U.S. Department of Transportation

Federal Highway Administration

OUR NATION'S HIGHWAYS 2011

THIS PUBLICATION PROVIDES a condensed overview of facts and figures about the Nation's highways. It is designed to be of interest to the average citizen. The Federal Highway Administration (FHWA) is the source of the data except where noted. State Governments collect and provide these data to FHWA each year. Unless otherwise stated, 2009 data are displayed in this publication.

For more detailed data on many of the subjects covered, and for other publications relating to highway policy, visit the Office of Highway Policy Information Website:

www.fhwa.dot.gov/policy/ohpi

QUALITY ASSURANCE STATEMENT: The Federal Highway Administration (FHWA) provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes to ensure continuous quality improvement.

With over 4 million miles of public roads, including more than 164,000 miles of National Highway System roadways, our nation is connected coast-to-coast and community-to-community. The 2011 edition of *Our Nation's Highways* includes updates on our complex roadway infrastructure, revenue and finance, travel trends, and travel behavior. It also provides the latest updates on projects and programs associated with the American Recovery and Reinvestment Act of 2009.

The Federal Highway Administration (FHWA), Office of Highway Policy Information (OHPI) establishes various travel monitoring policies and guidelines; collects and analyzes a wide range of data including revenue, finance, vehicle registration, licensed drivers, highway fuel consumption, travel trends, travel behavior, and travel conditions to keep you updated on the state of our nation's highway system, and provides technical assistance during legislative processes. We hope that this edition will continue to serve as a valuable resource.

David R. Winter, P.E.

Director,
Office of Highway Policy Information

At a Glance

12,931 highway projects funded by the American Recovery and Reinvestment Act (page 2)

Over **164,000** miles in the National Highway System (page 7)

16.1 billion tons of freight worth **$14.9 trillion** (page 18)

3 trillion vehicle miles traveled in 2009

246 million registered vehicles (page 21)

210 million licensed drivers, 685 drivers for every 1,000 residents

(page 25)

392 billion person-trips

(page 32)

172 billion gallons of fuel consumed by vehicles (page 37)

$30.1 billion in receipts collected by the Highway Trust Fund

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1.15 fatalities per 100 million vehicle miles traveled – an historical low (page 54)

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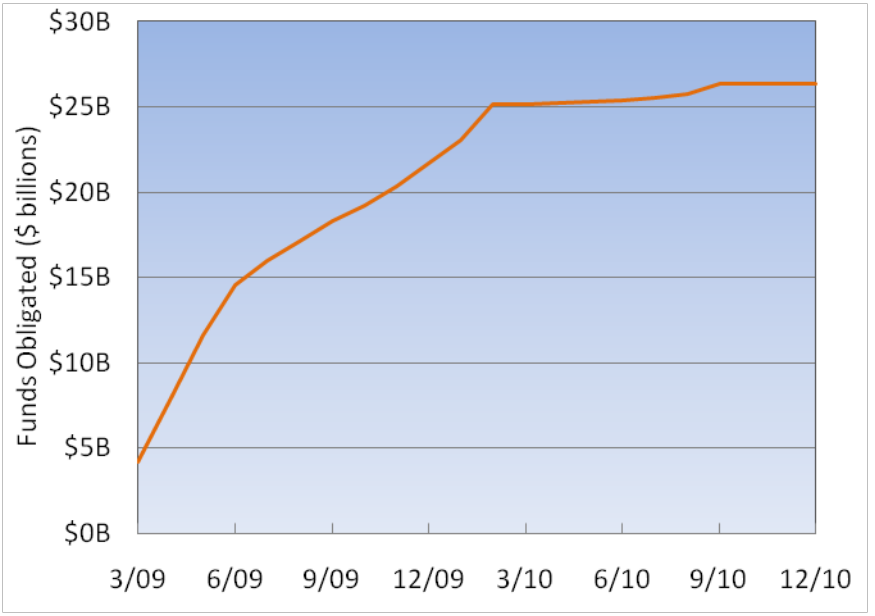
A Renewed Focus on Infrastructure

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009 (Recovery Act), whose main goals are to create new jobs, maintain existing employment, spur economic activity, invest in long-term economic growth, and to foster unprecedented accountability and transparency in government spending.

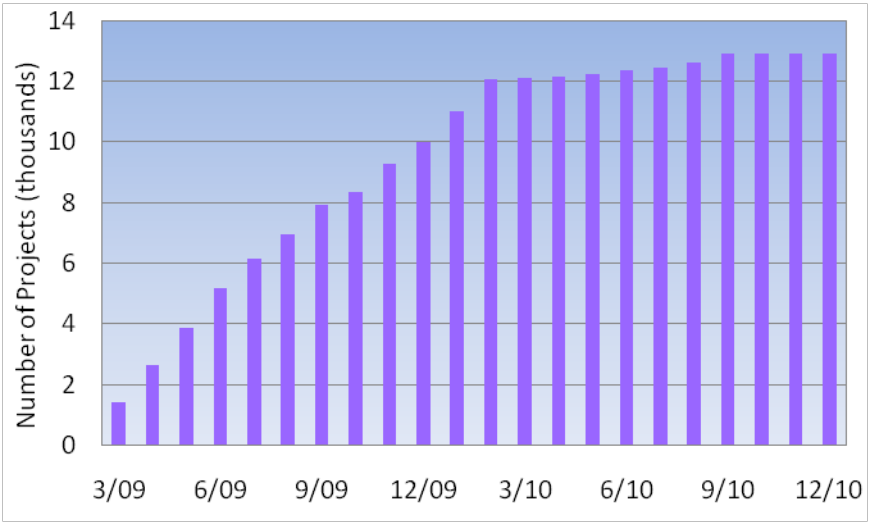
Figure A-1: Funds Obligated by State Agencies



The passage of the Recovery Act brings a renewed focus on the importance of infrastructure throughout the United States. In addition to physical improvements to the national roadway system, the Recovery Act also increases awareness of the need for preserving and improving our highway infrastructure.

As of December 2010 a total of $26.3 billion in Recovery Act funds have been obligated by states for highway-related projects. Currently, 96 percent of highway and bridge Recovery Act funds have been obligated by State, local, and tribal governmental agencies.

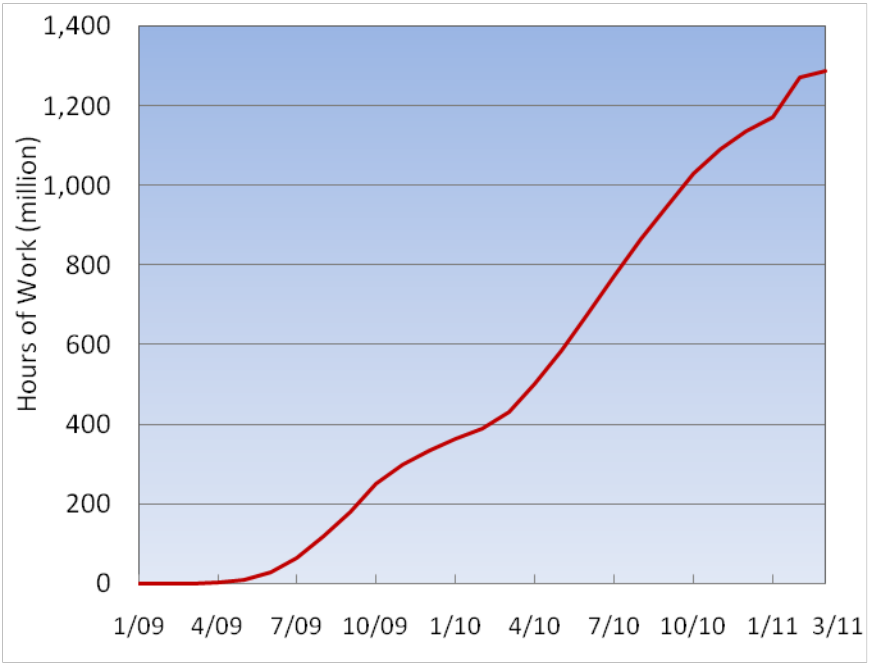
Figure A-2: Total Number of Highway Projects Funded



A total of 12,931 highway projects have been fully or partially funded by the Recovery Act as of December 2010, an increase of 2,926 projects since December 2009. An average of 588 Recovery Act projects have been funded each month in the 22 months since its beginning. In 2010 an average of 244 Recovery Act projects were funded each month.

Data Source: FHWA, Recovery Act Data System

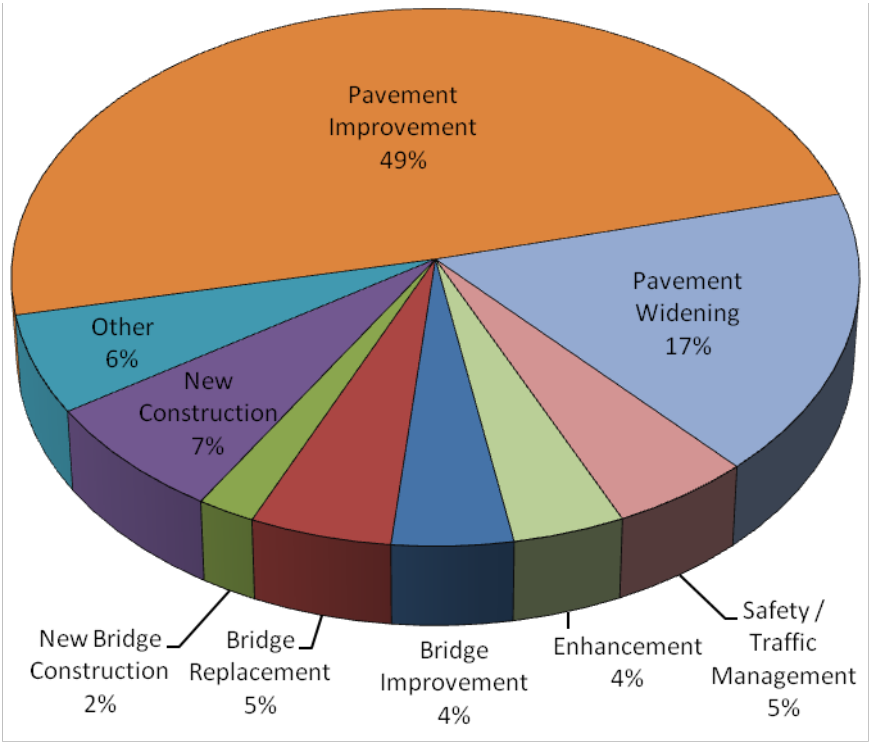
Figure A-3: Cumulative Hours of Work on Highway Projects Funded by the Recovery Act



The Recovery Act helps economic recovery by creating employment opportunities for people across the country. One of the direct measurements is of the hours worked on various roadway, bridges, and tunnel projects to improve safety, increase capacity, reduce congestion, and promote livability. As of March 2011 approximately 1.3 billion cumulative hours of work were funded directly by the Recovery Act, the equivalent of about 290,000 full-time jobs of 2 years.

Data Source: FHWA, Recovery Act Data System

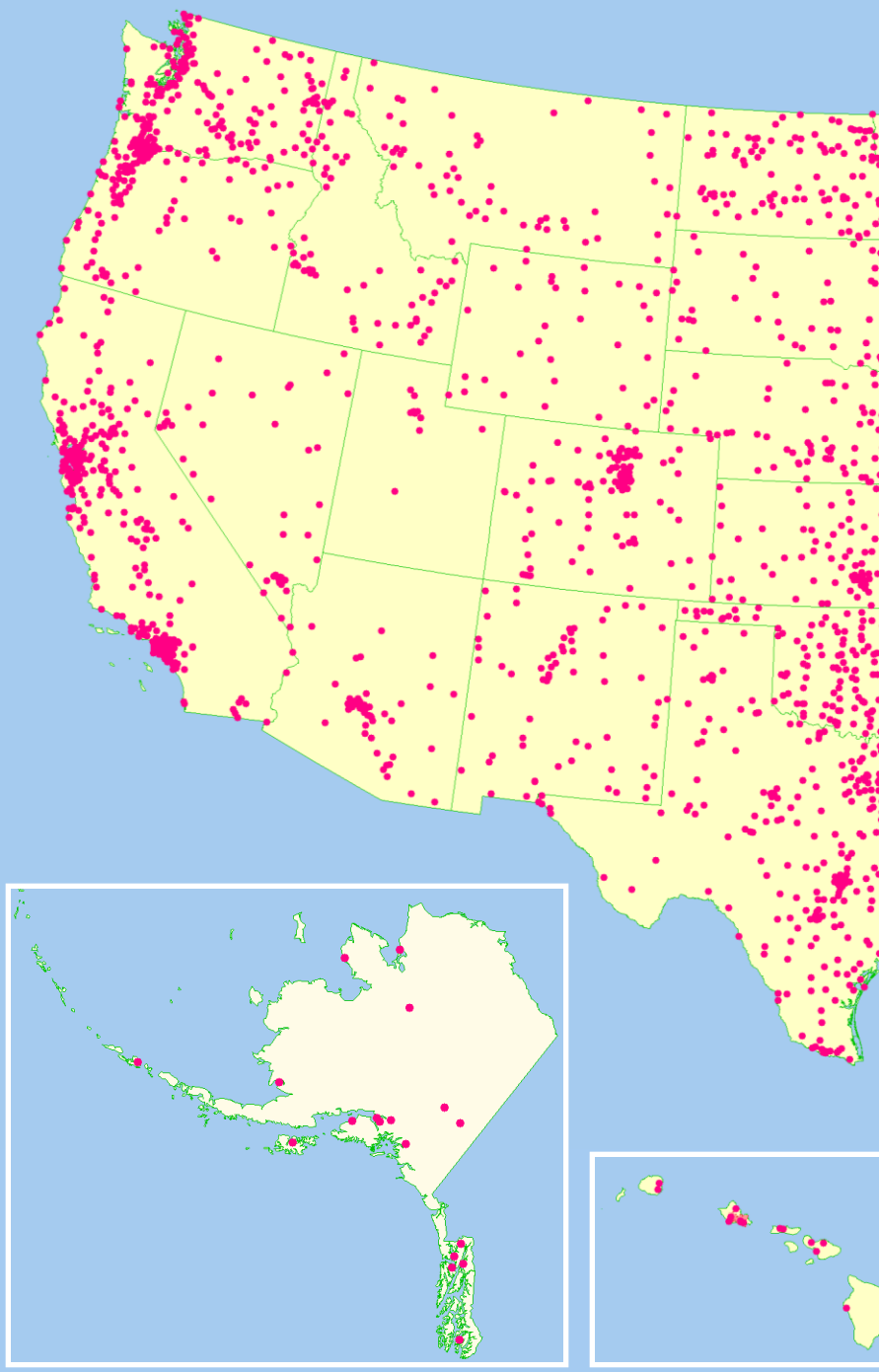
Figure A-4: Types of Recovery Act Highway Projects



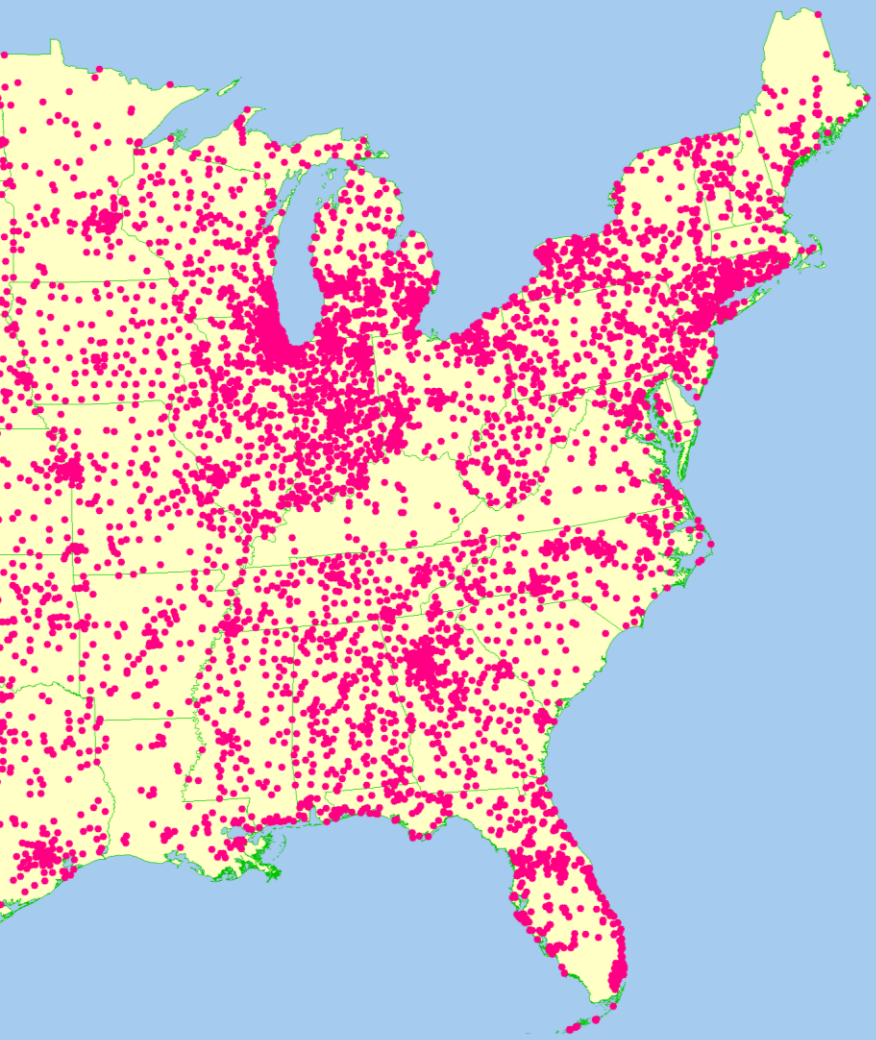
There are a wide range of FHWA-administered projects funded under the Recovery Act. These projects include pavement improvement (49 percent of Recovery Act projects), pavement widening (17 percent), new construction (7 percent), safety and traffic management (5 percent), bridge replacement (5 percent), and other projects, such as bike paths.

Data Source: FHWA, Recovery Act Data System

Figure A-5: Recovery Act H



Highway Project Locations



• Recover y Act Highway Project Location

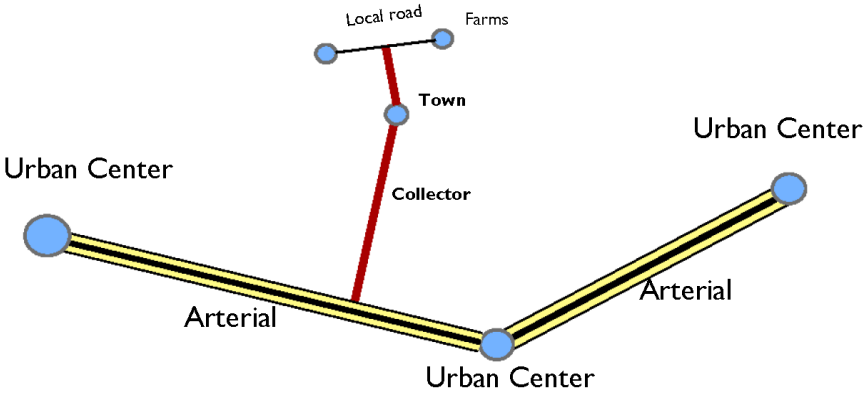
Data Source: FHWA, Recovery Act Data System

1 Highway Infrastructure

Since the early 20th century the nation has devoted significant resources to the creation of a roadway system that connects every major population center. Over 164,000 miles of highways in the National Highway System form the backbone of our 4-million-mile public road network.

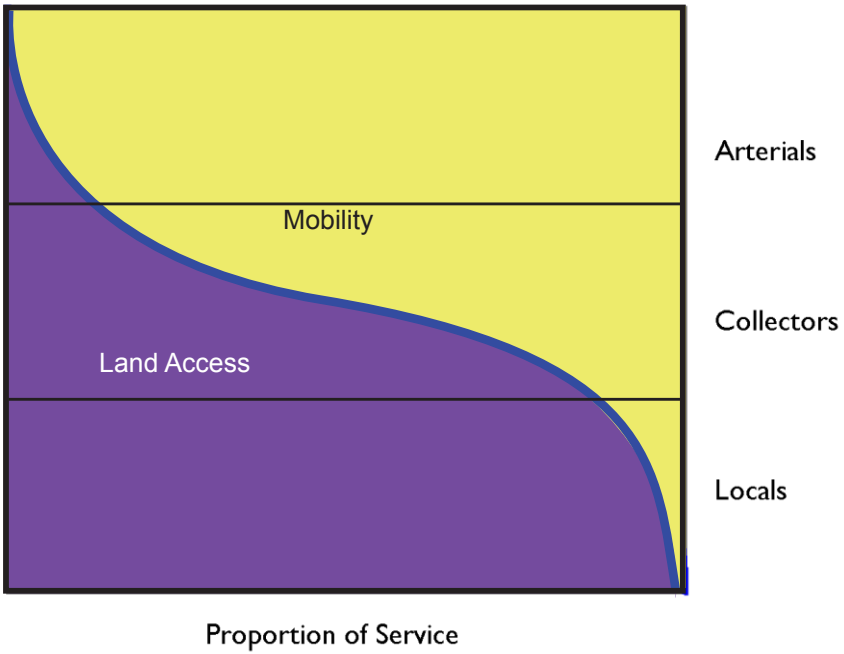
In 1989 FHWA established a Functional Classification System that categorizes roadways with similar characteristics. Our highway system comprises three fundamental building blocks: local roads; collectors; and arterials. Local roads serve homes, businesses, farms, and small communities, and provide access to collector roadways. Collectors channel traffic from local roads to arterials, which provide safe, reliable, and efficient travel between towns and cities.

Figure 1-1: Hierarchy of Our Highway System



An ideal roadway is one that connects to our driveways (access) and at the same time leads to interruption-free drives to our destinations (mobility). To accomplish this, roadways are planned and designed differently. Local roads are chiefly to provide access (driveways, median openings), while mobility is the primary function of arterials.

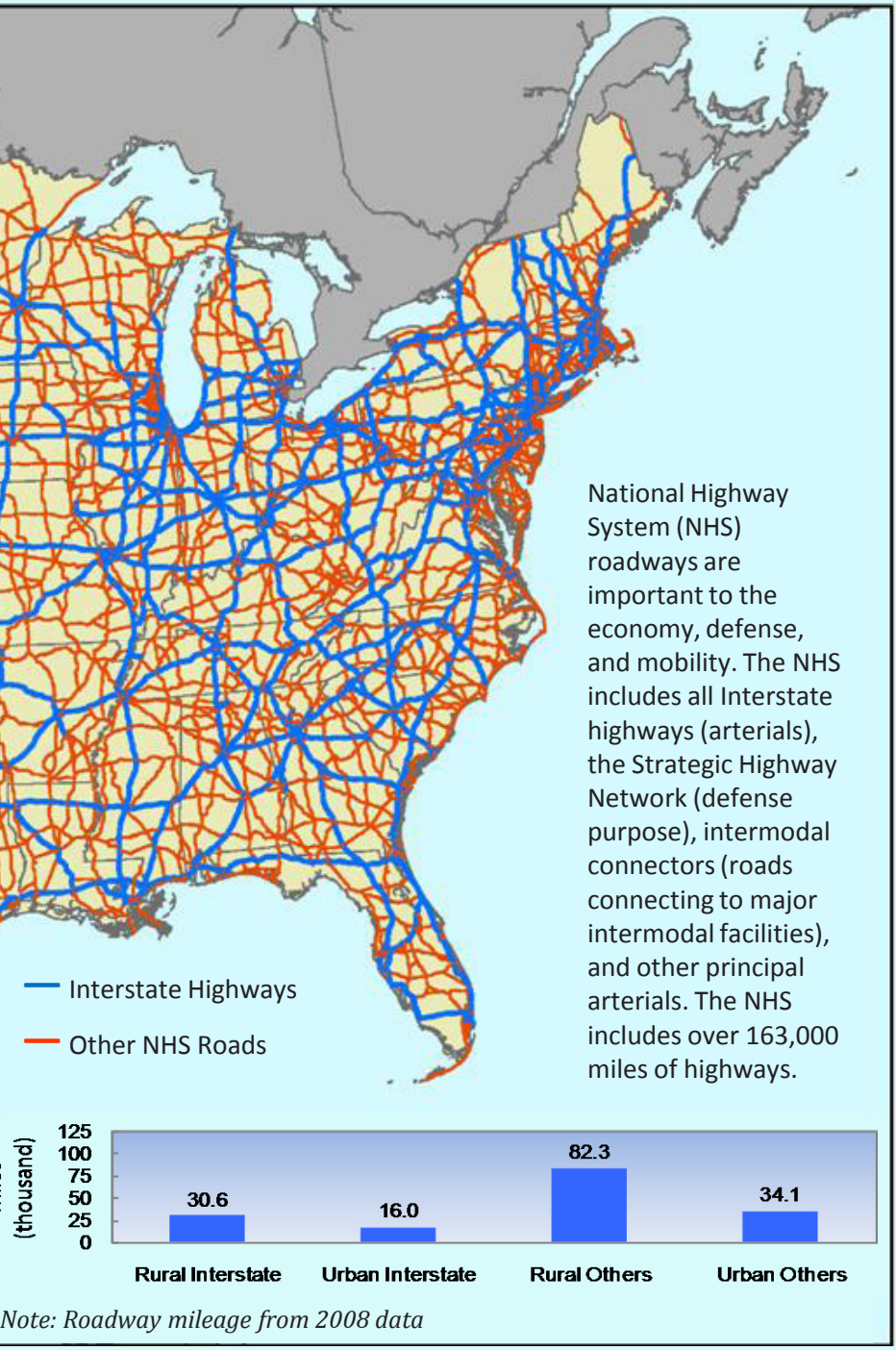
Figure 1-2: Access and Mobility



National Highway System (NHS) roadways are important to the United States economy, defense, and mobility. The NHS includes all Interstate highways (arterials), the Strategic Highway Network (defense purpose), intermodal connectors (roads connecting to major intermodal facilities), and other principal arterials. Currently, the NHS includes over 164,000 miles of highways.

Figure 1-3: Nationa

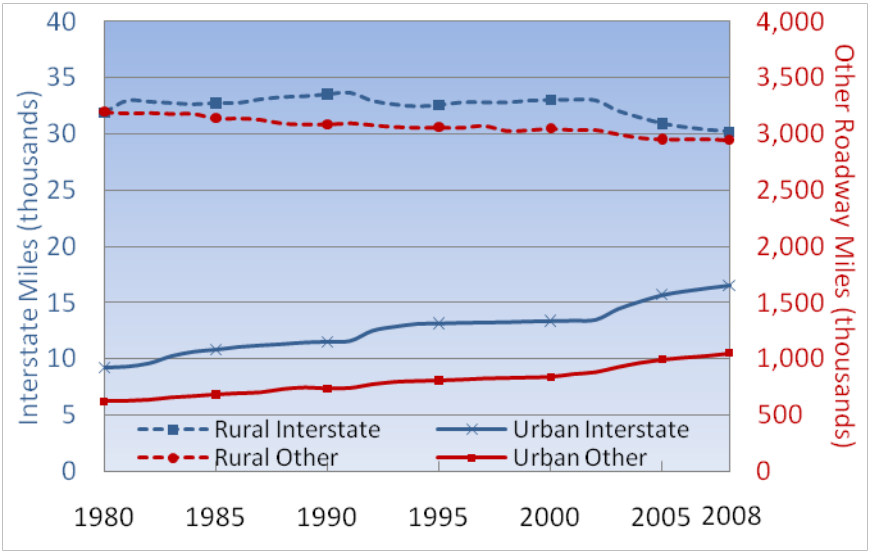
al Highway System



National Highway System (NHS) roadways are important to the economy, defense, and mobility. The NHS includes all Interstate highways (arterials), the Strategic Highway Network (defense purpose), intermodal connectors (roads connecting to major intermodal facilities), and other principal arterials. The NHS includes over 163,000 miles of highways.

Note: Roadway mileage from 2008 data

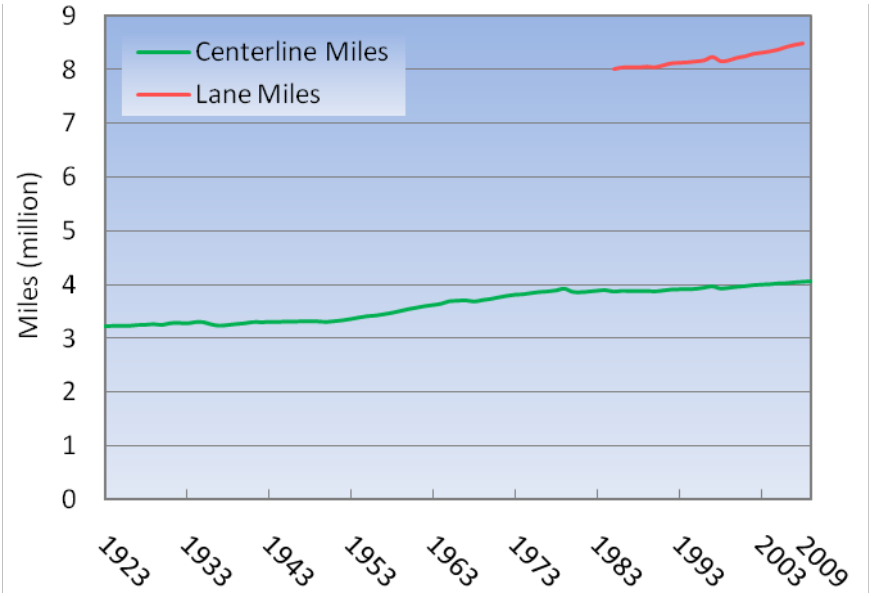
Figure 1-4: Public Road Miles: 1980-2008



Approximately one percent of all public roads are part of the Interstate Highway System. Of these 47,000 miles of Interstates, 65 percent are in rural areas and 35 percent are in urban areas. Seventy-four percent of the remaining public roads are located in rural areas, with 26 percent in urban areas.

Since 1980 an additional 183,000 miles of public roads have been constructed, an average of 6,500 miles of new roads each year. Rural public roads have steadily decreased since 1980 as these roadways have been reclassified as urban due to increases in population and geographic dispersion. At the same time a corresponding increase in urban facilities is seen partly due to urban boundary reclassification and partly due to new construction.

Figure 1-5: Public Road Centerline and Lane-Miles: 1923-2009



In 2009 there are 4.1 million centerline lane miles and 8.5 million lane miles (an average of 2.1 lanes per centerline). Centerline miles increased 0.2 percent from 2008, while lane miles increased 0.7 percent.

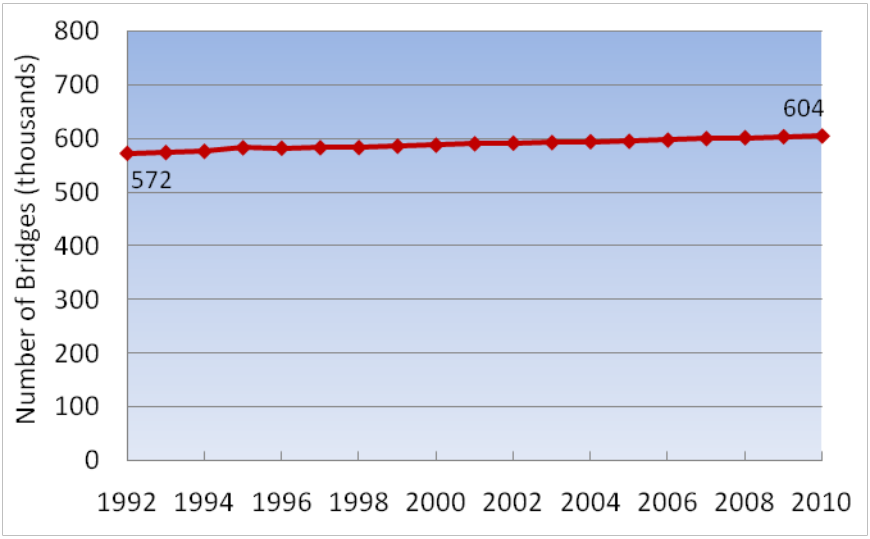
Since 1923 an additional 818,000 miles of public roads have been constructed, an average of 9,500 new centerline miles every year. With the highway network largely complete, nearly all population centers are linked by paved roadways and virtually all counties are connected by the Interstate highway system within the 48 contiguous States.

Data Source: FHWA

Note: Lane-mile data not available before 1985.

Lane-miles increase as highways are widened to accommodate additional travel needs due to population growth in the various communities. In 1923, the U.S had a population of approximately 112 million. In 2010, the latest decennial census shows that there are 309 million people, a nearly three-fold increase. Adding capacity to existing highways is one of many ways transportation agencies are ready to meet the needs of a continually growing population.

Figure 1-6: Public Road Bridges: 1992-2010

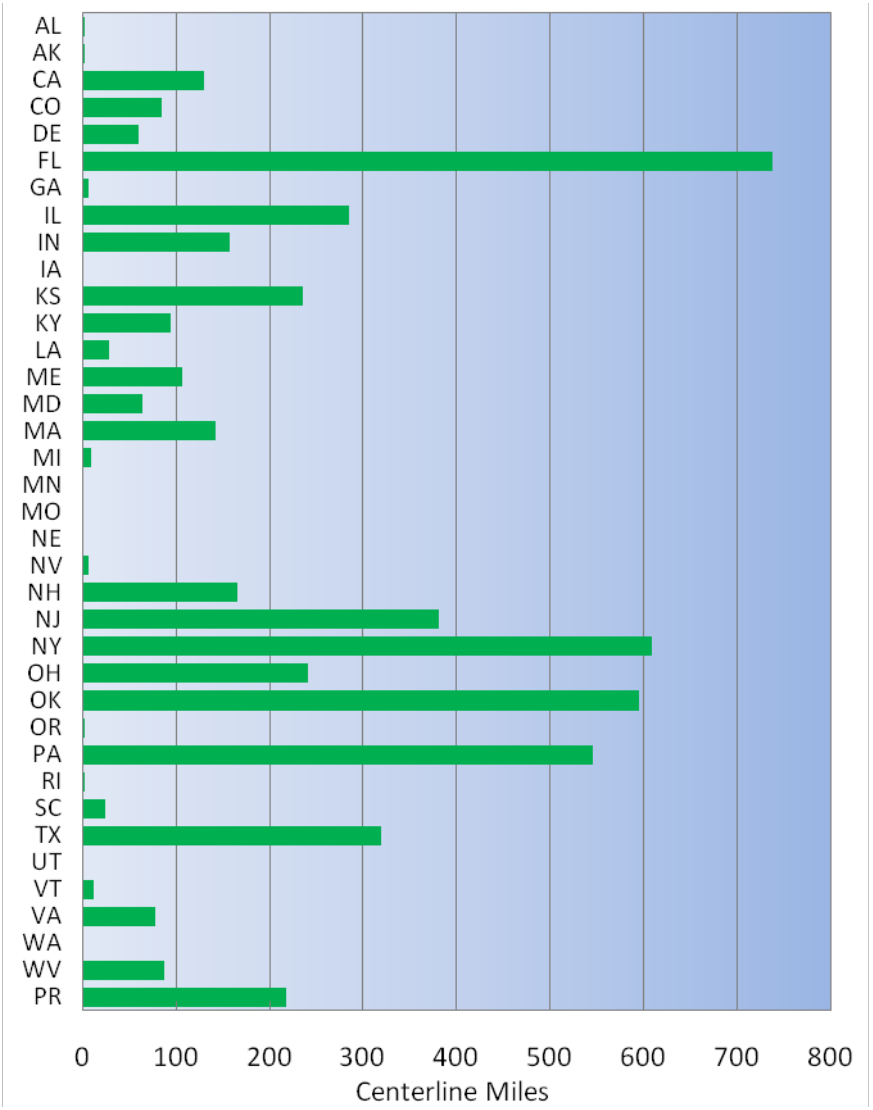


Bridges are key components of our nation's highway system. Maintaining their integrity is critical for safe and efficient travel. The National Bridge Inventory (NBI) collects information on the nation's bridges, including those located on interstate highways, U.S. highways, state and county roads, as well as publicly-accessible bridges on federal lands. Each state is required to conduct periodic inspections of all bridges and report the data to FHWA.

One of the most efficient ways to increase roadway operating efficiency is to separate at-grade intersections with bridges. In 2010 there are 604,460 bridges along public roads. Since 1992 32,264 bridges have been constructed, an average of 1,792 new bridges each year.

Data Source: FHWA, Office of Bridge Technology, National Bridge Inventory

Figure 1-7: Toll Road, Bridges, and Tunnels Centerline Miles by State: 2009



Data Source: FHWA OHPI, Highway Performance Monitoring System

Note: States not shown do not have toll facilities.

Roads, bridges, and tunnels that require drivers to pay a fee for usage are referred to as toll highways, turnpikes, or toll structures. High-occupancy toll (HOT) roads are also constructed to provide free or discounted access to high-occupancy vehicles (HOVs) while allowing single-occupant vehicles to use the facility for a fee. The fees collected from these facilities are typically used to repay the money borrowed for construction. As the debt is repaid the toll may be used for ongoing operations and maintenance.

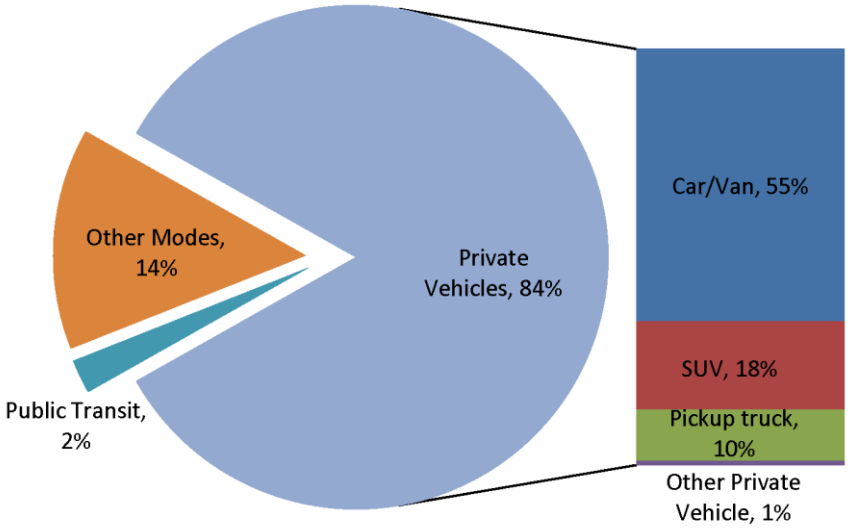
Thirty states, plus Puerto Rico, have toll facilities. The length of these facilities as they're recorded varies depending on the type (toll bridge, tunnel, or roadway). Oregon, for example, has only three toll bridges, while Florida has several toll roads throughout the state, including the 300-mile-long Florida's Turnpike.

While the vast majority of Interstate highways have no tolls, approximately 2,900 miles of Interstates are tolled in 21 states. These tolled facilities range in length from 500-mile New York State Thruway to tolled sections of I-95 in Delaware and Maryland.

2 Highway Travel

Highways are the transportation backbone of our nation, providing a conduit along which people and goods move from coast to coast. Our nation's highways keep the country moving, sustaining nearly 3 trillion (3,000,000,000,000) vehicle miles traveled (VMT) in 2009.

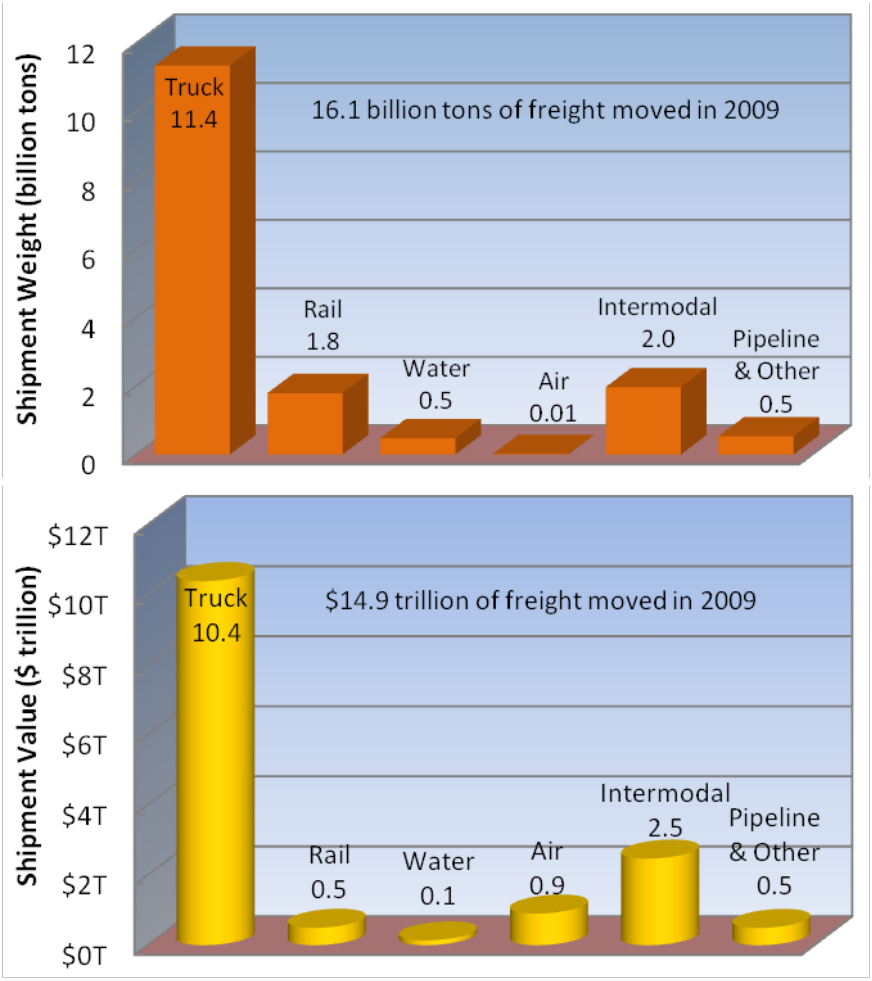
Figure 2-1: Passenger Travel Modes by Number of Trips



Private vehicles, which include automobiles, light trucks, vans, and motorcycles, are used for 84 percent of all trips nationwide. Most of these trips – 55 percent of total trips – are made by car or van.

Data Source: FHWA OHPI, National Household Travel Survey (2009)

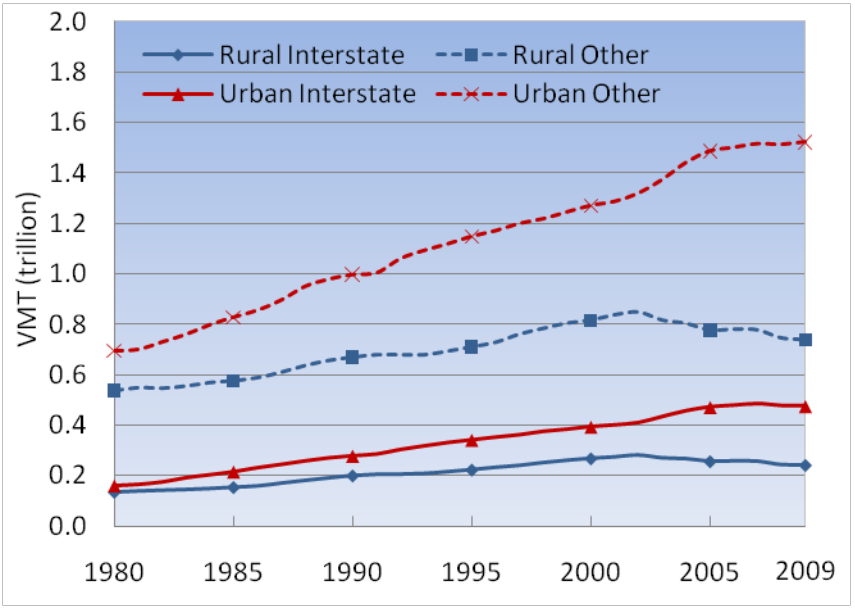
Figure 2-2: Freight Mode Share by Weight and Value: 2009



In 2009, 16.1 billion tons of freight – with a total value of $14.9 trillion (in 2009 dollars) – moved along our transportation system. Trucks lead in both tonnage and in dollar value, carrying over70 percent of all freight (in both dollar value and tonnage).

Data Source: FHWA, Office of Freight Management and Operations, Freight Facts and Figures 2010

Figure 2-3: Annual Vehicle Miles Traveled on Rural and Urban Public Roads: 1980-2009

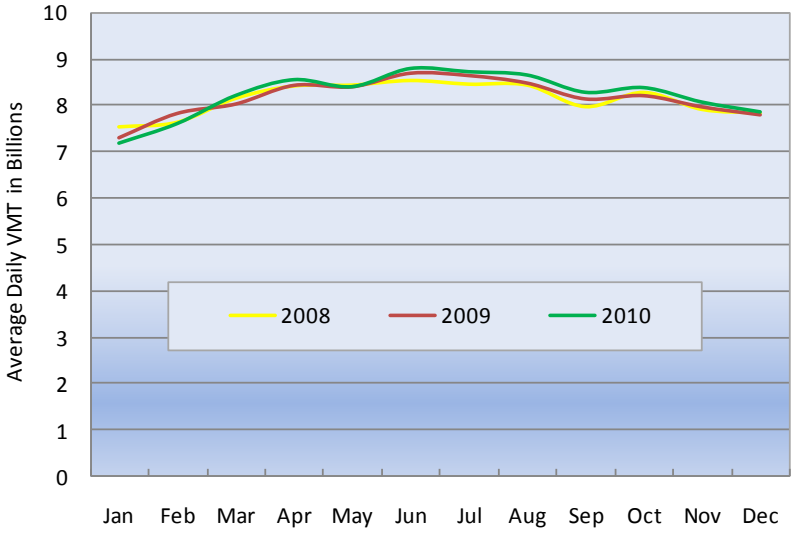


Vehicle miles traveled (VMT) is a measure of total vehicle activity for a given time period (usually daily or yearly). It is calculated by multiplying the number of vehicles (traffic volume) on a given roadway segment during a time period by its length. For example, on a 5-mile highway segment traveled by 5,000 vehicles each day the daily VMT is 25,000. The annual VMT on the same segment is 9,125,000 (25,000 x 365 days).

Three trillion vehicle miles were traveled on all public roads in 2009, is essentially the same as in 2008. Of this 717 billion VMT (24 percent) are on Interstates and two-thirds of all VMT are on urban roads.

Data Source: FHWA OHPI, Highway Statistics

Figure 2-4: Average Daily VMT in Billions on Public Roads: 2008-2010



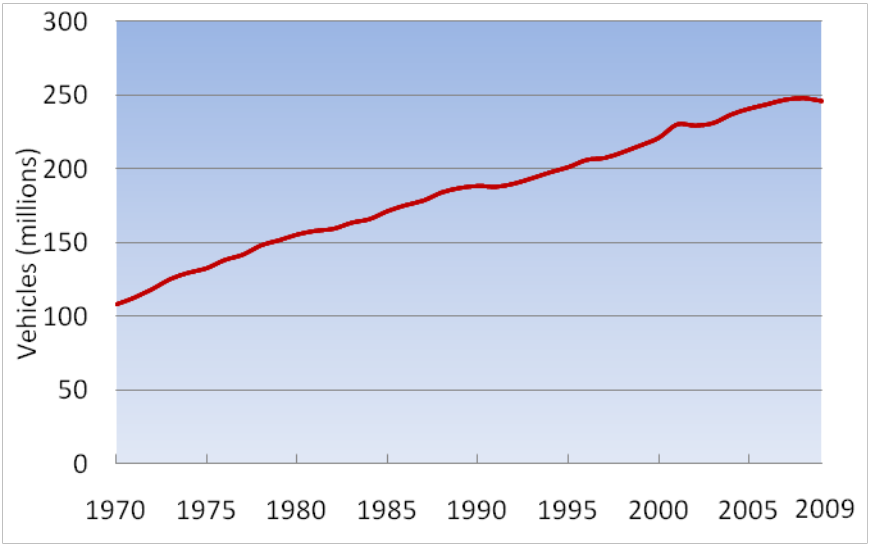
Annual VMT peaked in 2007 with a total of over 3 trillion vehicle miles traveled. Since then travel dropped below 3 trillion peak miles. Based on FHWA Traffic Monitoring Analysis System (TMAS) preliminary data after the 2008 decline from a 2007 peak the trend has been rebounding. Figure 2-4 illustrates how the trend in average daily VMT has changed by month in each of the last three years.

Data Source: FHWA OHPI, Highway Statistics

3 Vehicles

Vehicle ownership is a significant indicator of our nation's prosperity in the 20th century, tracking closely with economic development and change. Passenger vehicles—automobiles, light trucks, vans, sports utility vehicles, and motorcycles—are used for more than 8 of every 10 trips.

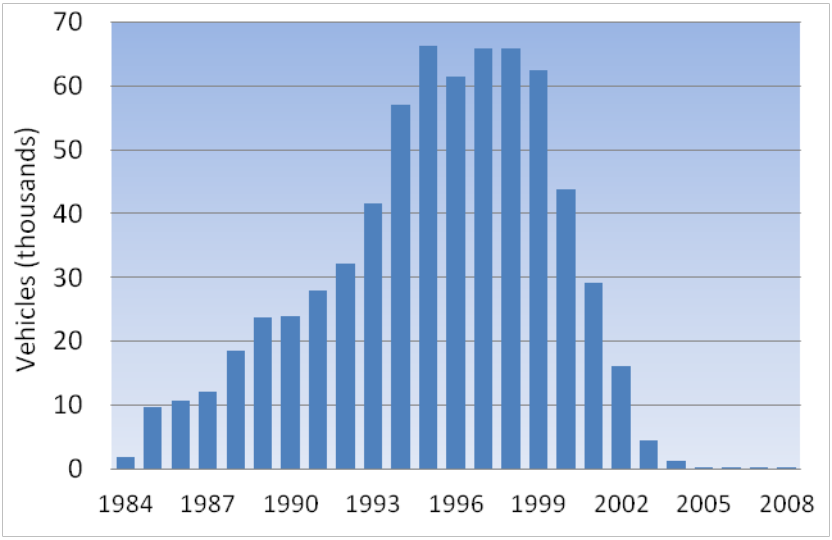
Figure 3-1: Registered Vehicles: 1970-2009



In 2009 there are 1.9 million fewer registered vehicles than in 2008 (a decrease of 0.8 percent). However, since 1970 total vehicle registrations have more than doubled, an additional 137 million registered vehicles. From 1970 to 2009 all vehicle registrations increased at an annual rate of 2.1 percent.

Data Source: FHWA OHPI, Highway Statistics

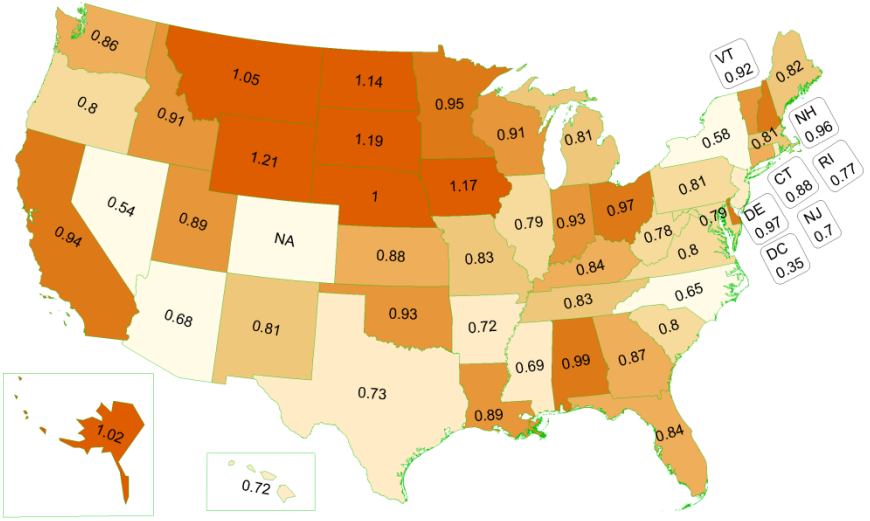
Figure 3-2: "Cash for Clunkers" Vehicles by Model Year



The 2009 Consumer Assistance to Recycle and Save Act authorized the Car Allowance Rebate System (CARS), popularly known as "Cash for Clunkers." It provided funds to enable the purchase of a more fuel-efficient vehicle. A total of 677,842 vehicles were approved for the program. Eighty-five percent of trade-in vehicles are SUVs, pickup trucks, and vans, while 15 percent of trade-in vehicles are cars. Figure 3-2 shows the distribution of vehicles approved for the program by model year. Fifty-seven of trade-in vehicles are model year 1996 or older.

Data Source: National Highway Traffic Safety Administration (NHTSA)

Figure 3-3: Private and Commercial Vehicles Per Capita by State: 2009



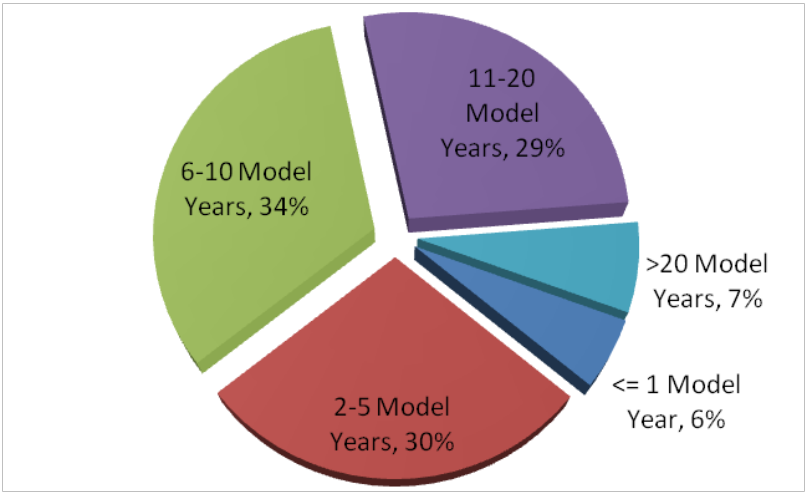
The number of registered privately and commercially owned motor vehicles (which includes cars, commercial and non-commercial trucks, SUVs, and motorcycles) per person in each state vary significantly. States' rates of vehicle ownership range from 0.54 vehicles per person in Nevada to 1.21 vehicles per person in Wyoming.

South Dakota, Iowa, North Dakota, Montana, Alaska, and Nebraska also have relatively high rates of vehicle ownership, with at least than one vehicle registered for each resident. Along with Nevada's relatively low vehicle ownership rate are New York, North Carolina, and the District of Columbia, with each having less than one vehicle for every three residents.

Data Source: FHWA OHPI, Highway Statistics

Note: Insufficient data available for Colorado.

Figure 3-4: Age of Household Vehicles



The 2009 National Household Travel Survey (NHTS) asked respondents about the make, model, and year of each vehicle in their households. The responses indicate that 6 percent of all household vehicles are one model year old or newer (2008 or newer at the time of the survey). Thirty percent of household vehicles are between two and five model years old, while 34 percent are between six and ten model years old. Vehicles between 11 and 20 model years old compose 29 percent of all household vehicles, while vehicles greater than 20 model years old are 7 percent of all household vehicles.

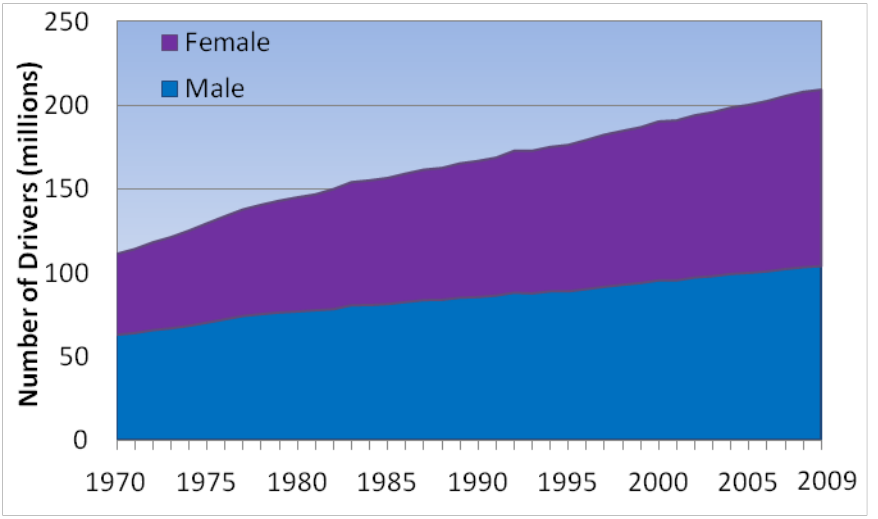
The 2009 NHTS also asked respondents whether any household vehicle is a hybrid or alternative fuel vehicle (which includes vehicles powered by ethanol, biodiesel, natural gas, propane, and hydrogen). The responses indicate the 5 percent of household vehicles are either hybrid or powered by an alternative fuel.

Data Source: FHWA OHPI, National Household Travel Survey (2009)

4 Drivers

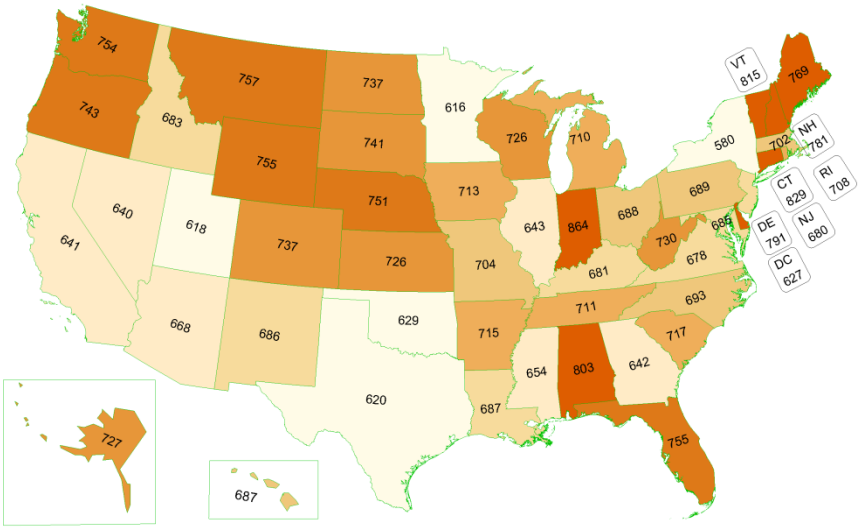
Getting a drivers license marks a rite of passage for adolescents, and having one is seen as a sign of continuing independence for American seniors. In 2009, 87 percent of the driving-age population (age 16 and over) have a license. There are 685 drivers for every 1,000 residents. In 1960, just a few years after all states required driver licensing, there were only 487 drivers for every 1,000 residents.

Figure 4-1: Number of Licensed Drivers by Gender: 1970-2009



In 1970, 112 million drivers were licensed. There were 1.3 male drivers for every female driver. In 2009 there are 210 million licensed drivers, a compounded annual increase of 1.6 percent. In 2005 the number of licensed female drivers exceeded the number of licensed male drivers.

Figure 4-2: Licensed Drivers per 1,000 Residents by State: 2009

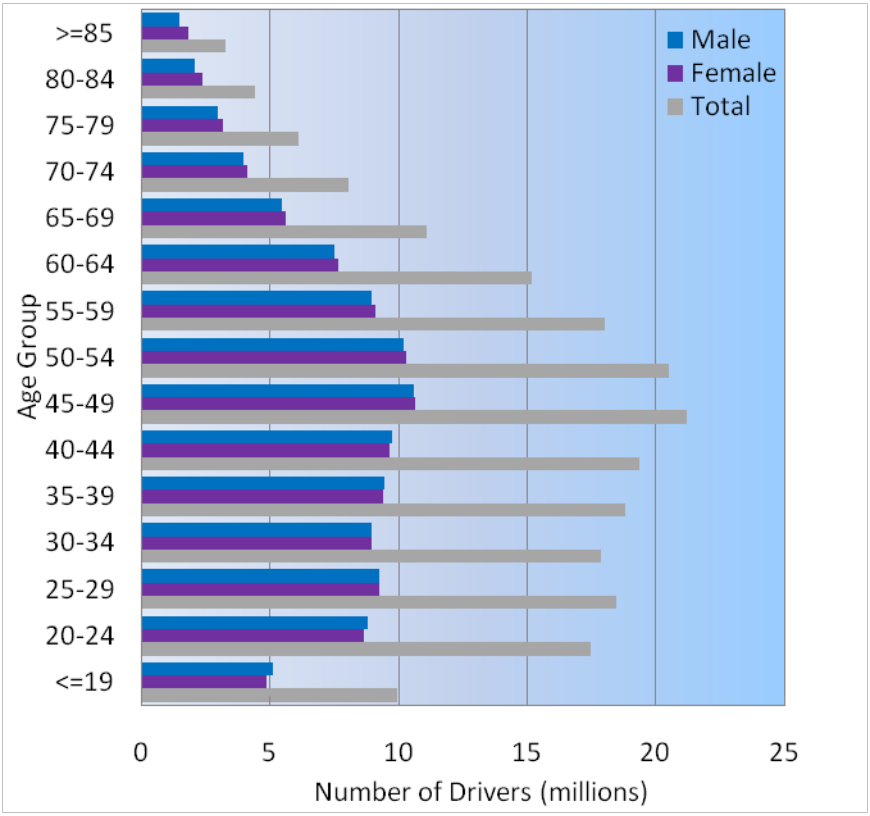


The number of licensed drivers per 1,000 residents differs significantly from state to state, ranging from 580 licensed drivers per 1,000 state residents in New York to 864 licensed drivers per 1,000 residents in Indiana.

In addition to Vermont other New England states – Connecticut, New Hampshire, and Maine – have higher rates of licensed drivers per capita, as do Alabama and Delaware. States in more rural northern mid-west and mountain areas, such as Montana, Nebraska, Wyoming, have higher rates of licensed drivers per capita. Oregon and Washington also have a greater number of licensed drivers relative to their populations.

Data Source: FHWA OHPI, Highway Statistics

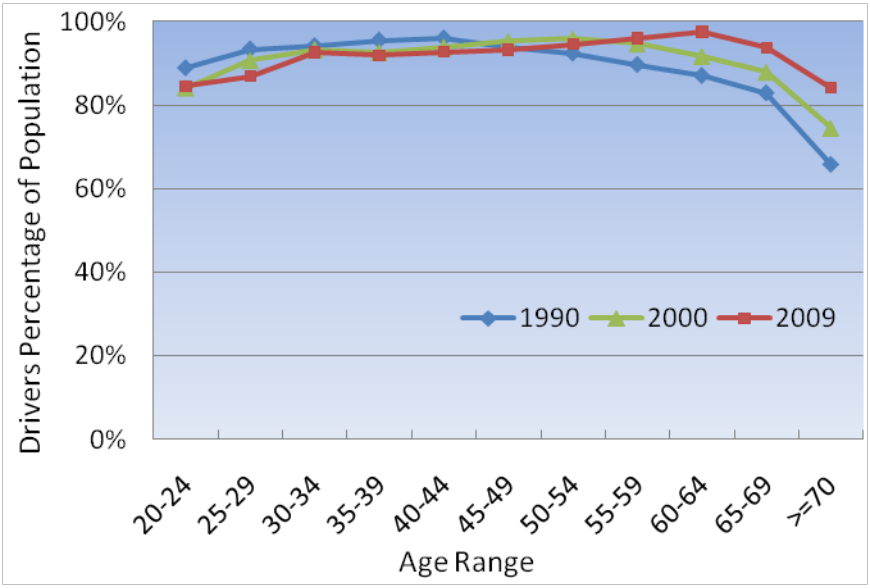
Figure 4-3: Licensed Drivers by Age and Gender: 2009



As the population follows the aging "baby boom" generation, the trend in licensed drivers follows. In 2009, the 45-to-49, and 50-to-54 age groups are the largest cohorts of drivers. Following the population in general, 80 percent of licensed drivers are between the ages of 20 and 64. Five percent of licensed drivers are under the age of 20, while 16 percent of licensed drivers are age 65 or older.

Data Source: FHWA OHPI, Highway Statistics

Figure 4-4: Licensed Drivers by Age as a Percentage of Population for Age Groups: 1990; 2000; 2009

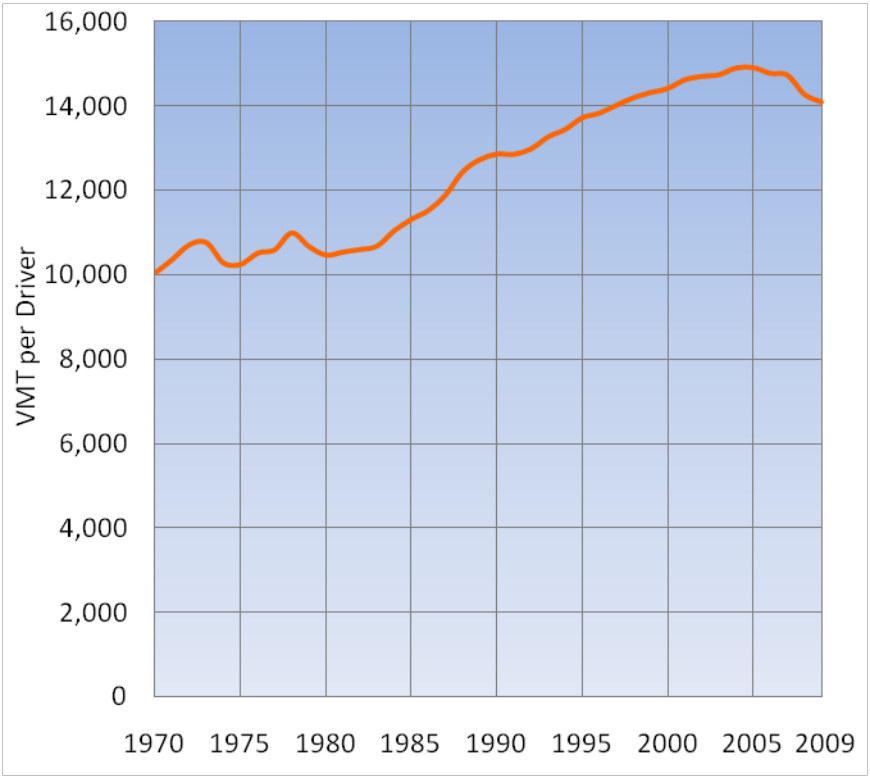


Comparing drivers by age with the population of the United States in 1990, 2000, and in 2009, a trend emerges that a greater proportion of older drivers are retaining their licenses. In 2009, 84 percent of those 70 and older have drivers' licenses. This compares with 74 percent of those 70 and older who had licenses in 2000, and with 66 percent of those ages 70 and older who had licenses in 1990. This trend appears to begin with the 45-to-49 age cohort. For younger age groups the opposite effect seems apparent, with a slightly lower percentage of the population licensed in each group in 2009 compared with 1990 and 2000.

Data Sources: FHWA OHPI, Highway Statistics; US Census Bureau

Note: Drivers under the age of 20 are not shown because of varying state licensing requirements and census age data availability.

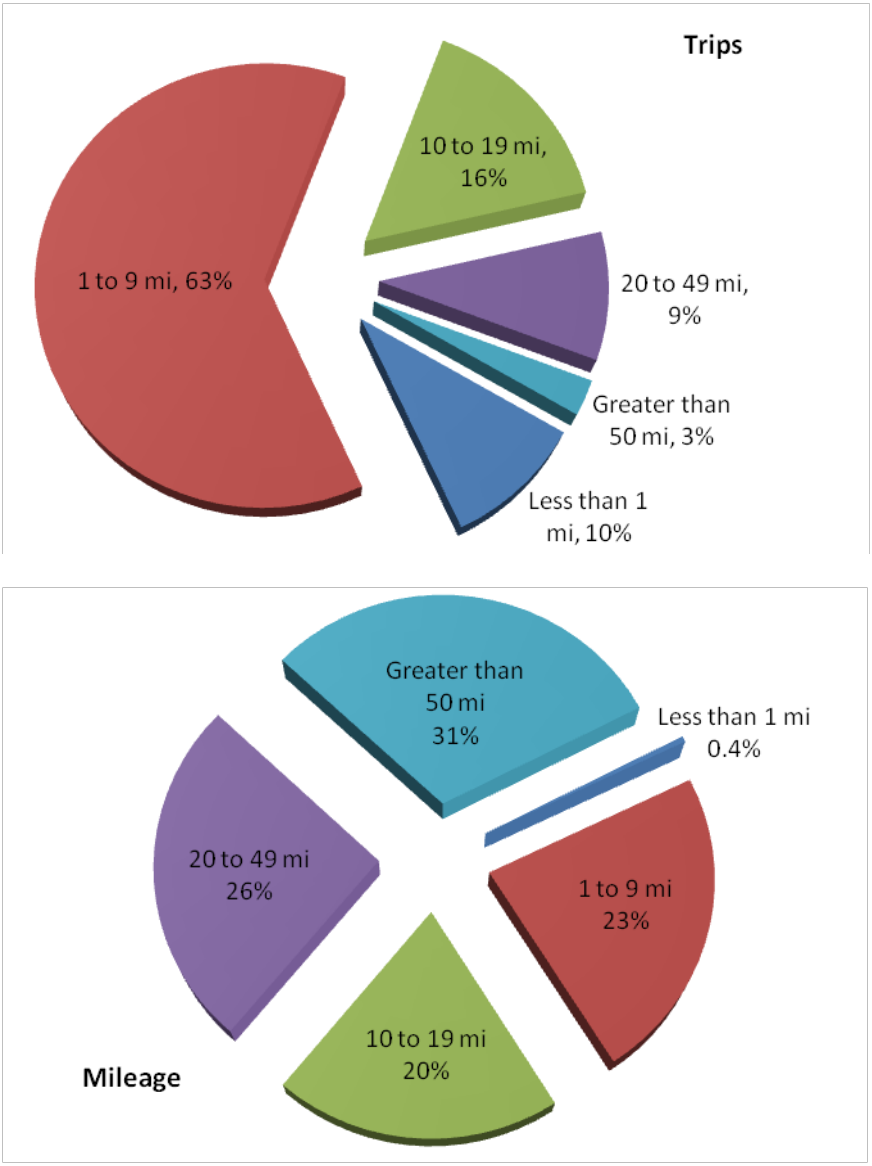
Figure 4-5: Annual Vehicle Miles Traveled per Licensed Driver: 1970–2009



VMT per licensed driver has declined since 2005 after steadily increasing for three decades. VMT in 2009 is 1.2 percent lower than in 2008 (a reduction of 200 annual VMT), and is 5 percent lower than at their peak in 2005 (a reduction of 800 annual VMT). From 1980 until 2005 VMT increased at a compounded annual rate of 1.4 percent. Including all years from 1970 to 2009 VMT increased at a compounded annual rate of 0.9 percent.

Data Source: FHWA OHPI, Highway Statistics

Figure 4-6: Vehicle Trips and Mileage by Trip Length



Data Source: FHWA OHPI, National Household Travel Survey (2009)

Sixty-three percent of daily vehicle trips are between one and nine miles in length, according to the 2009 NHTS. The responses indicate that 16 percent of all daily vehicle trips are between 10 and 19 miles in length, while 9 percent are between 20 and 49 miles. Trips less than one mile in length are 10 percent of all trips, while long-distance travel (trips of 50 miles or greater) are three percent of all trips.

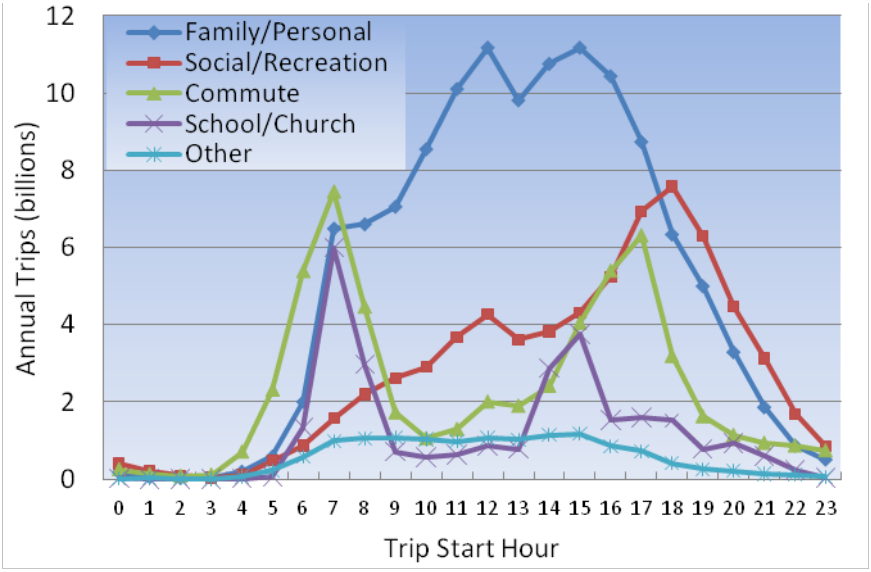
A majority of all VMT are from trips 20 miles in length or greater. Trips between 20 and 49 miles in length are 26 percent of VMT; trips 50 miles in length or greater account for 31 percent of VMT. Trips less than 20 miles in length account for 43 percent of VMT.

These findings indicate that most personal vehicle trips are short, with seven of every 10 trips less than 10 miles in length. However, trips less than 10 miles in length account for only 23 percent of all VMT, indicating that frequent, shorter trips are prevalent, but those trips greater than 10 miles in length account for a majority of road use.

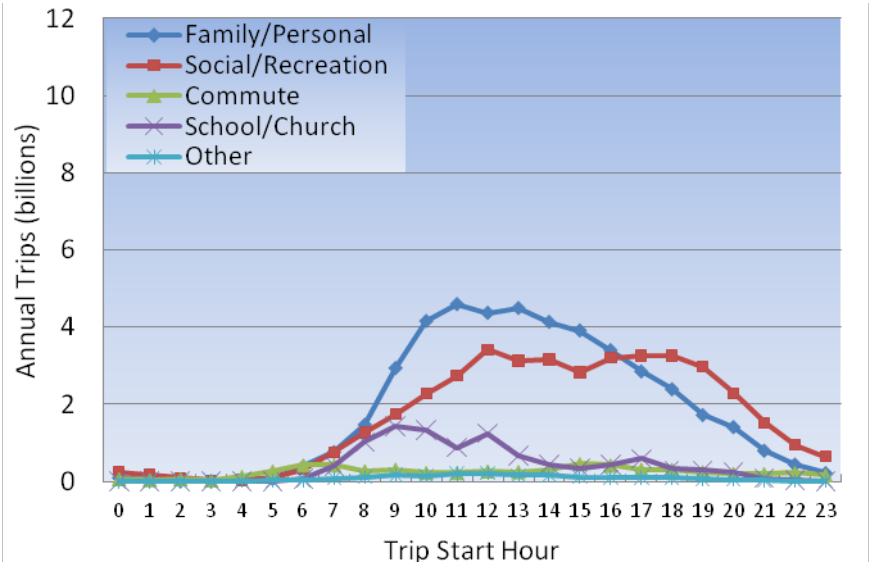
Conversely, long-distance travel (trips of 50 miles or greater) account for three percent of all vehicle trips by number, but represent 31 percent of all household-based VMT.

Figure 4-7: Trip Start Times by Purpose: Weekday and Weekend

Weekday



Weekend

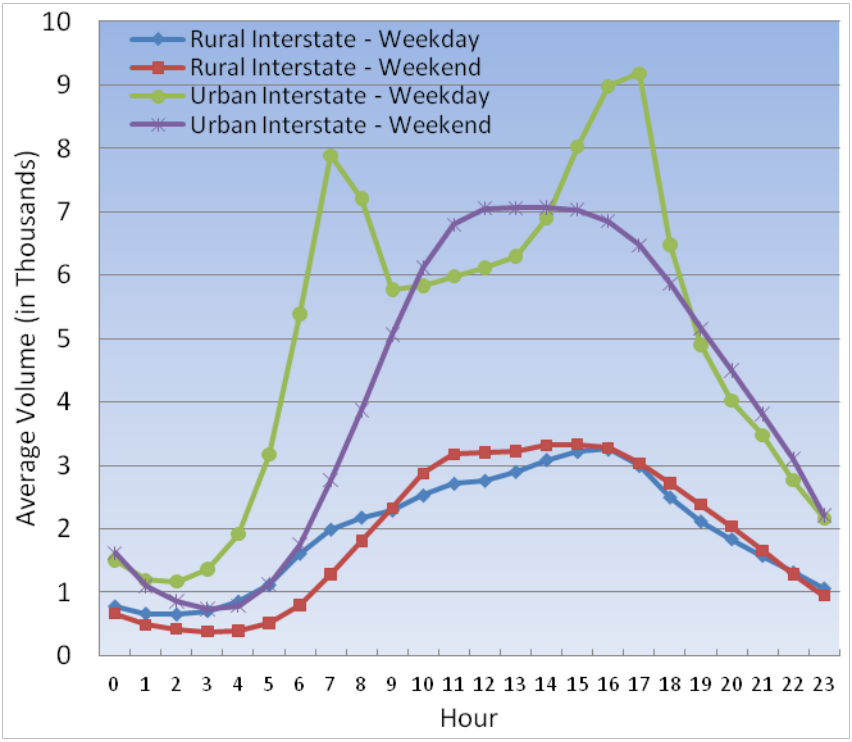


NHTS responses reveal that 392 billion person-trips are made annually in 2008. Of those trips for which a purpose is determined 61 billion (16 percent of trips with a purpose) are for commuting. Trips for school and religious purposes account for 10 percent of weekday and weekend travel, a total of 38 billion trips annually. Trips for social and recreational purposes (including vacation trips and trips to visit friends and family) account for 23 percent of weekday trips and 39 percent of weekend trips, a total of 108 billion trips annually. Trips for personal and family-related purposes (such as shopping trips and trips for medical care) are 43 percent of weekday trips and 42 percent of weekend trips, a total of 167 billion trips annually.

Ninety-one percent of all commuting trips occur on weekdays, with the majority of these trips starting between 5:00 and 10:00 in the morning and again between 3:00 and 7:00 in the afternoon. Trips for school and religious purposes have a weekday pattern similar to that of commuting trips, but with a smaller afternoon peak between 2:00 pm and 5:00 pm. Sixty-four percent of all family and personal trips occur on weekdays between 7:00 am and 7:00 pm. Sixty-two percent of trips for social or recreational purposes occur on weekdays, most in the early evening.

Peak commute periods also include high levels of non-work travel for purposes such as family and personal, school and church, and social activities. Including trips by all modes of transportation, the number of non-work trips occurring in midday actually exceeds the number of commuting trips in peak travel periods. As most of the trips throughout the midday are local, short trips, they potentially have a greater impact on energy use and air quality than on highway congestion.

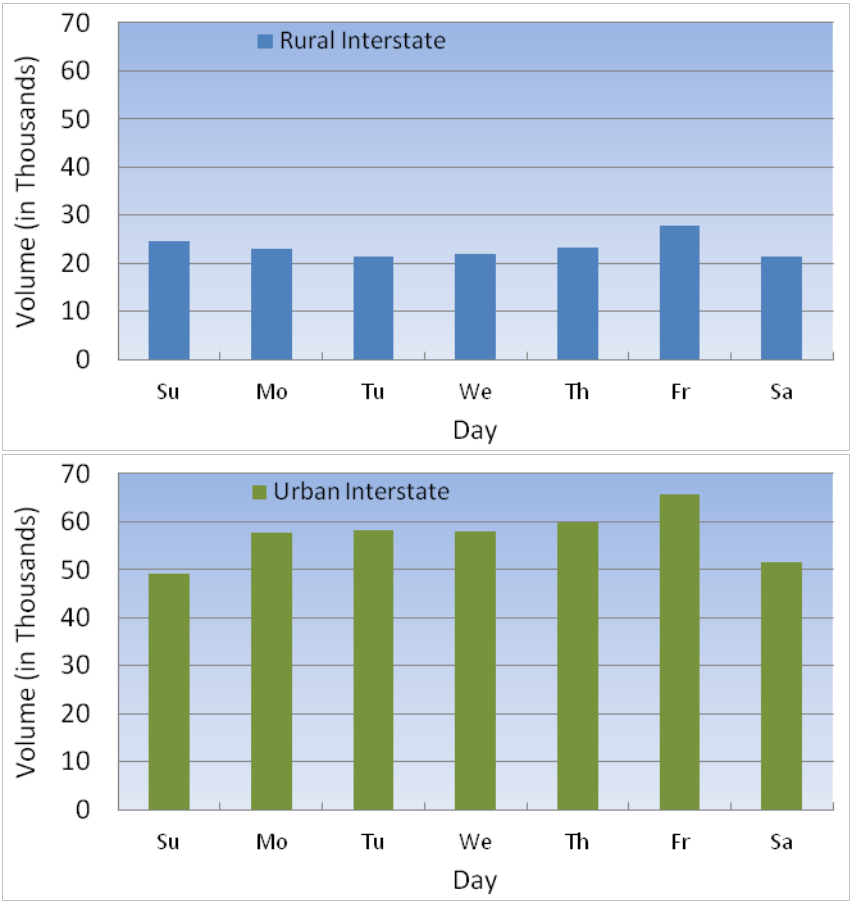
Figure 4-8: Hourly Traffic Distributions: Rural and Urban Interstates



Hourly travel volumes are shown for selected urban and rural Interstate highways during weekday and weekend periods over a year, illustrating typical travel patterns. Weekday traffic on the urban Interstate includes AM and PM commuting peaks. Significant but gradual weekend traffic peaks later in the day and decreases through the evening. Hourly travel patterns for a rural Interstate highway, also during weekday and weekend periods, does not show commuting peaks. The distribution of traffic on this facility shows weekend volume that exceeds weekday traffic.

Data Source: FHWA OHPI, Traffic Monitoring and Analysis System

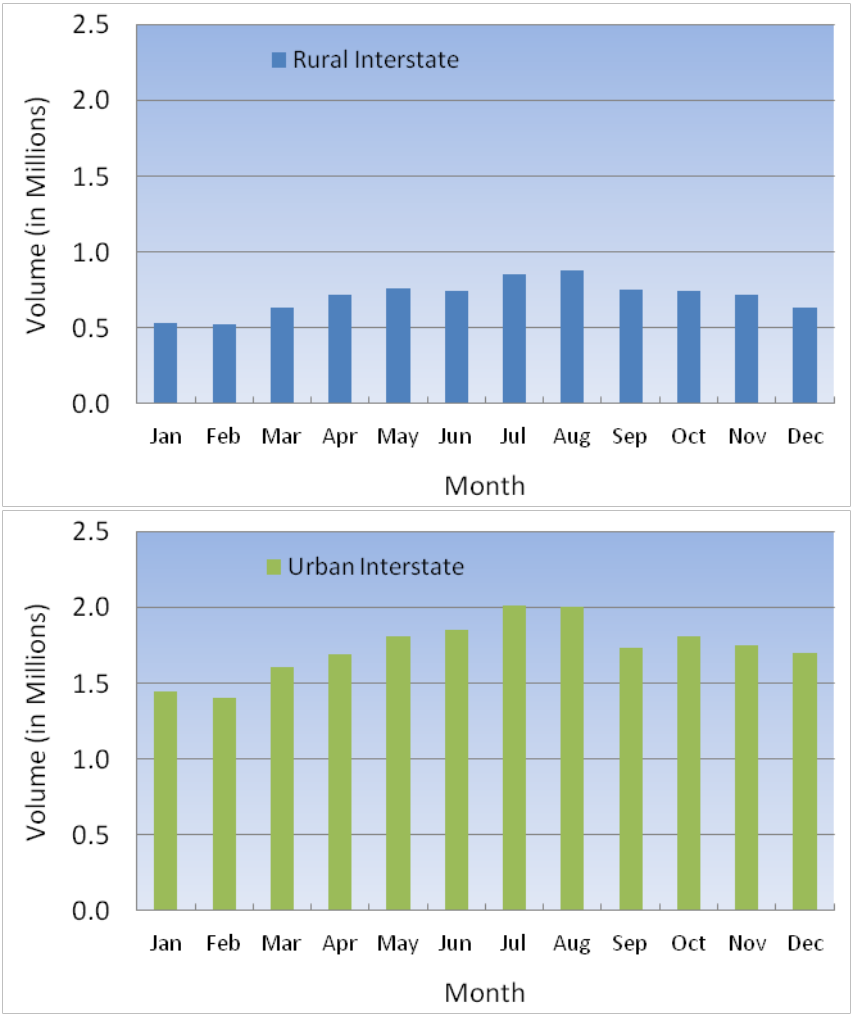
Figure 4-9: Daily Traffic Distributions: Rural and Urban Interstates



The volume of travel occurring each day of the week is shown for selected urban and rural Interstate highways over a year, illustrating typical travel patterns. Friday is the busiest travel day for both rural and urban Interstates. Weekend volume, while lower on the urban Interstate, is relatively higher on the rural facility, indicating recreational travel on weekends.

Data Source: FHWA OHPI, Traffic Monitoring and Analysis System

Figure 4-10: Monthly Traffic Distributions: Rural and Urban Interstates



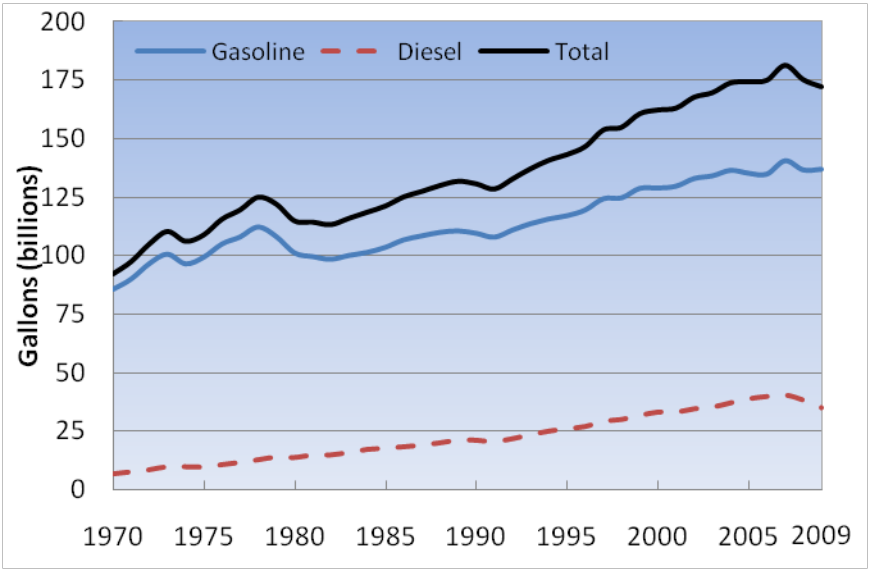
The volume of travel occurring each month is shown for selected urban and rural Interstate highways over a year, illustrating typical travel patterns. Volumes during July and August are highest, while January and February are lowest for both roads.

Data Source: FHWA OHPI, Traffic Monitoring and Analysis System

5 Motor Fuel

While our nation and industry are devoting significant resources to develop alternative fuels and technologies to power our motor vehicles gasoline, diesel, ethanol, natural gas, and other petroleum-related products are currently the primary source of fuels enabling our mobility.

Figure 5-1: Highway Fuel Usage Trend: 1970–2009



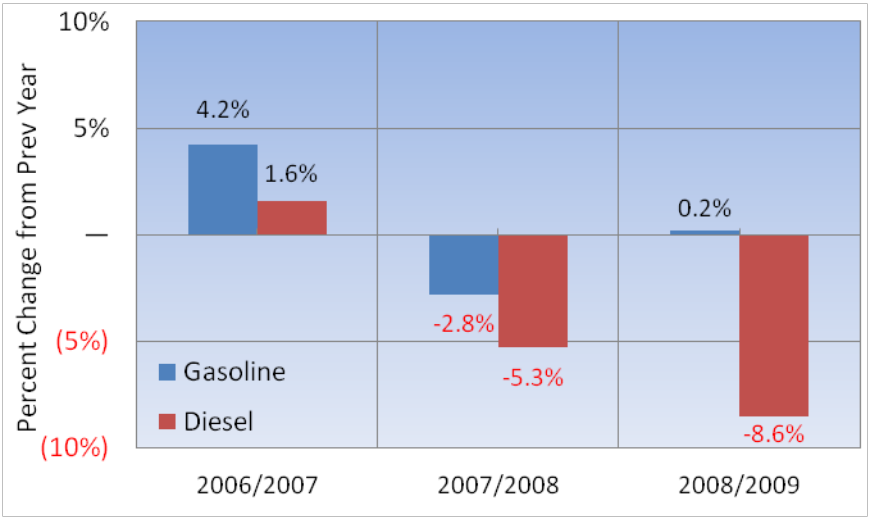
A total of 172 billion gallons of fuel were consumed by vehicles in 2009. Of this total 137 billion gallons (80 percent) are gasoline and the remaining 35 billion gallons (20 percent) are special fuels such as diesel.

Data Source: FHWA OHPI, Highway Statistics

From 2008 to 2009 gasoline consumed by vehicles increased 0.3 billion gallons (0.2 percent), while special fuels consumption decreased 3.3 billion gallons (9 percent). Overall, vehicle fuel consumption decreased 1.7 percent from 2008 to 2009.

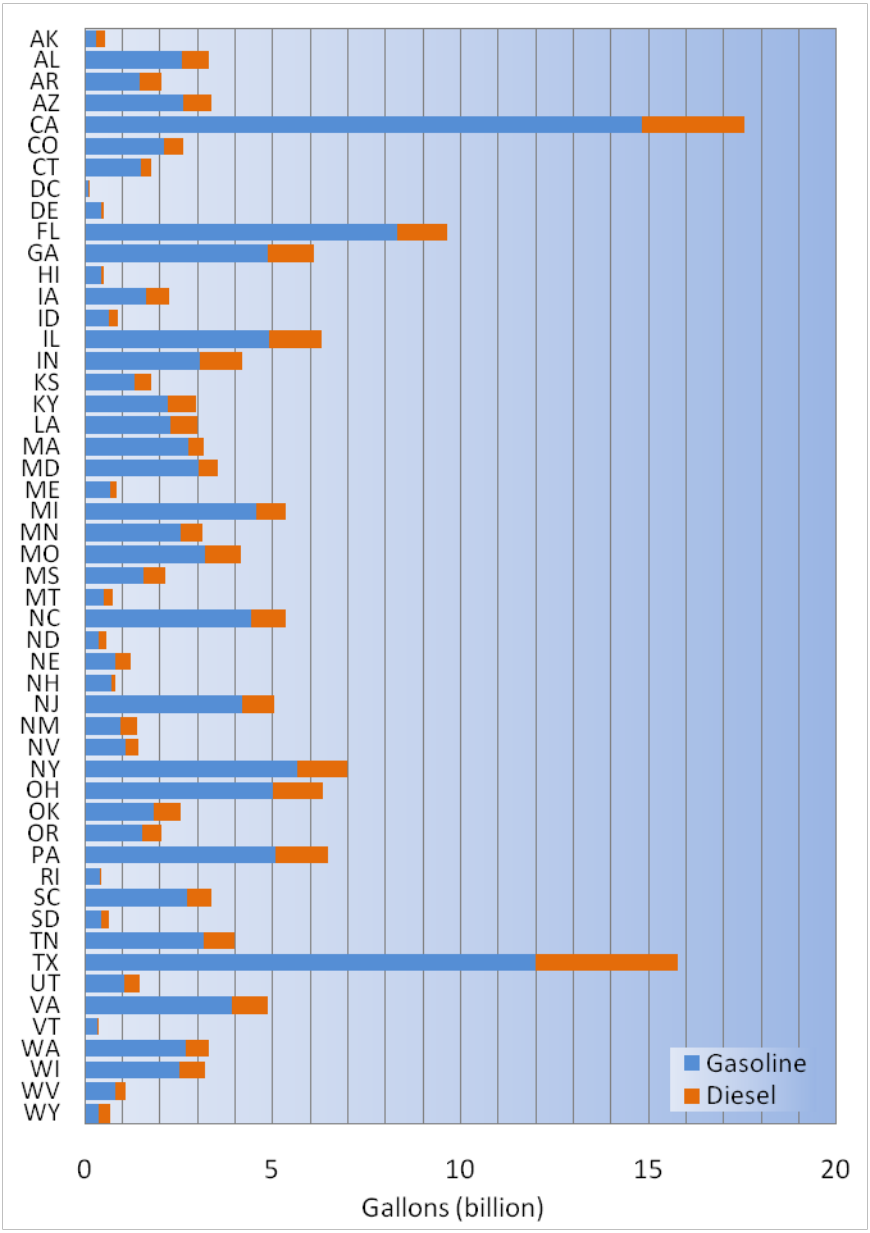
Since 1970 total highway fuel consumption has increased 86 percent from 92 million gallons, an annual growth rate of 1.6 percent. Special fuels consumption is five times greater than in 1970, an annual growth rate of 4.3 percent.

Figure 5-2: Highway Fuel Usage Change from Previous Year: 2006/2007; 2007/2008; 2008/2009



Data Source: FHWA OHPI, Highway Statistics

Figure 5-3: Fuel Consumption by State and Type: 2009



Data Source: FHWA OHPI, Highway Statistics

Total vehicle fuel consumption by state in 2009 varies from a low of 0.1 billion gallons in the District of Columbia and 0.4 billion gallons in Vermont to a high of 18 billion gallons in California. Total gasoline consumption ranges from a low of 0.1 billion gallons in the District of Columbia and 0.3 billion gallons in Alaska to a high of 15 billion gallons in California, while total diesel consumption ranges from a low of 0.02 billion gallons in the District of Columbia and 0.05 billion gallons in Hawaii to a high of 3.8 billion gallons in Texas.

The five largest states by total fuel consumption – California, Florida, New York, Pennsylvania, and Texas – consume 56 billion gallons of fuel, which is 33 percent of total vehicle fuel consumption nationwide. The five states consuming the most diesel fuel – California, Illinois, New York, Pennsylvania, and Texas – consume 11 billion gallons of diesel fuel, which is 30 percent of diesel vehicle fuel consumption nationwide.

The ratio of diesel consumption to gasoline consumption by state ranges from 1:1.1 in Alaska, where similar quantities of diesel fuel and gasoline are consumed, to 1:9 in Hawaii, which consumes one gallon of diesel fuel for every 9 gallons of gasoline.

6 Funding and Expenditures

Receipts from the federal taxation of motor fuel, along with other highway-user taxes, are deposited in the federal Highway Trust Fund. Taxes on highway users benefit them by providing for the improvement of highway facilities. The Highway Trust Fund has provided a stable funding source for highway programs since it was established in 1956.

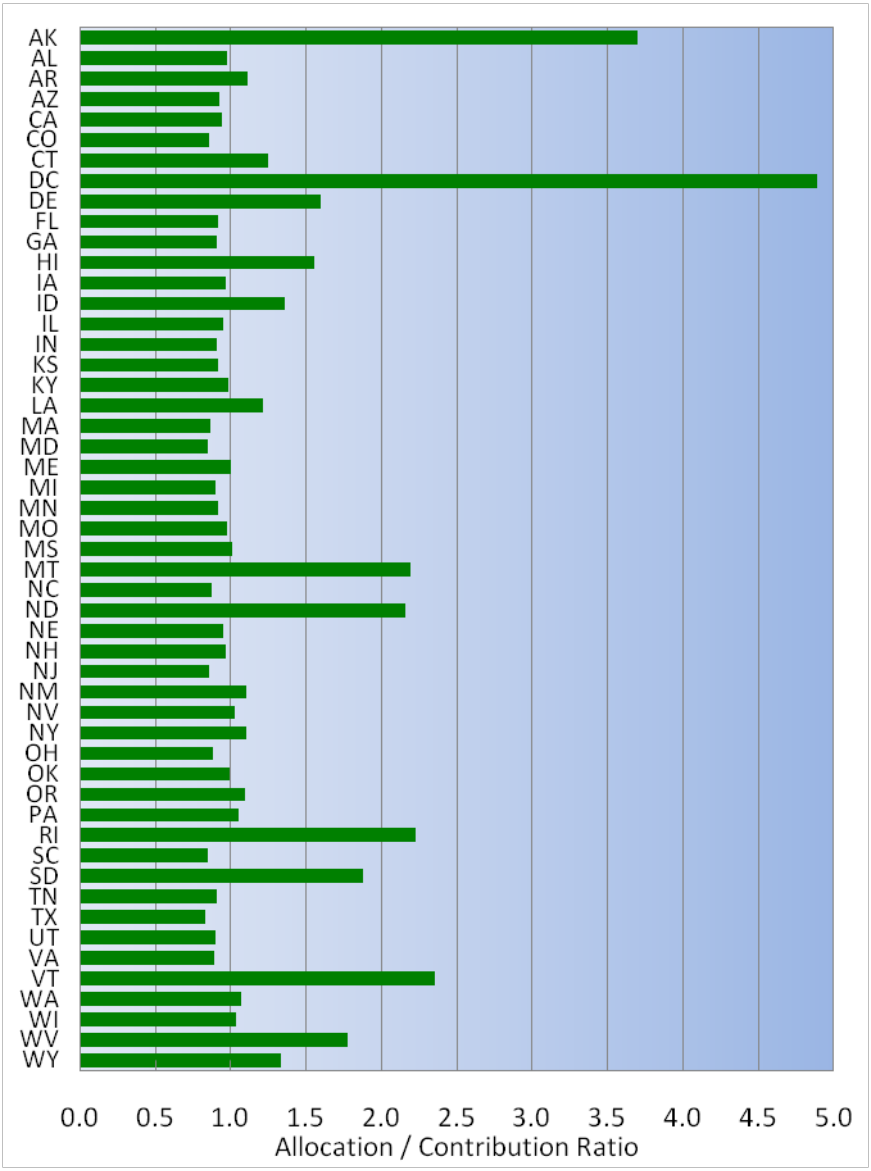
Table 6-1: Federal Highway User Fees

Motor Fuels (in cents per gallon)	
Gasoline: 18.4	
Gasohol: 18.4	
Diesel and Kerosene: 24.4	
Special Fuels	
	Liquefied Petroleum Gas: 13.6
	Liquefied Natural Gas: 11.9
	Other Special Fuels: 18.4
Other User Fees	
Tires:	Tax is imposed on tires sold by manufacturers, producers, or importers at the rate of 9.45 cents (4.725 cents in the case of a bias ply or super single tire) for each 10 pounds of the maximum rated load capacity over 3,500 pounds.
Truck and trailer sales: 12 percent of retailer's sales price for tractors and trucks over 33,000 pounds gross vehicle weight (GVW) and trailers over 26,000 pounds GVW. The tax applies to parts and accessories sold in connection with the vehicle.	
Heavy use vehicles (annual fee): Trucks 55,000—75,000 pounds GVW, $100 plus 22 for each 1,000 pounds (or fraction thereof) in excess of 55,000 pounds. Trucks over 75,000 pounds GVW, $550.	

The federal Highway Trust Fund includes federal fuel tax revenue and other fees. The federal gas tax rate last changed in 1996.

Data Source: FHWA OHPI, Highway Statistics

Figure 6-1: Ratio of Relative Trust Apportionments / Allocations to Relative Trust Fund Payments: 2009



Data Source: FHWA OHPI, Highway Statistics

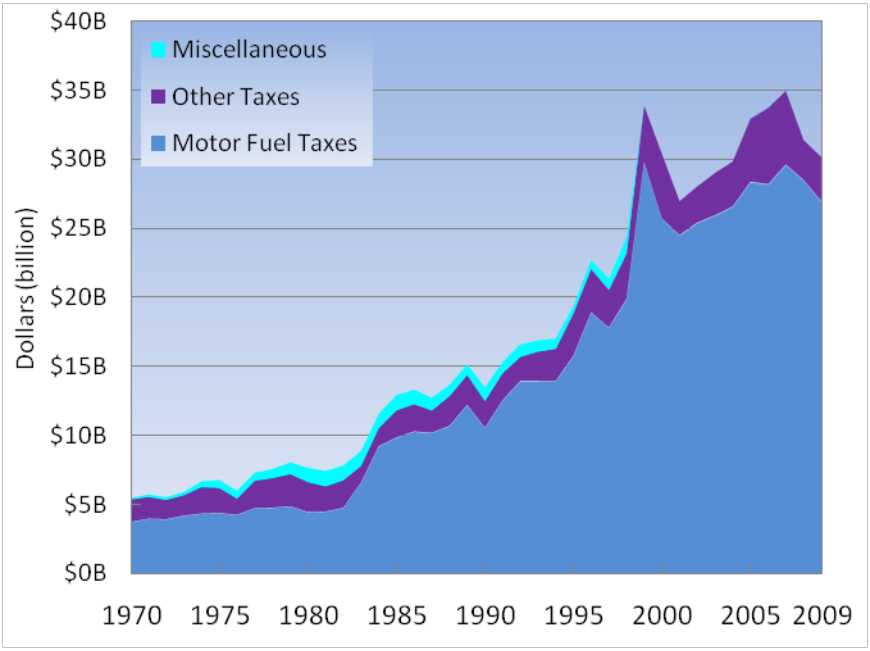
Each state's highway users contribute to the federal Highway Trust Fund (HTF) by paying motor fuel taxes. These are subsequently allocated to each state from the HTF. A ratio may be calculated that compares the funds paid by motorists within each state with the state's total apportionments and allocations from the HTF.

With this calculation a ratio of 1.0 indicates that a state receives the same amount of apportionments and allocations from the HTF as its highway users contribute in motor fuel taxes. A ratio of less than one indicates that the state receives the less in apportionments and allocations from the HTF than its highway users contribute in motor fuel taxes, while a ratio of greater than one indicates that the state receives the more in apportionments and allocations from the HTF than its highway users contribute in motor fuel taxes.

In 2009 the range of allocation-to-payment ratios for all states is between 0.84 and 3.7 (excluding the District of Columbia). Twenty seven states have ratios less than 1.0, with the remaining 23 states having ratios greater than or equal to 1.0. The median allocation-to-payment ratio for all states is 0.98.

Note: The District of Columbia contributes to the Highway Trust Fund, though territories do not.

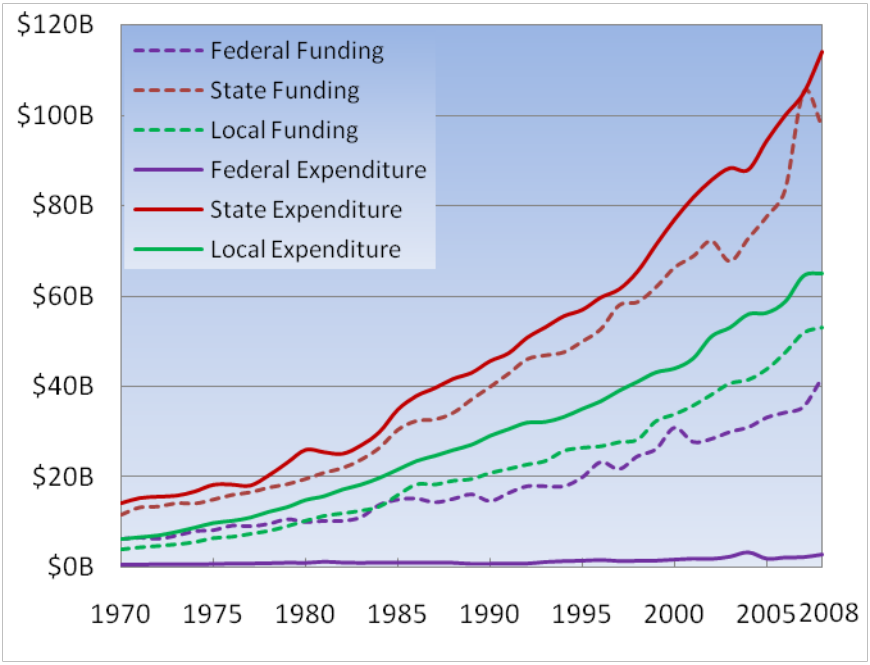
Figure 6-2: Highway Trust Fund Receipts: 1970-2009



The Highway Trust Fund (HTF) revenue comes from fuel, truck, and tire sales taxes. Tax rates have changed several times since the fund was established. Federal motor fuel taxes are collected by the Internal Revenue Service at the fuel terminal, and vary with changes in the volume of fuel sold.

Total federal HTF receipts are $30.1 billion in 2009. This is a decrease of $1.2 billion (4 percent) from 2008 receipts. Of the amount collected in 2009, $27 billion (89 percent) comes from motor fuel taxes and $3.2 billion (11 percent) comes from other taxes, such as on truck and tire sales. Between 1970 and 2009 HTF receipts increased at a compounded annual rate of 5.1 percent, though since 2007 HTF receipts have decreased.

Figure 6-3: Highway Funding and Expenditures by Local, State, and Federal Government: 1970–2008



Total highway funding by all units of government—federal, state, and local—reached nearly $193 billion in 2008, the latest year for which data are available. The vast majority of federal funds are transferred to state highway agencies as part of the federal-aid highway program. Approximately $2.9 billion in federal expenditures are spent on roadways within national parks, military installations and on other federally owned land.

Data Source: FHWA OHPI, Highway Statistics

States disbursed a total of $143.8 billion for highways in 2009. State disbursements for highways track closely with population. The states with the highest disbursements for highways—which also have the largest populations—are California, Florida, Illinois, New York, Pennsylvania, and Texas, each spending over $5 billion in 2009. Combined these six largest states account for 40 percent of total state highway disbursements.

Capital outlays—which include costs associated with land acquisition, design, construction, reconstruction, resurfacing, rehabilitation, restoration, and installation of guard rails, fencing, signs, and signals—account for the largest category of disbursement in most states, a total of $71.2 billion (49 percent of total state highway disbursements). Maintenance costs total $21.7 billion (15 percent of total state highway disbursements), while transfers of funds to local governments total $18.7 billion (13 percent of total state highway disbursements). Service costs associated with borrowing funds for highway, road, and street projects total $14.4 billion (10 percent of total state highway disbursements); research and administration disbursements total $9.5 billion (7 percent of total state highway disbursements); and enforcement and safety disbursements total $8.3 billion (6 percent of total state highway disbursements).

Data Source : FHWA OHPI, Highway Statistics

Figure 6-4: State Disbursements for Highways by Type: 2009

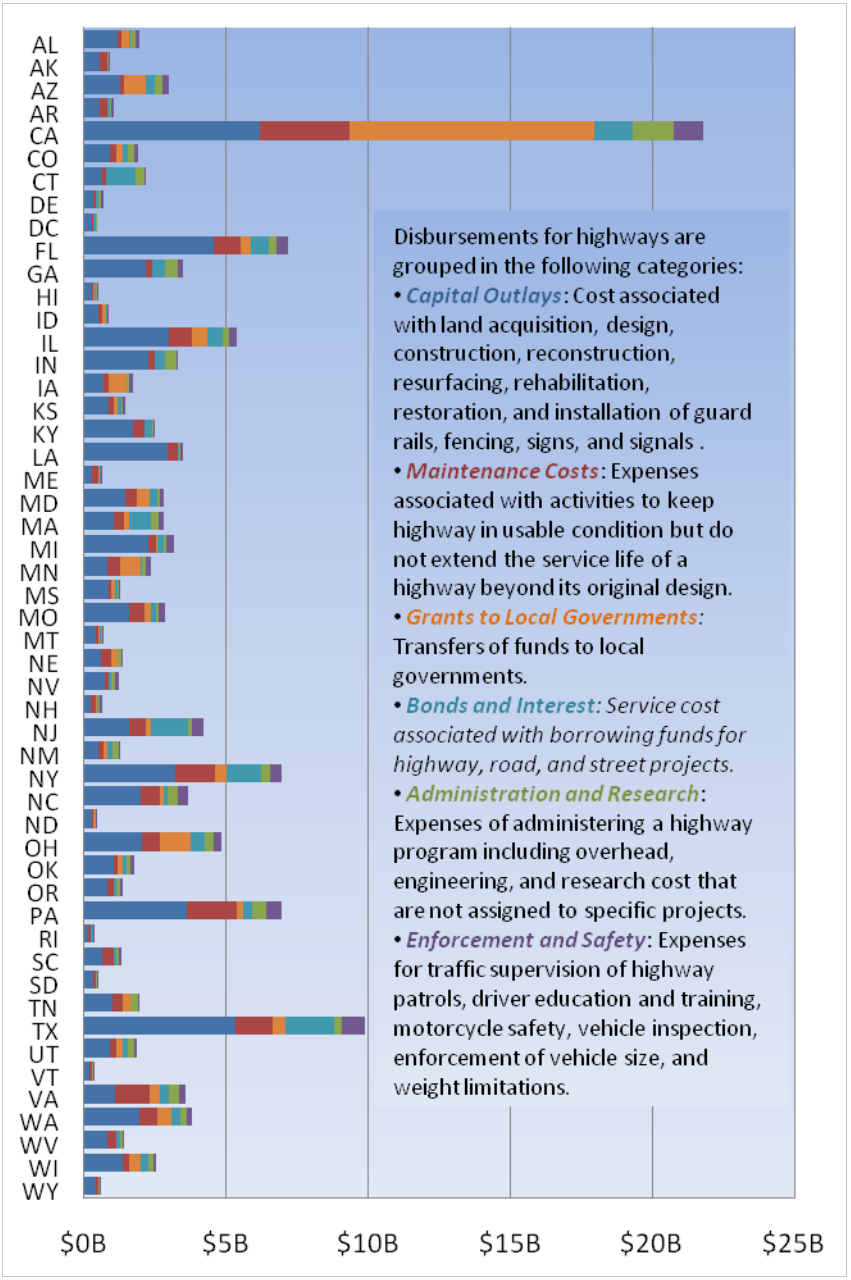


Figure 6-5: State Disbursements for Highways by Type as Percentage of Total: 2009

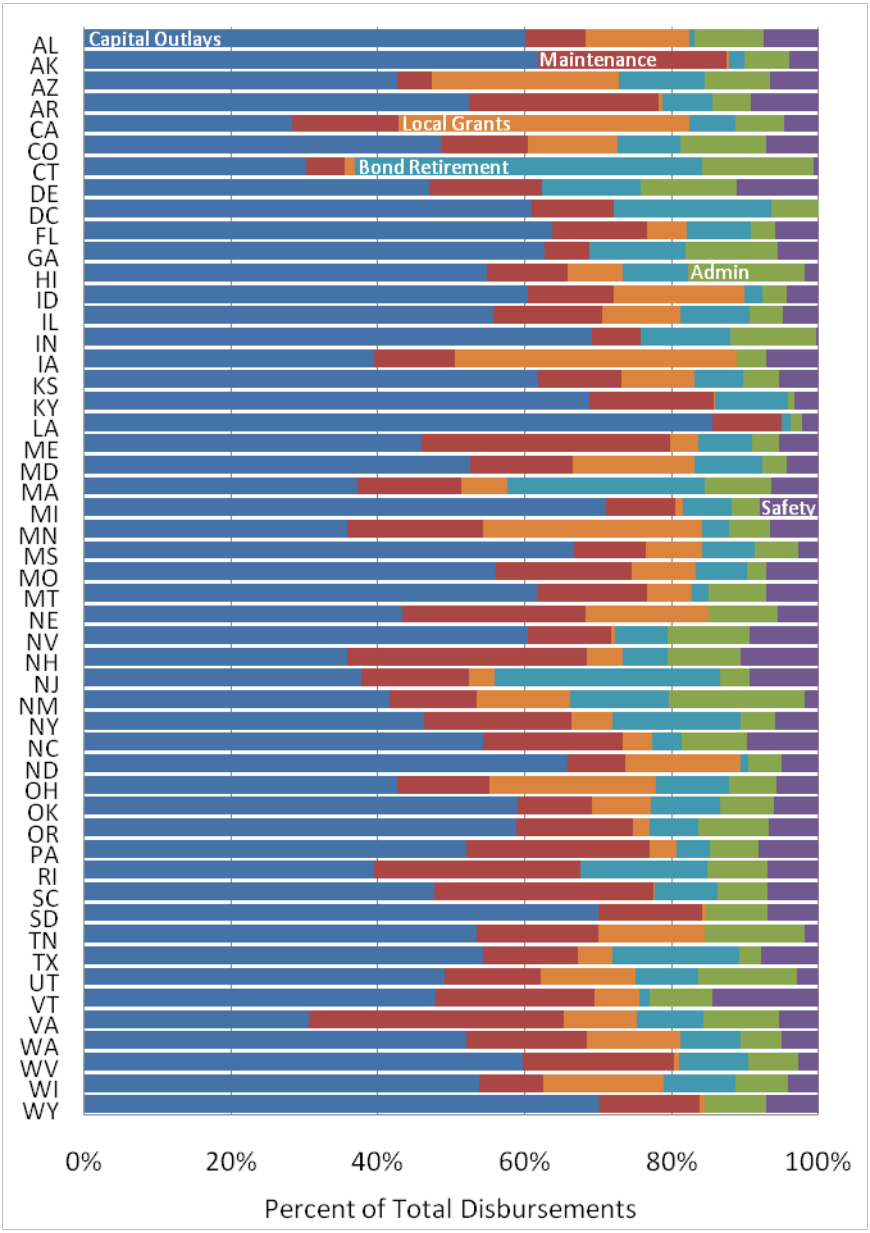
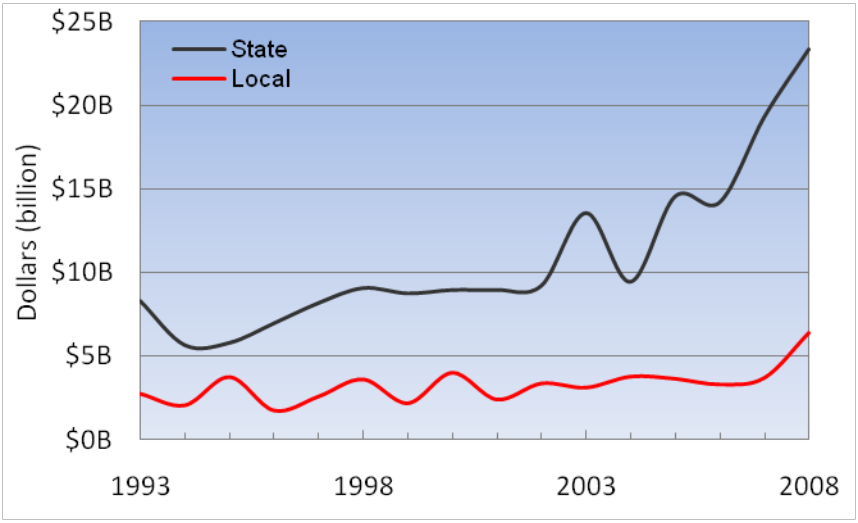


Figure 6-6: Toll Facility Revenue: 1993-2008

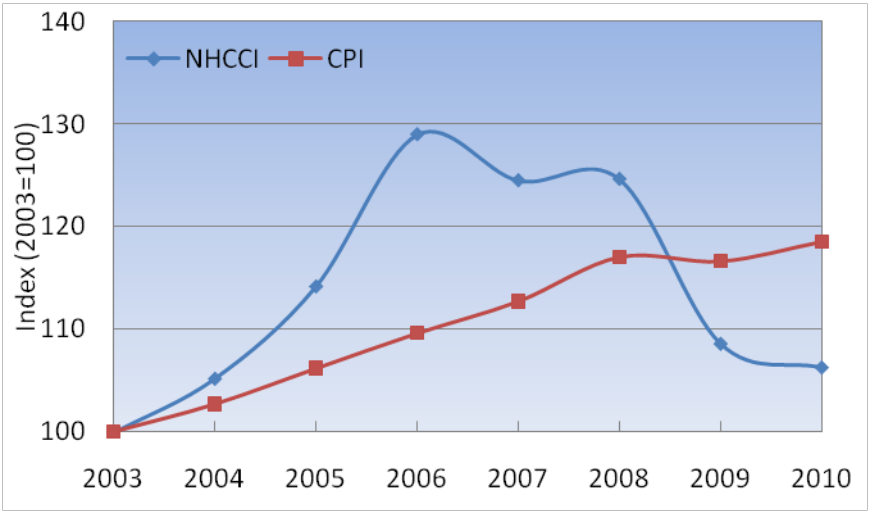


Toll revenue is typically the only funding source used to repay money borrowed to construct a toll facility and to provide for its ongoing maintenance and operations. In 2008, the most recent year for which data are available, $29.8 billion in state and local toll revenues were collected. Of this $23.4 billion (79 percent) were from state tolls and $6.4 billion (21 percent) were from local tolls.

State and local combined toll revenue in 2008 is $6.8 billion higher than in 2007, an increase of 29 percent. Over the last 15 years, toll revenue has increased at a compounded annual rate of 6.8 percent.

Data Source: FHWA OHPI, Highway Statistics

Figure 6-7: Highway Construction Price Trends and Consumer Price Index: 2003-2010



The Consumer Price Index (CPI) is a measure of price changes over time. Computed by the Bureau of Labor Statistics, it is a key indicator of inflation, comparing changes in the costs of goods and services. FHWA has a similar approach to generating a construction cost index, the National Highway Construction Cost Index (NHCCI). NHCCI is intended to assess the change over time in prices paid for roadway construction materials and services.

From 2003 to 2006 the NHCCI increased 29 percent, faster than inflation. From 2006 to 2010 the NHCCI decreased 18 percent. Cumulative inflation from 2003 to 2010 is 12 percent higher than the cumulative NHCCI for this period.

Data Source: FHWA OHPI

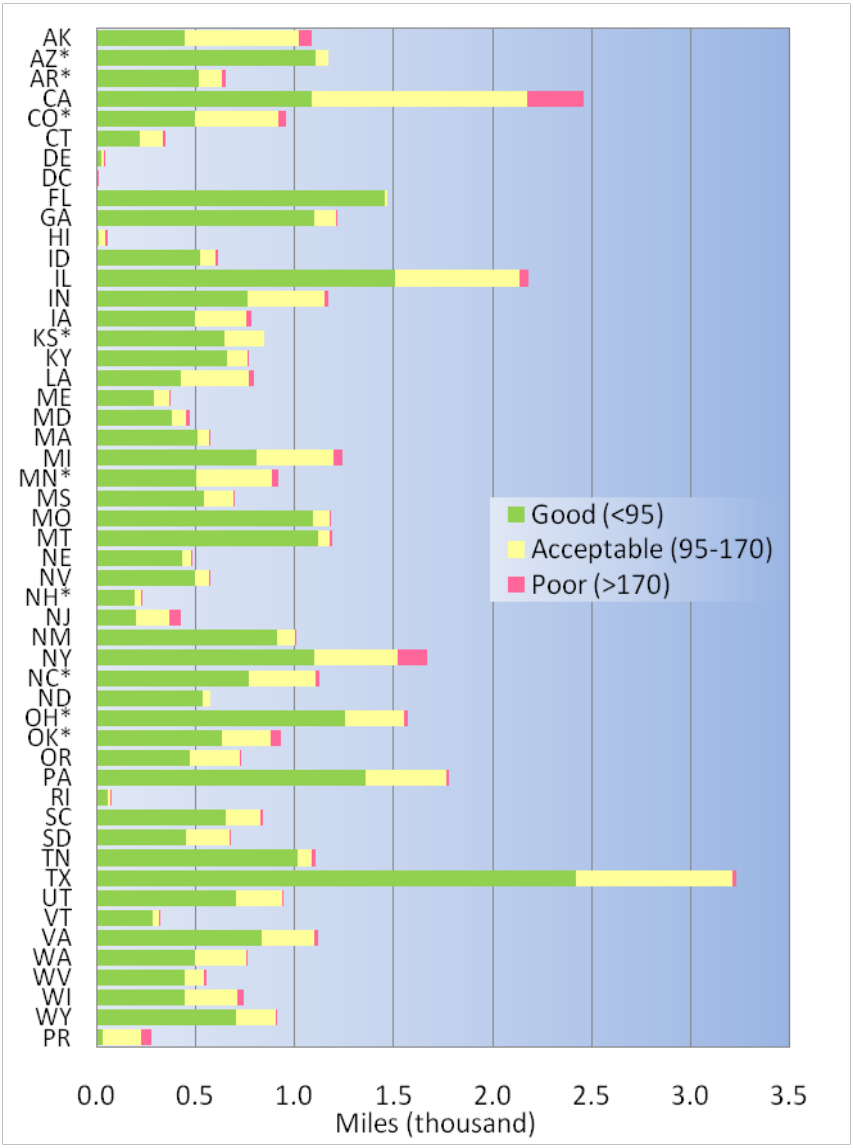
Note: The Consumer Price Index is compiled by the Bureau of Labor Statistics and is based upon a 2003 Base of 100.

7 Condition, Performance, and Safety

Our reliance on highways for commerce, commuting, working, shopping, vacationing, and for other activities is creating significant demand on the system. Performance, reliability, safety, and asset preservation are key concerns for transportation agencies. Operating speeds, congestion, and pavement and bridge condition are some of the ways to measure the performance, condition, and safety of the nation's highways.

The International Roughness Index (IRI) is one of the most widely used measures of pavement smoothness or ride quality. Pavements with an IRI rating of less than 170 are considered to have an acceptable ride quality, while those with an IRI of less than 95 can be considered to have a good or very good ride quality.

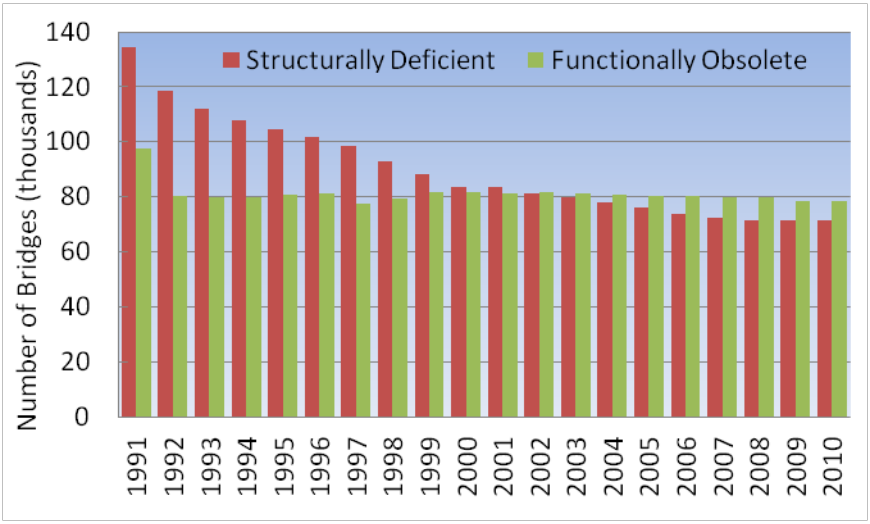
Figure 7-1: Pavement Surface Smoothness by State: 2009



Data Source: FHWA OHPI, Highway Performance Monitoring System

** 2008 data*

Figure 7-2: Bridge Conditions: 1991-2010

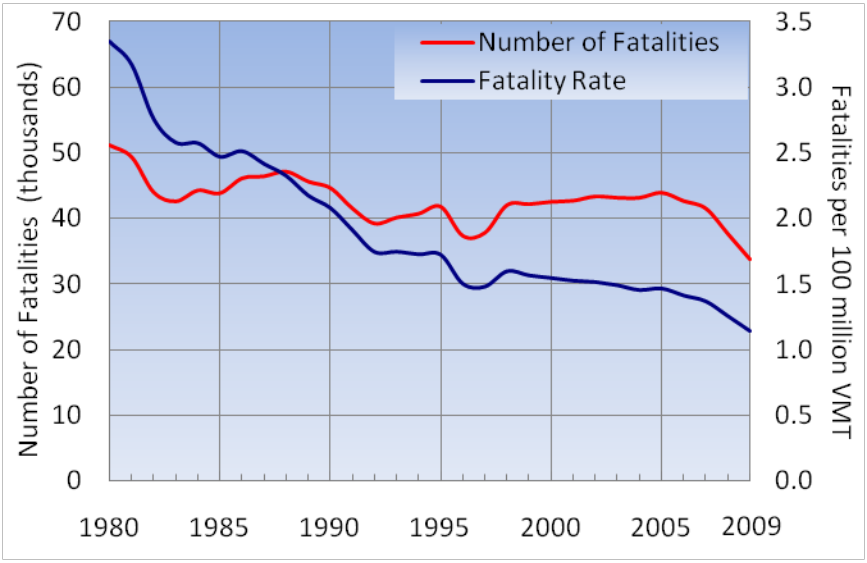


The National Bridge Inventory documents the conditions of bridges on all public roads. Bridges are rated as "not deficient," "functionally obsolete," or "structurally deficient." A bridge rated "functionally obsolete" or "structurally deficient" is not necessarily unsafe. Rather, it typically has an older design that lacks modern safety features such as adequate shoulder space, an appropriate railing system, or other features.

The number of structurally deficient bridges has declined since 1991. The number of functionally obsolete bridges has stayed relatively constant since 1991. Of 604,460 bridges in 2010, 71,177 (12 percent) are rated structurally deficient and 78,477 (13 percent) are rated functionally obsolete.

Data Source: FHWA, Office of Bridge Technology, National Bridge Inventory

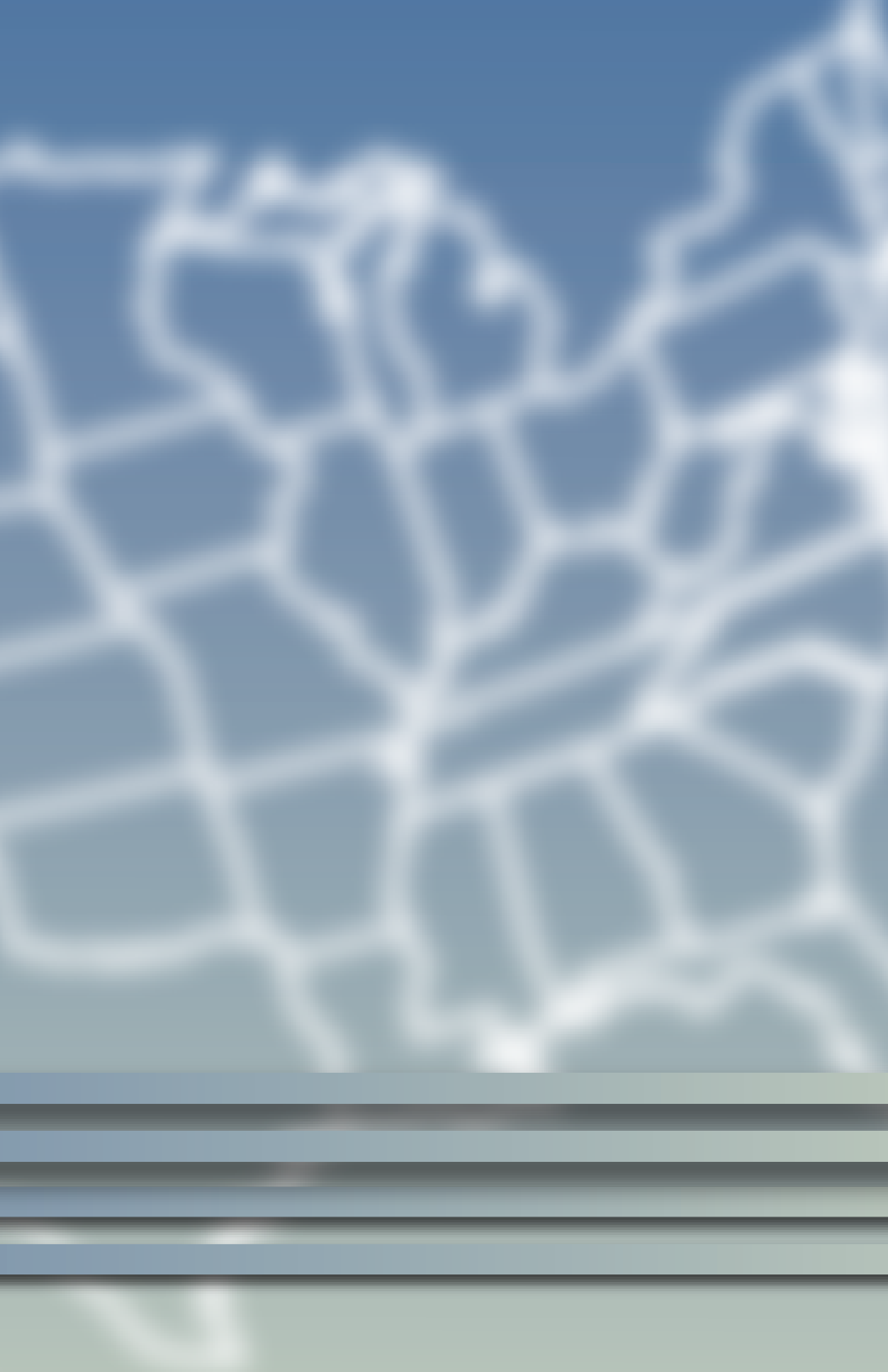
Figure 7-3: Highway Fatality Rates: 1980-2009



The fatality rate (fatalities per 100 million vehicle miles of travel) on the nation's highways continues to decline. In 2009, the fatality rate reached an historical low of 1.15, a total of 33,808 fatalities.

The highway and transit authorization bill from 2005 to 2009, SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), authorized a core safety program known as the Highway Safety Improvement Program. FHWA works with other federal, state, and local authorities and private organizations to develop new strategies and approaches to improve highway travel safety.

Data Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System



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