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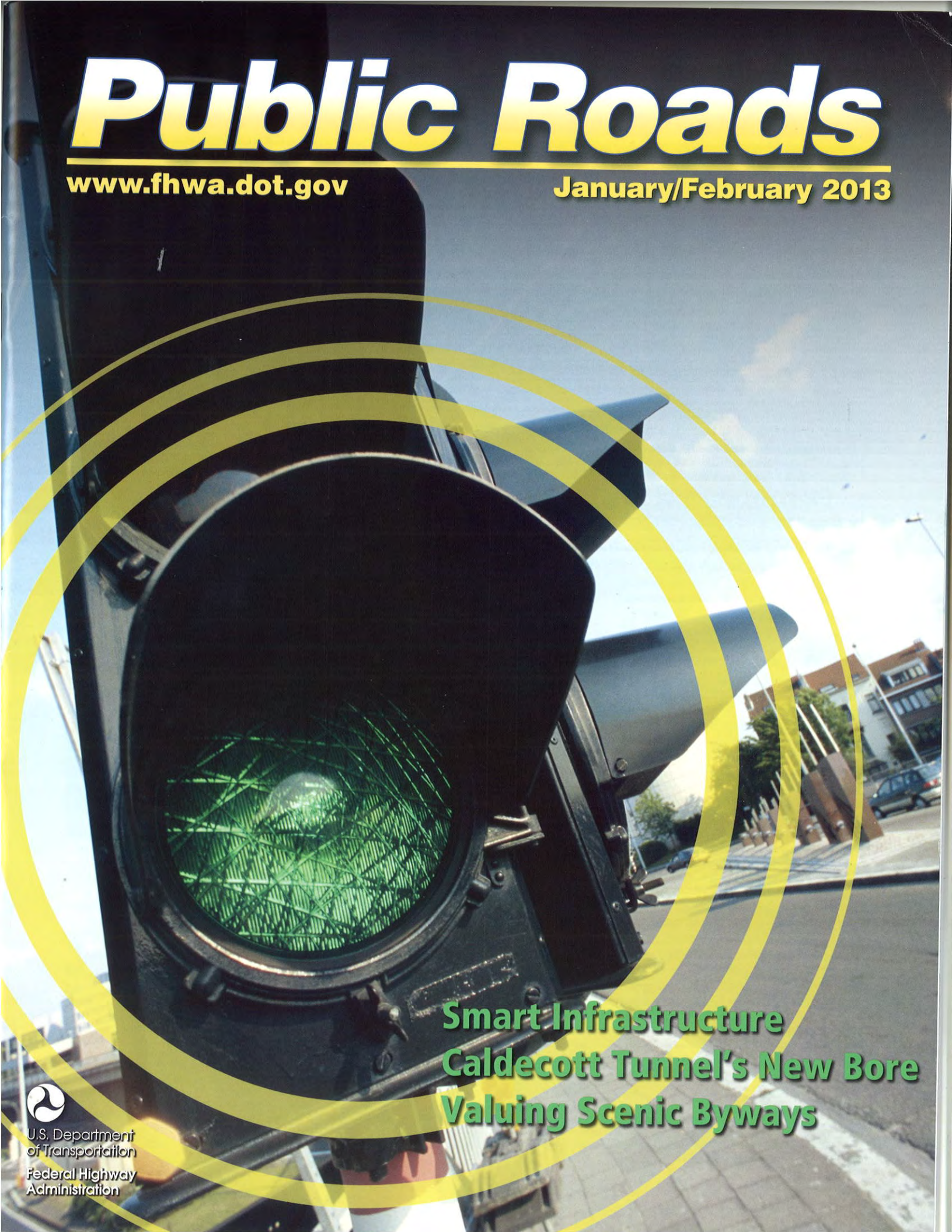

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U.S. Department of Transportation
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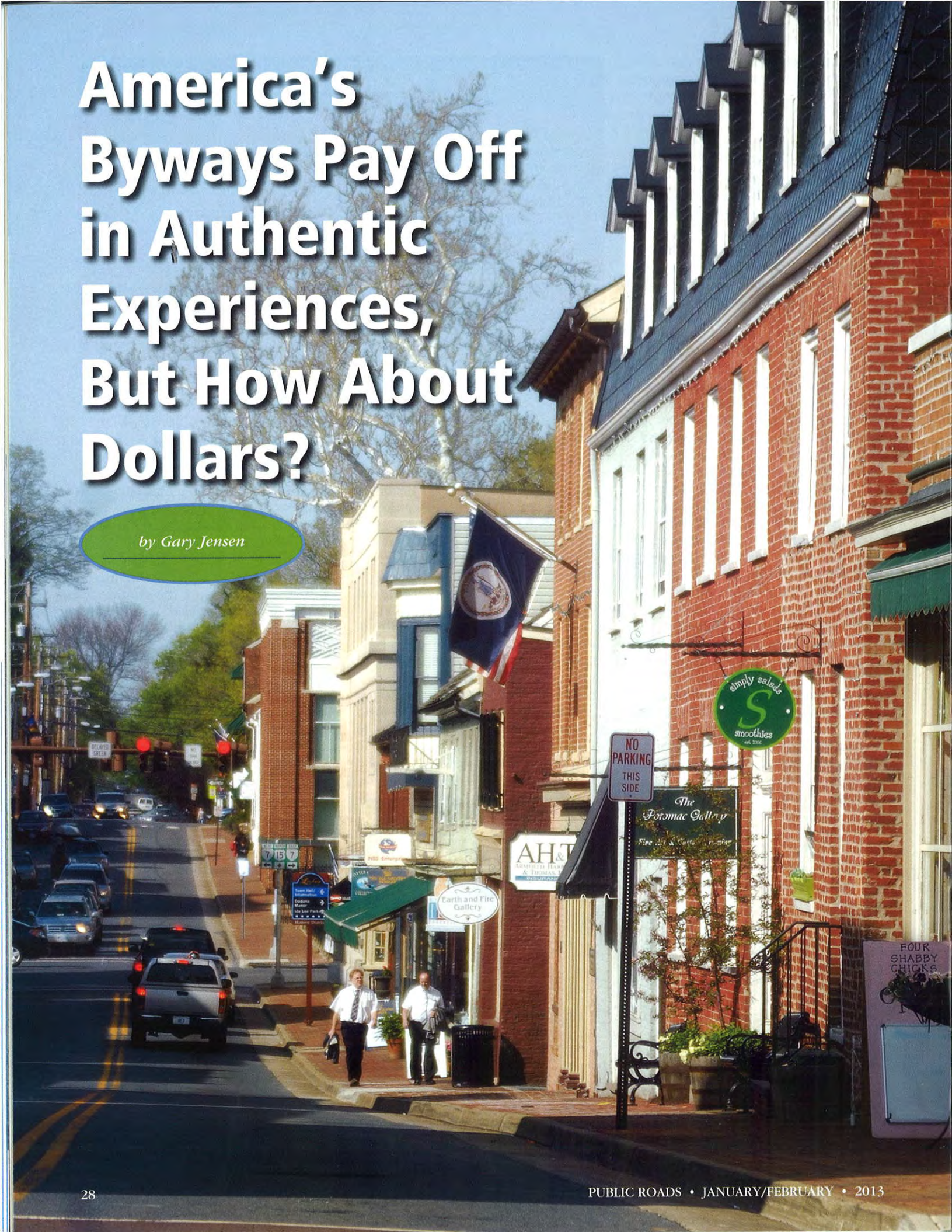
America's Byways Pay Off in Authentic Experiences, But How About Dollars?

by Gary Jensen



AMERICA'S BYWAYS®

Does designation as one of America's Byways have a quantitative impact on a community's economy? Here's how to find out.

States and communities might well ask how designation of roads as America's Byways® affects local economies. For years, byways have faced the daunting task of proving their worth to elected leaders and citizens. The majority of byways have modest budgets and limited staffs who have little or no economic expertise. Yet, decisionmakers need quantitative answers regarding the economic benefits of byways in order to make investments accordingly.

A variety of tools and methodologies are available to States and communities looking for quantitative performance measures to analyze the financial impacts of byways in relation to other economic factors. For example, some communities have employed surveys of visitors and businesses, as well as other approaches. Recently, several communities have used the America's Byways Resource Center's Byways Economic Impact Tool, a spreadsheet-based program, to analyze the effects. Because this tool uses data available from existing sources, it offers users a simple alternative to conducting costly field research to collect and assess data on the economic costs and benefits of byways.

"America's Byways lead visitors seeking authentic experiences into communities where they support small business owners by shopping in locally owned stores, dining in restaurants, and lodging in local establishments," says Anaise Berry, president of the National Scenic Byway Foundation and director of the Illinois River Road National Scenic Byway. "Byways are a catalyst for local and regional economic growth, and being able to measure the degree of their impact on a region's visitor-based economy is critical for ongoing investment in byways."

Early fall foliage frames rustic Flume Covered Bridge, near Lincoln, NH, along the Kancamagus Scenic Byway, one of America's Byways.

(Left) Leesburg's bustling downtown is brimming with history and charm. Shown here are the brick sidewalks of King Street, lined with shops, restaurants, and art galleries that welcome visitors traveling the Journey Through Hallowed Ground National Scenic Byway in Virginia.

What Are America's Byways?

America's Byways is an umbrella term for marketing the collection of distinct and diverse roads designated by the U.S. Secretary of Transportation as All-American Roads or National Scenic Byways. There are currently 150 America's Byways in 46 States.

The golden leaves of autumn provide rich color along the Blue Ridge Parkway in Virginia, one of the byways where researchers surveyed visitors to study the effects of tourism spending on regional income, tax revenue, and employment.

In addition, many States and Indian tribes designate routes as byways, and Federal land management agencies designate National Forest Scenic Byways and Bureau of Land Management Back Country Byways.

In general, all of these routes are intended to create unique travel experiences and enhance local quality of life through preserving, protecting, interpreting, and promoting the intrinsic qualities of designated byways. Intrinsic qualities are not limited to the scenic aspects of a corridor, but also can focus on significant historic, cultural, natural, recreational, and archaeological resources. A byway like the Blue Ridge Parkway, for example, provides spectacular mountain and valley vistas in North Carolina and Virginia, while a byway like Woodward Avenue in Detroit, MI, tells the story of America's automobile heritage. The variety of America's Byways reflects the Nation's diversity. In addition to enabling visitors to experience that variety, byways can spur economic activity, especially in rural areas.

"The designation of the eight America's Byways in Utah lures new travelers and gives a sense of pride for the local people who live and own businesses along the byways," says Gael Duffy Hill, program coordinator for scenic byways with the Utah Office of Tourism. "The economic impact has been tricky to capture in a tangible way, but with newly designed economic tools, that information can be used as a credible, quantifiable measure of the impact of byway designation and funded byway enhancement projects."

Past Studies of Economic Impacts

In general, studies of the economic impacts of investment in scenic byways include analyses of direct impacts such as goods and services purchased by travelers and tax revenues associated with those purchases. For example, byway travelers often rent hotel rooms, and the rentals include local and State lodging and sales taxes.

In addition, economic impacts include indirect associated benefits such as investments in construction of scenic overlooks with native stone mined in local quarries. The wages paid to the quarry workers and the household expenditures of those workers contribute indirectly to local economies.

When measuring economic activity, both direct and indirect benefits need to be included. A 2007 study by Yellow Wood Associates found that the most useful tool would measure visitor spending to show direct economic impacts, but also the indirect impacts of investments in resource protection, interpretation, and development.

In 1990, Kansas State University studied models that were capable of measuring the direct economic impacts of a scenic byways program in Iowa, Kansas, Missouri, and Nebraska. One of the findings was that no consensus model was available to specifically measure the economic impacts of scenic byways. Like many other research efforts, this study found that "the most essential approach is an onsite personal survey of scenic road users both *before* and *after* designation and advertising promotion."

Also in 1990, the Southeastern Research Institute surveyed visitors to the Blue Ridge Parkway to determine the direct effects of visitor spending on income, tax revenue, and employment in the counties along the parkway. Findings showed that visitors in 1987 spent about $1.3 billion and that those expenditures generated approximately $98 million in tax revenues and supported more than 26,500 jobs.

The Federal Highway Administration (FHWA) sponsored several studies prior to establishing the National Scenic Byways Program. In particular, a 1990 study by the U.S. Travel Association (formerly the U.S. Travel Data Center) pointed out one of the major challenges associated with measuring the economic impacts of byways: "It is difficult to segregate the portion of county travel-generated economic impact that is attributable to the scenic byway[s] located in the county versus other destinations in the county."

In other words, as stated in a 1990 study by the New Hampshire Department of Transportation, "The actual dollar increase from visitors using a scenic byway will be difficult to separate from dollars already spent in the area without the scenic byway."

Studies of Economic Benefits

Alongside this early research, several studies since adoption of the National Scenic Byways Program in 1991 have attempted to measure

economic performance. For example, in 1997 the Transportation Consulting Group (now HDR, Inc.) surveyed coordinators of State scenic highway programs, representatives of government agencies, and officials from special interest groups to determine the economic benefits of the Florida Scenic Highways Program. The qualitative findings indicated that byway designation can have a significant and direct economic impact on adjacent local communities and a positive impact on land values and tax revenues.

In 1999, the Bucher, Willis & Ratliff Corporation (now H.W. Lochner, Inc.) surveyed visitors and businesses along the Flint Hills Scenic Byway in Kansas. Based on these surveys, the researchers estimated that tourism provided a $465,900 direct annual beneficial impact on local economies.

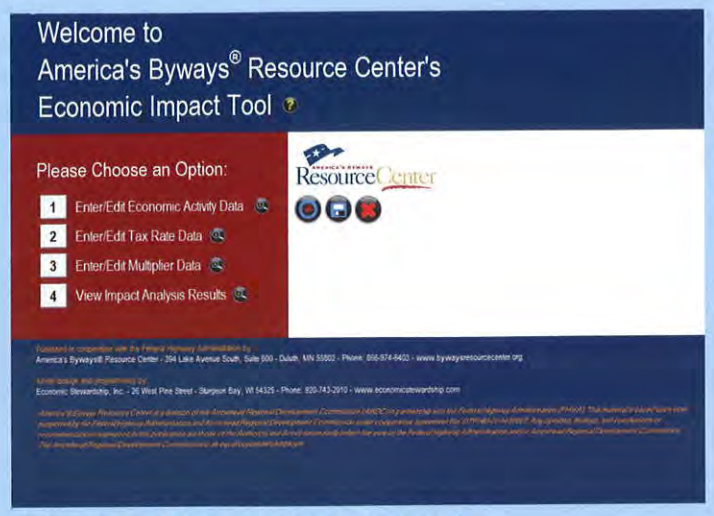
In 2003, CRC & Associates conducted a survey of demographic and trip information from visitors to New Mexico's byways. The researchers used the survey information to determine spending in each community. They supplemented the survey using the Regional Input-Output Modeling System (RIMS II) developed by the U.S. Department of Commerce's Bureau of Economic Analysis to determine secondary impacts, and the U.S. Travel Association's Travel Economic Impact Model (TEIM) to determine the tax and job implications in each community. This study found that the State's byways generated more than $267 million as a direct result and 37,000 jobs as an indirect benefit.

"These estimates are important for several reasons, including the opportunity to benchmark the performance of these investments," says Ingrid Schneider, professor of forest resources and director of the Tourism Center at the University of Minnesota. "Further, while economics are important, the breadth of impacts of byways, including contributions to livability and nature conservation, are also important but perhaps overlooked, undervalued, or underestimated."

In 2009 and 2010, the University of Minnesota studied the economic impact of traveler spending along two of the State's byways and the investments made in them. The researchers surveyed travelers along these byways. Using the input-output model IMPLAN® (IMpact analysis for PLANning), developed by MIG, Inc., they estimated the economic impacts of the Paul Bunyan Scenic Byway since 2000 and the Lake Country Scenic Byway since 2001. Overall, they found that during a 10-year period of investments, the Paul Bunyan Scenic Byway generated $631,000 of direct and indirect spending, created seven jobs, and contributed $271,000 of labor income to the local economy. In addition, they estimated that the Lake Country Scenic Byway in 9 years generated $477,000 of direct and indirect spending, created five jobs, and contributed $181,000 of labor income. Using traffic data and an estimate of the number of travelers who were specifically byway travelers, the researchers concluded that total expenditures by byway travelers in 2010 were $21.6 million.

In 2011, Rutgers, The State University of New Jersey, studied the economic impacts of Historic Route 66. This study involved an extensive survey of travelers and attractions along Historic Route 66 across the country to determine

Located in Elk City, OK, the National Route 66 Museum and nearby Old Town Museum Complex offer an opportunity to brush up on the history of this beloved road and view related memorabilia.



Home page of the economic impact tool.

traveler spending and trip characteristics. The researchers estimated the total direct economic activity related to Route 66 to be about $132 million annually. The Rutgers researchers also applied their input-output model, the Preservation Economic Impact Model (PEIM), to this direct spending and estimated $262 million in overall economic output, $126 million in wealth creation, and $37 million in public tax revenues.

Most of this research measuring economic vitality associated with byway designation and investment relied on extensive surveying, which is resource intensive and costly. Although before and after surveys may be desirable, it was not always feasible within the limited resources of a byway organization. Although specific measurement and surveys may provide the most accurate results, other ways of estimating economic impacts may provide reasonable estimates. What the byway community needed was a tool that could provide a quantitative approach to analyzing economic impacts that relies on more readily available information.

Byways Economic Impact Tool

The Transportation Equity Act for the 21st Century (TEA-21) created the America's Byways Resource Center in 1998. The center opened the following year as an initiative of the Arrowhead Regional Development Commission in Duluth, MN, under a cooperative agreement with FHWA. The primary purpose was to assist in building successful nationally designated byways through positive, proactive, hands-on assistance in planning, preserving, promoting, and managing scenic byways.

As part of its congressionally designated function of providing technical assistance to local byway groups, the America's Byways Resource Center commissioned the development of the Byways Economic Impact Tool. The tool enables local byway staff and volunteers to measure the impacts of byways and byway-related activities without the need for extensive surveying, by providing estimates based on available data.

Originally released in February 2010, the tool is a Microsoft® Excel®-based software program with a user-friendly interface that enables users to generate economic impact figures. The tool was developed by Economic Stewardship, Inc. with a steering committee of byway and tourism experts. HDR Decision Economics independently tested the tool, provided a sensitivity analysis, and used the tool to develop case studies. The tool is designed to be used on a multiyear basis; results from 1 year alone will offer just a snapshot. The information, gathered by byway organizations for use with the tool from available sources without additional surveying, is critical for activities such as fundraising, community support, marketing, and informing policymakers.

The economic impact tool enables the user to measure impacts from a specific one-time economic event or ongoing economic activity.

Overall Economic Impacts, Blue Ridge Parkway, 2010

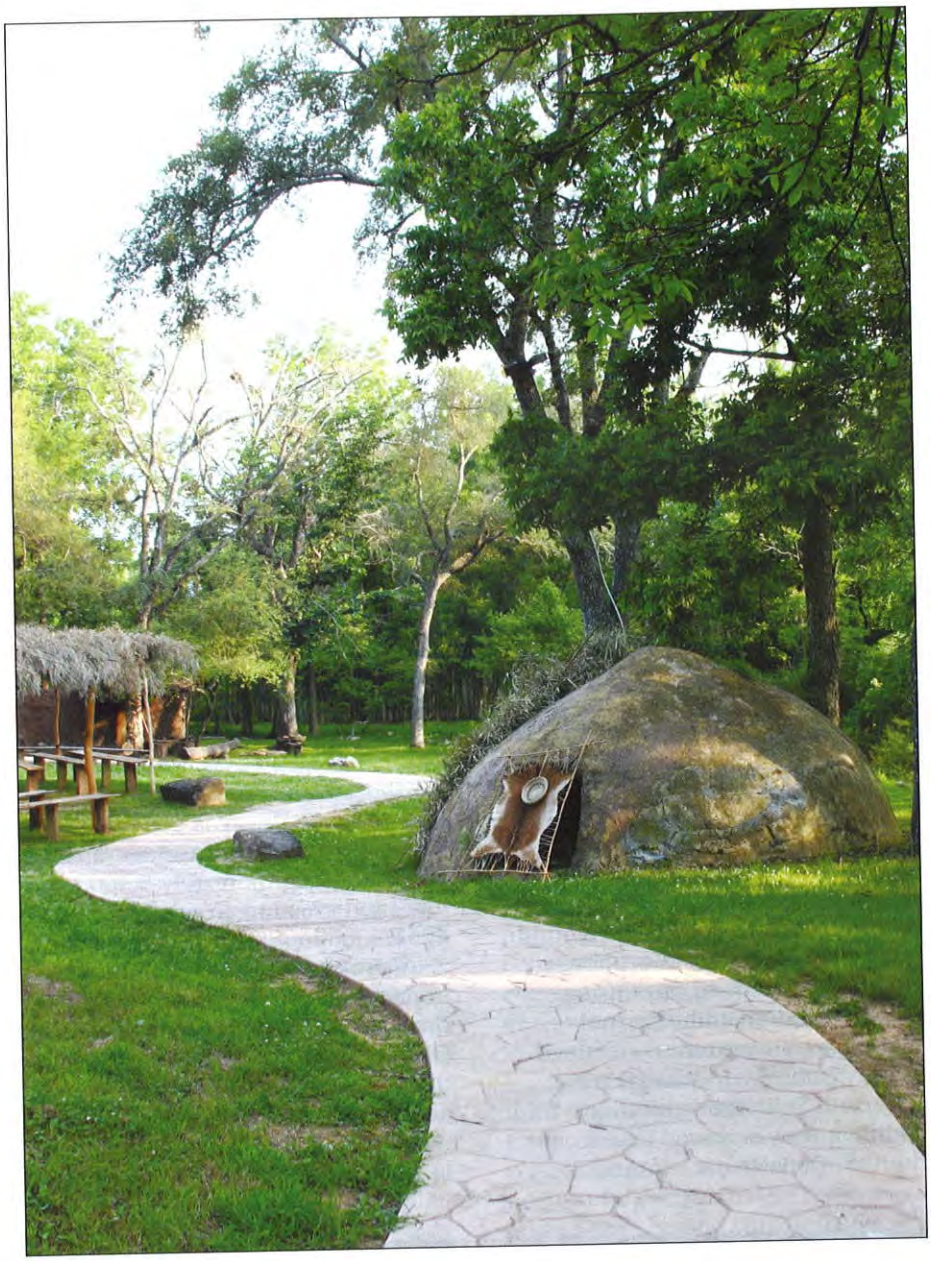
	Direct Impacts	Indirect Impacts	Total Impacts
Employment (No. of Jobs)	6,475	2,827	9,302
Earnings (in thousands)	$152,195	$99,532	$251,727
Visitor Spending	$879,868	$573,736	$1,453,604
Annual Operating Expenses	$18,018	$13,586	$31,604
Capital Investments to Date	$22,750	$17,154	$39,904

Source: FHWA.

Overall Economic Impacts, Cherokee Hills Scenic Byway, 2010

	Direct Impacts	Indirect Impacts	Total Impacts
Employment (No. of Jobs)	660	265	925
Earnings (in thousands)	$22,037	$8,172	$30,209
Visitor Spending	$25,870	$9,283	$35,153
Capital Investments to Date	$35,147	$14,973	$50,120

Source: FHWA.



The Tsa La Gi Ancient Village, located along the Cherokee Hills Byway in Oklahoma, includes this re-creation of traditional Cherokee clay homes.

- Ongoing operating expenses incurred by byway groups and their partners (for example, paying staff or purchasing goods and services from vendors in the region)
- Additional spending in the region generated by residents who choose to travel to visitor sites within the region instead of spending money in other locations
- Employment and wage growth cited by businesses and sectors as stemming from quality of life improvements related to the byway
- Property value appreciation along the byway corridor resulting from preservation and development activities
- Property, sales, lodging, and income tax revenues generated for municipal, county, and State governments that then are reinvested in the region

One important feature of the tool is the "but-for test." To help ensure that users do not inadvertently exaggerate economic activity attributable to a byway, the tool employs a test that asks users to answer the following statement: "To what extent can I truthfully and defensibly assert that *but for* the existence of the byway and our organization's

Some of these costs and impacts related to the economy for a region of interest might include the following:

- Investments in capital projects related to preserving the byway's intrinsic qualities (for example, acquisition of priority properties, construction of scenic overlooks and visitor centers, and rehabilitation of historic buildings)
- Private investments in properties or businesses that are at least partially influenced by the presence of a byway

A row of motorcycles awaits their owners at one of the overlooks on Rim Drive along the Volcanic Legacy Scenic Byway in Crater Lake National Park, OR.

Overall Economic Impacts, Journey through Hallowed Ground National Scenic Byway, 2008

	Direct Impacts	Indirect Impacts	Total Impacts
Employment (No. of Jobs)	4,736	1,805	6,541
Earnings (in thousands)	$101,991	$63,073	$165,064
Visitor Spending	$633,834	$427,186	$1,061,020
Capital Investments to Date	$1,620	$1,449	$3,069

Source: FHWA.

Overall Economic Impacts, Volcanic Legacy Scenic Byway, 2010

	Direct Impacts	Indirect Impacts	Total Impacts
Employment (No. of Jobs)	794	234	1,028
Earnings (in thousands)	$16,898	$7,702	$24,600
Visitor Spending	$109,070	$53,712	$162,782
Capital Investments to Date	$528	$297	$825

Source: FHWA.

activities, this economic event would not have occurred?"

The but-for test encourages users to make an honest effort to consider whether the benefits can truly be attributed to the byway designation. Although the but-for test is subjective, at least it provides the user with an important reality check.

In addition, the tool relies on economic multipliers provided by the U.S. Department of Commerce, Bureau of Economic Analysis. Users employ the multipliers for specific regions in the Regional Input-Output Modeling System (RIMS II) to estimate the overall impact of visitor spending and investments. RIMS II can estimate the multiplier effect in one or more counties for travel-related and other industries. Testing has shown that the estimates from the multipliers used by RIMS II are similar in magnitude to more extensive surveying.

Byway Case Studies

In 2012, the America's Byways Resource Center conducted a project to measure the economic impact of various byways using its new economic impact tool. The center's researchers obtained already published, detailed travel data from State tourism offices. In addition, they acquired data from the U.S. Department of Agriculture Forest Service National Visitor Use Monitoring program, which provides reliable information on recreational visitors to national forests.

Additional data was used in other cases. For example, for the Journey Through Hallowed Ground National Scenic Byway in Maryland, Pennsylvania, Virginia, and West Virginia, the researchers supplemented these inputs with survey data for the Antietam National Battlefield in Maryland, and the Fredericksburg and Spotsylvania National Military Park in Virginia. The center also collected information on grants and other investments that were attributable to the byway, including Federal grants and donations by local partners.

The following are some of the findings from applying the new economic impact tool:

Blue Ridge Parkway. The economic impact tool estimates that in the 29-county byway region of North Carolina and Virginia, the Blue Ridge Parkway is generating $1.5 billion in total business sales, sustaining approximately 9,300 jobs, and creating an increase of $251.7 million in labor earnings.

Cherokee Hills Byway. The economic impact tool estimates that in the four-county byway region of Oklahoma and the Cherokee Nation, the Cherokee Hills Scenic Byway is generating $85.3 million in total business sales, about 924 jobs, and an increase of $30.2 million in earnings.

Located on the Woodward Avenue (M-1) Automotive Heritage Trail north of State Street in Detroit, this National Register Historic District contains numerous former retail and office buildings. Significant loft development activity is underway in these buildings.

Overall Economic Impacts, Woodward Avenue (M-1) Automotive Heritage Trail, 2010

	Direct Impacts	Indirect Impacts	Total Impacts
Employment (No. of Jobs)	0.5	0.7	1.2
Earnings (in thousands)	$26.6	$26.7	$53.3
Capital Investments to Date	$110.5	$123.1	$233.6

Source: FHWA.

Journey Through Hallowed Ground National Scenic Byway. The tool found that in the 15-county byway region of Maryland, Pennsylvania, Virginia, and West Virginia, the Journey Through Hallowed Ground National Scenic Byway is generating $1.06 billion in total business sales, more than 6,500 jobs, and an increase of approximately $165.1 million in earnings.

Volcanic Legacy Scenic Byway. The estimate indicates that in the six-county byway region in California and Oregon, the Volcanic Legacy Scenic Byway is generating $163.6 million in total business sales, more than 1,000 jobs, and an increase of $24.6 million in earnings.

Woodward Avenue (M-1) Automotive Heritage Trail. The tool showed that in the two-county byway region in Detroit, MI, Woodward Avenue is generating $234,000 in total business sales, about 1.2 jobs, and an increase of approximately $53,000 in earnings.

To Find Out More

Under the Surface Transportation Extension Act of 2011, the U.S. Secretary of Transportation determined that the America's Byways Resource Center had been sufficiently funded in previous fiscal years to carry out the purpose for which the facility had been authorized. As a result, the center closed its doors on June 30, 2012.

Several organizations and individuals stepped forward to become custodians of the tools and publications that the center had designed and produced over the years, so these materials will continue to be available (see www.byways101.org). As for the economic impact tool, the National Association of Development Organizations (NADO) agreed to provide a long-term home for the tool (www.nado.org/byways).

NADO's Web site states the organization's purpose: "The association and its members promote regional strategies, partnerships, and solutions to strengthen the economic competitiveness and quality of life across America's local communities." NADO will ensure that the work of measuring the economic impacts of byways continues into the future.

In Sum

What gets measured gets managed. Measuring economic performance can focus the attention of decisionmakers and stakeholders on the impact of America's Byways on local and regional economies. Although extensive surveying and economic modeling can provide estimates of the economic benefits of traveler spending and byway investments, other less resource-intensive approaches also can be used to provide estimates. Given the challenges of accurately estimating economic impacts, specific results need to be considered in the context of the specific situation and the confidence in the input data.

All of these methodologies involve some assumptions regarding tourist activity and the influence that the byway designation might have on that activity. A model such as the economic impact tool developed by America's Byways Resource Center can employ existing data sources to provide reasonable estimates. Although the absolute value of this distinctive collection of American roads, their stories, and treasured places should not be put in economic terms only, the measurement of their economic value can assist State, local, and tribal decisionmakers in developing America's Byways.

Gary Jensen is with FHWA's Office of Human Environment. He joined FHWA in 1994 and has worked in the Tennessee Division and headquarters with various planning and environmental programs. Under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), he led FHWA's planning and environmental discretionary funding programs, including the National Scenic Byways Program. Jensen holds a B.S. in civil engineering from the University of Idaho.

The author would like to acknowledge the contributions of Curt Pianalto to the development of this article. Pianalto was formerly with the America's Byways Resource Center for many years prior to its closure, serving as a byways specialist, assistant director, and director.

For more information, visit www.byways.org or contact Gary Jensen at 202-366-2048 or gary.jensen@dot.gov.

A sailboat glides toward four Mediterranean-style towers at the center of the Bridge of Lions, where the A1A Scenic & Historic Coastal Byway—one of America's Byways—spans the calm waters of Matanzas Bay in St. Augustine, FL.