Our Nation's Highways

Selected Facts and Figures

The information in this publication provides a condensed overview of facts and figures about our Nation's highways. It is considered to be of interest to the average citizen. Except where noted, the Federal Highway Administration is the source of the data provided by the States. Unless otherwise stated, we have used 1993 data. For more detailed data on many of the subjects covered, refer to the publication Highway Statistics, published annually by the Office of Highway Information Management, Federal Highway Administration.

Cover: Oak Creek Canyon, Arizona
Photo by Rick Harroun

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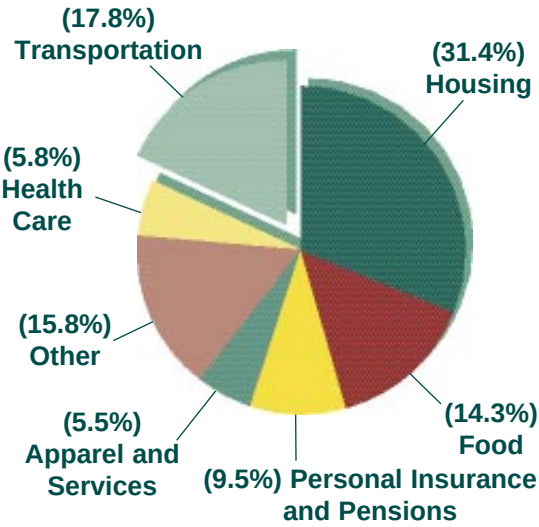
Transportation Expenditures *at the Household Level*

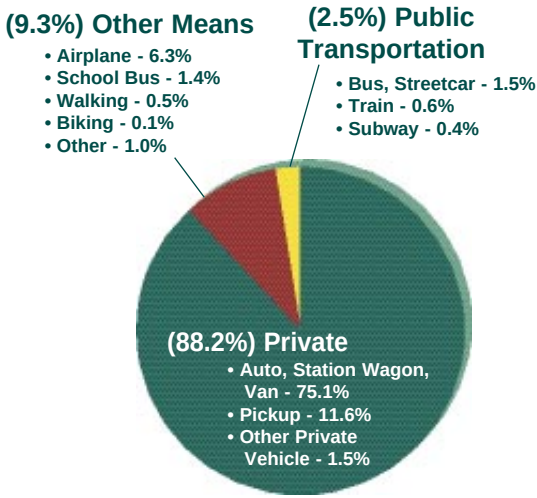
After housing (31.4 percent), transportation (17.8 percent) accounts for the largest single household expenditure, and 60.4 percent of transportation expenditures at the household level are for personal vehicles, gas, and oil.



Source: U.S. Bureau of Labor Statistics, *Consumer Expenditures Survey: Results from 1993.*

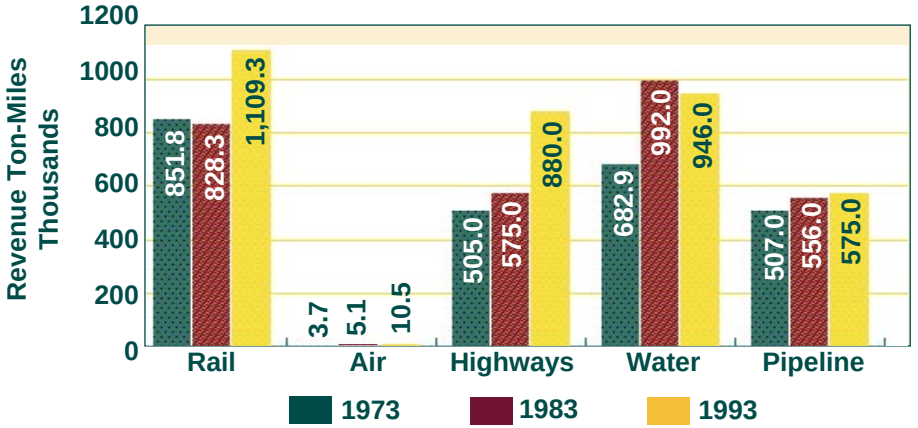
Person-Miles of Travel *by Mode of Transportation*

The personal motor vehicle (automobile, light truck, van, and motorcycle) is the predominant form of personal transportation. Privately owned vehicles are used for 88.2 percent of all personal travel. When school bus (1.4%) and bus/streetcar (1.5%) are added to the *Private Vehicle* portion, we find that over 90 percent of personal transportation is served by highways.



Source: Federal Highway Administration, *Nationwide Personal Transportation Survey, 1990.*

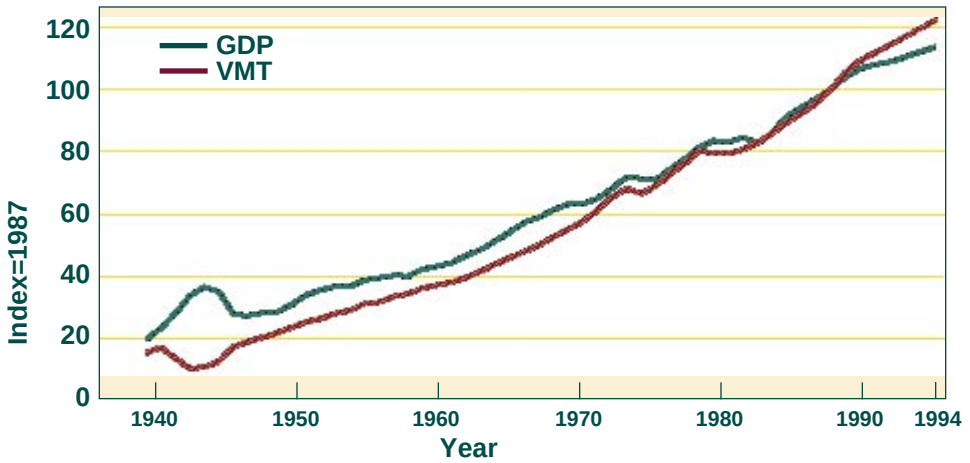
Freight Transportation by Mode



In 1993, the Nation's highway system carried 25 percent of the total revenue ton-miles of freight compared to 19.4 percent in 1983 and 19.8 percent in 1973.

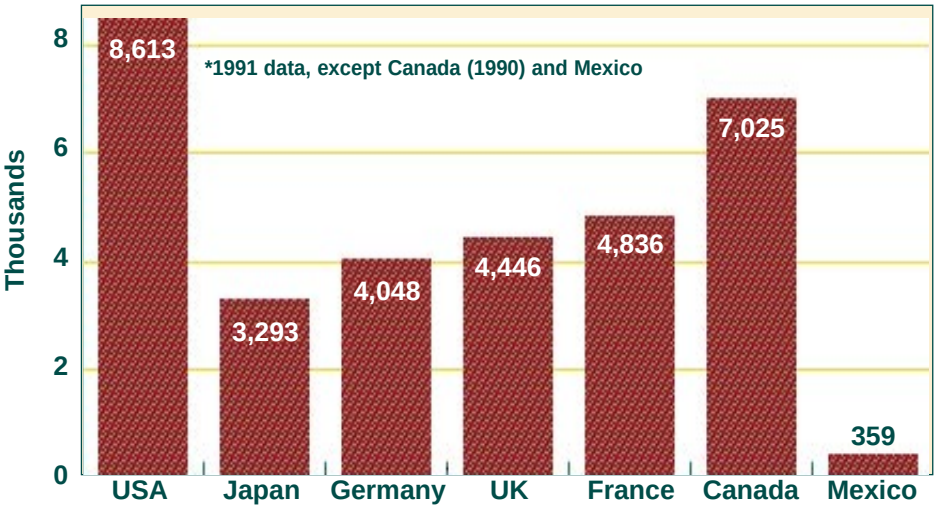
Source: U.S. Department of Transportation, *National Transportation Statistics: Annual Report 1995.*

Gross Domestic Product and Travel Relationship



There is a strong relationship between the Nation's economy and travel on the Nation's highway system. Since the 1930's, growth in the Gross Domestic Product (GDP) and vehicle-miles of travel (VMT) reflect strikingly similar patterns (with the exception of the World War II period), including the period of energy disruptions during the 1970's.

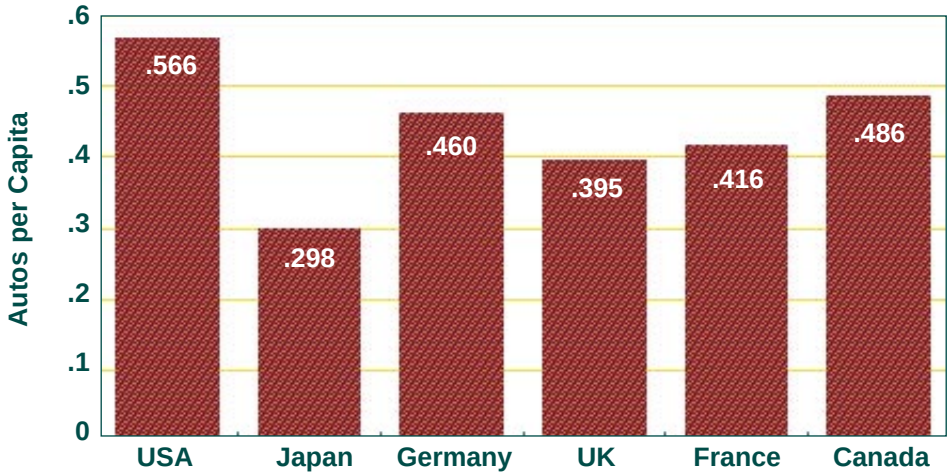
Annual Vehicle-Miles of Travel per Capita



Highway travel by Americans, expressed as vehicle-miles of travel (VMT) per capita, far exceeds highway travel by citizens of other major countries. In 1991, VMT per capita in the United States reached 8,613, a 27 percent increase compared to 1981.

Source: Central Intelligence Agency, *World Fact Book 1991*; *World Road Statistics, 1992; International Road Federation,* **1992; Federal Highway Administration,** *Highway Statistics 1992.*

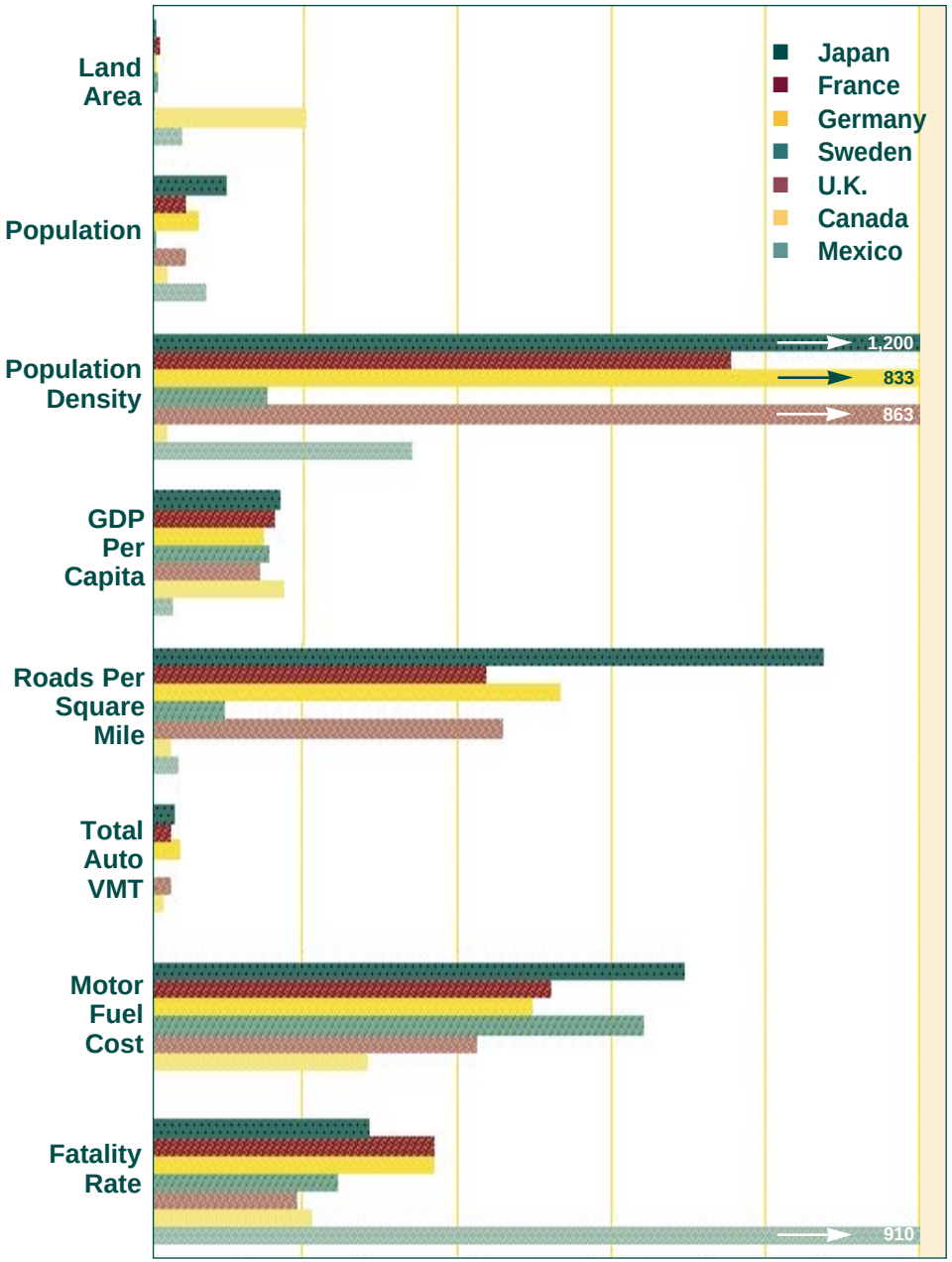
Automobiles per Capita—1991



The United States had the highest number of automobiles per capita in 1991—Canada follows with the newly unified Germany close behind.

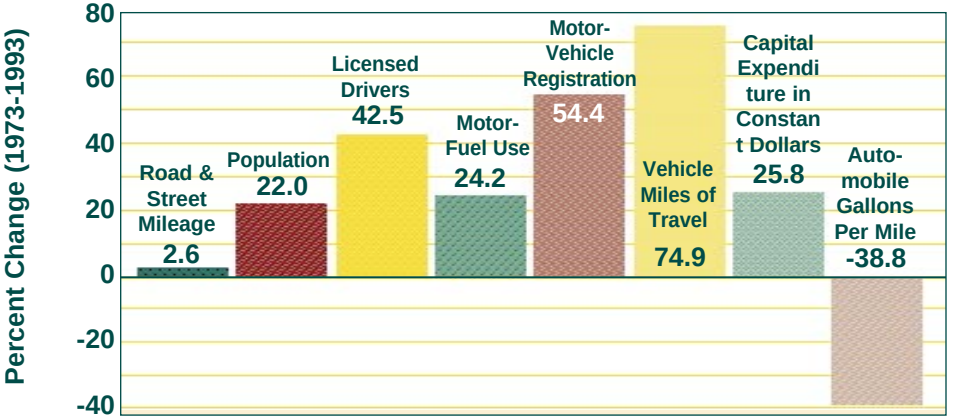
Source: U.S. Department of Energy, *Transportation Energy Data Book: Edition 14, May 1994,* **and; Central Intelligence Agency,** *The World Fact Book 1991.* **Information on Germany provided by Federal Republic of Germany.**

International Comparisons of Key Variables—1991
(Indexed on United States = 100)



Source: Central Intelligence Agency, *World Fact Book, 1991 and 1992;* **International Road Federation,** *World Road Statistics, 1992*; **Energy Information Administration,** *International Energy Annual, 1992;* **Federal Highway Administration,** *Highway Statistics 1991.* **Information on Germany provided by Federal Republic of Germany.**

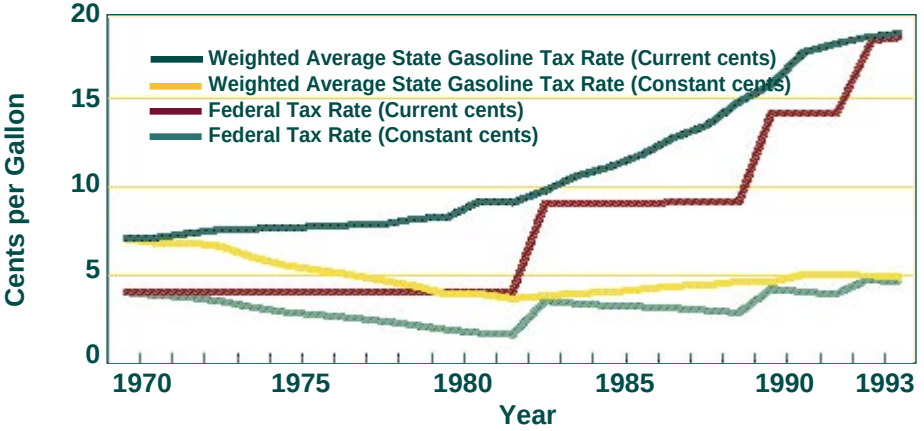
Highway Indicators



While road and street mileage have only increased 2.6 percent since 1973, the number of vehicles using those roads and streets has increased 54 percent and vehicle miles of travel increased by 75 percent.

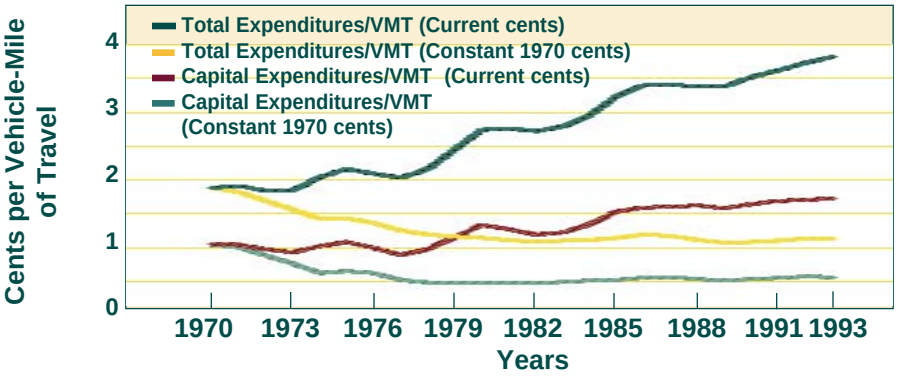
While vehicle-miles of travel (VMT) has increased by 74.6 percent since 1973, the gallons of motor fuel used per personal passenger vehicle has decreased by 38.8 percent.

Federal and State Gasoline Tax Rates



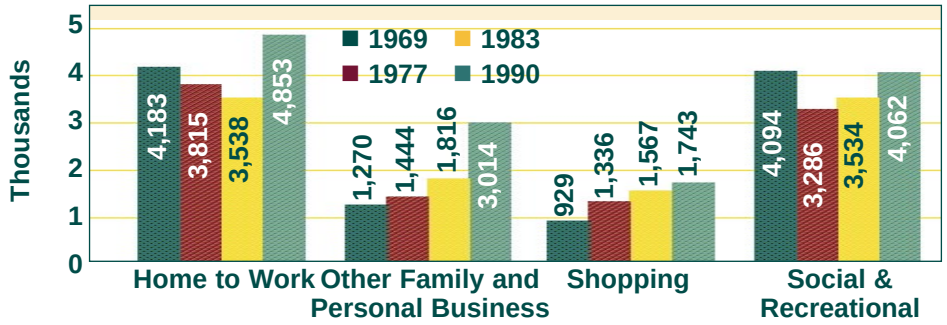
Despite significant increases in State motor-fuel tax rates during the 1980's, the weighted average gasoline tax rate expressed in constant 1970 cents actually decreased by 30 percent from 7.02 cents per gallon in 1970 to 4.95 cents per gallon in 1993. Over the same 1970 to 1993 period, the Federal gasoline tax rate expressed in constant 1970 cents increased by 24 percent, from 4.00 cents per gallon to 4.94 cents per gallon as the rate increased from 4.00 cents per gallon to 18.4 cents per gallon (including 6.8 cents for deficit reduction). Preliminary 1994 data show that State tax rates increased, but did not keep pace with inflation.

Highway Expenditures per Vehicle-Mile of Travel



In 1993, highway capital expenditures, were 1.73 cents per vehicle-mile of travel (VMT) as compared to 1.04 cents per VMT in 1970—a 66 percent increase. After accounting for inflation, however, 1993 capital expenditures were only 0.56 cents per VMT, a 46.0 percent decrease from 1970's capital expenditures. In 1993, total highway expenditures were 3.82 cents per VMT as compared to 1.88 cents per VMT in 1970—a 103 percent increase. After adjusting for inflation, total highway expenditures were only 1.12 cents per VMT, a 40.0 percent decrease from 1970's total highway expenditures. In effect, 1993's highway expenditures by all units of government, with inflation removed, were only about 60 percent of what they were 23 years ago for each vehicle-mile of travel.

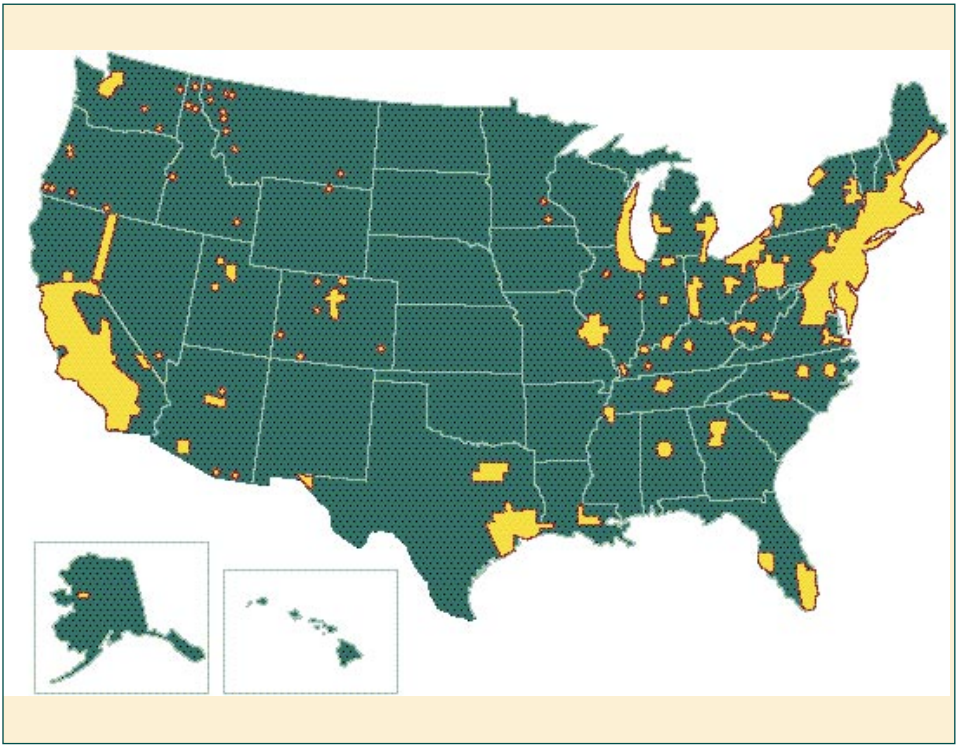
Annual Household-Based Motor-Vehicle Travel for Selected Purposes



The recent growth in household-based vehicle travel has primarily been for commuting and for other family and personal business, which includes purchase of services and giving others a ride. In 1990, the average household traveled almost 5,000 miles for commuting to work and slightly over 3,000 miles for other family and personal business. These two purposes account for over one half of annual household travel. There were only slight increases in travel per household for shopping and social/recreational purposes.

Source: Federal Highway Administration, *Nationwide Personal Transportation Surveys (1969, 1977, 1983, 1990).*

Ozone, CO & PM-10 Nonattainment Areas

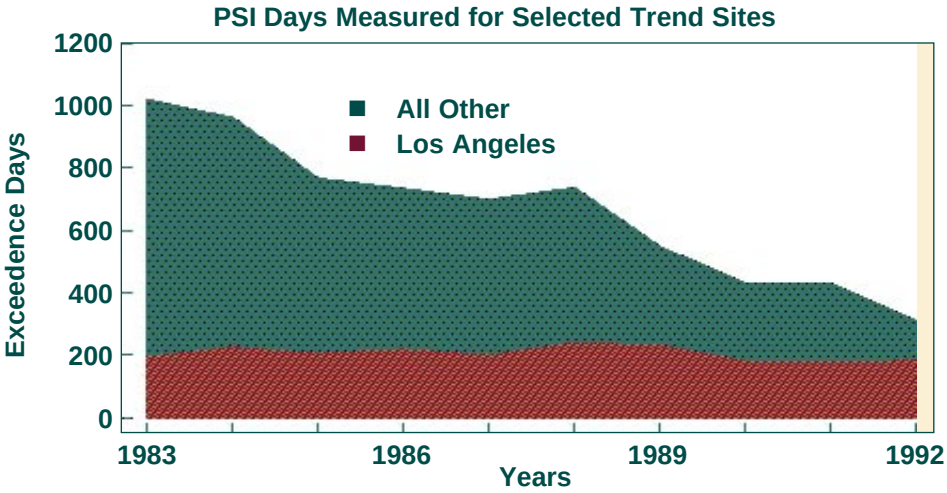


■ Areas in Nonattainment for Ozone, CO, or PM-10

In 1990, the Clean Air Act Amendments (CAAA) set standards for pollutants which States, cities, and towns must either meet or actively work to meet—or face sanctions. The map displays areas designated by EPA as being in nonattainment of the National Ambient Air Quality Standard (NAAQS) for at least one of certain pollutants: ozone, carbon monoxide (CO), or suspended particulate matter (PM-10). More than one fifth of the Nation's population lives in nonattainment areas.

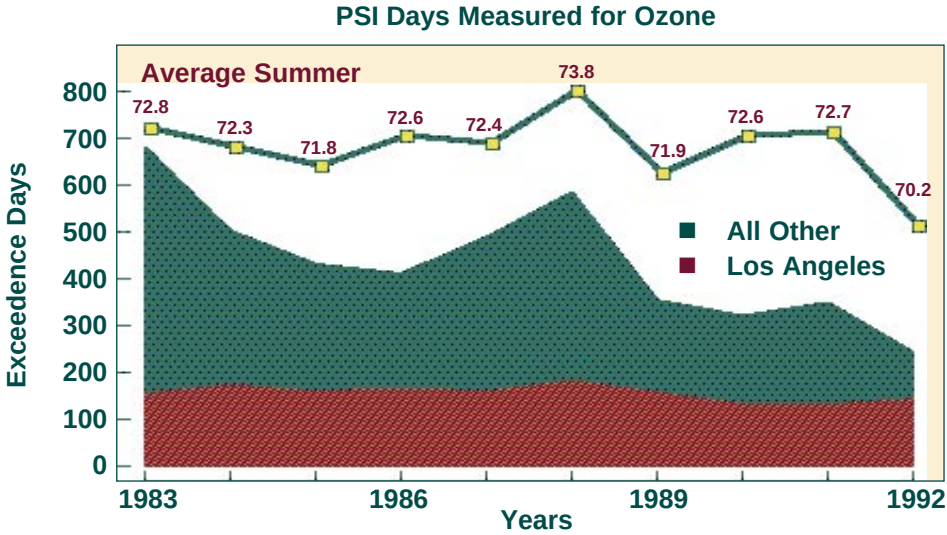
Source: Office of Program Development, Federal Highway Administration, *Transportation Air Quality Fact Book, 1994* **(using 1994 Environmental Protection Agency data).**

Air Quality Trends



The Pollutant Standards Index (PSI) is a composite calculation of PM-10, sulfur dioxide, CO, O_3, and nitrogen dioxide used to determine when an area exceeds the NAAQS.

Each day in exceedence is a day in which any part of the trend site violated the NAAQS. Los Angeles had 194 days in exceedence in 1983 and 183 in 1992.



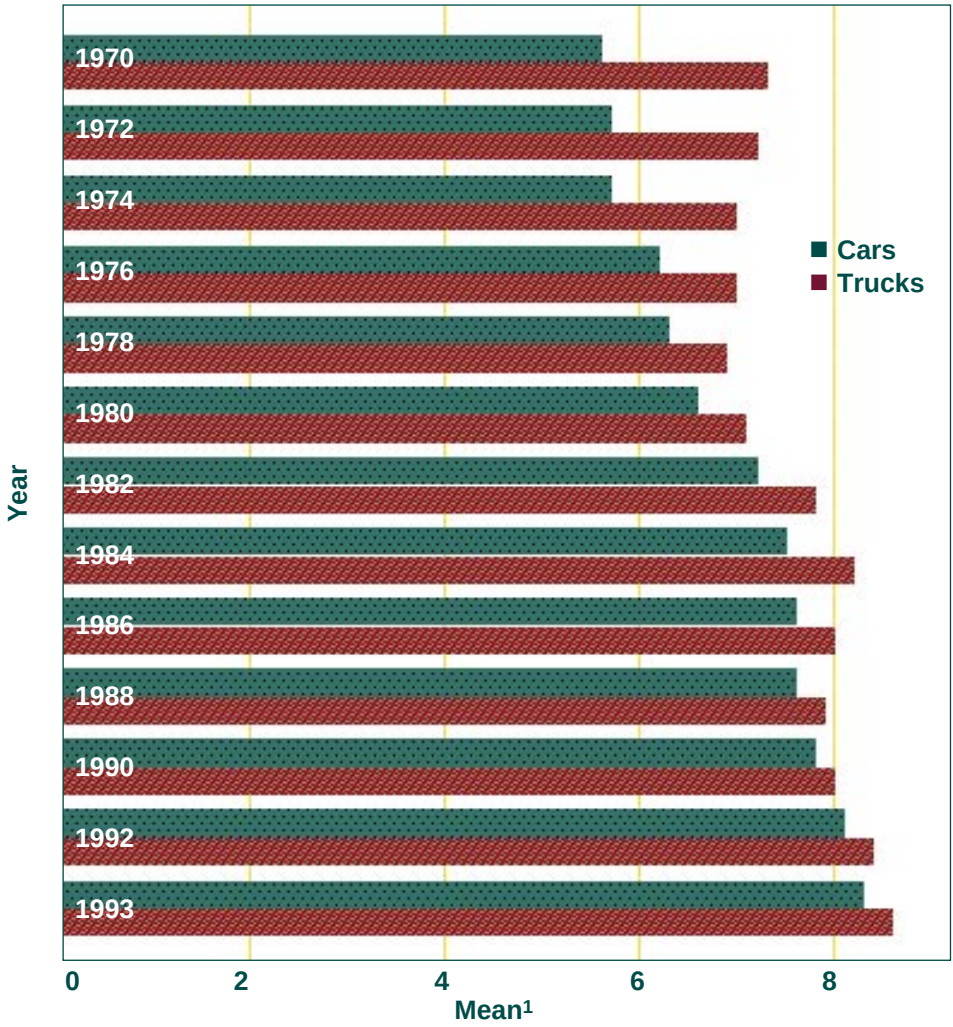
There is a separate PSI for ozone. The number of days that the trend sites have been in exceedence for ozone has been declining since 1983. Los Angeles had 154 days in exceedence in 1983 and 142 in 1992. While the number of days in exceedence has fluctuated somewhat (in part due to fluctuation in average summer temperature), the overall trend has been declining.

Source: Office of Program Development, Federal Highway Administration, *Transportation Air Quality Fact Book, 1994* **(using 1994 Environmental Protection Agency data).**

Average Age of Cars and Trucks in Use (as of July 1, 1993)

As you can see by the chart below, Americans are keeping their cars and trucks longer than ever before. The average age of a passenger car in use in 1993 was 8.3 years compared to 5.6 in 1970.

The same trend holds true with truck use (though not as dramatic a difference)—the average age of a truck in 1993 was 8.6 compared to 7.3 in 1970.

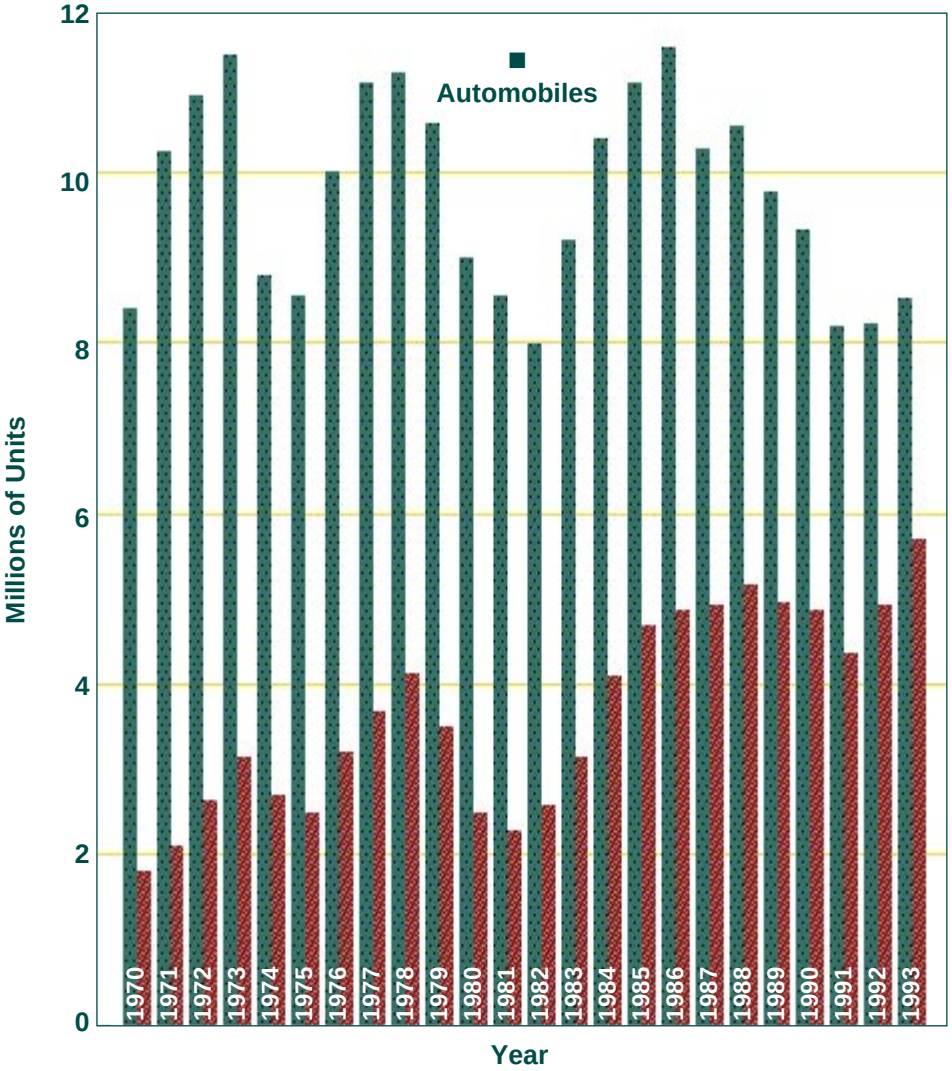


[1]Mean—The sum of the products of units multiplied by age; divided by the total units (units in

Source: American Automobile Manufacturers Association, A*AMA Motor-Vehicle Facts and Figures '94* **(compiled from R.L. Polk and Co. data).**

Motor-Vehicle Retail Sales

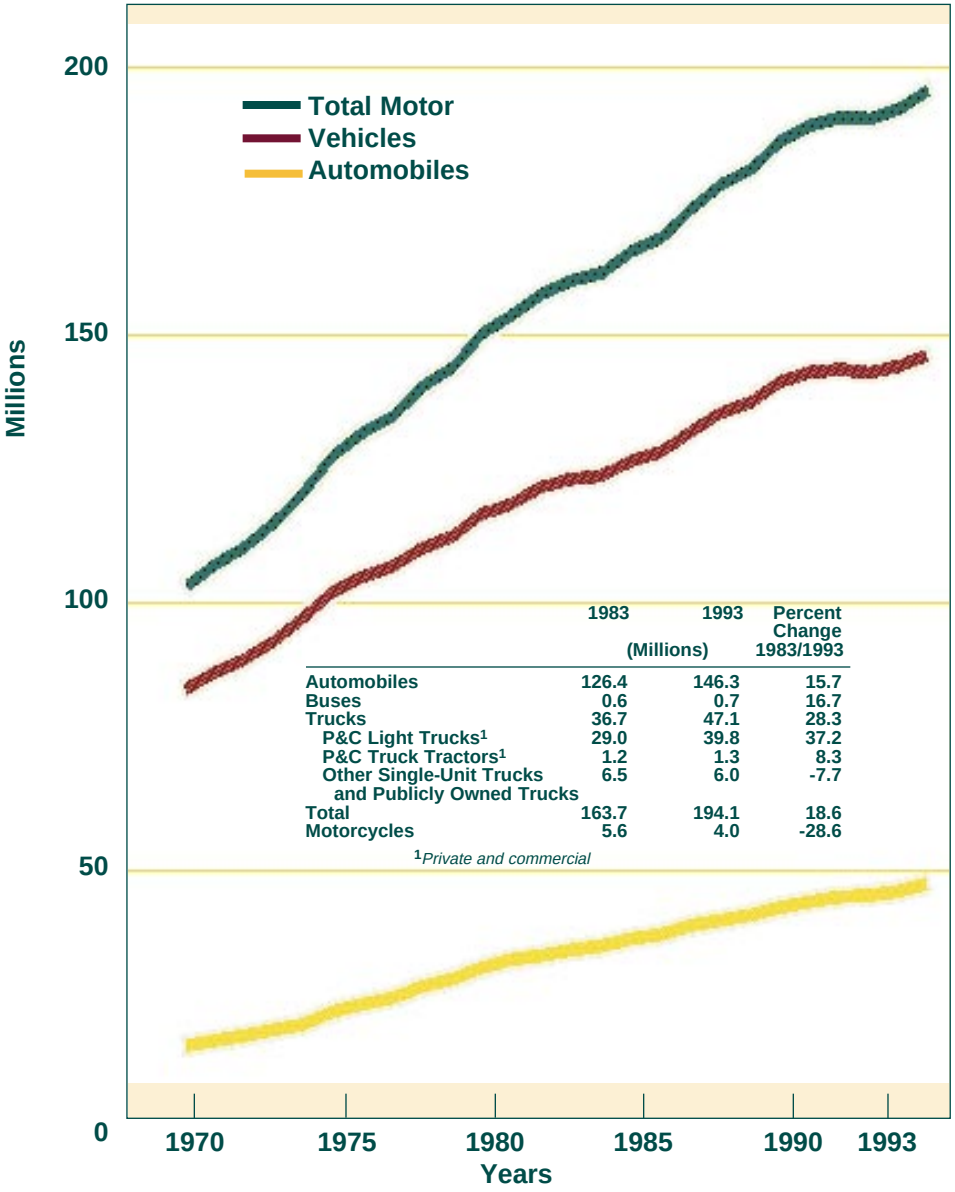
Total motor-vehicle retail sales are steadily increasing again—14,199,000 units for 1993. The all-time high was set in 1986—16,322,000 units. Retail sales of automobiles accounted for 60 percent of total sales in 1993 compared to 78.3 percent in 1973. This decrease reflects the growing popularity of light trucks as personal vehicles. Retail sales of trucks for 1993 (5,618,000 units) have surpassed their 1988 record.



Source: American Automobile Manufacturers Association, A*AMA Motor-Vehicle Facts and*

Motor-Vehicle Registration

The number of registered motor vehicles continues to increase steadily. Automobile registrations have increased 15.7 percent (20.0 million) since 1983 while truck registrations have increased 28.3 percent (10.4 million). Light single-unit trucks have seen a phenomenal growth in popularity since 1983 and now account for 20.5 percent of total registered motor vehicles.

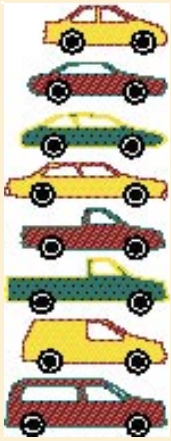


	1983	1993	Percent Change 1983/1993
	(Millions)		
Automobiles	126.4	146.3	15.7
Buses	0.6	0.7	16.7
Trucks	36.7	47.1	28.3
P&C Light Trucks[1]	29.0	39.8	37.2
P&C Truck Tractors[1]	1.2	1.3	8.3
Other Single-Unit Trucks and Publicly Owned Trucks	6.5	6.0	-7.7
Total	163.7	194.1	18.6
Motorcycles	5.6	4.0	-28.6

[1]*Private and commercial*

Cost of Owning and Operating Automobiles, Vans, and Light Trucks—1994

Cents Per Mile[1]



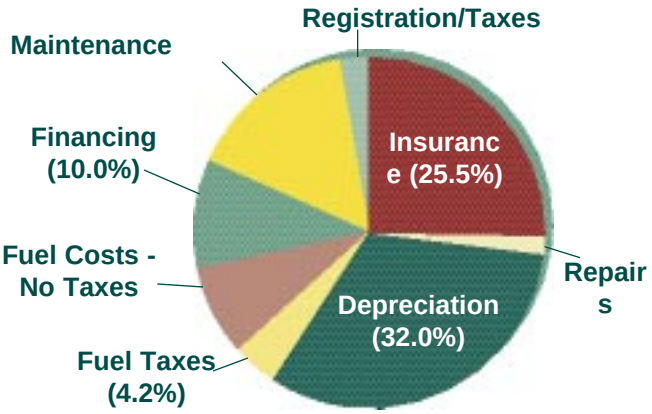
Size	Cost[2]	Characteristics
Subcompact	33.9	4 cylinder Avg MPG-28
Compact	36.5	4 cylinder Avg MPG-24
Intermediate	39.5	6 cylinder Avg MPG-20
Full-size Car	47.0	6 cylinder Avg MPG-18
Compact Pickup	32.7	4 cylinder Avg MPG-19
Full-size Pickup	35.9	8 cylinder Avg MPG-14
Minivan	40.3	6 cylinder Avg MPG-17
Full-size Van	43.6	6 cylinder Avg MPG-12

[1] **Includes depreciation, financing, insurance, registration fees, taxes, fuel, maintenance, and repairs.**

Source: Federal Highway Administration estimates based on the 1994 editions of *The Complete Small Truck Guide* **and** *The Complete Car Cost Guide*, **from Intellichoice, Inc., and sales figures from**

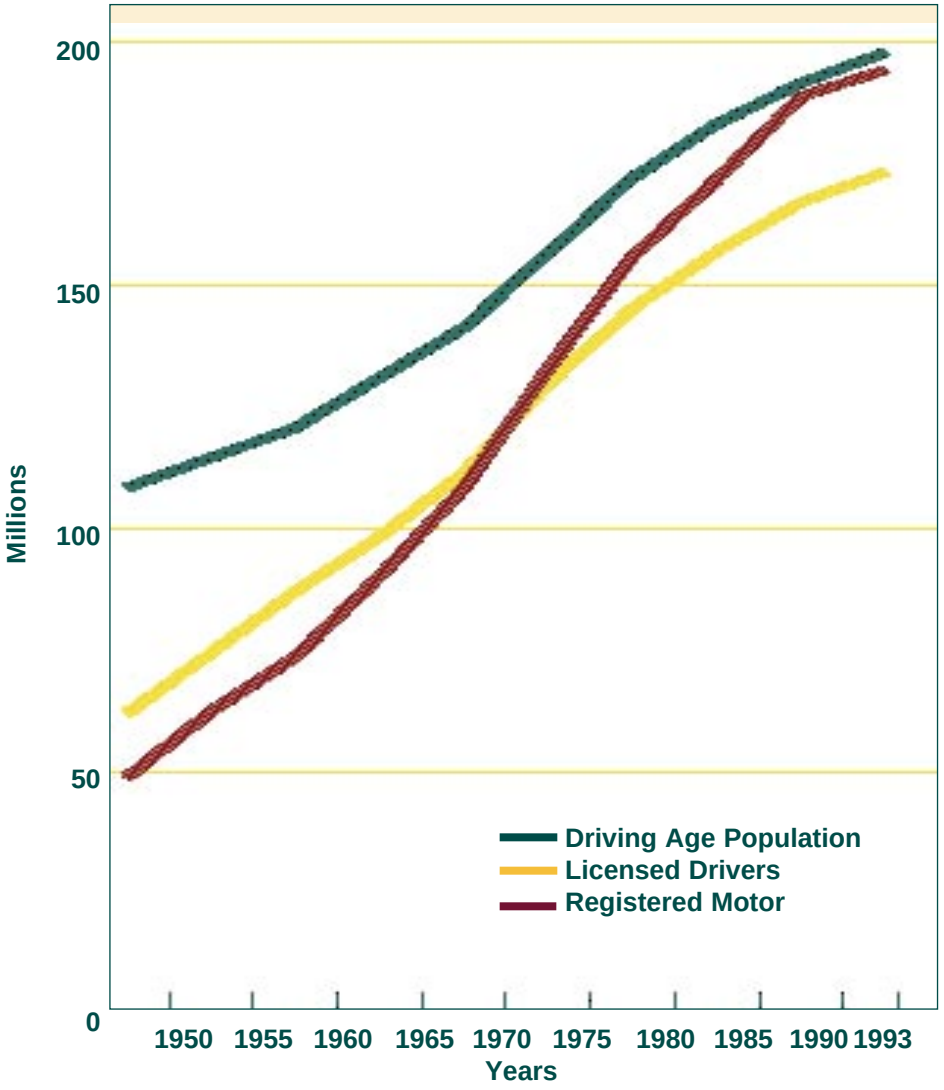
Ownership and Operating Costs by Category—Intermediate Size Vehicle (Based on Average Cost of 39.5 Cents Per Mile)

The Federal Highway Administration estimates that combined Federal and State motor-fuel taxes currently account for only 4.2 percent of the cost per mile of owning and operating an automo-bile compared to 6.7 percent in 1970.



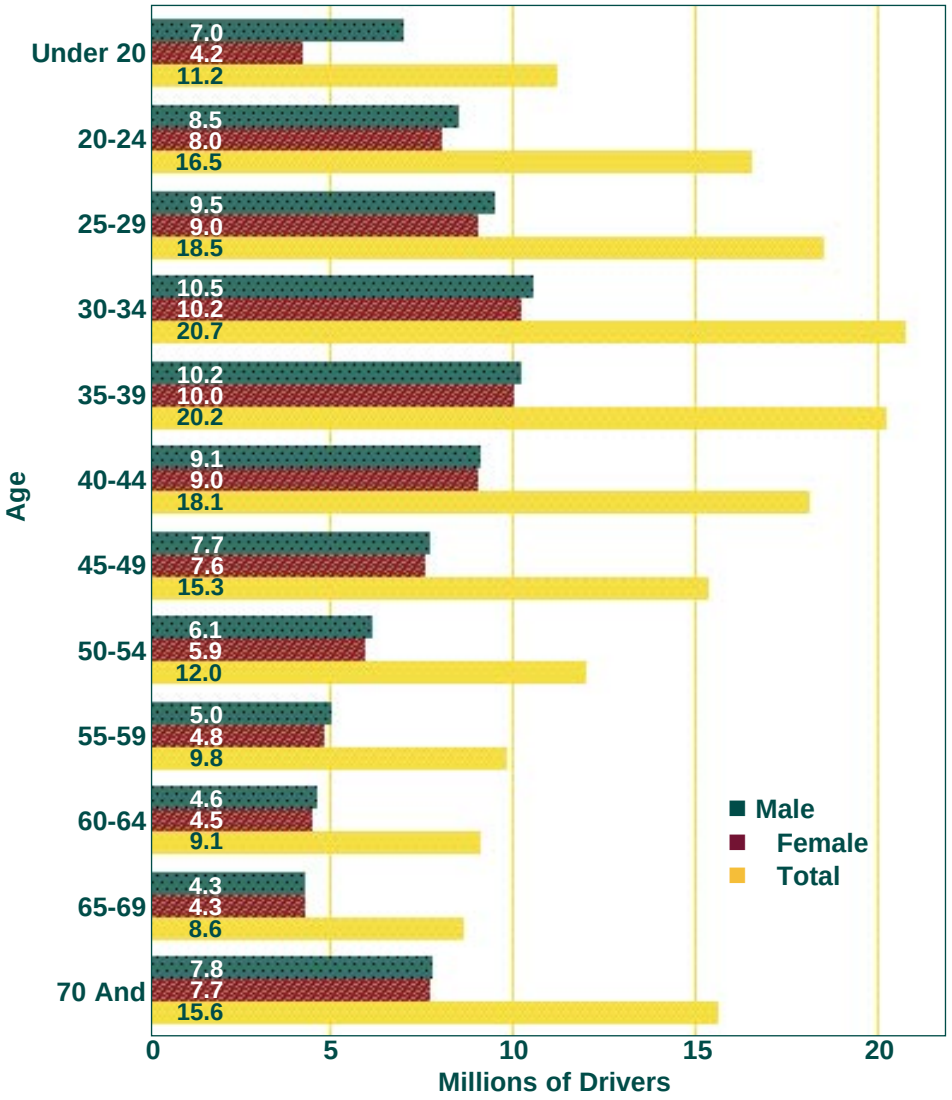
Source: Federal Highway Administration estimates based on the 1994 editions of *The Complete Small Truck Guide* **and** *The Complete Car Cost Guide*, **from Intellichoice, Inc., and sales figures from** *Automotive*

Licensed Drivers, Population, and Motor Vehicles



In 1950, 57 percent of the driving age population were licensed to drive a motor vehicle. By 1993, 87.6 percent of the driving age population were licensed drivers. There were 1.26 licensed drivers for every registered motor vehicle in 1950. In 1970 the ratio was about one to one, and by 1993 it had fallen to 0.89, or 1.2 vehicles per licensed driver.

Licensed Drivers by Age and Sex



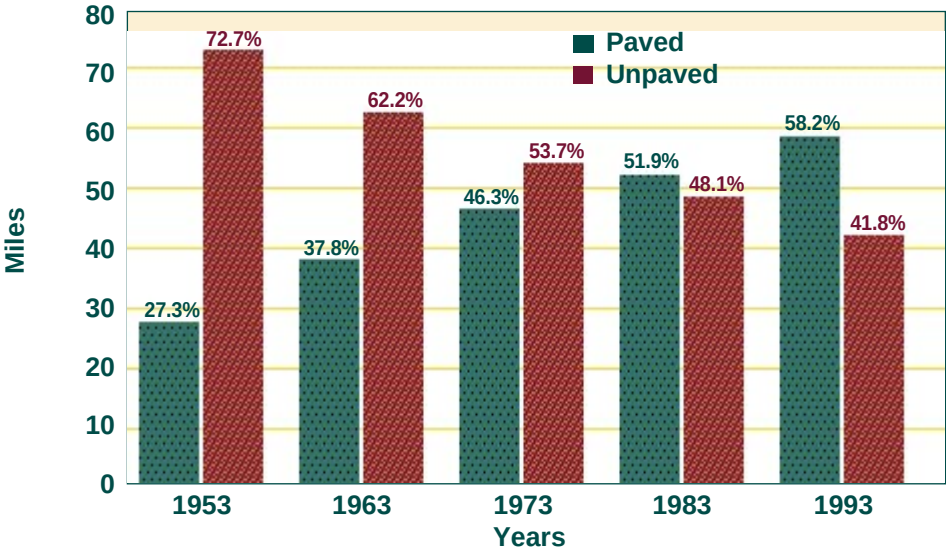
There were 173,149,313 licensed drivers in the United States in 1993. Although the 30-34 age group contains the largest percentage of licensed drivers, the average age of licensed drivers is shifting upward as the average population ages and as older drivers continue to hold licenses. Drivers age 60 and older continue to increase and now represent 33.2 percent of total licensed drivers compared with 14.6 percent in 1973 and 16.9 percent in 1983. Forty-nine percent (85,155,864) of the 173 million licensed drivers were women. The number of female drivers has increased 56.5 percent since 1973 compared with a 31.1 percent increase in male drivers.

Jurisdictional Control of U.S. Roads and Streets

Jurisdiction	Rural Mileage	Percent	Urban Mileage	Percent	Total Mileage	Percent
State	692,414	22.3	107,058	13.3	799,472	20.5
Local	2,229,668	71.9	694,728	86.5	2,924,396	74.9
Federal	179,561	5.8	1,292	0.2	180,853	4.6
Total	3,101,643	100.0	803,078	100.0	3,904,721	100.0

The vast majority (74.9 percent) of the Nation's roadways are under the jurisdiction of local governments (town, city, county). Only 4.6 percent are under the jurisdiction of the Federal Government, which includes roads in national forests and parks and on other Federal lands and Indian reservations. The rest of the roadways (representing 20.5 percent of the total 3,904,721 miles and including the entire Interstate System) are controlled and maintained by the State governments. It is estimated that these State roads carry 64 percent of the Nation's highway travel.

Road and Street Mileage by Surface Type



Currently, about 58.2 percent of all roads and streets are paved, compared with about 27.3 percent in 1953. The total paved mileage has increased 147 percent since 1953, but the total road and street mileage has increased by only 16 percent. Essentially all of the unpaved mileage is on lightly travelled rural roads.

Functional Systems Mileage and Travel

Functional System	Mileage—1993						
	Rural	Percent Change 1983 to 1993	Urban	Percent Change 1983 to 1993	Total	Percent Change 1983 to 1993	Percent of Total Mileage
Interstate	32,652	-0.4	12,878	25.8	45,530	5.8	1.2
Other Freeways/ Expressways	—	—	8,857	26.1	8,857	26.1	0.2
Other Principal Arterial	96,201	18.4	52,835	11.6	149,036	15.9	3.8
Minor Arterial	137,928	-6.5	85,822	24.2	223,750	3.3	5.7
Major Collector	432,675	-0.3	—	—	432,675	-0.3	11.1
Minor Collector	282,361	-5.9	—	—	282,361	-5.9	7.2
Collector	—	—	85,378	17.7	85,378	17.7	2.2
Local	2,119,826	-4.6	557,308	22.2	2,677,134	-0.1	68.6
Total	3,101,643	-3.6	803,078	21.2	3,904,721	0.6	100.0

Roads and streets are grouped into functional classes according to the type of service they provide, and to some extent, on how much traffic the facility carries. Although functional classification may change over time to better describe the changing role that a particular road or street may be playing, the total mileage changes only slightly over time. Except for the other principal arterial system, the rural systems actually decreased in mileage due to the expansion of urban boundaries and functional reclassification.

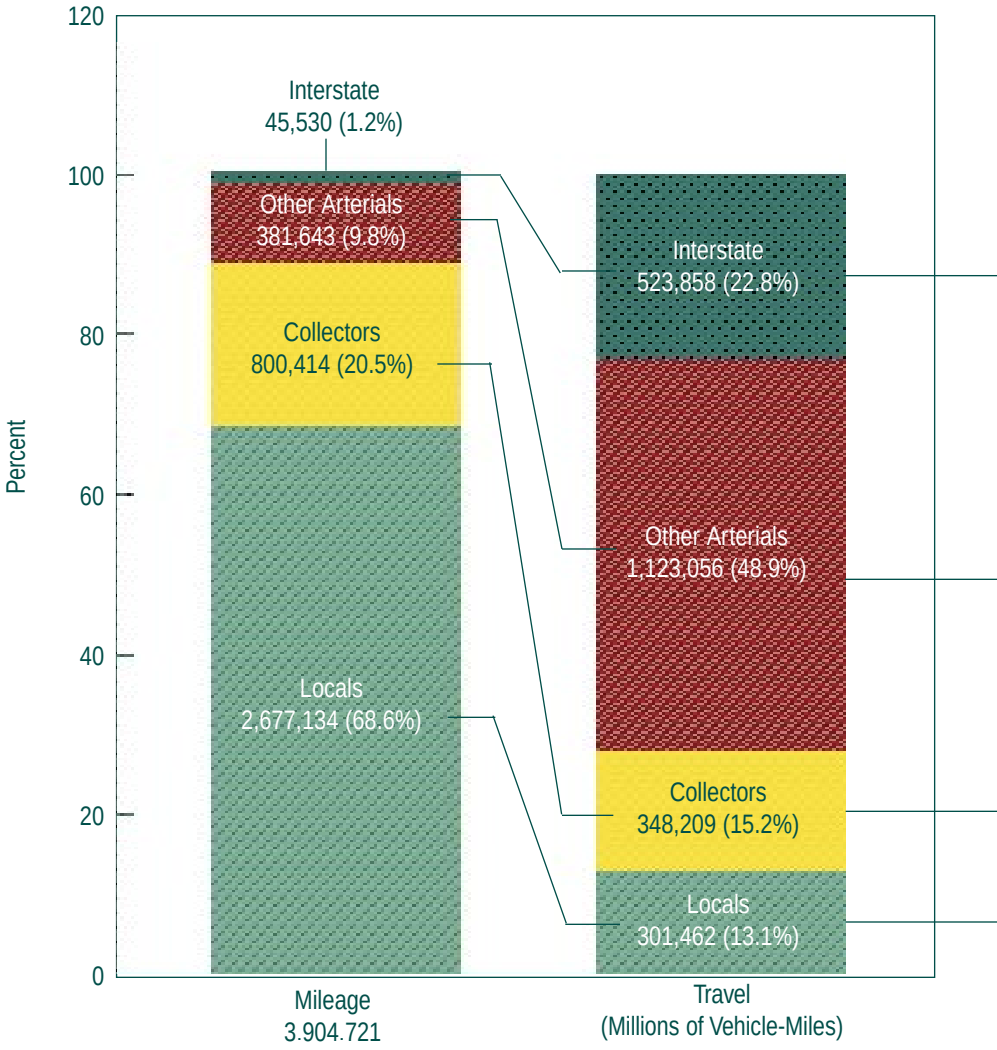
Functional System	Annual Vehicle-Miles of Travel—1993 (Millions)						
	Rural	Percent Change 1983 to 1993	Urban	Percent Change 1983 to 1993	Total	Percent Change 1983 to 1993	Percent of Total Travel
Interstate	208,021	43.2	315,837	64.1	523,858	56.0	22.8
Other Freeways/ Expressways	—	—	142,322	63.0	142,322	63.0	6.2
Other Principal Arterial	201,031	43.5	356,315	38.7	557,346	41.0	24.3
Minor Arterial	147,723	10.8	275,665	46.0	423,388	31.5	18.4
Major Collector	178,149	13.5	—	—	178,149	13.6	7.8
Minor Collector	48,846	11.7	—	—	48,846	11.5	2.1
Collector	—	—	121,214	39.6	121,214	24.7	5.3
Local	103,176	27.0	198,286	41.7	301,462	35.7	13.1
Total	886,946	26.6	1,409,639	48.6	2,296,585	39.3	100.0

Total mileage has increased only 0.6 percent since 1983, while travel has increased 39.3 percent during the same time period. The urban travel increase of 48.6 percent has outpaced the rural 26.6 percent increase due to the Nation's continued growth in urbanization and expanding urban boundaries, which involves the transfer of heavily travelled rural facilities to urban. The urban Interstate System has had the greatest travel growth (65.2 percent) during the 1983 to 1993 time period.

Total Road Mileage and Travel by Functional System—1993

Roads and streets are grouped into functional systems according to the type of service they provide. The arterial system (including the Interstate System) accounts for about 11.0 percent of the Nation's total road and street mileage but carries 71.7 percent of total travel.

The Interstate System accounts for only 1.2 percent of the Nation's total miles of roadway; however, 22.8 percent of total travel occurs on this system. Conversely, local functional system roads account for 68.6 percent of the Nation's total road and street mileage but serve only 13.1 percent of total travel.

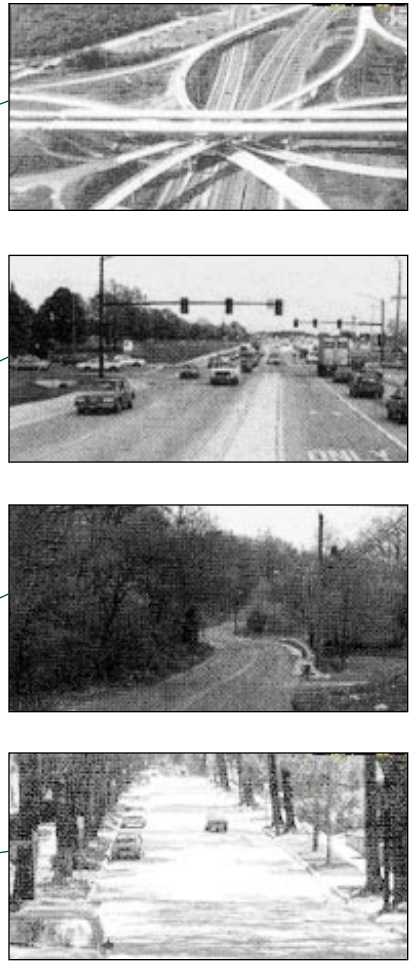


Functional Classification

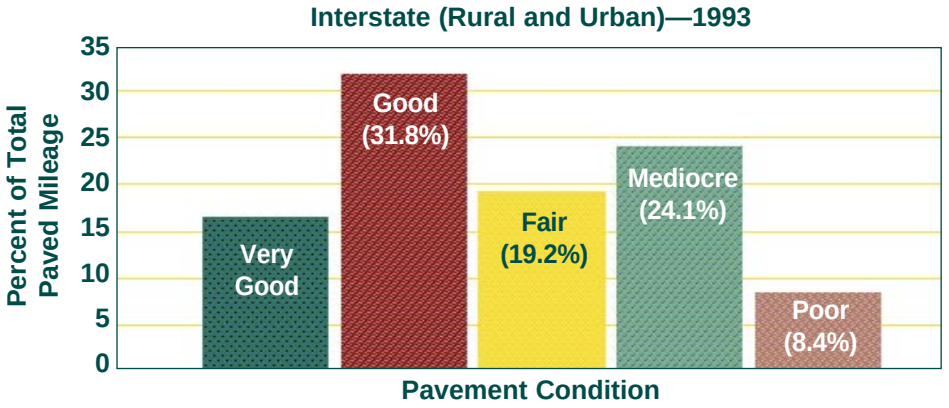
Arterial (including Interstate and other freeways)—The highest classification of roads and streets. Arterials provide the highest level of mobility, at the highest speed, for a long uninterrupted distance.

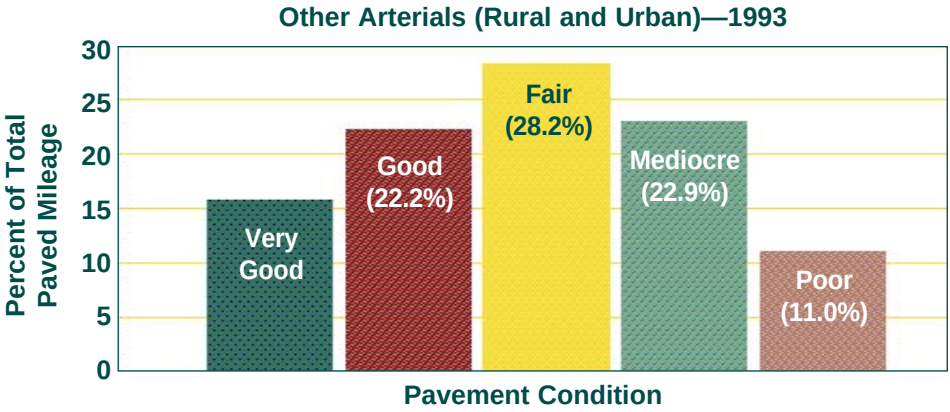
Collector—Provides a lower level of mobility than arterials at lower speeds and for a shorter distance. Collectors connect local roads with arterials and provide some access to abutting land.

Local—The lowest classification of roads and streets. Local roads provide a high level of access to abutting land but limited mobility.



Pavement Conditions of Interstate and Other Arterials





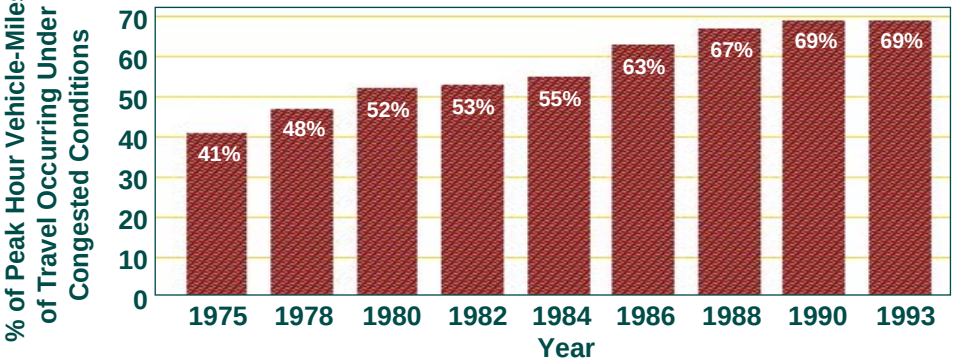
The descriptive words used in the charts can be defined as follows:

Very Good — New or almost new pavement; will not require improvement for some time
Good — In decent condition; will not require improvement in the near future
Fair — Will likely need improvement in the near future, but depends on traffic use
Mediocre — Needs near-term improvement to preserve usability
Poor — Needs immediate improvement to restore serviceability

The preservation of the Nation's highways is a priority at all levels of government. Although pavement conditions and trends vary significantly among the States, average conditions on the Nation's arterial systems appear to have stabilized or perhaps even improved in the latter years. This has diminished a continuous downward trend in physical conditions that was evident in the 1970's and early 1980's. This is due primarily to increased attention and fiscal resources assigned to the preservation of pavement during the mid to late 1980's.

For 1993, a combination of Pavement Serviceability Rating (PSR), a subjective rating system, and International Roughness Index (IRI), an objective instrument-based rating system, has been used. In the future, only the objective IRI will be used to denote pavement condition as these data become fully reported.

Travel Congestion on Urban Interstate System



Travel congestion on the urban Interstate System is steadily increasing, but at a slower pace in recent years. In 1993, 69 percent of the peak-hour travel on this system occurred under congested conditions, while only 52 percent of the travel occurred under these congested conditions in 1980. Note however, that the peak is now much longer than 1 hour (both AM and PM). The measure of congestion used in this analysis is called the Volume/Service Flow (V/SF) Ratio. As this ratio gets larger, traffic slows and eventually stops as the theoretical value of 1.00 is approached (the volume of traffic = service flow capability of the facility). A V/SF ratio value of greater than or equal to 0.80 was used here to indicate congestion.

Bridge Conditions (as of December 31, 1994)

	National Highway System[1]		Other Federal-Aid Highways[2]		Non-Federal-Aid Highways[3]		Total Highways	
Structurally Deficient	9,915	7.8%	27,121	14.2%	73,440	26.3%	107,476	18.7%
Functionally Obsolete	22,705	17.9%	23,038	13.5%	34,038	12.2%	79,781	13.9%
All Other Bridges	94,290	74.3%	122,885	72.3%	171,556	61.5%	388,731	67.5%
	126,910	100.0%	170,044	100.0%	279,034	100.0%	575,988	100.0%

Source: Federal Highway Administration, Office of Program Development.

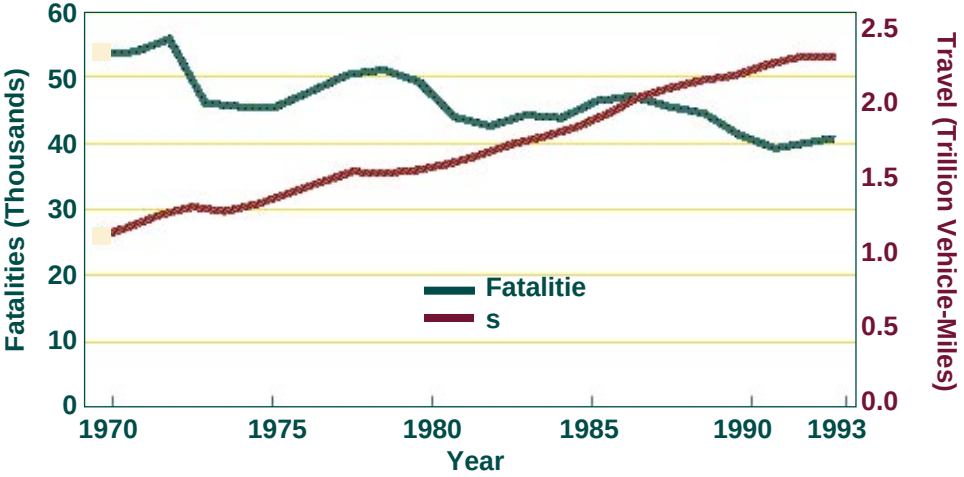
[1] Includes all Interstate and other principal arterials.
[2] Includes all other highways except minor collectors and local roads and streets.

Thirty-three percent of the Nation's estimated 575,988 bridges are structurally deficient or functionally obsolete. Twenty-six percent of the 126,910 bridges on the National Highway System (Interstate and all other principal arterials) are structurally deficient or functionally obsolete.

A ***structurally deficient*** bridge is closed or restricted to light vehicles only because of deteriorated structural components. Structurally deficient bridges are not necessarily unsafe. Strict observance of signs limiting traffic or speed on bridges will generally provide adequate safeguards for those using the bridges.

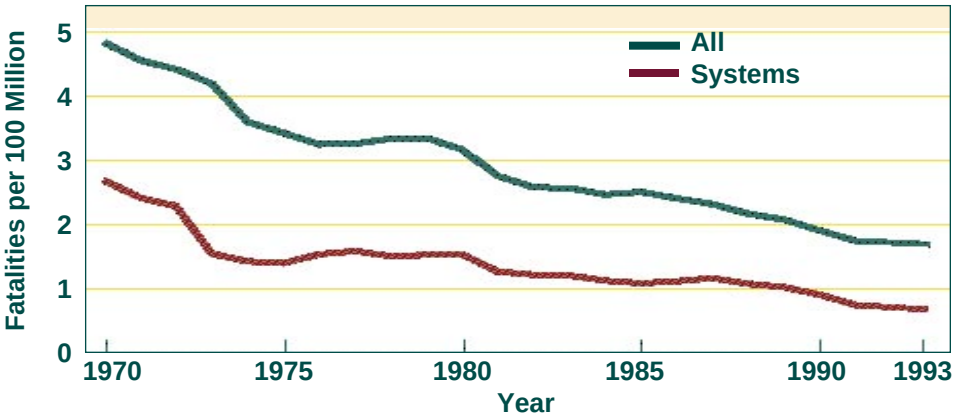
A ***functionally obsolete*** bridge is one that cannot safely service the volume or type of traffic using it. These bridges are not unsafe for all vehicles, but have older design features that prevent them from accommodating current traffic volumes and modern vehicle sizes and weights.

Motor-Vehicle Fatalities and Travel



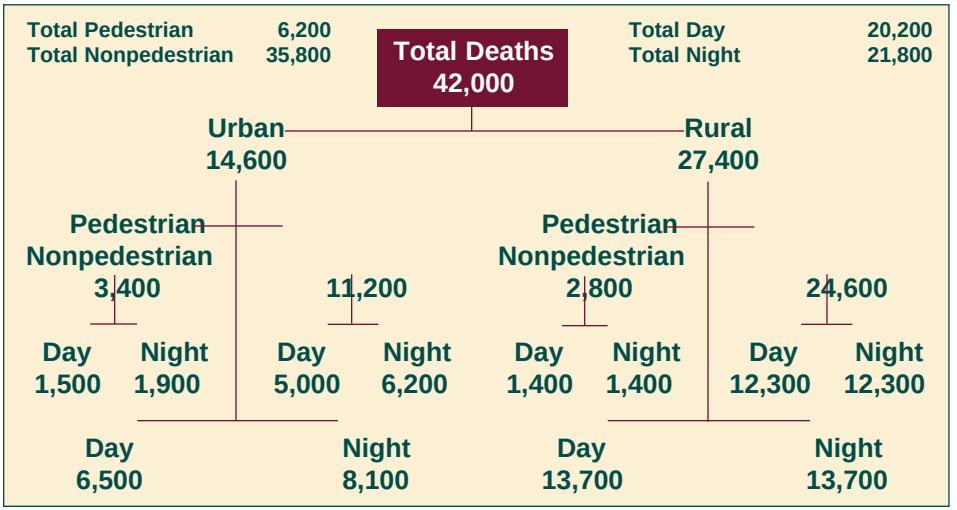
After a series of declines during the mid 1970's and early 1980's, the number of fatalities increased from 1986 to 1988, and then started to decline again. In 1993 there were 40,115 fatalities; 3,916 (or 10 percent) occurred on the Interstate System. An estimated 43.6 percent of highway fatalities in 1993 were alcohol related.

Fatality (Interstate and Total) Rates



The fatality rate–fatalities per 100 million vehicle-miles of travel (VMT)–on all highway systems continues to decline. In 1993, the fatality rate reached 1.75, a 64 percent decrease from 1970. The decrease in the fatality rate occurred despite a 107 percent increase in highway travel and a 79 percent increase in motor vehicle registrations during the 1970 to 1993 time period. The fatality rate (.75) on the Interstate System is less than half the rate on all highway systems.

Principal Classes of Motor-Vehicle Deaths



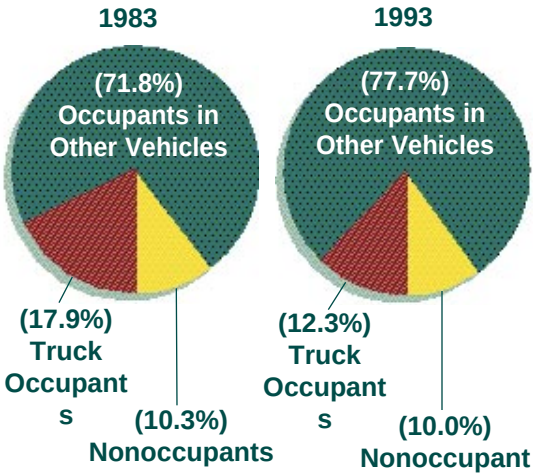
Almost two out of three deaths in 1993 occurred in places classified as rural. In urban areas, nearly one fourth of the victims were pedestrians; in rural areas, the victims were mostly occupants of motor vehicles. More than one half of all deaths occurred in night accidents.

Source: National Safety Council estimates; *Accident Facts, 1994 Edition.*

Fatalities Involving Medium/Heavy Trucks[1]

There were 4,849 fatalities in accidents involving medium and heavy trucks in 1993. Occupants in other vehicles accounted for 3,845 or 78 percent of the fatalities involving medium and heavy trucks.

There were 543 fewer fatalities involving medium and heavy trucks from 1983 to 1993. Occupants in other vehicles showed a decrease of 96 of the fatalities involving medium and heavy trucks while the nonoccupant fatalities decreased by 75 over that same period of time.



[1] **Medium/Heavy Truck—Single-unit truck with gross vehicle weight greater than 10,000 lbs., tractor-trailer combination, truck with cargo trailer(s), or truck-tractor**

Source: National Highway Traffic Safety Administration, *Fatal Accident Reporting System.*

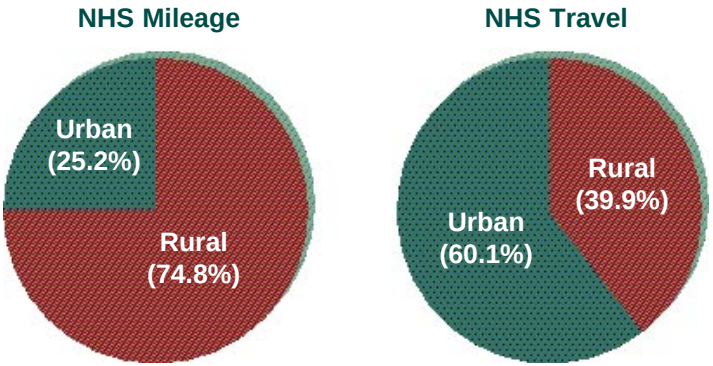
Proposed National Highway System—1993 (Presently Open to Traffic)

NHS Mileage			
	Rural	Urban	Total
Interstate	32,731	13,018	45,749
Other NHS	84,063	26,279	110,342
Total NHS	116,794	39,297	156,091
NHS Percent of Total Mileage			
Interstate	0.8	0.3	1.2
Other NHS	2.1	0.7	2.8
Total NHS	3.0	1.0	4.0
NHS Travel (millions)			
	Rural	Urban	Total
Interstate	209,370	320,256	529,626
Other NHS	181,918	269,618	451,536
Total NHS	391,288	589,874	981,162
NHS Percent of Total Travel			
Interstate	9.1	13.9	22.9
Other NHS	7.9	11.7	19.5
Total NHS	16.9	25.5	42.5

A proposed National Highway System (NHS) was submitted to Congress in December 1993 as required by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. These data also include Puerto Rico.

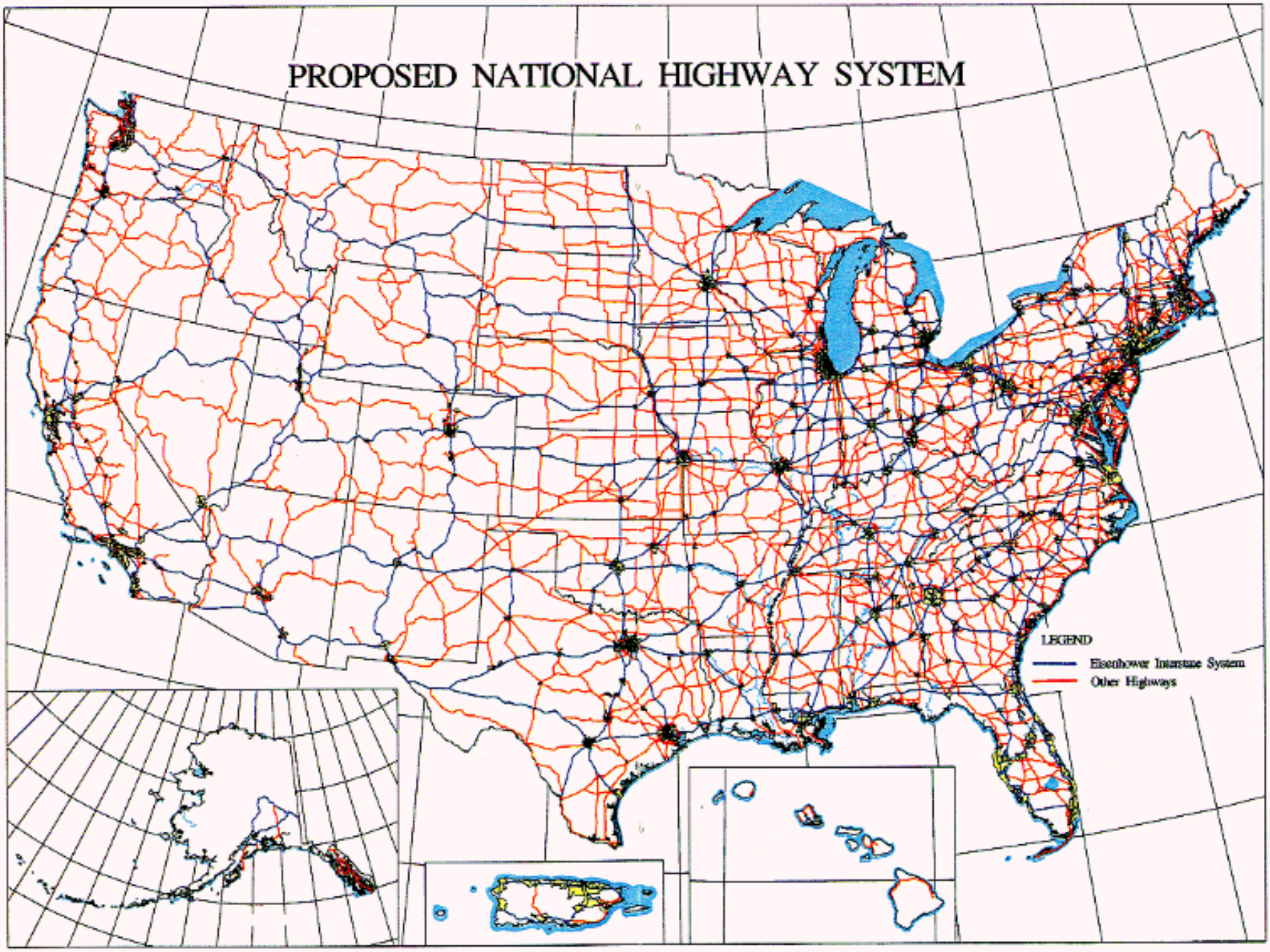
The proposed NHS represents only about 4 percent of the Nation's total public road mileage but carries over 42 percent of the travel.

Although there is about three times as much NHS mileage in rural than there is in urban, the NHS percentages of the total U.S. mileage in rural and urban, respectively, are nearly equal.

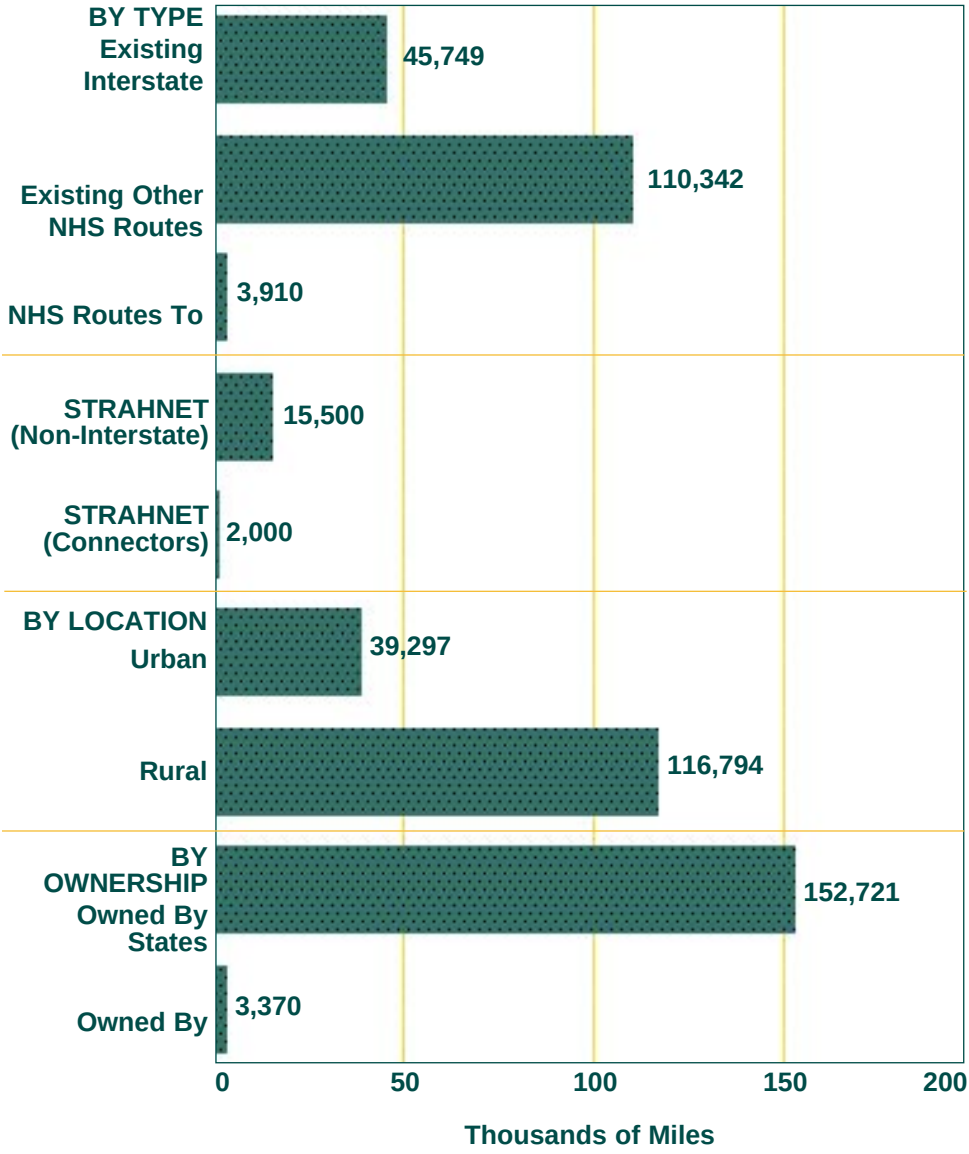


A majority of the travel on the proposed NHS takes place in urban areas even though more mileage exists in the rural areas.

PROPOSED NATIONAL HIGHWAY SYSTEM



Proposed National Highway System (NHS)

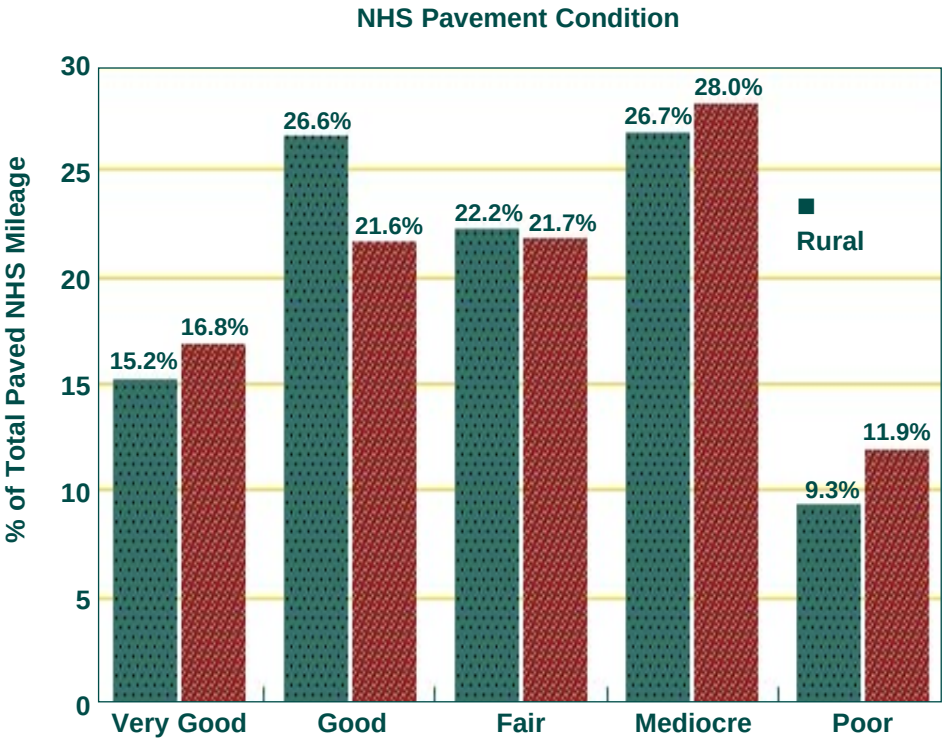


Of the proposed NHS (approximately 160,001 miles) 27.5 percent is made up of the Interstate System (IS) and non-Interstate routes. The NHS encompasses all of the Strategic Highway Network (STRAHNET) (about one fourth of which is on the IS), and other highways.

Existing Traffic Lanes and Access Control for the NHS (Rural and Urban Miles)

Category	Interstate*	Other NHS	Total NHS	% in Category
<=3 lanes (including one-way streets)	1,079	70,104	71,183	45.6
>=4 lanes (undivided)	2,107	8,435	10,542	6.8
>=4 lanes (divided—no access control)	155	13,644	13,799	8.8
>=4 lanes (divided—partial access control)	195	8,054	8,249	5.3
>=4 lanes (divided—full access control)	42,213	10,105	52,318	33.5
Total	45,749	110,342	156,091	100.0

*Includes Alaska and Puerto Rico (Section 139 (c)), which accounts for much of the non-freeway and less than 4-lane



The descriptive words used in the charts can be defined as follows:

Very Good — New or almost new pavement; will not require improvement for some time
Good — In decent condition; will not require improvement in the near future
Fair — Will likely need improvement in the near future, but depends on traffic use
Mediocre — Needs near-term improvement to preserve usability
Poor — Needs immediate improvement to restore serviceability

Intermodal Facility Connections

Ports
The 104 ports handle about 72 percent of total U.S. waterborne cargo tonnage.

Amtrak Stations
Of 321 Amtrak stations, each station handled at least a combined total of 20,000 entrainments and detrainments over the most recent 3-year reporting period.

Rail/Truck Facilities
Of 191 rail/truck facilities, each handles more than 5,000 annual origins and/or destinations of railroad cars and relies heavily on the rail/truck intermodal connection.

Public Transit Systems
Since the NHS connects to all urban areas with populations above 25,000, access is provided to the 319 public transit systems serving over 99 percent of all transit riders.

Airports
The 143 airports handle about 96 percent of total annual domestic enplanements as well as similarly large amounts of civilian airborne cargo.

Other Characteristics

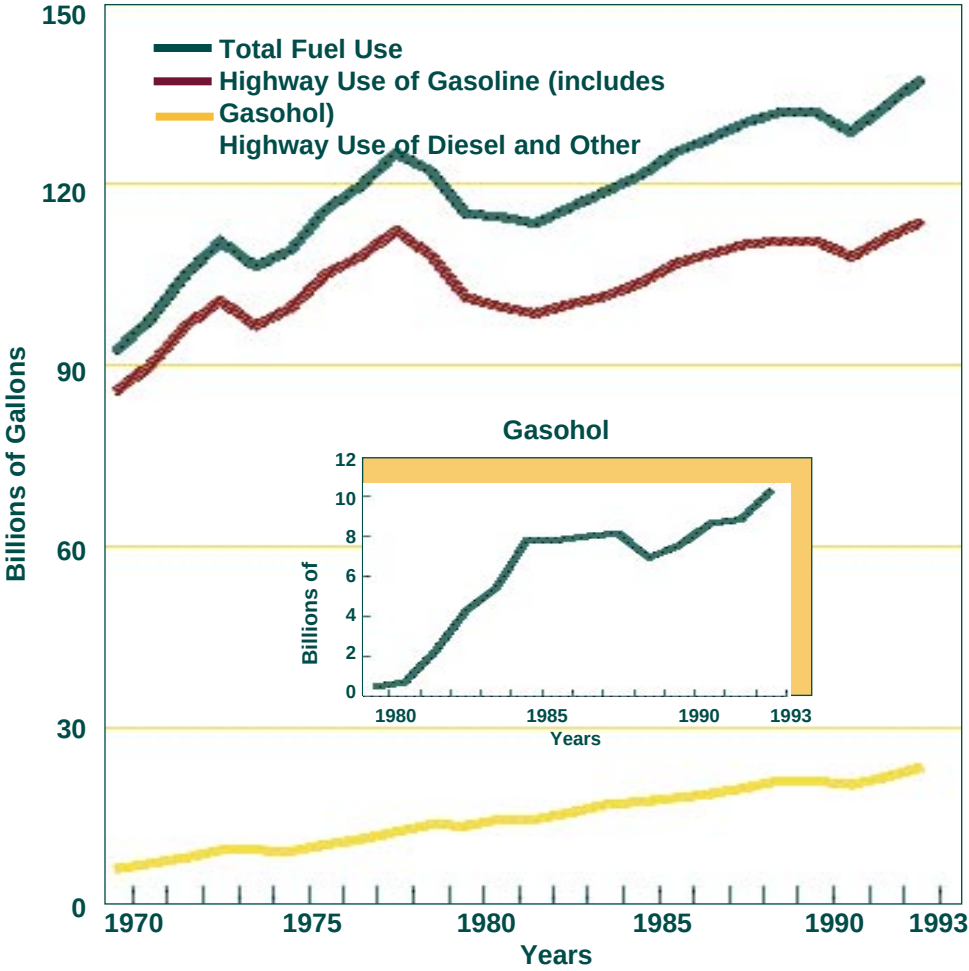
The FHWA estimates that the proposed NHS contains the following number of bridges, railroad crossings, major border crossings with Canada and Mexico, and full access control mileage.

Characteristics	Number	Mileage
Bridges	126,910	
Railroad Crossings[1]	4,500	
Border Crossings		
Canada	32	
Mexico	21	
Full Access Control		
Interstate[2]		42,213
Other		10,105

[1] The number of railroad crossings is an estimate based on State-by-State computations assuming the ratio of railroad crossings per mile of NHS is similar to the ratio of railroad crossings per mile of principal arterial.

[2] The Interstate mileage does not include some mileage subject to full access control—notably designated Interstate mileage in Alaska and Puerto Rico.

Highway Motor Fuel Use (Billions of Gallons)

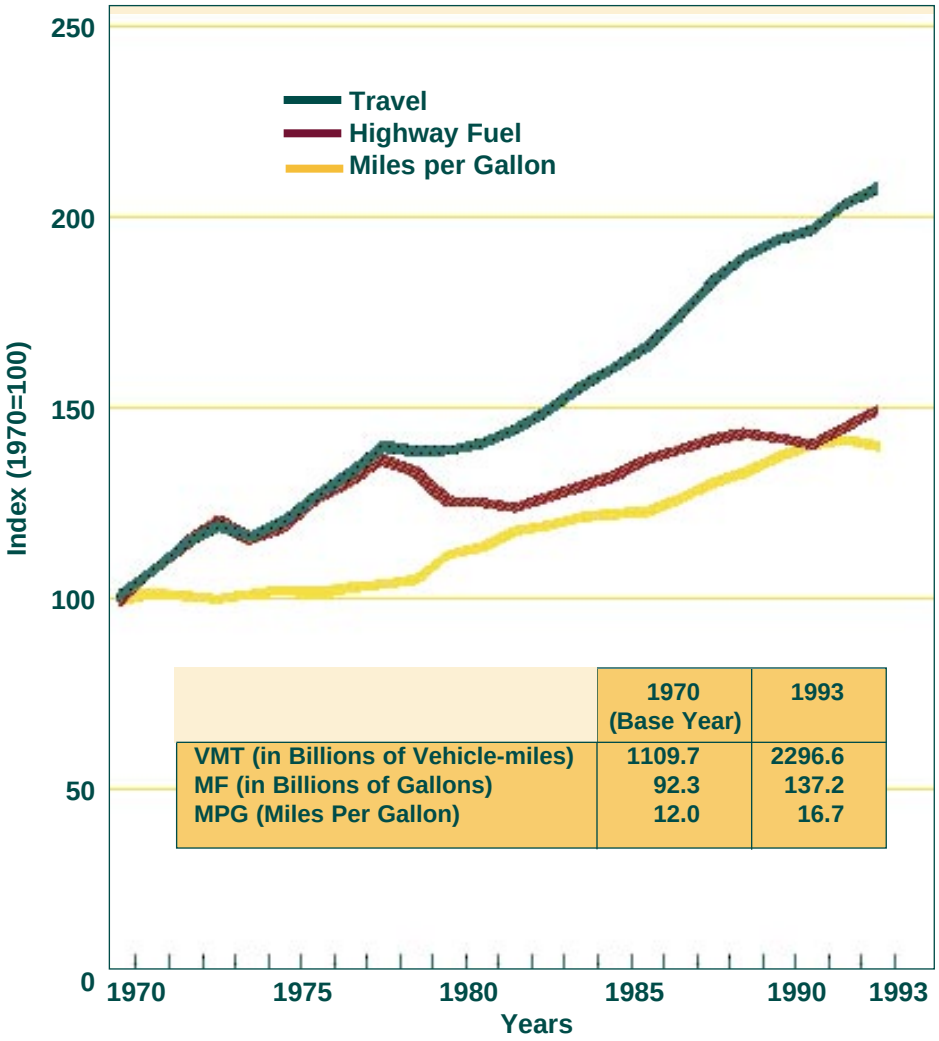


After a drop during the economic slump in 1991, highway fuel consumption is once again rising – reaching 137.2 billion gallons for 1993. Despite improved automotive fuel economy, highway use of gasoline increased through most of the 1980's as the population and number of automobiles increased.

Highway consumption of diesel fuel, used predominantly by trucks, was more greatly impacted by the economic recession, dropping almost 3 percent between 1990 and 1991. Reported diesel fuel consumption has rebounded due to an improved economy and greater enforcement of fuel tax laws.

Gasohol was originally defined to be a blend of 90 percent gasoline and 10 percent fuel alcohol. This definition was expanded in 1993 to include blends varying from 5.7 to 10 percent alcohol. The lower-alcohol blends are often used as "clean air fuel" to reduce carbon monoxide emissions.

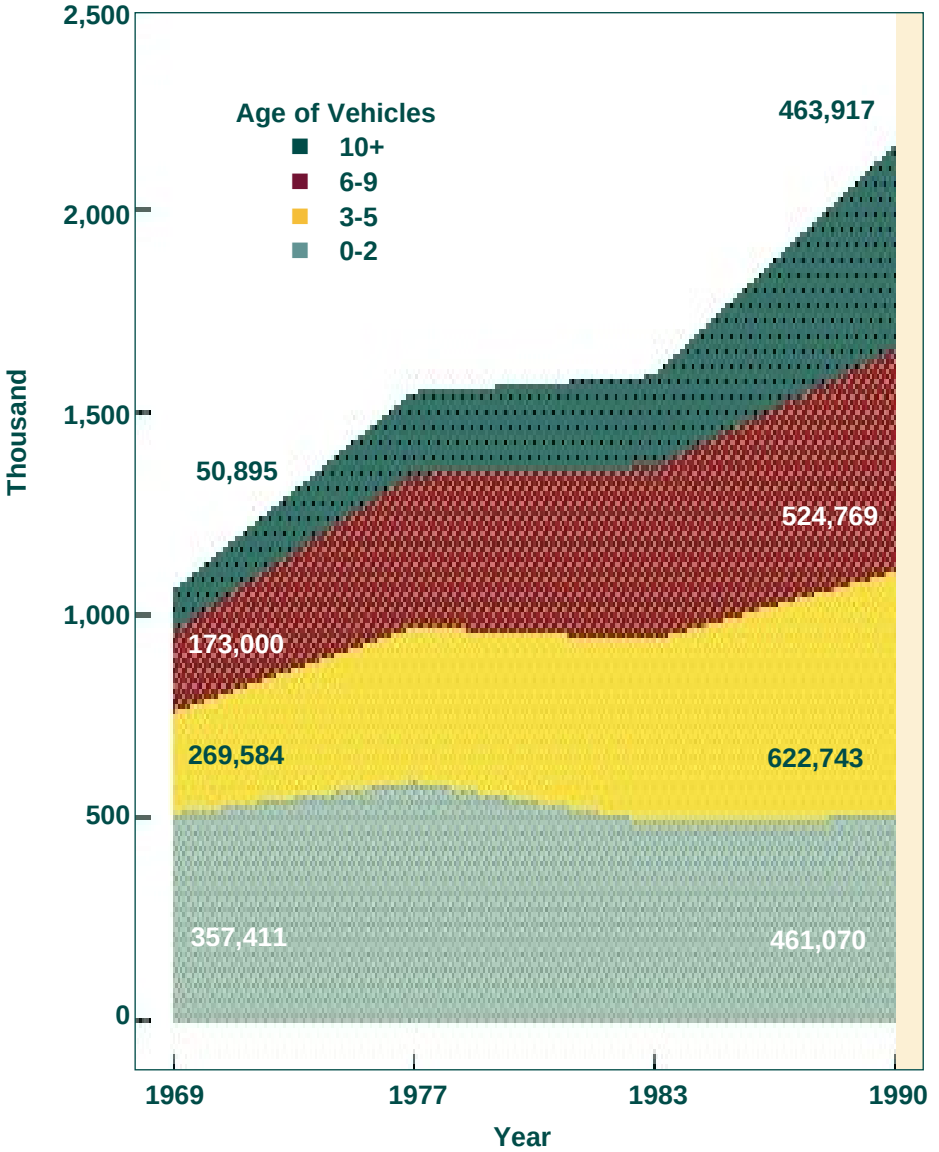
Vehicle-Miles of Travel, Highway Fuel Use, and Miles per Gallon of Fuel for All Vehicles



	1970 (Base Year)	1993
VMT (in Billions of Vehicle-miles)	1109.7	2296.6
MF (in Billions of Gallons)	92.3	137.2
MPG (Miles Per Gallon)	12.0	16.7

Indices for vehicle-miles of travel, highway fuel use, and average vehicle fuel economy (miles per gallon) have increased significantly through the last decade. Average fuel economy for all vehicles has increased from 12.0 miles per gallon (mpg) in 1970 to 16.7 in 1993, a 39 percent increase. In spite of the increase in vehicle-miles of travel (107 percent), we only had a 49 percent increase in fuel use due to fuel efficiency.

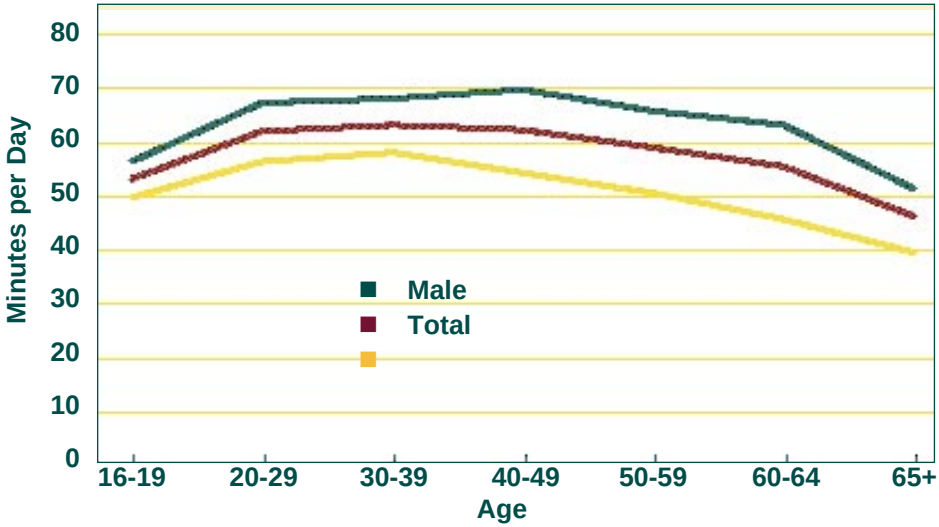
Increasing Use of Older Vehicles



Not only are Americans keeping their cars longer, they are using older cars for a much larger portion of travel than in the past. In 1969, travel by cars 10 years old and older only accounted for 6 percent of total vehicle miles. By 1990, that portion grew to 22 percent.

Source: Federal Highway Administration, *Nationwide Personal Transportation Surveys, 1969, 1977, 1983,*

Time Average American Spends in Car

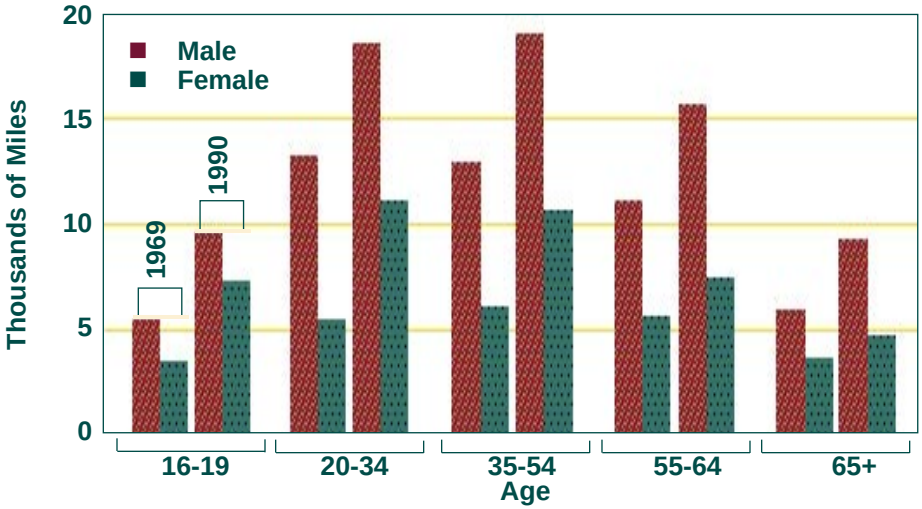


The average driver spends 1 hour in his or her car each day, including weekends.

Within each age group, men spend 10-15 minutes more in their cars than women.

Source: Federal Highway Administration, *1990 Nationwide Personal Transportation Survey.*

Average Annual Miles per Driver by Age Groups



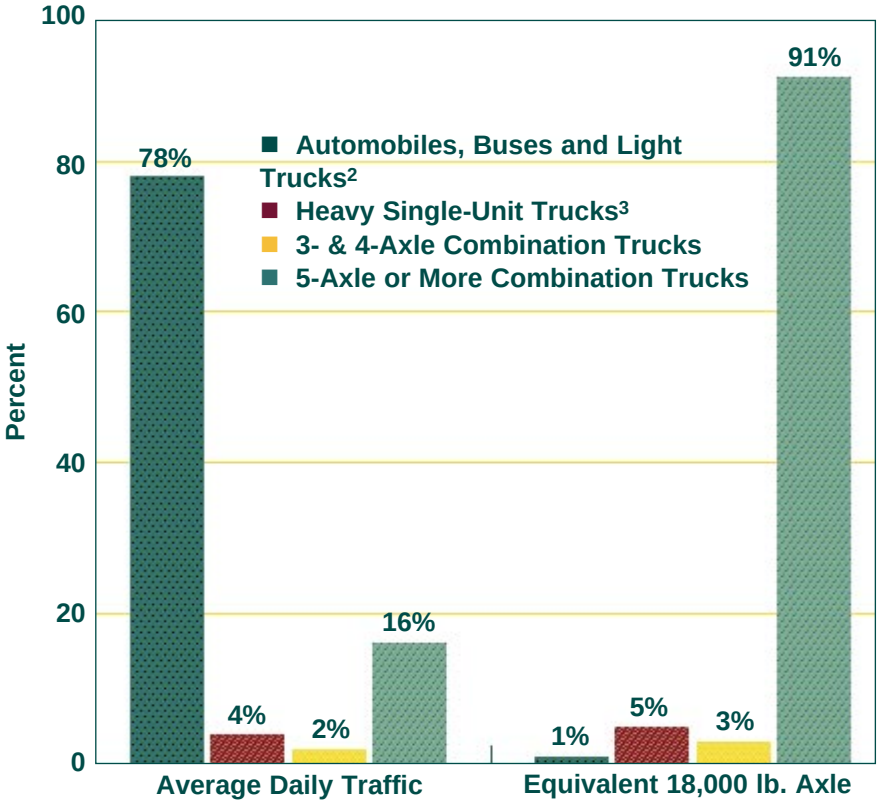
A significant increase in the average miles driven by men and women in all age groups was noted in the 1990 Nationwide Personal Transportation Survey compared to results for earlier surveys. This increase was particularly prominent in driving by women.

Source: Federal Highway Administration, *Nationwide Personal Transportation Surveys, 1969, 1990.*

Rural Interstate Travel by Vehicle Type

Distribution of Average Daily Traffic and Loadings On the Rural Interstate System as a Percent of Total[1]

(By Vehicle Type)



[1] Equivalent axle loads provide a means of measuring vehicle wear on pavements by relating them to an 18,000 pound single-axle load.

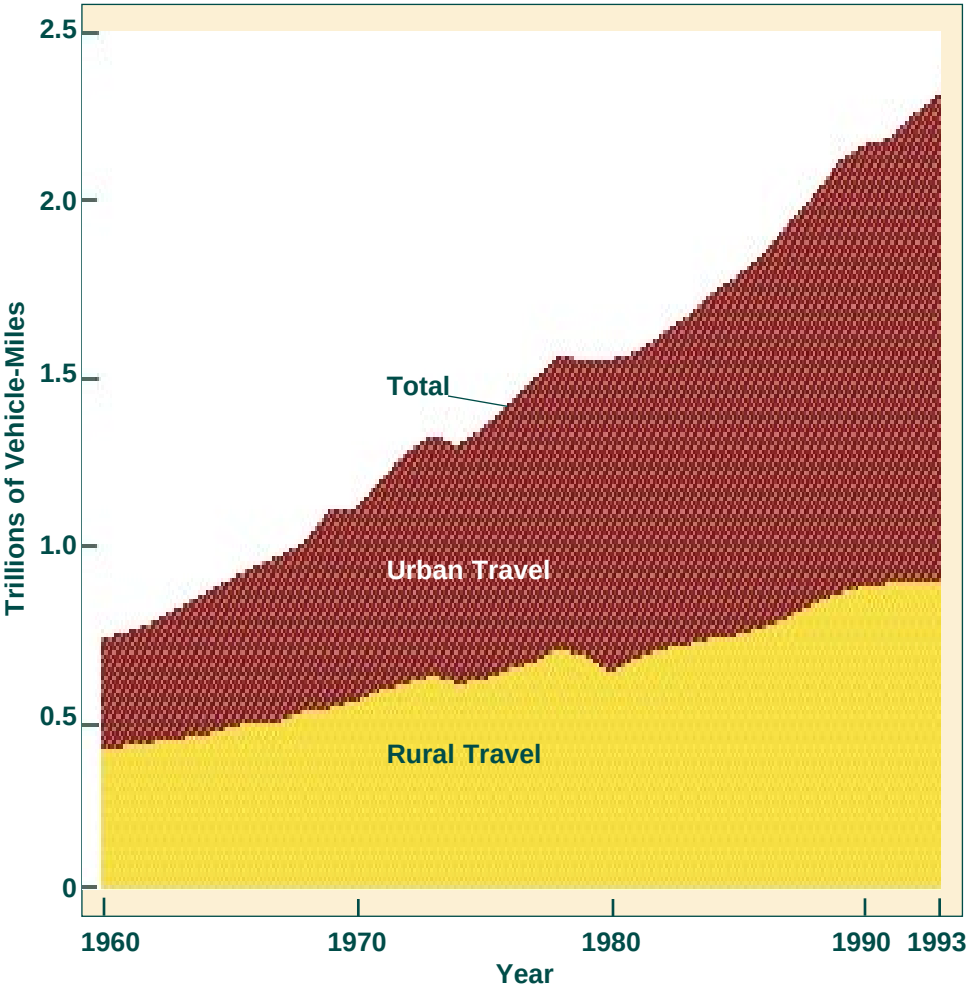
[2] All 2-axle, 4-tire trucks. Includes pickup trucks, panel trucks, vans, and other vehicles (such as campers, motor homes, etc).

[3] All vehicles on a single frame that have either 2 axles and 6 tires or 3 or more axles (including camping and recreational vehicles and

On rural Interstate routes in 1993, combination trucks with 5 or more axles accounted for 16 percent of average daily traffic volumes but 91 percent of equivalent axle loads.[1] All other vehicles accounted for 84 percent of traffic volumes but only 9 percent of traffic loads. From 1983 to 1993, traffic axle volumes on rural Interstate routes increased by 45 percent and equivalent axle loads increased by 61 percent.

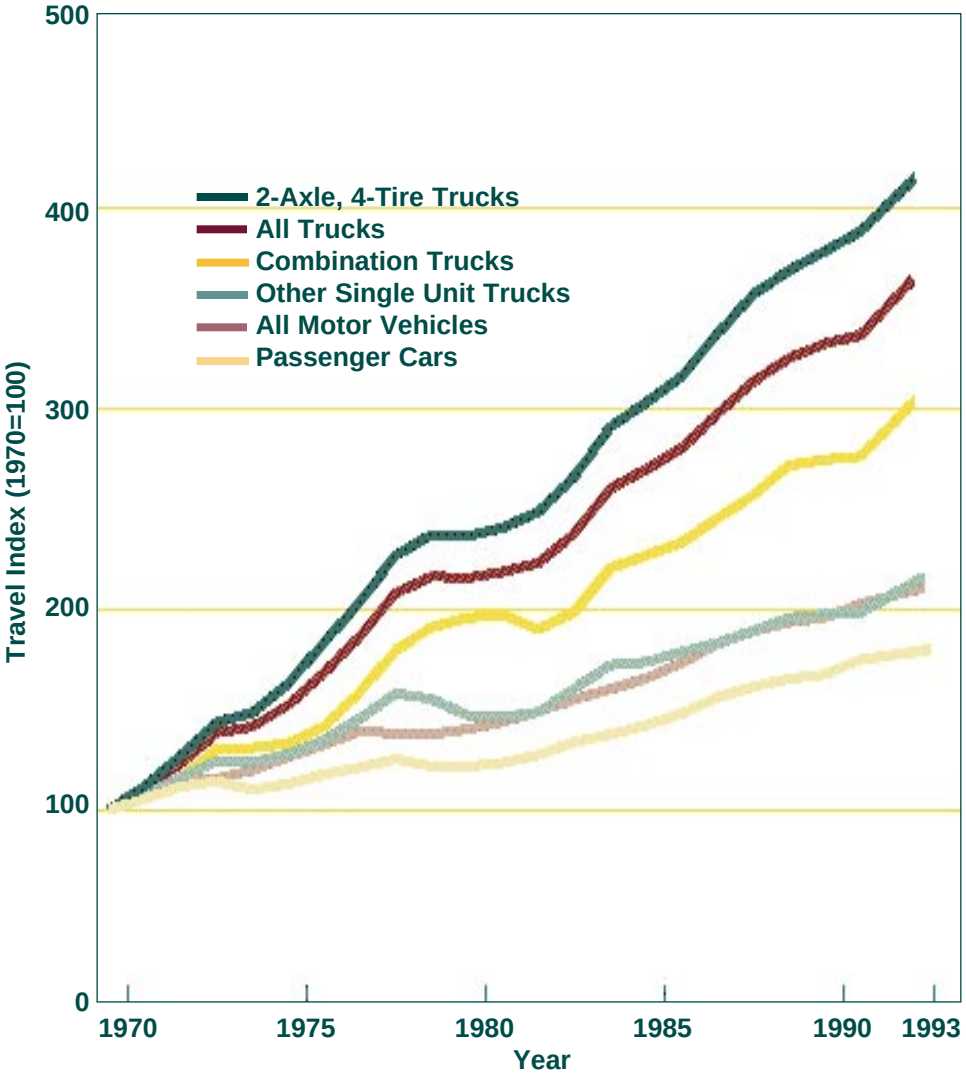
Source: *Highway Statistics 1993* **(from data collected at truck weigh sites).**

Annual Vehicle-Miles of Travel



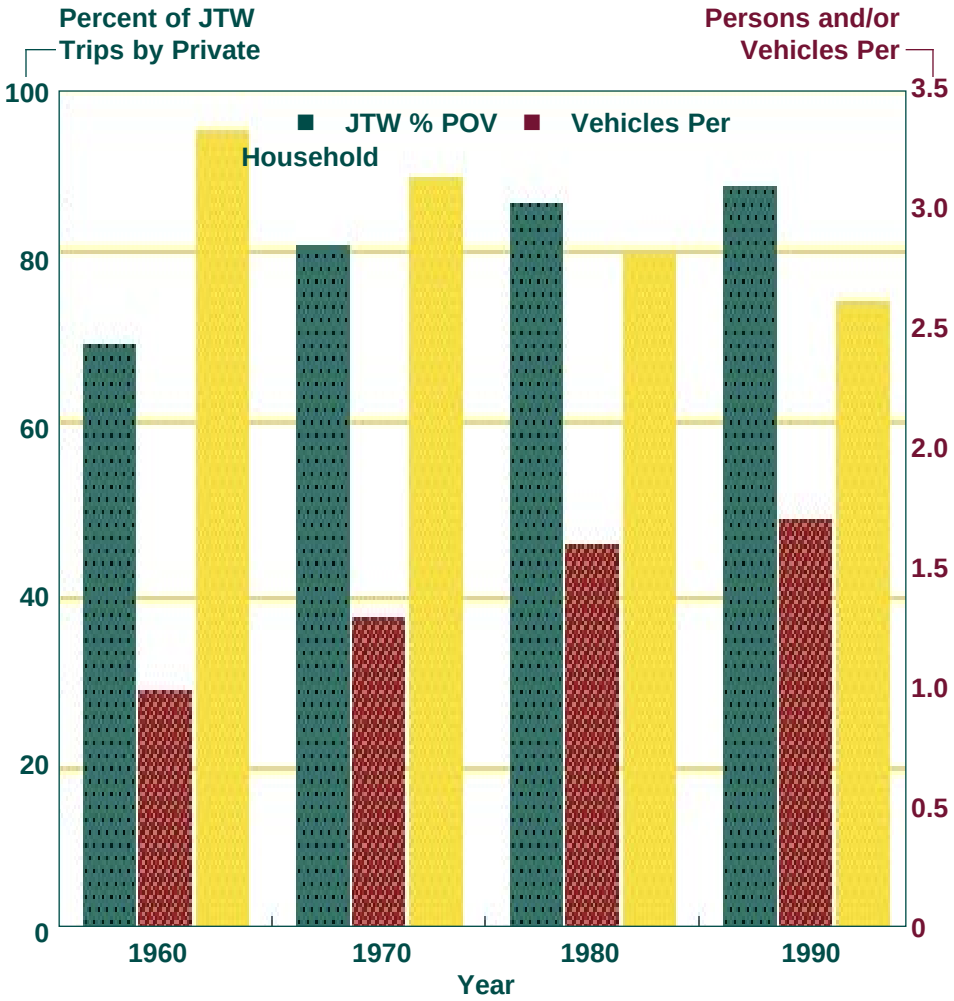
Annual travel on the Nation's highways reached an estimated 2.3 trillion vehicle-miles in 1993, or about three times the level reported in 1960. Travel grew about 54 percent during the 1960's, another 38 percent in the 1970's, and another 40 percent in the 1980's. Annual travel on roads and streets in urban areas accounted for 1.4 trillion vehicle-miles in 1993 or 61 percent of total travel, compared to 44 percent in 1960. Compared to the urban travel growth of 49 percent in the 1980's, rural travel grew at a level of 28 percent. Much of the urban travel growth can be attributed to expanding urban boundaries.

Travel by Vehicle Type



Travel by all motor vehicles has increased by 107 percent compared to 1970. All truck travel has increased over 250 percent since 1970. This includes travel by combination trucks which is up over 190 percent and now accounts for 4.5 percent of total annual vehicle-miles of travel versus 3.2 percent in 1970. Travel by 2-axle, 4-tire trucks has increased over 300 percent compared to 1970 and now represents 21.6 percent of total travel compared to 11.1 percent in 1970. Although travel by passenger cars has increased 77.2 percent compared to 1970, the percentage of annual travel by passenger cars in relation to travel by all vehicles has decreased from 82.6 percent in 1970 to 70.7 percent in 1993.

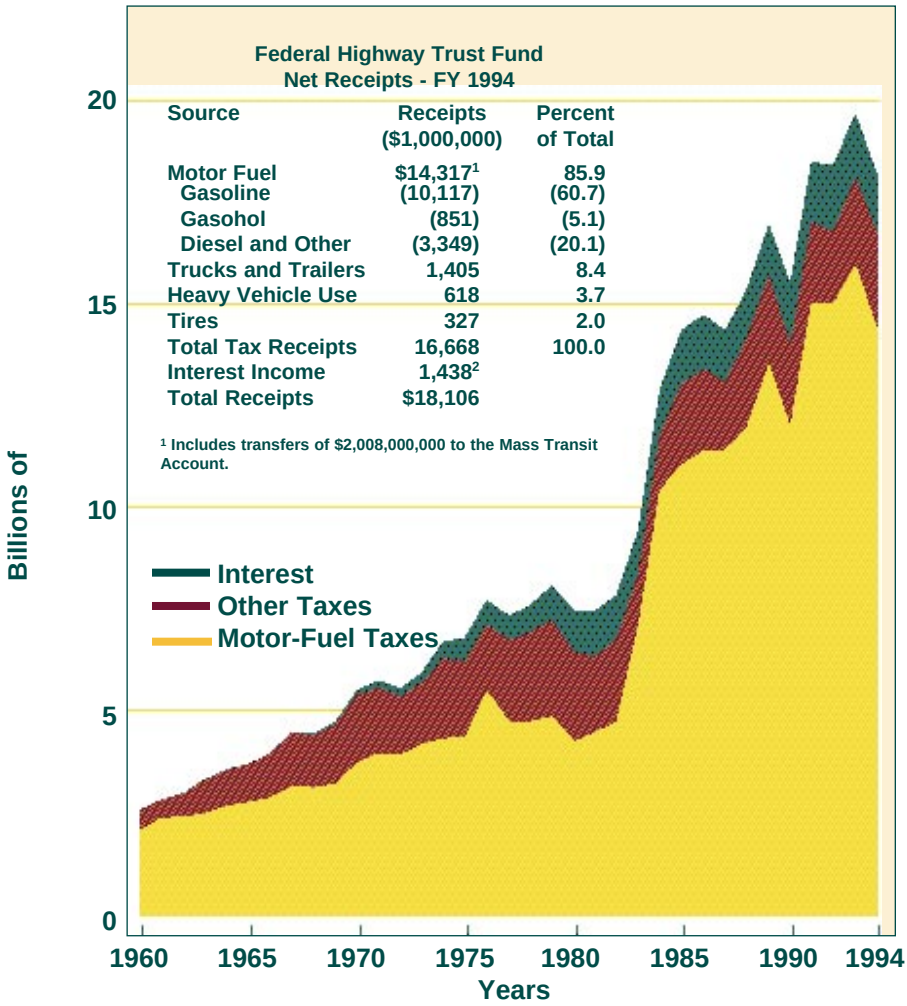
Journey to Work Comparisons (JTW) National Total



Since 1960, average household size has decreased significantly while average vehicle availability per household increased dramatically. These trends continued between 1980 and 1990, although at slower rates. By 1990, average household size was 2.6 persons, and average vehicle availability was 1.7 vehicles per household. The overall increase in vehicle availability per adult parallels the general increase in workers who use a private vehicle for their journey to work.

Source: *Journey-to-Work Trends in The United States and Its Major Metropolitan Areas, 1960-1990.*

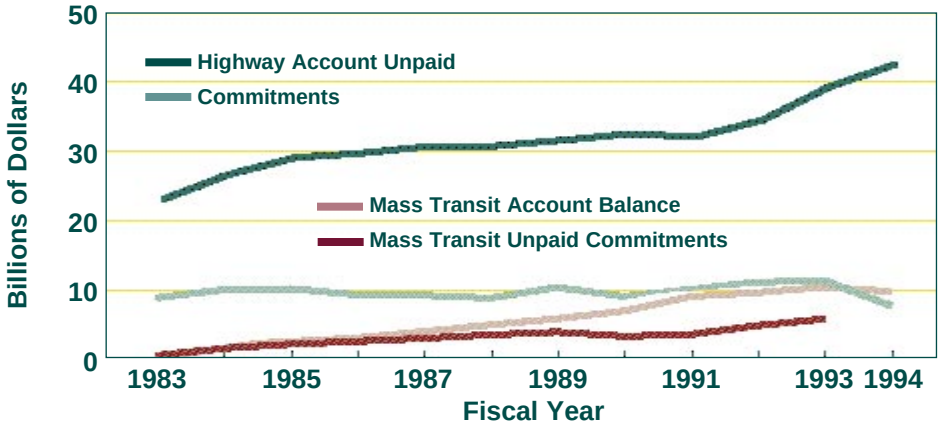
Federal Highway Trust Fund (HTF) Receipts



Most receipts from the Federal taxation of motor fuel, along with a number of other highway-related taxes, are deposited in the Federal Highway Trust Fund. The Trust Fund is made up of two accounts—highway and mass transit—and is dedicated for the funding of Federal surface transportation programs. In this way, taxes on highway users are used to fund highway facilities. The Trust Fund has provided a stable funding source for highway programs since it was established in 1956.

Motor-fuel tax receipts accounted for $14,317 billion in Fiscal Year 1994, or 85.9 percent of all Trust Fund tax receipts. Other taxes accounted for $2.350 billion. The balance in the Trust Fund earned interest income of $1.438 billion.

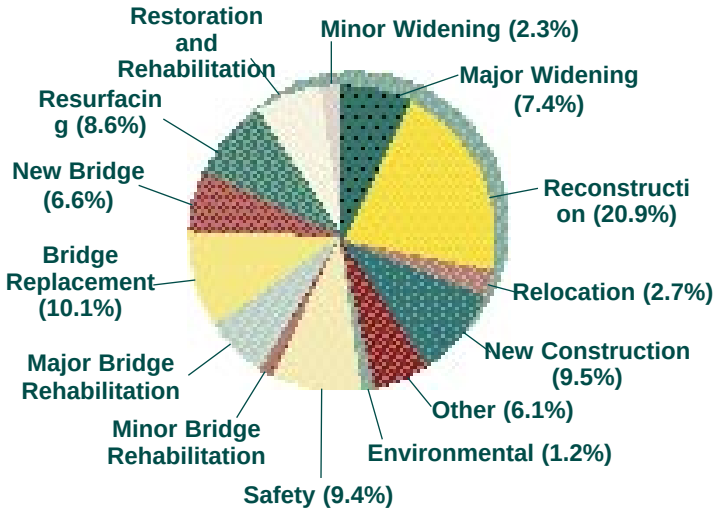
Federal Highway Trust Fund Balance and Commitments



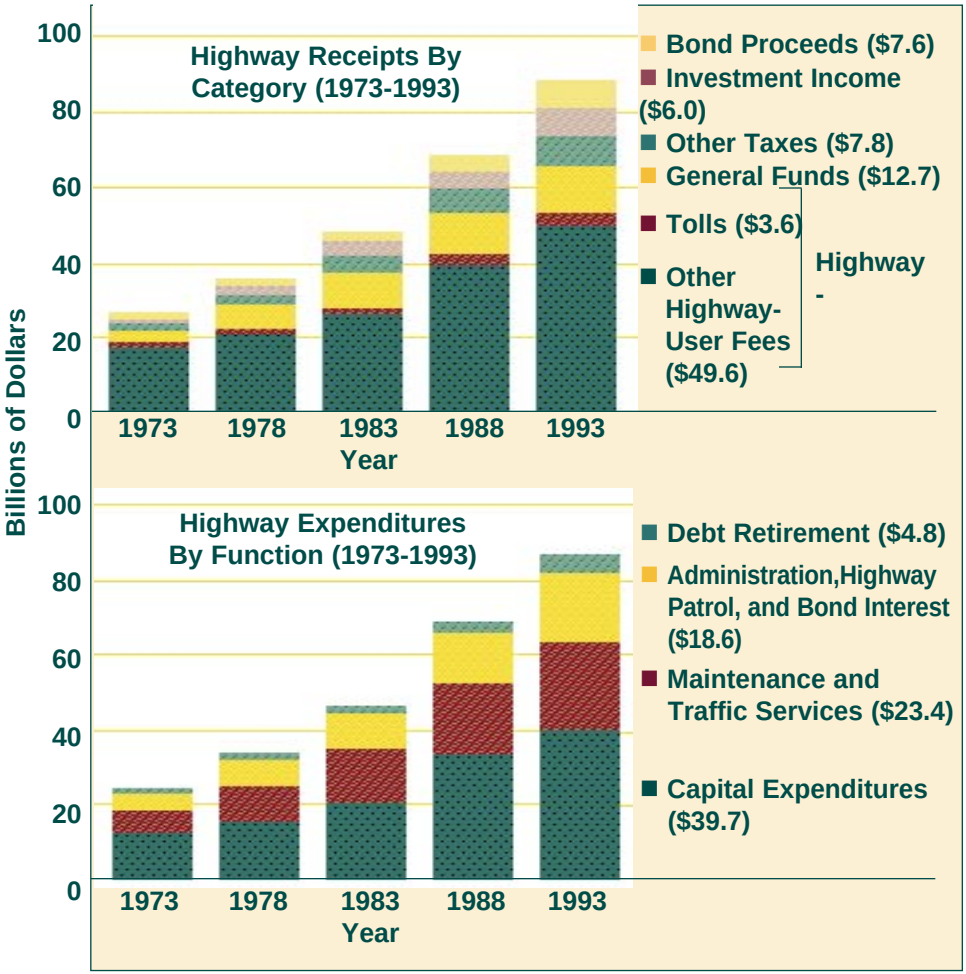
The balance in the Highway Trust Fund grew from $9.581 billion at the end of Fiscal Year (FY) 1983 to $17.871 billion at the end of FY 1994. At the end of FY 1994, the Highway Account held a balance of $7.927 billion and had unpaid commitments of $42.623 billion. Funds for highway projects are committed when the project is initiated and are paid out as the project progresses. Because construction projects are long term in nature, the highway-user tax revenues can be committed to projects in advance of actual tax collection.

Federal-Aid Highway Obligations by Type of Improvement–1989-1993

Obligations of Federal-aid highway funds totaled $80.1 billion for the 5-year period 1989 through 1993—an average of $16.0 billion per year. Reconstruction work represents the largest portion of obligations during this period.

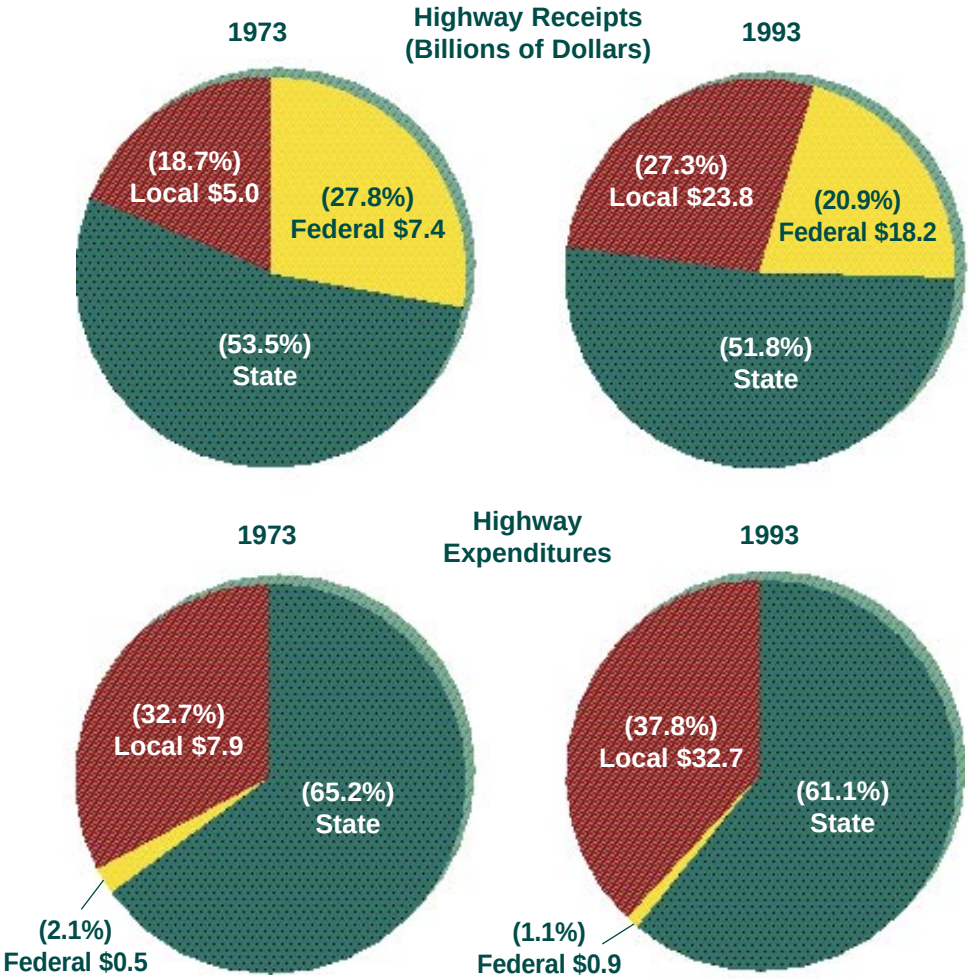


Highway Receipts by Category
Highway Expenditures by Function



Total receipts for highways by all units of government reached $87.3 billion in 1993—a 227 percent increase compared to 1973. Highway-user fees, which make up the largest share of receipts, account for 72 percent compared to 85.6 percent in 1973. General fund appropriations make up a growing share of highway receipts and now account for 17.2 percent of the total compared to 13.8 percent in 1973. Capital expenditures currently account for 53.1 percent of highway expenditures compared to 58.4 percent in 1973; maintenance accounts for 31.2 percent compared to 28.6 percent in 1973. Expenditures for administration, highway patrol, and bond interest also account for an increasing share of total expenditures—24.9 percent in 1993 versus 22.4 percent in 1973.

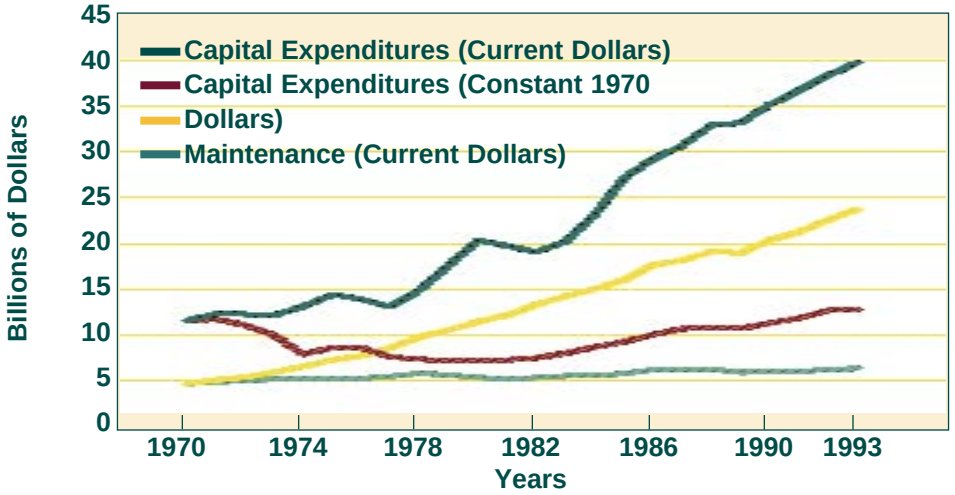
Highway Receipts and Expenditures by Governmental Unit



Note: Expenditures by the Federal Government only reflect direct expenditures by Federal agencies. Federal transfers are included with amounts shown for State and local

State governments account for the largest shares of highway receipts and expenditures, but the shares attributed to local units of government have increased significantly since 1973. Local governments now account for 27.3 percent of total receipts and 37.8 percent of total expenditures compared to 18.7 percent and 32.7 percent, respectively, in 1973. Receipts collected by the Federal Government for highways have increased over 145 percent compared to 1973; however, the relative share of total receipts has decreased from 27.8 percent in 1973 to 20.9 percent in 1993.

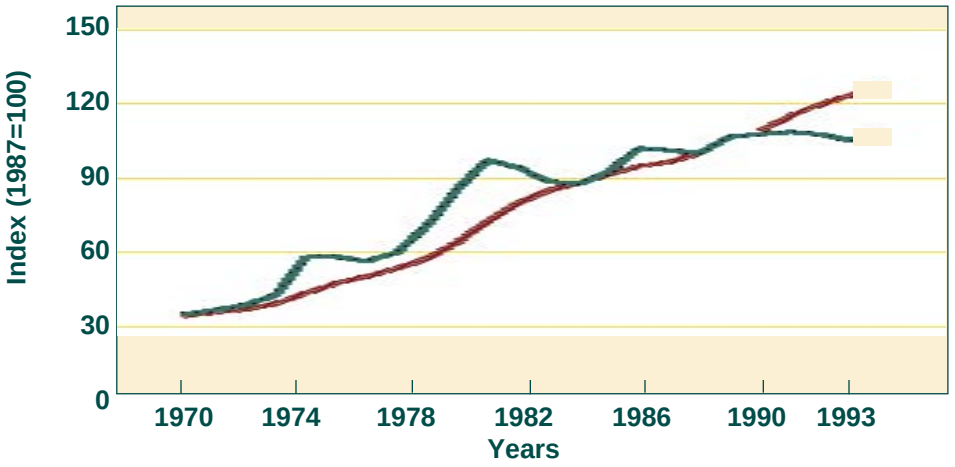
Highway Capital Expenditures and Maintenance Expenditures by All Units of Government[1]



Highway capital expenditures increased 243 percent from 1970 to 1993. Adjusted for inflation, 1993 capital expenditures (expressed in constant 1970 dollars) were only 10 percent above the 1970 level. Expenditures for highway maintenance in 1993 increased 403 percent compared to 1970. After accounting for inflation, 1993 maintenance expenditures were only 35 percent above the 1970 level.

[1] Capital Expenditures include construction, engineering, and right-of-way.

Highway Construction Price Trends And Consumer Price Index



Federal Highway—User Fees[1]

User Fee Type	Rate on January 1, 1995
Motor Fuels [2]	
Gasoline	18.4 cents per gallon
Gasohol	
Made with Ethanol	13.0 cents per gallon
Made with Methanol	12.4 cents per gallon
Diesel Fuel	24.4 cents per gallon
Liquefied Petroleum Gases	18.3 cents per gallon
Tires	*0–40 pounds,* **no tax**
	Over 40–70 pounds, **15 cents per pound in excess of 40 pounds**
	Over 70–90 pounds, **$4.50 plus 30 cents per pound in excess of 70 pounds**
	Over 90 pounds, **$10.50 plus 50 cents per pound in excess of 90 pounds**
Truck and Trailer Sales	12 percent of retailer's sales price for trucks over 33,000 pounds gross vehicle weight (GVW) and trailers over 26,000 pounds GVW
Heavy Vehicle Use	Annual Tax:
	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**

[1] See table FE–101 in *Highway Statistics 1993* for a more complete description of Federal Highway-User Fees.
[2] Motor-fuel tax rates shown include 0.1 cent per gallon dedicated to the Leaking Underground Storage Tank Trust Fund

Highway Trust Fund Authorizations[1] for FY 1995, 1996, and 1997[2] (in Millions of Dollars)

Selected Programs	FY 1995	FY 1996	FY 1997
Interstate Construction[3]	$ 1,800	$ 0	$ 0
Interstate Maintenance	2,914	2,914	2,914
Interstate Substitute (Highway)	240	0	0
Reimbursement for Non-Federally Aided Interstate Segments	0	2,000	2,000
National Highway System	3,639	3,640	3,640
Surface Transportation Program	4,096	4,097	4,097
Congestion Mitigation/Air Quality Improvement	1,028	1,029	1,029
Bridge Replacement and Rehabilitation	2,762	2,763	2,763
Federal Lands Highways	445	447	447
Equity Adjustments[4]	2,055	2,055	2,056
Scenic Byways	14	14	14
Emergency Relief	100	100	100
Highway Safety (FHWA and NHTSA)	249	249	249
Motor Carrier Programs	83	85	90
High Speed Ground Transportation	105	130	130
Intelligent Vehicle Highway Systems	113	113	113
Other Research Programs	27	32	37
Demonstration Projects	1,101	1,101	1,101
Other Programs, Projects, and Studies	30	30	31
Total	20,801	20,799	20,811

[1] Authorized by the Intermodal Surface Transportation Efficiency Act of 1991. Includes only those programs funded by the Highway Account of the Federal Highway Trust Fund.
[2] Fiscal year starts October 1 and ends September 30.
[3] Interstate construction funds are made available 1 year in advance of the year for which they are

1993 Highway Statistics

State	Resident Population (Thousands)	Driving-Age Population (Thousands)	Highway Motor Fuel Use (Thousands) of Gallons)	Total Lane Miles	Total Road and Street Mileage	Annual Vehicle-Miles of Travel (Millions)	Total Highway Fatalities	Fatalities per 100 Million VMT	Total Highway Capital Outlay[1] (Thousands)	Total Disbursements for Highways[1] (Thousands)	Payments into the Federal HTF (Thousands)	Apportionments from the HTF [2] (Thousands)
Alabama	4,187	3,233	2,753,078	190,904	92,209	47,337	1,042	2.20	$416,331	$1,012,173	$332,998	$325,297
Alaska	599	427	358,697	27,951	13,849	3,918	118	3.01	278,830	540,965	35,863	215,828
Arizona	3,936	2,971	2,274,009	119,557	55,763	39,150	801	2.05	712,556	1,539,137	261,698	297,570
Arkansas	2,424	1,862	1,696,635	156,692	77,192	23,995	583	2.43	398,933	731,651	220,635	271,576
California	31,211	23,401	14,816,060	375,268	169,201	266,408	4,163	1.56	3,805,421	8,117,071	1,825,449	2,090,789
Colorado	3,566	2,722	1,850,579	163,035	78,721	32,718	559	1.71	569,374	1,191,132	199,178	255,736
Connecticut	3,277	2,579	1,519,167	43,314	20,357	27,001	342	1.27	761,675	1,446,468	175,897	362,982
Delaware	700	542	399,897	11,983	5,544	6,895	111	1.61	211,893	435,185	46,981	78,756
Dist. of Col.	578	474	195,864	2,033	1,107	3,485	57	1.64	106,218	273,665	22,153	107,181
Florida	13,679	10,823	7,187,669	242,525	112,808	120,467	2,635	2.19	2,122,527	3,858,336	813,525	831,913
Georgia	6,917	5,268	4,914,204	229,974	110,879	78,426	1,394	1.78	874,117	1,909,074	568,207	546,279
Hawaii	1,172	902	398,690	8,821	4,106	8,074	134	1.66	340,470	507,140	43,899	310,330
Idaho	1,099	805	687,249	119,477	58,835	11,481	227	1.98	160,967	354,747	77,452	142,516
Illinois	11,697	8,945	5,584,681	286,136	136,965	89,693	1,392	1.55	1,951,325	3,575,480	590,277	768,241
Indiana	5,713	4,407	3,593,604	188,688	92,374	60,461	889	1.47	785,594	1,504,743	412,102	414,583
Iowa	2,814	2,161	1,672,772	230,379	112,708	25,118	459	1.83	626,514	1,283,217	181,798	246,229
Kansas	2,531	1,918	1,490,074	270,777	133,256	24,115	428	1.77	465,240	1,388,157	177,685	224,158
Kentucky	3,789	2,930	2,515,092	150,253	72,632	39,598	871	2.20	843,304	1,551,390	299,223	334,750
Louisiana	4,295	3,186	2,314,174	125,084	59,599	36,351	879	2.42	805,561	1,477,185	267,797	301,232
Maine	1,239	966	714,966	46,005	22,510	12,182	185	1.52	159,716	460,363	86,846	124,017
Maryland	4,965	3,843	2,425,126	64,319	29,313	43,311	665	1.54	758,545	1,789,956	290,788	314,881
Massachusetts	6,012	4,755	2,630,750	64,948	30,563	46,684	475	1.02	1,013,800	2,215,600	298,555	1,080,720
Michigan	9,478	7,236	5,140,678	247,196	117,659	85,686	1,408	1.64	823,570	2,093,685	538,836	536,649
Minnesota	4,517	3,413	2,477,209	266,350	129,959	42,214	538	1.27	1,277,489	2,330,679	253,805	397,099
Mississippi	2,643	1,971	1,676,026	149,859	72,834	26,864	813	3.03	455,716	886,368	210,868	210,923
Missouri	5,234	4,014	3,418,019	249,572	121,787	54,821	947	1.73	665,227	1,431,033	422,031	445,612
Montana	839	633	580,996	142,376	69,768	8,707	195	2.24	257,939	377,508	73,922	190,256
Nebraska	1,607	1,215	994,577	187,467	92,702	14,777	254	1.72	471,209	779,266	113,871	160,658
Nevada	1,389	1,069	857,074	94,089	45,778	11,624	263	2.26	181,684	333,311	101,805	135,534
New Hampshire	1,125	869	574,645	30,745	14,938	10,342	121	1.17	124,509	458,366	64,203	89,658
New Jersey	7,879	6,177	3,405,625	75,918	35,097	59,726	788	1.32	1,351,290	3,147,773	417,408	551,277
New Mexico	1,616	1,186	1,082,576	126,119	60,812	18,945	431	2.28	290,551	494,496	131,864	197,793
New York	18,197	14,188	6,372,624	238,905	111,882	112,240	1,781	1.59	2,392,555	6,734,953	752,638	1,015,240
North Carolina	6,945	5,423	4,070,310	200,631	96,028	69,493	1,389	2.00	910,251	1,737,314	481,233	491,946
North Dakota	635	482	441,558	175,506	86,727	6,158	89	1.45	138,672	281,564	53,932	121,722
Ohio	11,091	8,536	5,794,443	239,426	113,823	96,992	1,482	1.53	1,082,150	2,757,034	622,462	677,122
Oklahoma	3,231	2,456	2,113,750	231,607	112,467	35,529	671	1.89	438,031	1,019,535	263,652	266,711
Oregon	3,032	2,335	1,745,074	195,688	96,036	28,352	524	1.85	547,884	1,020,498	205,573	246,949
Pennsylvania	12,048	9,480	5,713,071	244,099	117,038	90,706	1,529	1.69	1,348,797	3,869,658	697,688	916,227
Rhode Island	1,000	788	411,463	12,760	6,057	7,227	74	1.02	140,363	253,490	46,597	121,211
South Carolina	3,643	2,794	2,294,440	134,128	64,158	36,125	846	2.34	364,123	705,163	274,308	227,616
South Dakota	715	529	496,063	168,758	83,305	7,413	140	1.89	230,278	390,401	55,441	122,052
Tennessee	5,099	3,970	3,196,901	177,548	85,037	52,112	1,171	2.25	725,725	1,309,832	382,869	372,525
Texas	18,031	13,372	10,344,113	621,761	294,142	167,611	3,037	1.81	2,282,889	5,621,892	1,223,679	1,196,548
Utah	1,860	1,268	976,331	84,449	40,508	17,056	303	1.78	256,810	464,860	119,992	136,427
Vermont	576	447	367,366	29,149	14,166	5,976	110	1.84	124,090	258,385	43,587	81,674
Virginia	6,491	5,065	3,722,407	146,876	68,429	64,171	878	1.37	861,340	2,117,901	442,070	444,053
Washington	5,255	4,002	2,751,904	163,163	79,428	46,135	661	1.43	837,708	1,882,329	304,217	464,431
West Virginia	1,820	1,442	1,037,864	71,782	35,045	16,778	429	2.56	370,762	720,983	129,816	224,793
Wisconsin	5,038	3,838	2,662,299	227,731	110,978	49,167	714	1.45	1,011,475	2,150,450	320,367	358,348
Wyoming	470	347	511,845	77,401	37,642	6,770	120	1.77	173,635	311,306	68,584	140,182
U.S. TOTAL	**257,908**	**197,663**	**137,224,288**	**8,129,182**	**3,904,721**	**2,296,585**	**40,115**	**1.75**	**$38,305,633**	**$83,102,868**	**$16,046,324**	**$20,186,800**

[1]All units of government, 1992 data. Fiscal Year (October 1—September 30).

[2]Includes allocations.

1993 Relationships—
Population, Drivers, Vehicles, Fuel, and Travel[1]

State	Total Registered Vehicles	Total Licensed Drivers	Licensed Drivers per 1,000 Driving-Age Population	Registered Motor Vehicles per 1,000 Population	Licensed Drivers per Motor Vehicle	Persons per Registered Motor Vehicle	Gallons of Fuel per Vehicle	Miles per Gallon	Annual Miles per Vehicle	Vehicle-Miles per Capita	Vehicle-Miles per Licensed Driver
Alabama	3,390,365	3,008,575	931	810	0.89	1.23	812	17.19	13,962	11,306	15,734
Alaska	489,004	437,696	1,026	816	0.90	1.23	734	10.92	8,012	6,539	8,951
Arizona	2,891,589	2,623,680	883	735	0.91	1.36	786	17.22	13,539	9,946	14,922
Arkansas	1,527,625	1,750,765	940	630	1.15	1.59	1,111	14.14	15,707	9,897	13,705
California	22,823,712	20,123,481	860	731	0.88	1.37	649	17.98	11,672	8,536	13,239
Colorado	3,032,088	2,591,011	952	850	0.85	1.18	610	17.68	10,791	9,175	12,628
Connecticut	2,594,369	2,180,314	845	792	0.84	1.26	586	17.77	10,408	8,239	12,384
Delaware	554,550	506,274	933	792	0.91	1.26	721	17.24	12,434	9,846	13,619
Dist. of Col.	263,637	361,068	762	456	1.37	2.19	743	17.79	13,219	6,025	9,652
Florida	10,169,556	10,762,041	994	743	1.06	1.35	707	16.76	11,846	8,807	11,194
Georgia	5,632,425	4,613,295	876	814	0.82	1.23	872	15.96	13,924	11,338	17,000
Hawaii	763,491	734,381	814	652	0.96	1.53	522	20.25	10,575	6,891	10,994
Idaho	1,023,179	770,403	957	931	0.75	1.07	672	16.71	11,221	10,446	14,903
Illinois	8,070,464	7,462,158	834	690	0.92	1.45	692	16.06	11,114	7,668	12,020
Indiana	4,670,301	3,790,781	860	818	0.81	1.22	769	16.82	12,946	10,583	15,949
Iowa	2,738,147	1,899,430	879	973	0.69	1.03	611	15.02	9,173	8,926	13,224
Kansas	1,922,229	1,774,036	925	760	0.92	1.32	775	16.18	12,545	9,529	13,593
Kentucky	2,629,130	2,468,992	843	694	0.94	1.44	957	15.74	15,061	10,451	16,038
Louisiana	3,166,155	2,576,701	809	737	0.81	1.36	731	15.71	11,481	8,463	14,108
Maine	1,027,942	905,533	937	829	0.88	1.21	696	17.04	11,851	9,829	13,453
Maryland	3,559,558	3,274,392	852	717	0.92	1.39	681	17.86	12,168	8,723	13,227
Massachusetts	3,837,497	4,161,137	875	638	1.08	1.57	686	17.75	12,165	7,765	11,219
Michigan	7,398,558	6,527,401	902	781	0.88	1.28	695	16.67	11,581	9,041	13,127
Minnesota	3,716,103	2,637,458	773	823	0.71	1.22	667	17.04	11,360	9,345	16,006
Mississippi	1,999,639	1,640,301	832	757	0.82	1.32	838	16.03	13,434	10,165	16,377
Missouri	4,065,686	3,472,140	865	777	0.85	1.29	841	16.04	13,484	10,474	15,789
Montana	939,220	530,744	838	1,119	0.57	0.89	619	14.99	9,270	10,373	16,405
Nebraska	1,439,026	1,141,134	940	895	0.79	1.12	691	14.86	10,269	9,194	12,949
Nevada	937,227	976,214	913	675	1.04	1.48	914	13.56	12,403	8,369	11,907
New Hampshire	958,741	868,560	1,000	852	0.91	1.17	599	18.00	10,787	9,190	11,907
New Jersey	5,640,875	5,458,841	884	716	0.97	1.40	604	17.54	10,588	7,580	10,941
New Mexico	1,420,653	1,148,230	968	879	0.81	1.14	762	17.50	13,335	11,720	16,499
New York	10,162,501	10,326,635	728	558	1.02	1.79	627	17.61	11,045	6,168	10,869
North Carolina	5,364,571	4,724,661	871	772	0.88	1.29	759	17.07	12,954	10,006	14,709
North Dakota	661,831	437,942	909	1,042	0.66	0.96	667	13.95	9,304	9,699	14,061
Ohio	9,278,973	7,634,742	894	837	0.82	1.20	624	16.74	10,453	8,745	12,704
Oklahoma	2,771,353	2,336,410	951	858	0.84	1.17	763	16.81	12,820	10,995	15,207
Oregon	2,624,127	2,373,138	1,016	866	0.90	1.16	665	16.25	10,804	9,351	11,947
Pennsylvania	8,282,066	8,054,636	850	687	0.97	1.45	690	15.88	10,952	7,529	11,261
Rhode Island	695,310	674,901	857	695	0.97	1.44	592	17.56	10,394	7,227	10,708
South Carolina	2,683,711	2,430,511	870	737	0.91	1.36	855	15.74	13,461	9,917	14,863
South Dakota	807,684	506,558	958	1,129	0.63	0.89	614	14.94	9,178	10,362	14,634
Tennessee	4,963,848	3,542,531	892	974	0.71	1.03	644	16.30	10,498	10,220	14,710
Texas	13,118,321	11,876,268	888	728	0.91	1.37	789	16.20	12,777	9,295	14,113
Utah	1,334,784	1,189,593	938	718	0.89	1.39	731	17.47	12,778	9,172	14,338
Vermont	483,222	430,538	964	839	0.89	1.19	760	16.27	12,367	10,381	13,880
Virginia	5,407,735	4,579,666	904	833	0.85	1.20	688	17.24	11,867	9,887	14,012
Washington	4,412,998	3,698,920	924	840	0.84	1.19	624	16.76	10,454	8,779	12,473
West Virginia	1,345,395	1,302,081	903	739	0.97	1.35	771	16.17	12,471	9,218	12,886
Wisconsin	3,814,695	3,502,341	912	757	0.92	1.32	698	18.47	12,889	9,759	14,038
Wyoming	557,616	350,074	1,008	1,186	0.63	0.84	918	13.23	12,141	14,397	19,339
U.S. TOTAL	**194,063,482**	**173,149,313**	**876**	**752**	**0.89**	**1.33**	**707**	**16.74**	**11,834**	**8,905**	**13,264**

[1]Vehicle relationships exclude motorcycles.

Areas with Population Above 500,000

Urbanized Area	Location		Estimated Urbanized Population (1,000)	Federal-Aid Urbanized Land Area (Sq. Miles)	Persons per Square Mile	Total Highway Mileage	Total Freeway/ Expressway Mileage	Total Freeway Miles Per Capita	Total Daily Highway Vehicle-Miles (1,000)	Total Daily Freeway Vehicle-Miles (1,000)	Daily Rail Passenger Miles (1,000)	Daily Vehicle-Miles per Capita	Average AADT* Total	% of Travel Served by Freeways	Average AADT on Freeways
	Prime State	Other State(s)													
NEW YORK-NORTHEASTERN NJ	NY	NJ	16,112	4,014	4,013	36,560	1,162	7.2	233,996	86,873	28,138	14.5	6,400	37.1	74,761
LOS ANGELES	CA		11,954	2,231	5,358	25,783	637	5.3	254,846	113,961	322	21.3	9,884	44.7	178,902
CHICAGO-NORTHWESTERN IN[1]	IL	IN	7,702	2,730	2,821	23,506	476	6.2	142,183	40,965	6,105	18.5	6,049	28.8	86,060
PHILADELPHIA	PA	NJ	4,524	1,495	3,026	13,039	353	7.8	73,424	20,211	2,433	16.2	5,631	27.5	57,254
DETROIT	MI		3,947	1,297	3,043	12,872	280	7.1	85,744	29,537		21.7	6,661	34.4	105,489
SAN FRANCISCO-OAKLAND	CA		3,832	1,203	3,185	9,357	341	8.9	78,916	41,269	3,115	20.6	8,434	52.2	121,023
WASHINGTON[2]	DC	MD, VA	3,320	926	3,585	8,782	298	9.0	70,267	28,039	2,814	21.2	8,001	39.9	94,090
DALLAS-FORT WORTH	TX		3,198	1,712	1,867	17,360	552	17.3	78,658	35,831		24.6	4,531	45.5	64,911
HOUSTON	TX		2,902	1,538	1,886	15,221	452	15.6	74,866	32,842		25.8	4,919	43.8	72,659
BOSTON	MA		2,843	1,156	2,459	8,647	214	7.5	53,890	20,241	2,610	19.0	6,232	37.5	94,584
SAN DIEGO	CA		2,531	733	3,452	6,004	231	9.1	52,696	27,468	318	20.8	8,777	52.1	118,909
ATLANTA	GA		2,322	1,757	1,321	11,952	294	12.7	78,303	30,703	916	33.7	6,551	39.2	104,431
MINNEAPOLIS-ST. PAUL	MN		2,112	1,192	1,771	10,103	304	14.4	48,410	20,639		22.9	4,792	42.6	67,891
BALTIMORE	MD		2,107	712	2,959	6,309	265	12.6	40,107	18,028	521	19.0	6,357	44.9	68,030
PHOENIX	AZ		2,073	1,054	1,966	9,628	113	5.5	48,393	10,463		23.3	5,026	21.6	92,592
ST. LOUIS	MO	IL	1,966	872	2,254	8,192	295	15.0	51,794	21,809		26.3	6,323	42.1	73,928
MIAMI-HIALEAH	FL		1,928	353	5,461	6,229	98	5.1	36,208	9,894	301	18.8	5,813	27.3	100,959
SEATTLE	WA		1,879	844	2,226	6,867	246	13.1	44,842	20,878	1	23.9	6,530	46.5	84,869
PITTSBURGH	PA		1,768	1,112	1,589	8,086	281	15.9	34,070	9,345	136	19.3	4,213	27.4	33,256
TAMPA-ST PETE-CLEARWATER	FL		1,756	650	2,701	7,494	92	5.2	35,604	5,823		20.3	4,751	16.3	63,293
CLEVELAND[2]	OH		1,677	838	2,001	5,552	231	13.8	34,931	14,155	199	20.8	6,292	40.5	61,277
DENVER	CO		1,594	720	2,213	6,378	204	12.8	34,712	13,287		21.8	5,442	38.2	65,132
SAN JOSE	CA		1,526	365	4,180	3,740	176	11.5	33,018	16,554	121	21.6	8,828	50.1	94,056
RIVERSIDE-SAN BERNARDINO	CA		1,323	383	3,454	4,845	135	10.2	28,280	13,691		21.4	5,837	48.4	101,414
KANSAS CITY	MO	KS	1,315	841	1,563	7,263	359	27.3	33,527	15,004		25.5	4,616	44.7	41,793
FORT LAUDERDALE-HOLLYWOOD-POMPANO BEACH	FL		1,299	327	3,972	4,216	103	7.9	28,368	8,995		21.8	6,729	31.7	87,330
PORTLAND-VANCOUVER	OR	WA	1,277	450	2,837	5,372	137	10.7	26,049	10,315	113	20.4	4,849	39.5	75,291
MILWAUKEE	WI		1,226	512	2,394	4,898	85	6.9	30,501	6,722		24.9	6,227	22.0	79,082
CINCINNATI [2]	OH	KY	1,223	630	1,941	4,971	162	13.2	28,146	12,091		23.0	5,662	42.9	74,635
SACRAMENTO	CA		1,204	383	3,144	3,835	110	9.1	24,807	10,283	91	20.6	6,469	41.4	93,481
SAN ANTONIO	TX		1,129	485	2,327	5,123	211	18.7	26,078	11,337		23.1	5,090	43.4	53,729
BUFFALO-NIAGARA FALLS	NY		1,069	564	1,895	3,681	141	13.2	20,428	5,500	53	19.1	5,550	26.9	39,007
NEW ORLEANS	LA		1,040	270	3,851	3,257	69	6.6	16,540	4,849	28	15.9	5,078	29.3	70,275
NORFOLK-PORTSMOUTH [2]	VA		964	809	1,191	3,598	116	12.0	20,138	5,872		20.9	5,597	29.1	50,620
OKLAHOMA CITY	OK		959	711	1,348	4,314	147	15.3	21,486	7,723		22.4	4,981	35.9	52,537
ORLANDO[1]	FL		955	395	2,417	3,575	87	9.1	22,173	5,027		23.2	6,202	22.6	57,781
COLUMBUS[2]	OH		945	476	1,985	3,214	141	14.9	21,215	9,462		22.4	6,601	44.6	67,106
INDIANAPOLIS	IN		915	422	2,168	3,967	130	14.2	24,769	9,790		27.1	6,244	39.5	75,307
PROVIDENCE-PAWTUCKET	RI	MA	904	518	1,745	4,290	118	13.1	17,797	6,583		19.7	4,148	36.9	55,788
MEMPHIS	TN	AR, MS	860	407	2,113	3,208	85	9.9	19,197	5,154		22.3	5,984	26.8	60,635
LAS VEGAS	NV		853	231	3,692	2,048	52	6.1	12,797	2,633		15.0	6,249	20.5	50,634
WEST PALM BEACH-BOCA RATON-DELRAY BEACH	FL		845	307	2,752	2,592	77	9.1	16,260	5,526		19.2	6,273	33.9	71,766
SALT LAKE CITY	UT		815	353	2,308	2,785	80	9.8	16,797	6,063		20.6	6,031	36.0	75,787
LOUISVILLE	KY	IN	792	384	2,062	3,371	135	17.0	21,953	8,042		27.7	6,512	36.6	59,570
JACKSONVILLE	FL		773	508	1,521	3,664	111	14.4	18,880	5,991		24.4	5,153	31.7	53,972
BIRMINGHAM	AL		727	609	1,193	4,398	125	17.2	19,938	6,752		27.4	4,533	33.8	54,016
TULSA	OK		709	395	1,794	2,985	112	15.8	14,366	5,265		20.3	4,813	36.6	47,008
HONOLULU[2]	HI		686	185	3,708	894	71	10.3	11,497	5,551		16.8	12,860	48.2	78,183
ROCHESTER	NY		620	335	1,850	2,505	101	16.3	13,394	4,896		21.6	5,347	36.5	48,475
DAYTON[2]	OH		613	369	1,661	2,659	81	13.2	14,264	4,364		23.3	5,364	30.5	53,876
HARTFORD-MIDDLETOWN	CT		605	351	1,723	2,524	105	17.4	14,516	7,023	14	24.0	5,751	48.3	66,885
NASHVILLE	TN		595	571	1,042	2,946	137	23.0	18,191	7,812		30.6	6,175	42.9	57,021
SPRINGFIELD	MA	CT	588	399	1,473	2,484	77	13.1	11,554	3,577		19.6	4,651	30.9	46,454
RICHMOND[2]	VA		583	281	2,074	2,388	95	16.3	15,093	5,128		25.9	6,320	33.9	53,978
TACOMA	WA		565	341	1,656	2,272	54	9.6	12,180	4,748		21.6	5,361	38.9	87,925
EL PASO[1]	TX	NM	563	218	2,582	2,046	51	9.1	10,471	3,255		18.6	5,118	31.0	63,823
AUSTIN	TX		562	314	1,789	2,827	99	17.6	14,945	6,420		26.6	5,287	42.9	64,848
OMAHA	NE	IA	544	222	2,450	2,425	53	9.7	10,087	2,454		18.5	4,160	24.3	46,301
AKRON[2]	OH		528	356	1,483	2,551	87	16.5	11,813	4,231		22.4	4,631	35.8	48,632
FRESNO	CA		519	168	3,089	2,054	29	5.6	9,088	1,710		17.5	4,425	18.8	58,965
CHARLOTTE	NC		513	299	1,715	2,339	66	12.9	11,760	3,668		22.9	5,028	31.1	55,575
OXNARD-VENTURA	CA		510	190	2,684	1,570	59	11.6	10,602	5,388		20.8	6,753	50.8	91,322

* Annual average daily traffic.

1 Some urbanized area data have not been reported; for example, Wilmington in Pennsylvania is with Philadelphia, El Paso in New Mexico is nor reported, Kissimmee in Florida is with Orlando, other anomalies may exist. Chicago in Illinois includes Crystal Lake, Joliet, and Round Lake Beach.

2 1992 data used for Hawaii, Ohio, and Virginia (1993 data not available).

Source: All data, except rail, reported by States through the Highway Performance Monitoring System. Numbers may differ from subsequently published 1990 Census data. Rail data obtained from Federal Transit Administration and is the sum of Light Rail, Heavy Rail and Commuter Rail data.

Publication Listing

The following Office of Highway Information Management publications may be obtained by contacting the Federal Highway Administration, R&T Report Center, FAX number (703) 285-2919, phone number (703) 285-2144. If you have questions concerning the contents of any of these reports, please call (202) 366-0180.

1. **Highway Statistics Summary to 1985, HPM-10/4/87**
2. **Highway Statistics (Annual)**
3. **Selected Highway Statistics and Charts (Annual)**
4. **Highway Taxes and Fees, How They Are Collected and Distributed (Biennial)**
5. **Traffic Monitoring Guide, FHWA PL 95-031**
6. **1990 Nationwide Personal Transportation Survey Reports:**
    - 6.1 **Databook Volume 1, FHWA PL 94-010A**
    - 6.2 **Databook Volume 2, FHWA PL 94-010B**
    - 6.3 **Urban Travel Patterns, FHWA PL 94-018**
    - 6.4 **Travel Mode Special Reports, FHWA PL 94-019**
    - 6.5 **Demographic Special Reports, FHWA PL 95-032**
    - 6.6 **Special Reports on Trip and Vehicle Attributes (DRAFT), FHWA PL 94-021**
    - 6.7 **Summary of Travel Trends, FHWA PL 92-027**
    - 6.8 **Travel Behavior Issues in the 90's, FHWA PL 93-012**
7. **Driver License Administration Requirements and Fees (Biennial)**
8. **Driver Licenses (Annual)**
9. **Journey-to-Work Trends in the United States and its Major Metropolitan Areas 1960-1990, FHWA PL 94-012.**
10. **New Perspectives in Commuting, (1992), FHWA PL 92-026**
11. **Cost of Owning and Operating Vehicles and Vans—1991, FHWA PL 92-019**

These reports may be obtained from the Office of Highway Information Management, Federal Highway Administration, FAX number (202) 366-7742,
phone number (202) 366-0180.

1. **Monthly Motor Fuel Reported by States (Monthly)**
2. **Toll Facilities in the United States**
3. **Traffic Volume Trends (Monthly)**
4. **The Highway Performance Monitoring System (Brochure), FHWA PL 94-031**
5. **Bulletin—Highway Funding 1992-1995, FHWA**

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