congress recognized this need by nearly doubling the size of the rural transit program from the $1.18 billion provided between 1998 and 2003 to $2.18 billion between 2004 and 2009.
- Nearly 57,000 vans and buses criss-cross America's rural highways, providing service to rural populations, including 1,700 over-the-road buses providing rural intercity service.

New and emerging cities and towns require better transportation connectivity to keep competitive and support jobs.

- Sixty-six cities with populations of 50,000 or more—including one state capital—do not have immediate access to the Interstate system.
- During the next 30 years, 80 percent of the nation's population growth is expected to concentrate in the South and West.

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Tourism is one of the strongest economic engines in the country yet many "hotspots" face major congestion and seasonal bottlenecks that deter its growth.

- In three states, the tourism and recreation industries rank as the most important, as measured by employment. Overall, tourism, travel, and recreation are among the top ten industries in all but two states.
- Many of the nation's most popular tourist destinations—including ski slopes, seashores, and National parks—experience significant traffic delays. Many of these destinations are not close to Interstate or National Highway System routes.

Homeland security and defense require a reliable transportation network.

- Movement of military equipment and personnel for overseas deployment has increased during the past 15 years.
- Growing populations in areas along the coast depend upon safe hurricane evacuation options.
- Alternate routes are needed to ensure reliable access to defense facilities.



Traffic on Delaware US 113 is headed to resort beach communities.

Photo courtesy of Delaware Department of Transportation

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Downtown
Portsmouth, Ohio

Photo courtesy of Ohio Department of Transportation

What we need to reconnect rural and urban America.

- Investments are needed to maintain and preserve existing capacity in rural America for the benefit of the entire community.
- Any new Federal-aid transportation program must continue to help rural states fund the portions of the Interstate Highway System and other Federal-aid highways for which they are responsible.
- According to a 2007 study of *Future Options for the Interstate Highway System*, 30,000 lane-miles[1] should be added to the Interstate system to meet rural needs, including:
  - Expanding the existing rural Interstate Highway System by 16,000 lane-miles;
  - Upgrading rural National Highway System routes to Interstate standards, an addition of 2,000 lane-miles; and
  - Upgrading to Interstate standards National Highway System routes that can connect the existing Interstate network to unconnected urbanized areas with a current or expected population greater than 50,000 in population. This would add 12,000 lane-miles.
- To keep pace with rising demand for rural transit, Federal funding for rural transit service should more than double over the next six years.

[1] One lane-mile is one mile of one lane of road (a one-mile length of four lanes on a highway equals four lane miles).

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Start of the Carson City Fun Run

Photo courtesy of Julie Duewel, Nevada Department of Transportation

Connecting Rural and Urban America is the third in a series of reports generated by AASHTO to identify the need to increase capacity in our transportation system to unlock gridlock, generate jobs, deliver freight, and connect rural and urban America. To see state examples of rural capacity needs and for more information, go to http://ExpandingCapacity.transportation.org.

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LaMoille Highway and Ruby Mountains, Nevada.

Photo by Julie Duewel, Nevada Department of Transportation

INTRODUCTION

Connecting Rural and Urban America

This report, the third in a series on the nation's transportation capacity needs, focuses on the need to tap the economic might of rural America, be it through access to energy resources, tourism, or agriculture. It also identifies underserved cities whose future growth depends on Interstate access. Finally, it underscores the capacity improvements needed to ensure the nation's security.

Better Connections

What do the cities of Owensboro, **Kentucky**, and Bend, **Oregon**, have in common? They are mid-size cities in an otherwise rural area of their state, have populations in excess of 50,000 today, but are 60 to 100 miles from the nearest Interstate.

More Capacity

What do the cities of Augusta, **Georgia**, and Tempe, **Arizona**, have in common? They are Sunbelt cities that had populations of less than 50,000 in 1950 and have populations of more than 175,000 today.

"The bulk of our Interstate system was planned more than 50 years ago with the goal of 'getting farmers out of the mud'. But today, even though rural areas aren't in the mud anymore, they rely on commercial trucks, cell phones, and the Internet just as much as any city. Why do we expect our modern society to run on an archaic transportation system? We need a transportation system that works for the entire country of today—not one that struggles just to keep up with yesterday."

—AASHTO Executive Director John Horsley

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