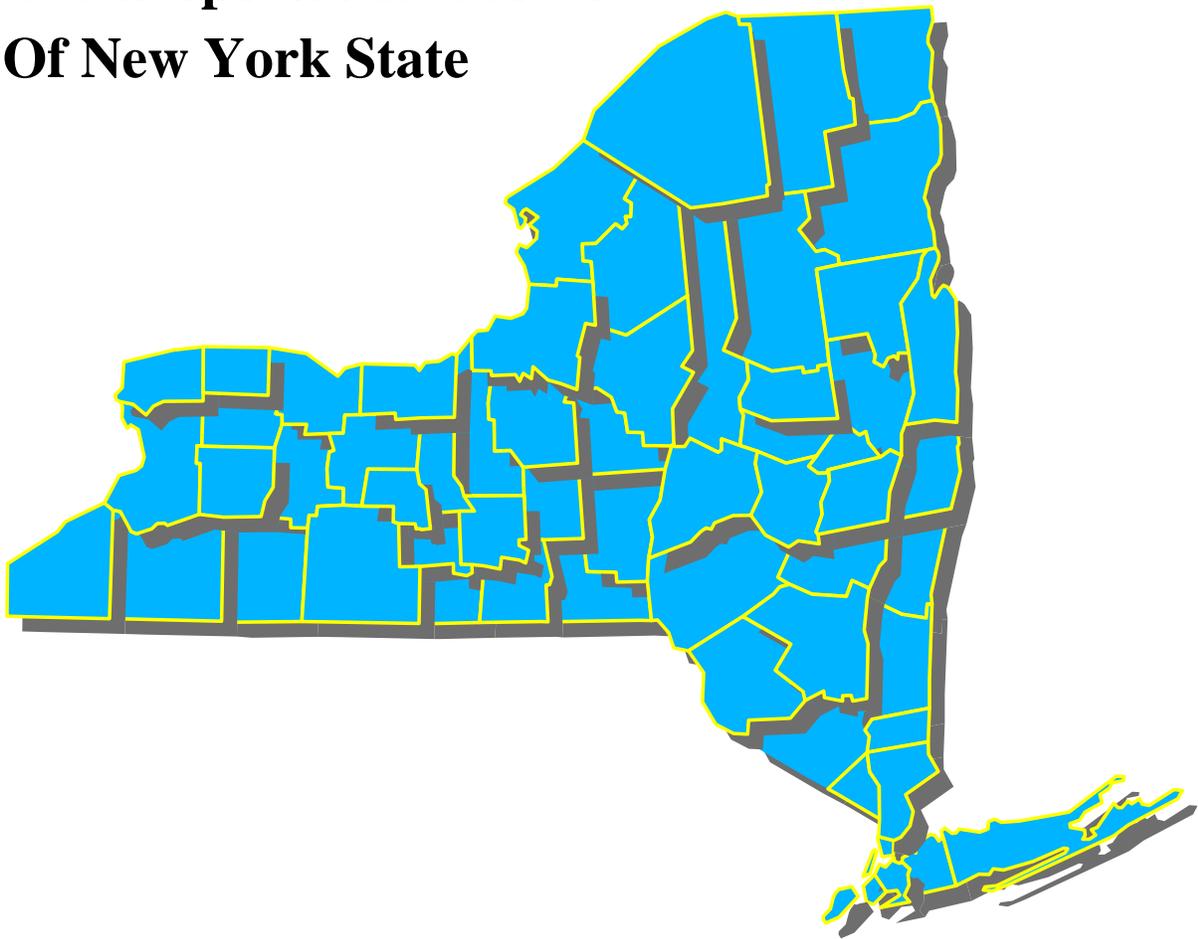


A Transportation Profile Of New York State



PLANNING AND STRATEGY GROUP
New York State Department of Transportation

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PREFACE

This report provides a convenient reference for transportation statistics in New York State. The focus of the document is on demographic and related travel measures which, for the convenience of the user, are summarized under one cover. Most of the information presented was obtained from the 1990 Census, the 1993 Commodity Flow Survey, the 1995 National Personal Transportation Survey (NPTS), the 1994-95 Transborder Surface Freight Transportation Data and the 1995 Highway Statistics published by the Federal Highway Administration. Thus 1995 was selected as the most common year for comparative purposes, though more recent data may be available in a few instances.

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INTRODUCTION

New York became “The Empire State” in the 19th century largely as a consequence of building the nation’s finest transportation system. Our early turnpikes, canals, railroads and airports were the country’s best, making New York a national hub of economic activity, connecting the Midwest and Mid-Atlantic regions with New England, eastern Canada, and the sea.

In the 20th century, our transportation network has given equal priority to moving people and freight efficiently. Downstate subways, buses, and commuter railroads are indispensable to the state’s economic vitality. Our six principal interstate highways and associated connecting interstate commuter routes, as well as the state highway system, move millions of people and tons of freight each day. In 1995, New York State public transportation providers carried nearly 2 billion passengers, and the state’s airports boarded 32 million travelers. Amtrak carried 1.078 million passengers on its Empire Service and freight railroads moved 471,000 carloads to, from, and within the State.

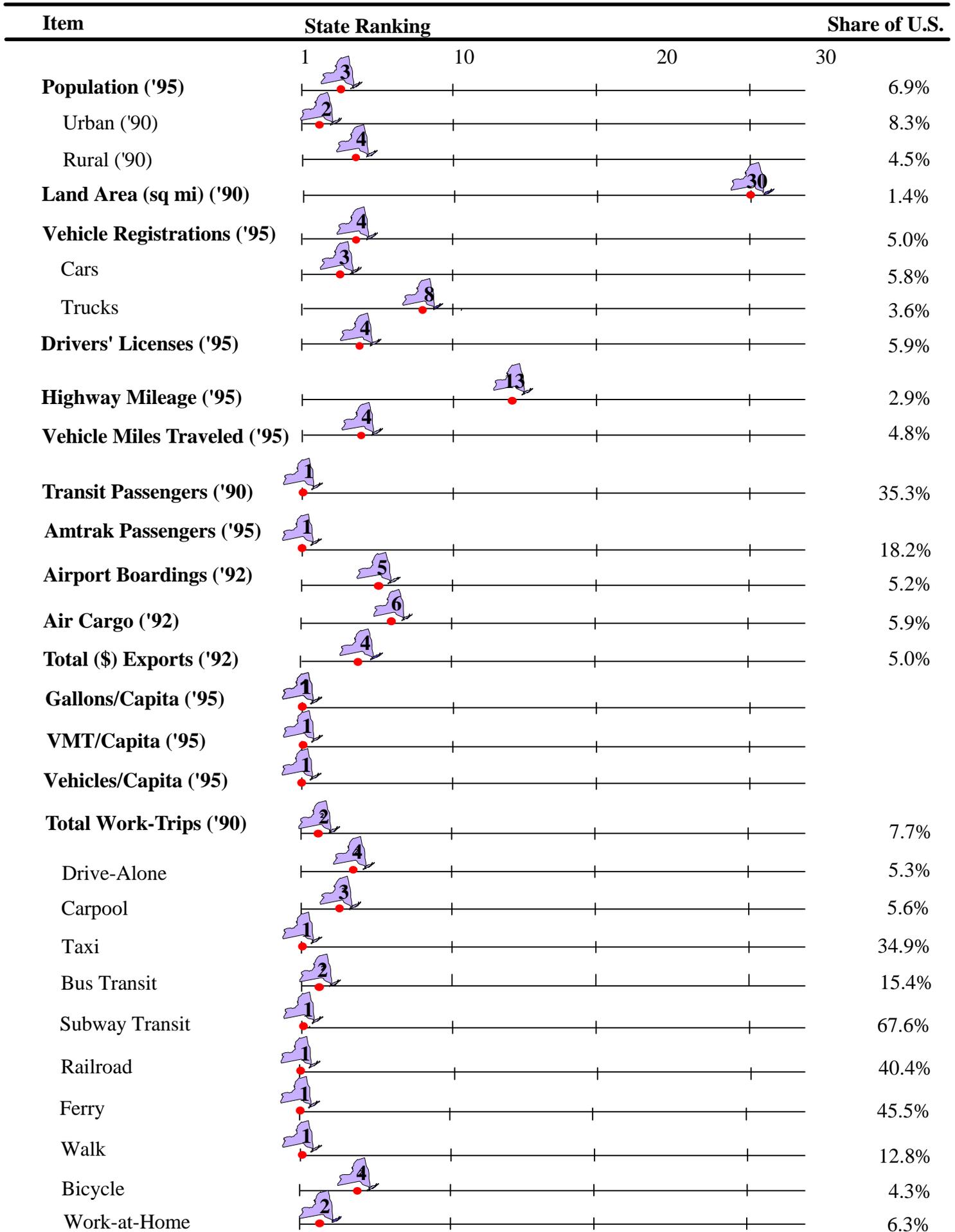
Figure 1 shows New York State’s national transportation rankings. By nearly all measures, New York consistently ranks among the top 20 states, and for most among the top five. Three per-capita measures - - gallons of fuel consumed, vehicle-miles traveled, vehicle ownership -- suggest that this state’s personal transportation use and energy consumption are the most efficient in the nation.

As the state moves into the new century and new millennium, the commitment to preserving a varied, valuable transportation network is as strong as was the resolution to build it.

A NOTE ON GEOGRAPHICAL TERMINOLOGY FOR NEW YORK STATE

In this publication, unless otherwise noted, DOWNSTATE generally includes New York City, Nassau and Suffolk Counties on Long Island, and the following seven lower Hudson Valley counties: Columbia, Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester. UPSTATE refers to all other northern and western counties. METROPOLITAN NEW YORK CITY refers to the five boroughs, the two Long Island counties (Nassau and Suffolk) and three counties immediately north of New York City: Putnam, Rockland, and Westchester. HUDSON VALLEY or LOWER HUDSON VALLEY refers to Columbia, Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester Counties.

Figure 1. New York State's transportation rankings



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1. TRANSPORTATION STATISTICS AT-A-GLANCE

Demographic Data (1990 Census)

Area	47,376 sq mi (30th in the US)
Jurisdictions	62 counties, 62 cities, 931 towns, 555 villages, 328 census-designated places (CDPs), 10 Indian reservations
Population	17,990,455 (2nd in US -- up 2.4% from 17,558,072 in 1980)
Density	381.0 persons per sq mi (6th in the US)
Urban	15,164,345 or 84.3% of the state's population
Rural	2,826,211 or 15.7% (Note: New York has the 4th largest rural population of any state, after Pennsylvania, Texas, and North Carolina)
Families	4,528,898
Households	6,634,434

Per-Capita Income (1995)

Statewide	\$27,572
New York City	\$29,743
Metropolitan Areas (including NYC)	\$28,401
Non-Metropolitan Counties	\$18,332

Highway Centerline Mileage by Jurisdiction (1995)

Total State and Local	112,061	100.0%
State DOT	15,027	13.4%
County	20,387	18.2%
City/Town/Village	75,187	67.1%
Other State Maintained	1,460	1.3%

Estimated Vehicle-Miles Traveled, All Roads

1995	115.17 billion
Annual Growth 1986-95	2.2%

Highway Bridge Ownership by Jurisdiction (1995)

Total	17,386	100.0%
State DOT	7,560	43.5%
County/City/Village	8,638	49.7%
Public Authorities/Parkways/Private	1,188	6.8%

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Motor Vehicle Registrations by Use (1995)

Passenger Cars	7,455,766
Commercial Vehicles	970,873
Trailers	428,058
Motorcycles/Mopeds	178,471
Buses	17,174
Taxis	57,145
Rentals	58,566
Farm Vehicles/Ambulances	10,635
Total	9,176,688

Per-Capita Vehicle Registrations (1995)

Statewide	0.51
New York City	0.26
Remainder of State	0.67

Licenses on File (1995)

Total	10,406,218	100.0%
Male	5,482,146	52.7%
Female	4,924,072	47.3%
New York City	2,900,004	27.9%
Remainder of State	7,506,214	72.1%

Journey-to-Work (1990)

Workers Residing in NYS	8,219,650	
Increase since 1980	970,520	13.4%
Persons Working in NYS	8,413,525	
Increase since 1980	1,016,880	13.7%

National Personal Transportation Survey (1995)

	<u>U.S.</u>	<u>New York State</u>	<u>% of U.S.</u>
Person-Trips (billions)	378.9	23.8	6.3
Person Vehicle Trips (billions)	229.7	11.0	4.8
Person-Miles of Travel (billions)	3,411.1	177.1	5.2
Person Vehicle-Miles Traveled (billions)	2,068.4	95.6	4.6
Average Trip Length (miles)	9.1	7.7	84.8
Average Vehicle Occupancy (persons)	1.5	1.5	NA
Population (5 years or older, millions)	241.7	16.8	7.0
Total Licensed Drivers (millions)	176.3	10.5	5.9
Workers in Households (millions)	131.7	8.8	6.7
Total Households (millions)	99.0	6.1	6.2
Total Vehicles in Households (millions)	176.1	7.9	4.5

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Public Transportation System Statistics (State FY 95-96)

Public Transportation Systems	87
Public Transportation Providers	124
Public Buses	7,436
Public Rail Cars	7,764
Miles of Subway/Light-Rail and Commuter Rail Tracks	2,333
Revenue Passengers	1,899,843,885
Bus	661,277,244
Subway/Light-Rail	1,104,111,997
Commuter Rail	117,115,832
Ferry	17,338,812
Revenue Vehicle Miles of Service	616,570,864
Bus	202,803,803
Subway/Light-Rail	325,028,571
Commuter Rail	88,738,490
Commercial Service Airports	20
General Aviation Public Use Airports	127
NYS Air Passenger Boardings (1995)	31,999,611*
Amtrak Empire Corridor Passengers (95)	1,078,000

*Please note that air passenger boardings in Figure 1 are 1992 boardings since that is the most recent year for which national statistics are available for ranking purposes.

Freight Movements on NYS Transportation Systems (1993)

	Value (millions)	Tons (thousands)*
All Modes (net domestic)	\$674,947	402,651
Trans-border NYS/Canada	\$59,990	10,400
Waterborne Freight	Not reported	86,560

* May not be mutually exclusive, double counting may exist

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2. POPULATION AND EMPLOYMENT

For the last 25 years, New York State's population has continued at a stable level of about 18 million (Fig. 2). Figure 3 shows age distribution of that population in 1990 by seven age groups - more than half are between 20 and 54 years old, more than a quarter younger than 20, and slightly more than one-in-five older than 55.

Although New York's population has stabilized, its distribution within the State has changed, especially since World War II (Fig. 4). Between 1950 and 1970, Long Island's population rose from 950,000 to more than 2.5 million. Over the past 50 years, New York City's population has remained between 7 and 8 million, while Hudson Valley and Upstate areas have steadily increased.

Population mobility is shown in Figure 5 – 38% of New Yorkers changed residence location between 1985 and 1990, although most remained within their 1985 counties of residence.

Figure 6 shows changes in occupational categories from 1980 to 1994. (Note that the data do not include those working at home or self-employed.) Figure 7 shows New York State non-farm employment by category compared to the nation.

Figure 2. Decennial Census state population: 1900-90.

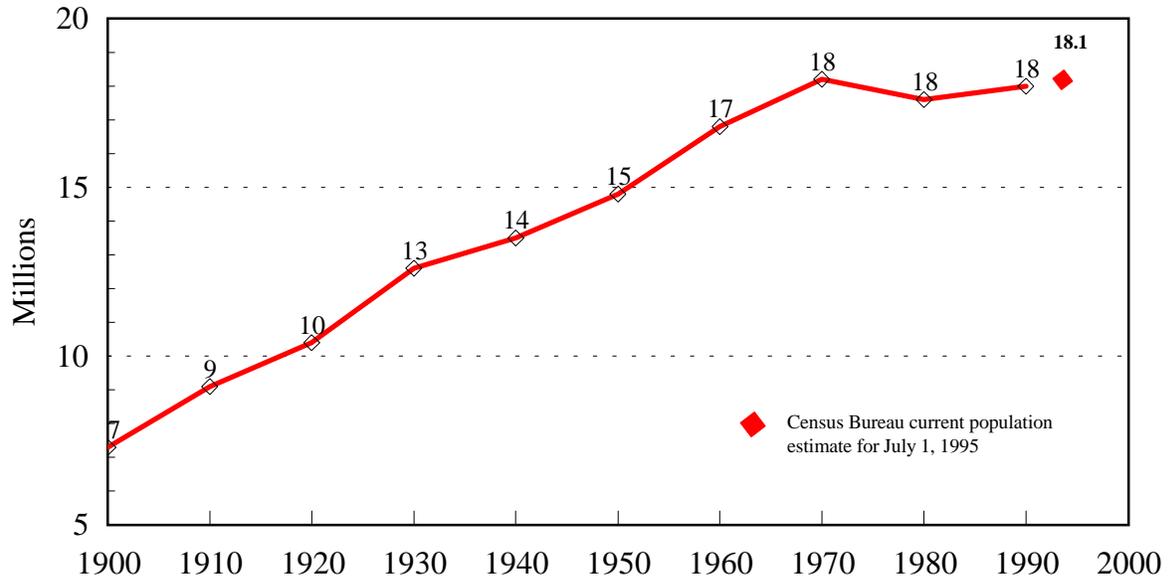


Figure 3. Age distribution of state and national populations: 1990.

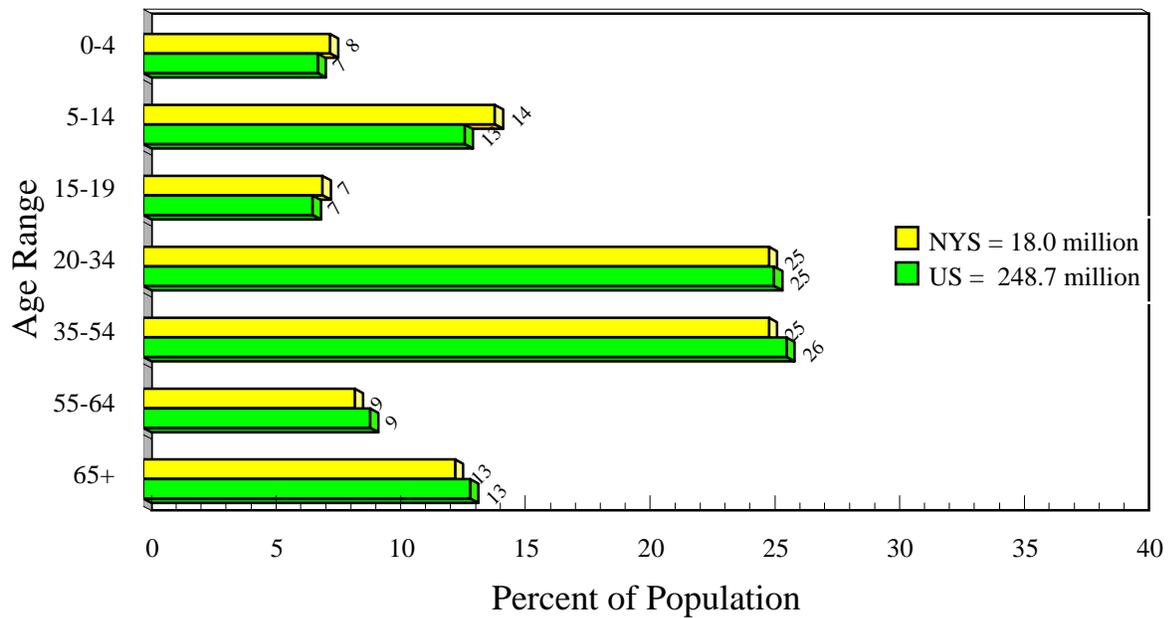
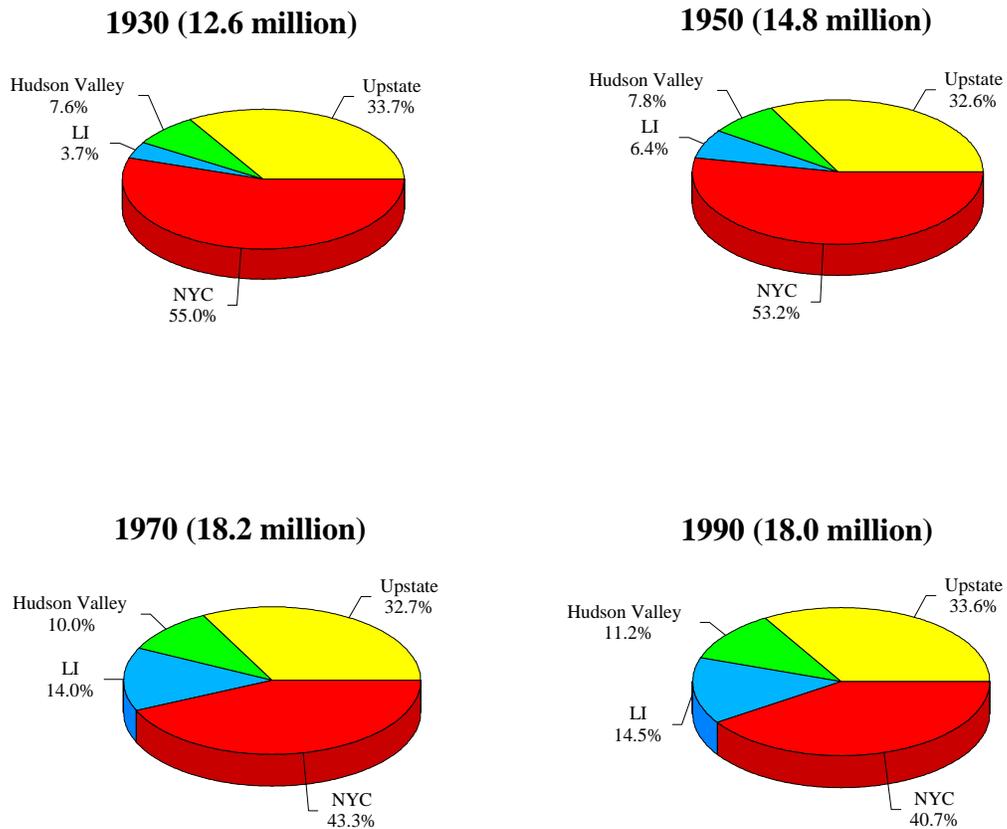


Figure 4. Population by geographic area.



The "Hudson Valley" includes Columbia, Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester Counties. "Upstate" includes remaining counties.

Figure 5. Population mobility (persons 5 years or older): 1985-90.

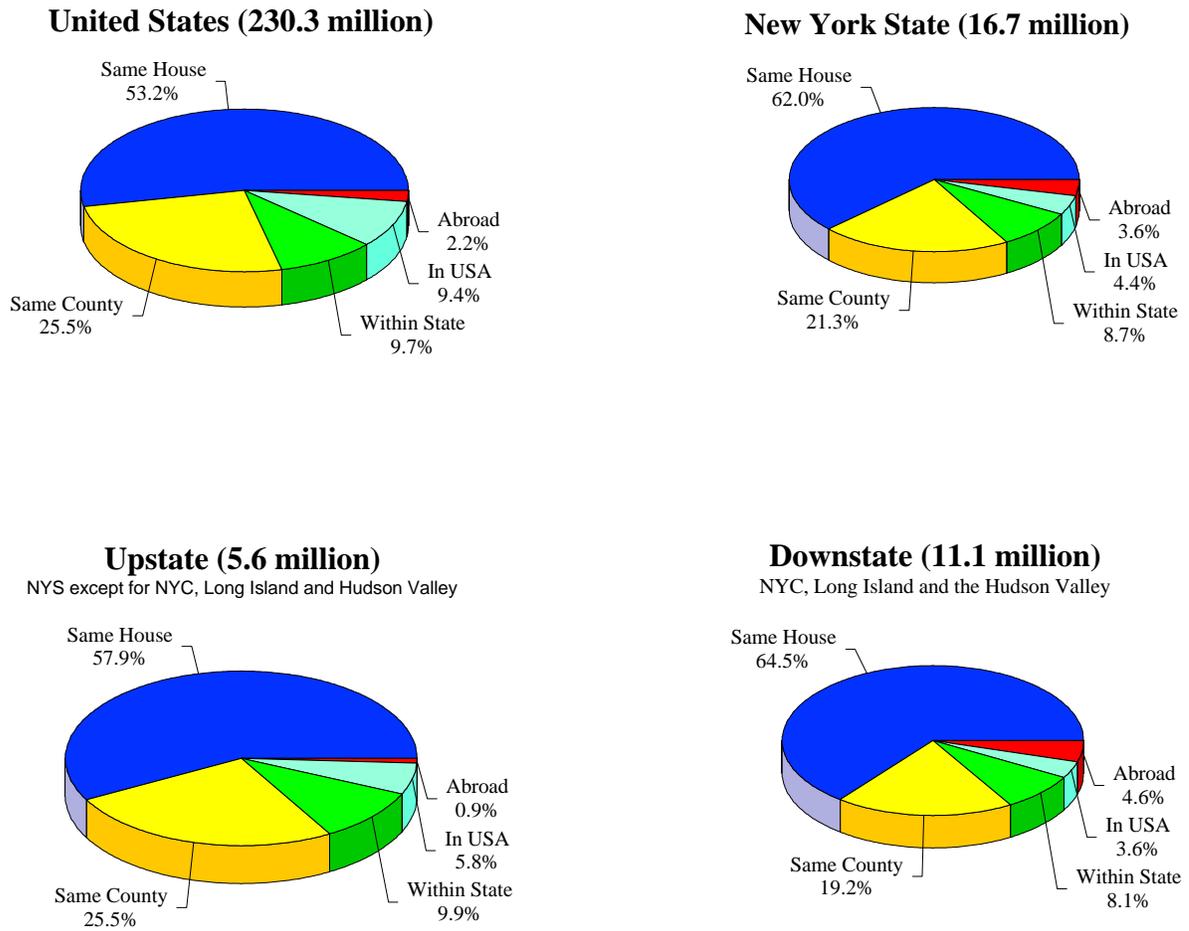


Figure 6. Non-farm employment change by occupational category: 1980-95.

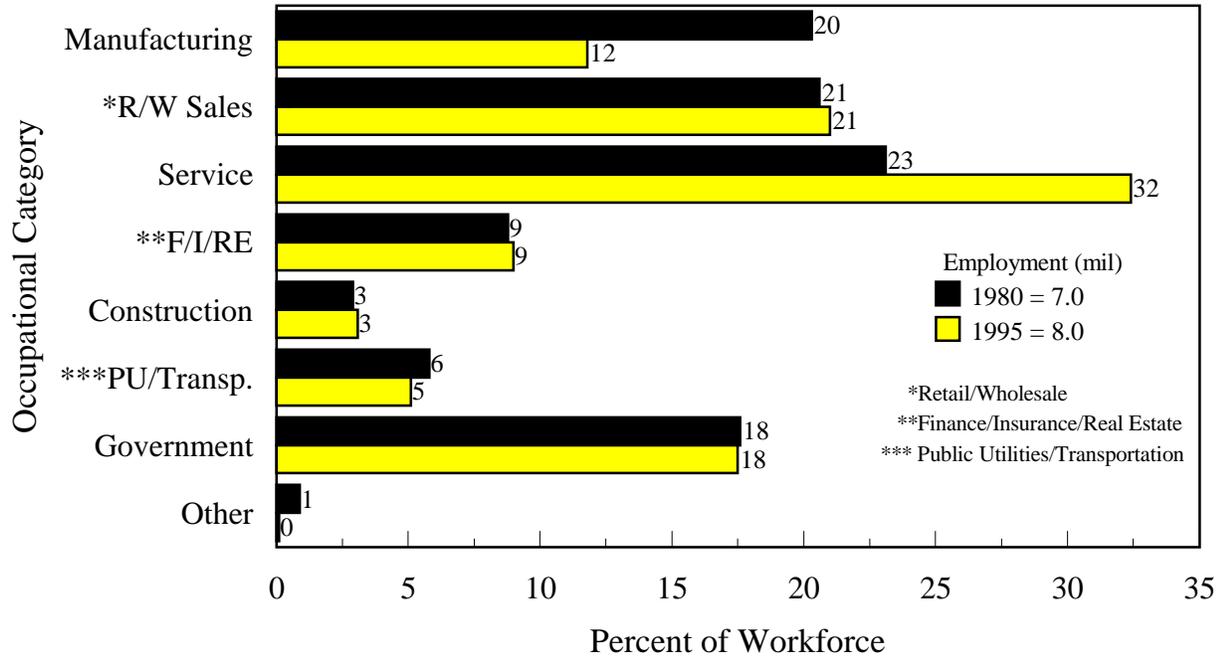
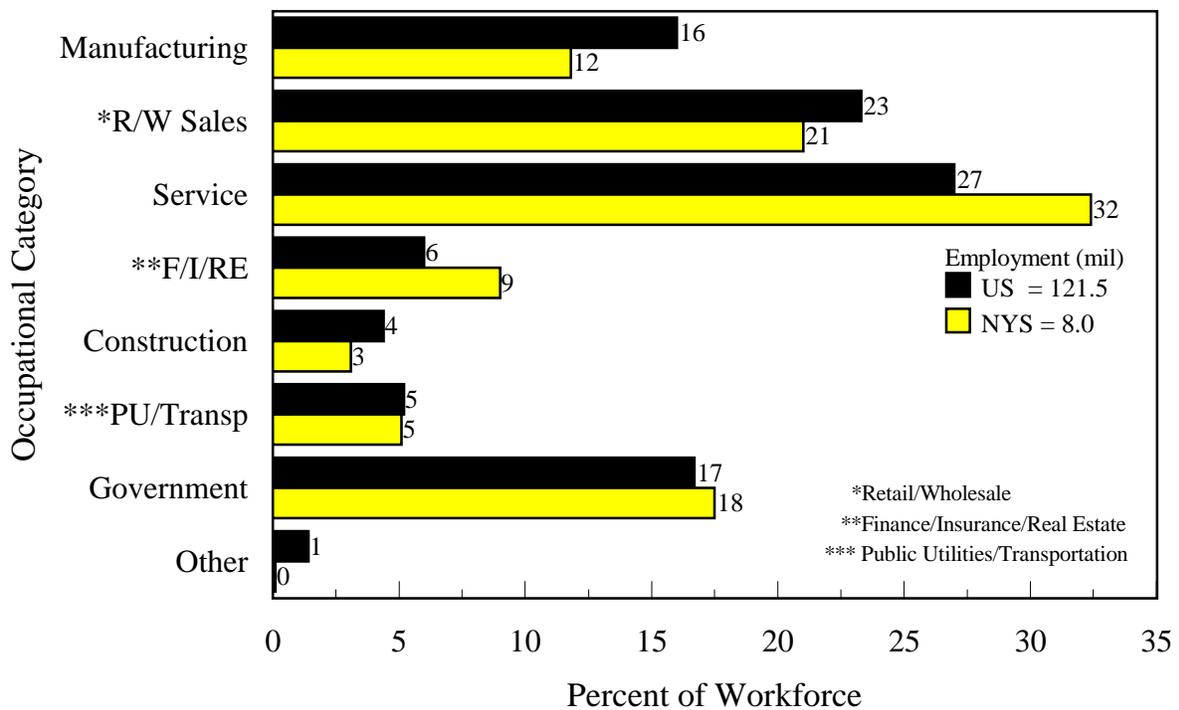


Figure 7. Non-farm employment in the state and nation: 1995.



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3. HIGHWAYS AND THEIR USERS

New York State is unique among the 50 states, not only in diversity of transportation facilities but also in measurements of highway usage. Population density and parking difficulty in New York City discourage vehicle ownership – one-fifth of all households in the country having no vehicles are in New York City. Further, based on the Federal Highway Administration's (FHWA) *1995 Highway Statistics* and New York State Department of Motor Vehicles reports, only 39.3% of New York City residents are licensed, compared to 67.2% in the nation. Figure 8 shows that New York State's personal transportation use and energy consumption are the most efficient among states in terms of licensed drivers per 1000 residents (578), registered vehicles per 1000 residents (510), annual fuel usage per licensed driver (544 gal), and per-capita vehicle-miles traveled (6346). The state's vehicles-per-household total (1.29) was best in the nation in 1995, compared to a national average of 1.98.

Persons having driver's licenses have gradually increased since 1971, and appear to have reached a plateau (Fig. 9). Vehicle registrations, which jumped by more than 40% during the 1970s and 1980s, may be reaching saturation, having risen by only 1% between 1990 and 1995. The category showing greatest increase has been number of vehicle-miles-traveled (VMTs) on the state's highways. VMT has risen every year since 1980, by more than 50 billion miles since 1971 to 115.17 billion in 1995. As reported in FHWA *1995 Highway Statistics*, New York State ranks fourth in VMT nationally after California, Texas, and Florida. Fuel use (Fig. 9) has declined since 1975 from 618 gal per licensed driver to 544 in 1995 reflecting greater fuel efficiency of today's automobiles. Interestingly, fuel use has not risen proportionally with VMT, further reflecting improved fuel efficiency since the mid-1970s (Fig. 9). It is interesting to observe that of the variables plotted, travel in New York State most closely tracks economic performance as measured by GDP.

Total centerline mileage of public roads in New York State as reported in the *1995 Highway Mileage Report for New York State* is 112,061. While only 14.7% of this mileage is under State jurisdiction (including State parkways and authorities), these facilities carry 52.7% of the State's total VMT. Urban roadways carried nearly three-quarters of VMT in 1995, but the State's rural VMT (31 billion miles) is tenth highest in the nation. Rural includes any town, village, or hamlet of less than 5,000 population. Figure 10 shows the VMT breakdown by jurisdiction, federal-aid category and by urban-rural ratio. New York State has 18,680 lane-miles (5085 centerline miles) of National Highway System (NHS) mileage (Fig. 11). The NHS in New York State carries 48 billion VMT. The state's interstate-system centerline mileage (1496) ranks sixth among states.

One of the more spectacular achievements in recent years has been the decline in fatalities per 100 million VMTs on all public roads (Fig 12). From 5.22 deaths per 100 million VMT in 1970, the rate had dropped to 1.45 in 1995 – a decline of 72.2%! Many factors contributed to this improvement, including safer vehicles, better-engineered roadways, mandatory use of seat belts, and tougher drunken-driving sanctions. New York's fatality rate (1.45 per 100 million VMT) in 1995 ranked 16th best among the states and better than the national rate of 1.73 per 100 million VMT.

Figure 8. Licenses, vehicle registrations, gasoline usage, and per-capita VMT in the most populous states: 1995.

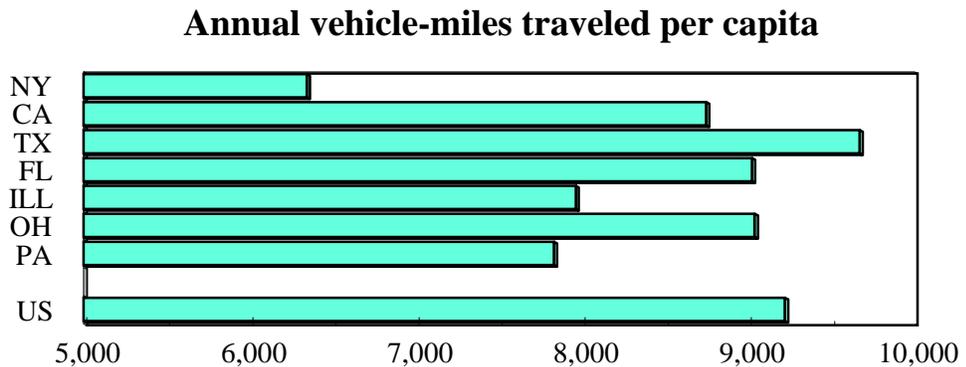
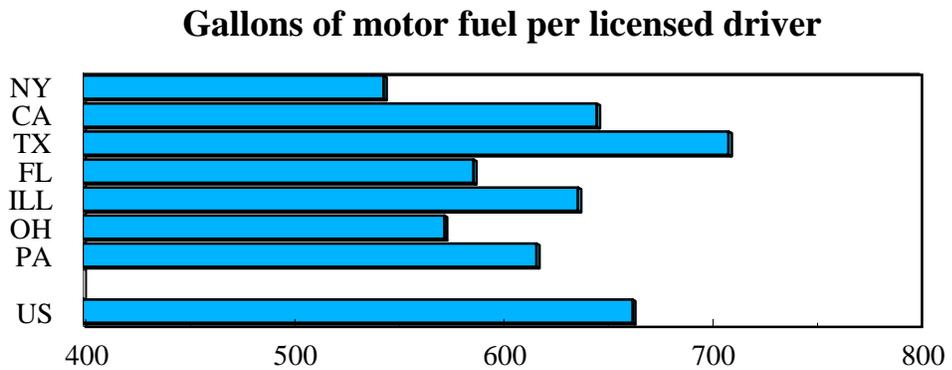
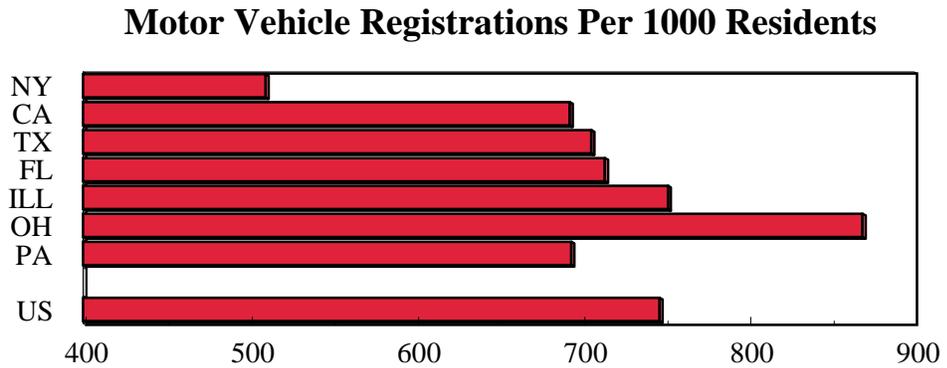
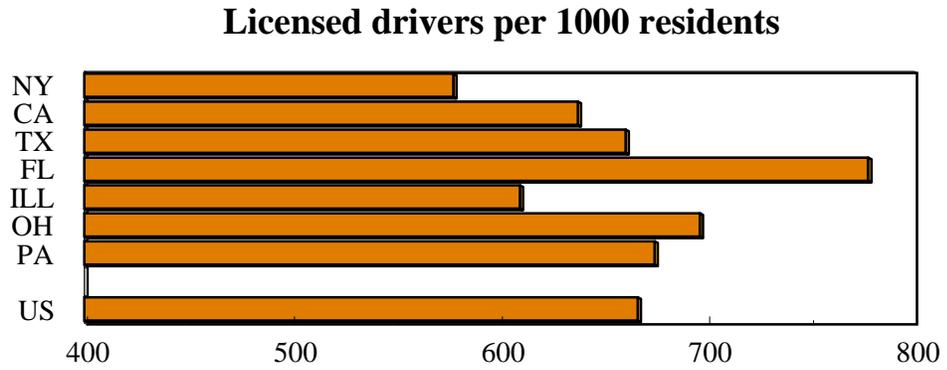
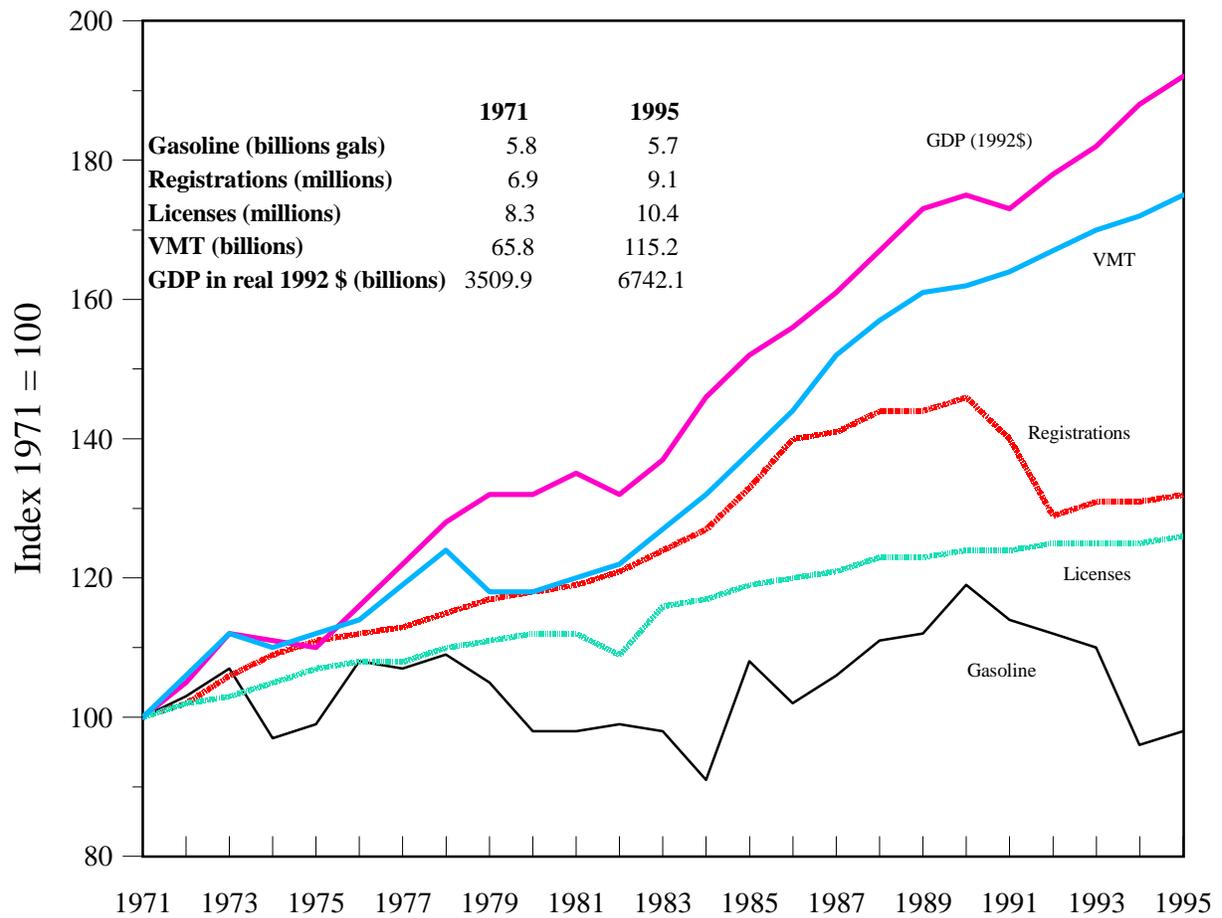


Figure 9. Vehicle registrations, gasoline sales, licenses, annual VMT, and Gross Domestic Product: 1971-95.*

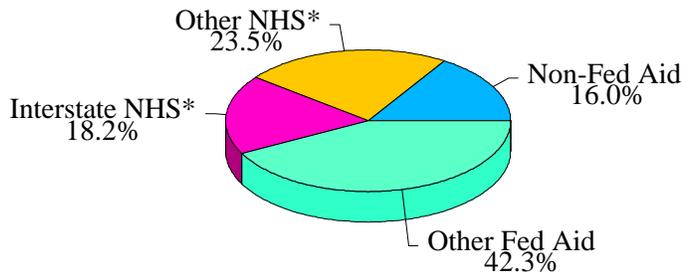


* To facilitate display in Figure 9, all data series have been indexed to show 1971 values = 100. GDP for all years is reported in real 1992 dollars.

Figure 10. State VMT by jurisdiction, federal-aid category and urban-rural ratio: 1995.

VMT by federal-aid category

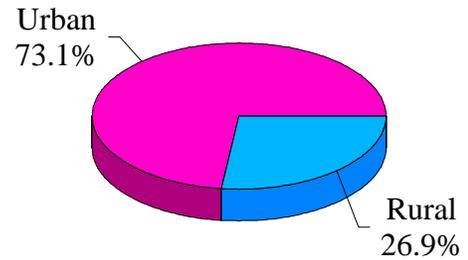
Total Vehicle - Miles = 115.2 billion



*NHS is National Highway System

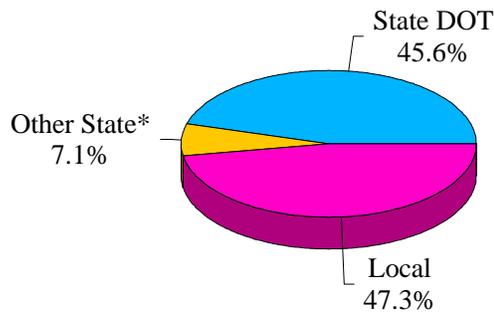
VMT urban-rural

Total Vehicle - Miles = 115.2 billion



VMT by Jurisdiction

Total Vehicle - Miles = 115.2 billion

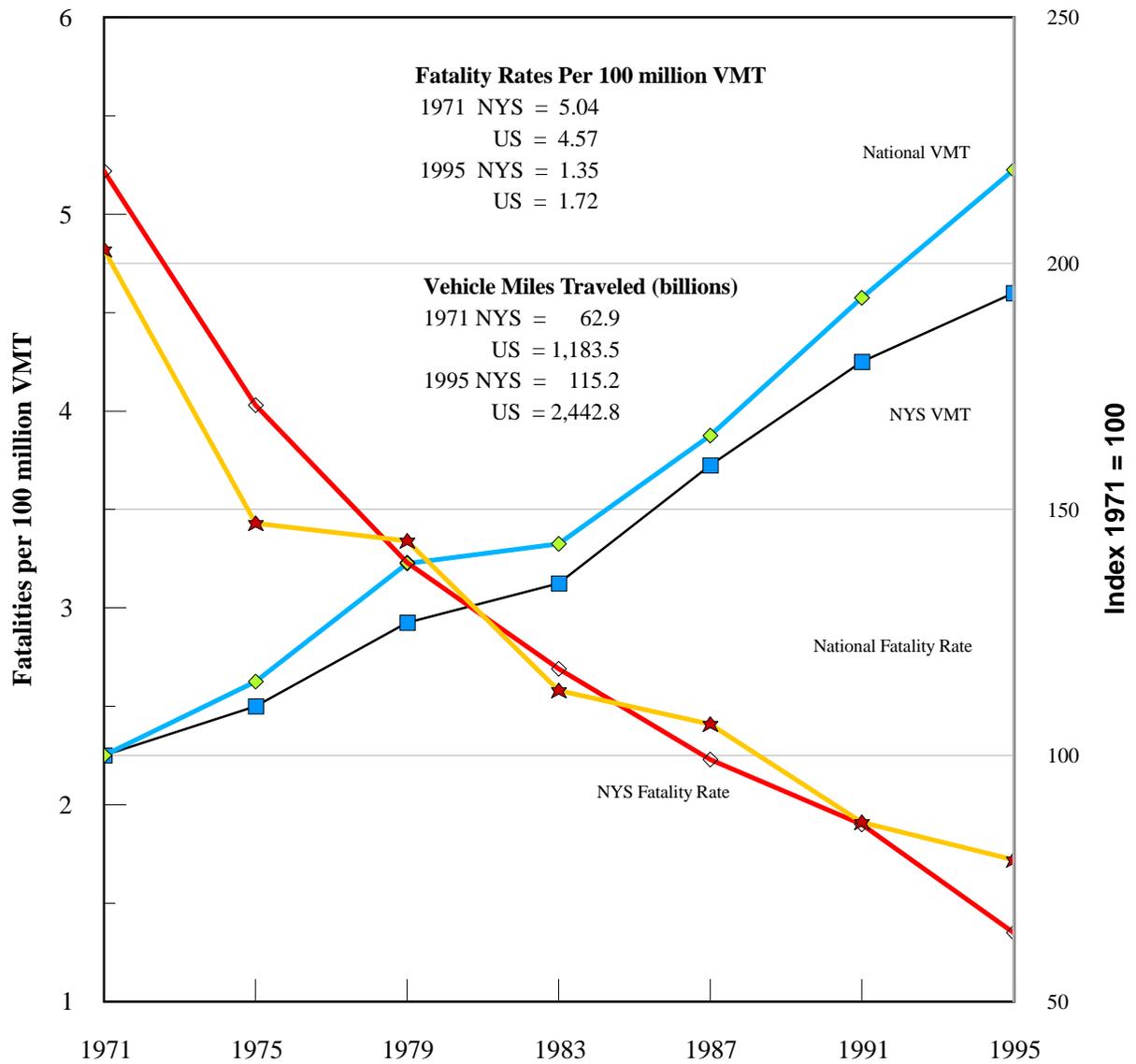


*Other includes Parkways, Authorities, etc.

Figure 11. National Highway System in New York State: 1995.
Basemap Copyright NYSDOT 1998



Figure 12. State and national fatalities per 100 million VMT: 1971-1995.



4. JOURNEY-TO-WORK AND PERSONAL TRAVEL

According to the 1990 Census, for their journey-to-work (JTW) each weekday more than 8 million residents use the state's highways and bridges/tunnels, and its buses, subways, rails, and ferries. More than 3 million work in New York City, and daily more than 2 million of them pour into the Borough of Manhattan.

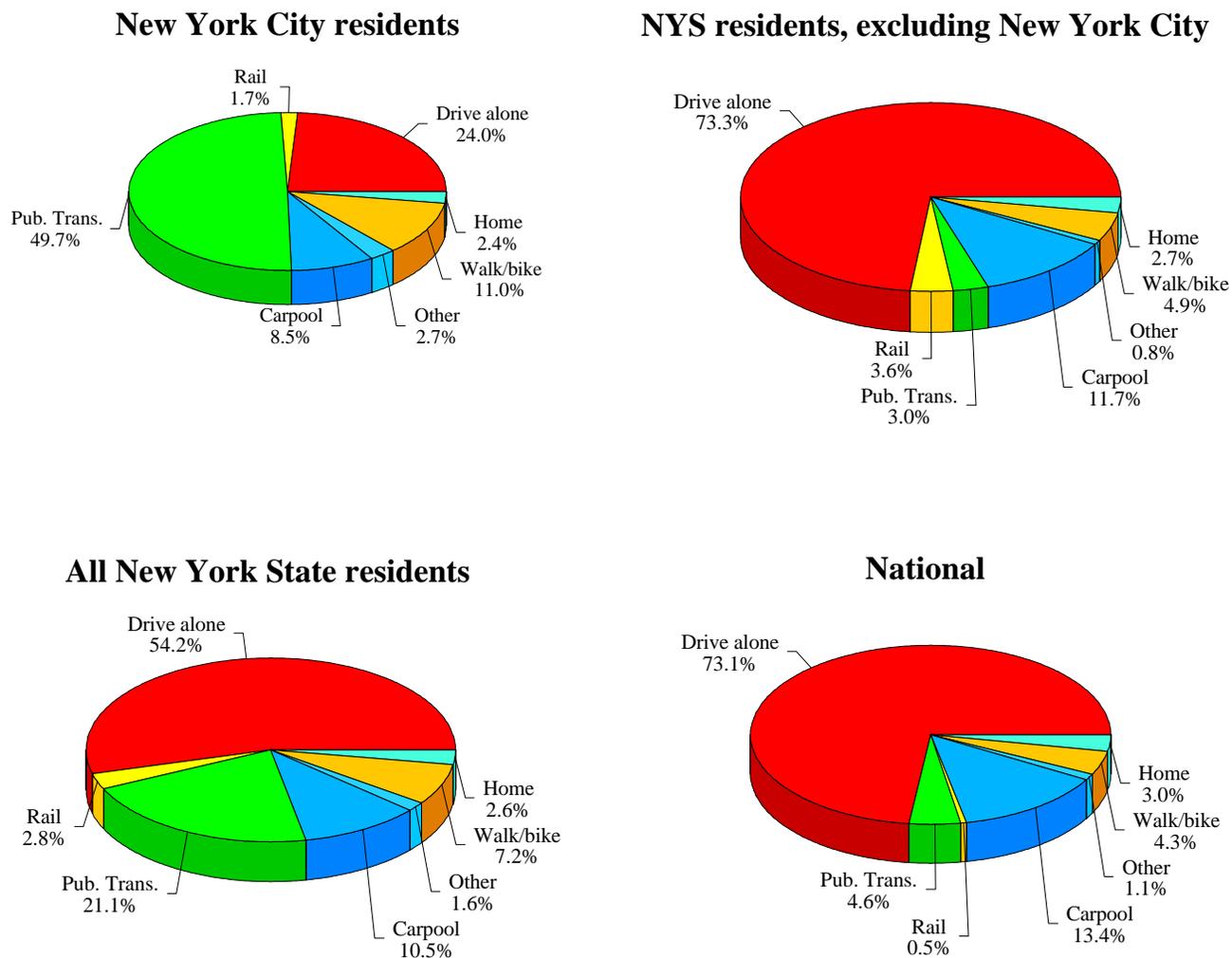
Figure 13 shows mode choices for Census JTW in the United States, New York State, New York City, and the state excluding New York City. The graph shows how modes used by City residents for their JTW skew data for the entire state; in 1990, less than a quarter (24.0%) drove alone for their JTW, but more than half (51.4%) used a bus, rail, or subway. Effects of City residents' choices for JTW are apparent in state percentages of "drive-alone" (54.2%) and public transportation (21.1%) and rail (2.8%), compared to corresponding national percentages of 73.1% and 4.6%. If the City is excluded, the rest of New York State resembles national mode choices for JTW - "drive-alone" for 73.3% and public transportation and rail for 3.0% and 3.6% respectively.

Figure 14 shows one of the greatest problems facing planners and environmentalists today: more than half the resident workers in New York State drove alone to work in 1990 -- 54.2% compared to 46.1% in 1980, an increase of over 1.13 million or 34% (Figs. 13 and 14). Despite the rise in single-occupant vehicles for work trips, New York State continues to lead the nation in percentage of persons using rail and public transportation to get to work (23.9%, compared to the national 5.1%), as well as those who walk/bike to work (7.2% and 4.3%). (It should be noted that "Other" in Figure 14 increased from 1980 to 1990, solely because the numbers of residents working at home increased by 71,000 in that decade.)

Times required for JTW are shown in Figure 15. The upstate-downstate contrast is dramatic -- three-quarters of those living upstate arrive at work within 30 minutes, but downstate less than half do (44.5%). Of those living in New York City, slightly more than one-third (35.7%) make the journey in 30 minutes, but 22.2% need an hour or more. Statewide, average JTW takes nearly 29 minutes, but upstate the average is 18 minutes, in the Hudson Valley 28 minutes, on Long Island 30 minutes, and in New York City 36 minutes ["Downstate" here includes the five boroughs comprising New York City, the two Long Island counties (Nassau and Suffolk), and the seven Hudson Valley counties (Columbia, Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester).]

Figures 16 and 17 show personal travel by all trip-destination purposes and modes, as observed in the 1995 National Personal Transportation Survey (NPTS). Previous discussion on this page has focused on resident JTW work or work-related person-trips as documented in the 1990 Census. According to the 1995 NPTS, New York State residents took more than 23.8 billion person-trips. Of these person-trips, only 12.8% had workplace destinations. Slightly more than a third (34.7%) reflected return to "home" from some other site or activity (shopping, church, work, etc.) "Personal business" (such as giving someone a ride or going to the dentist) represented about one in six trips, only slightly more than "social and recreational." "Shopping" was fourth at about 14%, slightly more than work and work-related trips. Two-thirds of all New York State person-trips were in personal vehicles. The category bike/walk is predominantly walking trips and involved 15.4% of all person-trips by mode, and mass transit (subway, train, bus) was the mode choice of 9.4% of New York State person trips.

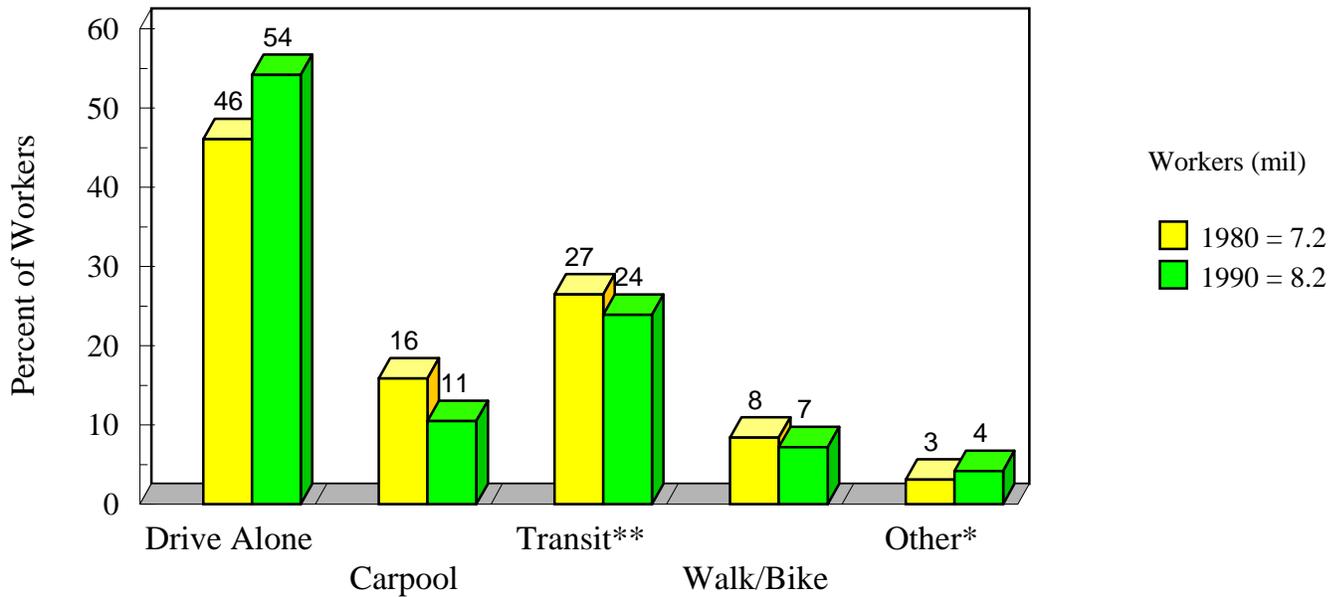
Figure 13. Census journey-to-work: 1990.



Number of workers who journey-to-work from places greater than 2,500 population

US	115.3 million
NYS	8.2 million
New York City	3.2 million
NYS w/o New York City	5.0 million

Figure 14. Modes for Census journey-to-work: 1980 and 1990.



*Other includes motorcycle, airplane, work at home, etc.
 **Includes Railroad

Figure 15. Census travel time to work (regional/state/national): 1990.

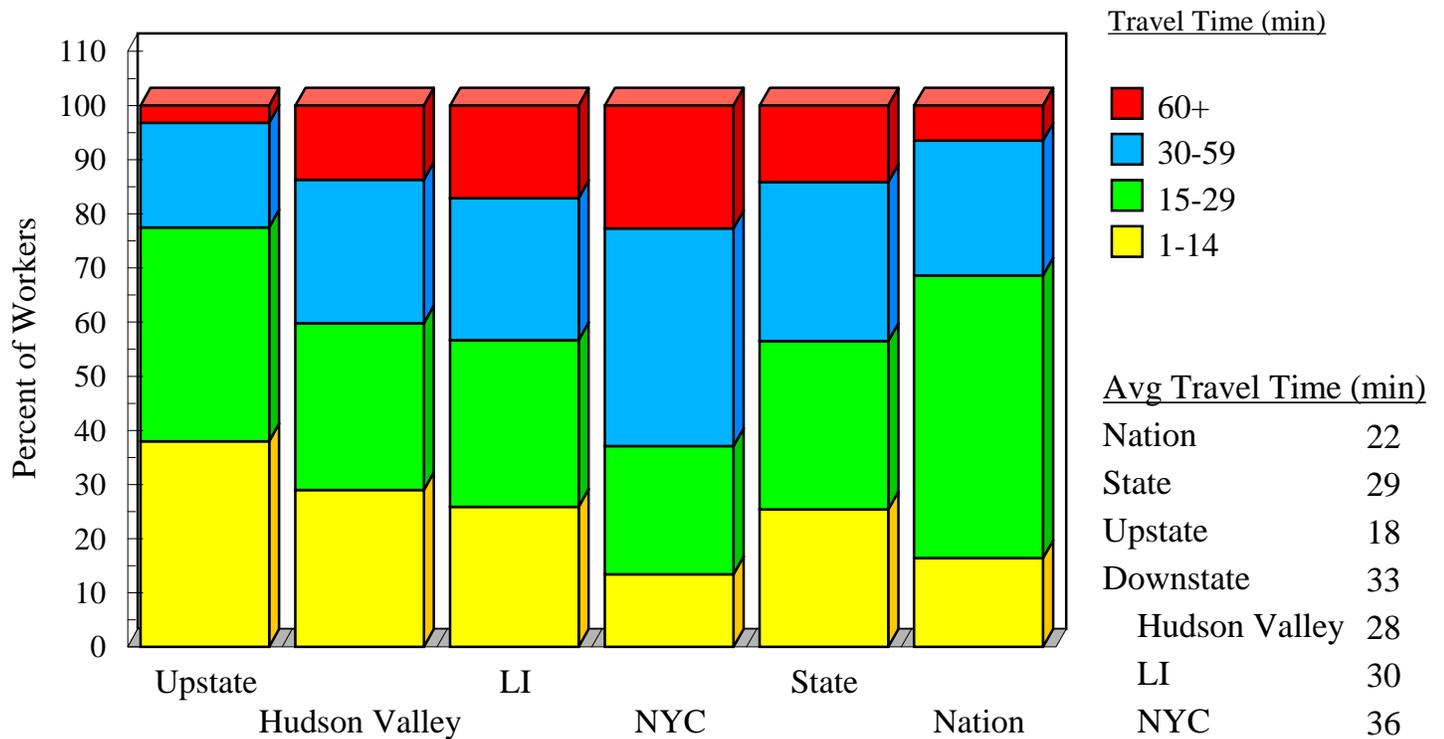


Figure 16. Person-trips by purpose: 1995.

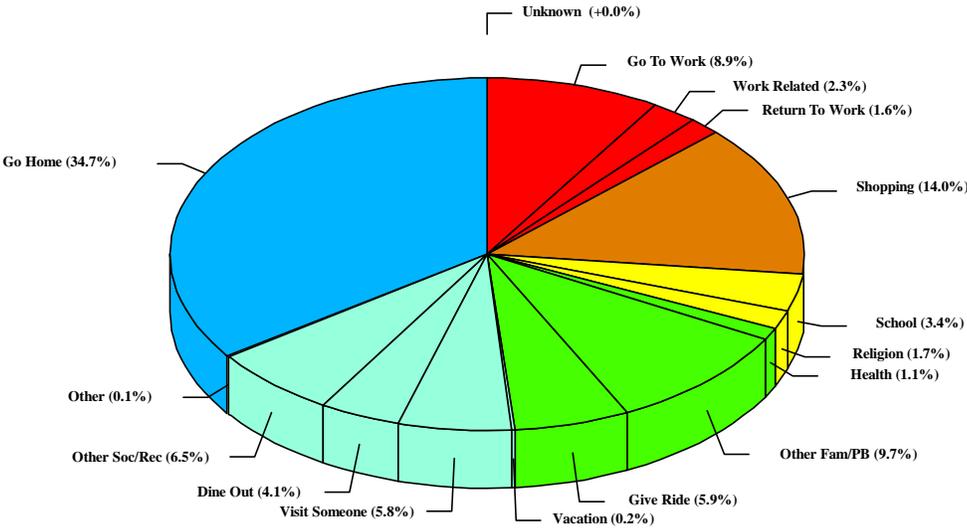
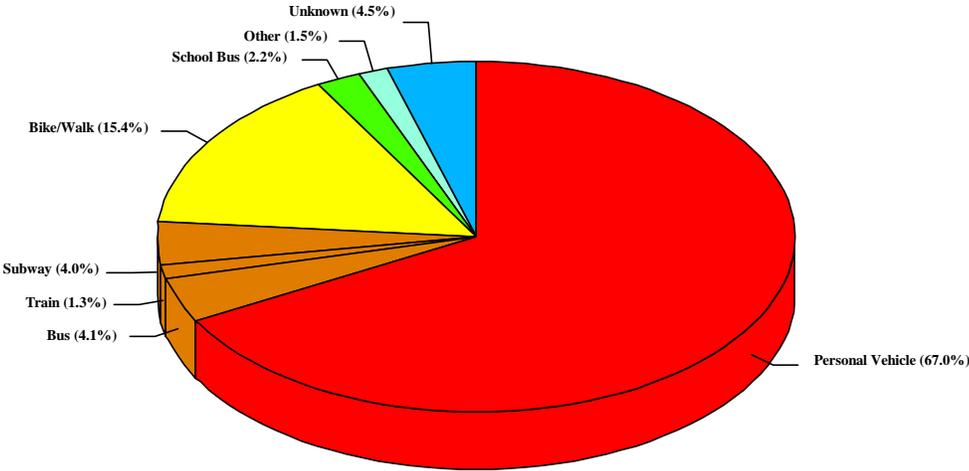


Figure 17. Person-trips by mode: 1995.



New York State total person trips = 23,810,001,000

5. PUBLIC TRANSPORTATION, AIR AND RAIL TRAVEL

Public transportation -- bus, subway, commuter rail, ferry -- continues to have a major role in moving people in New York State. Figure 18 map shows the service areas of New York's public transportation systems. Metropolitan Transportation Authority (MTA) subways and buses carry 87.7% of total passengers in the state (Fig. 19). MTA commuter lines -- Metro-North and the Long Island Railroad (LIRR) -- account for nearly 120 million annual passengers. Downstate public transportation ridership shown in Figure 19 (including MTA shown separately, New York City private buses, and suburban bus systems) accounts for 96.3% of the statewide total. Upstate ridership is 3.7% of the statewide total. New York State's public transportation operators provided 616.6 million revenue-miles of service on all modes, of which 502.3 million or 81.4% was provided by MTA. Figure 20 shows a ten year trend of public transportation ridership.

New York State's public transportation system is the most utilized in the nation. The graphs in Section 4, Journey-to-work and personal travel, in particular Figure 13, give testimony to the importance of public transportation in moving people to their occupations, thus reducing highway congestion and air pollution in metropolitan areas. Of particular note is that more than 50% of resident workers in New York City use public transportation and rail. Based on the 1990 census, use of public transportation for resident journey-to-work in New York State is 33.6% of the national total. No greater example of the indispensable nature of New York's public transportation system is in how people arrive at work in Manhattan. On a typical workday, based upon workplace location data from the Census Transportation Planning Package (CTPP), more than 70% of all workers arrive at their jobs in Manhattan using public transportation. These workers are primarily New York State residents, but also include workers from New Jersey and Connecticut. Clearly, Manhattan's economic vitality is directly linked to the existence of the State's varied systems of public transportation.

Amtrak is an important presence in New York State. In 1995, 1.078 million people traveled on its trains in the Empire Corridor, while 8,623 million, 18.2% of Amtrak's national passengers, traveled to or through NYS, which ranks number 1 in the nation for passengers carried (Figure 1). The Albany-NYC portion of the Empire Corridor is the most heavily utilized. Figure 21 shows the recent trend in Amtrak ridership on the Empire Corridor.

New York State has 20 commercial airports. The number of boardings rebounded in 1995 to about 32 million, from a low of 29.5 million in 1991 (Fig. 22). Because many air trips are business-related, boardings are quite sensitive to fluctuations in the economy. Figure 22 also shows boardings at New York City's John F. Kennedy and LaGuardia Airports (New York State's largest), compared to all other commercial airports in New York State.

Figure 18. Public transit system service areas in New York State

Basemap Copyright NYSDOT 1998

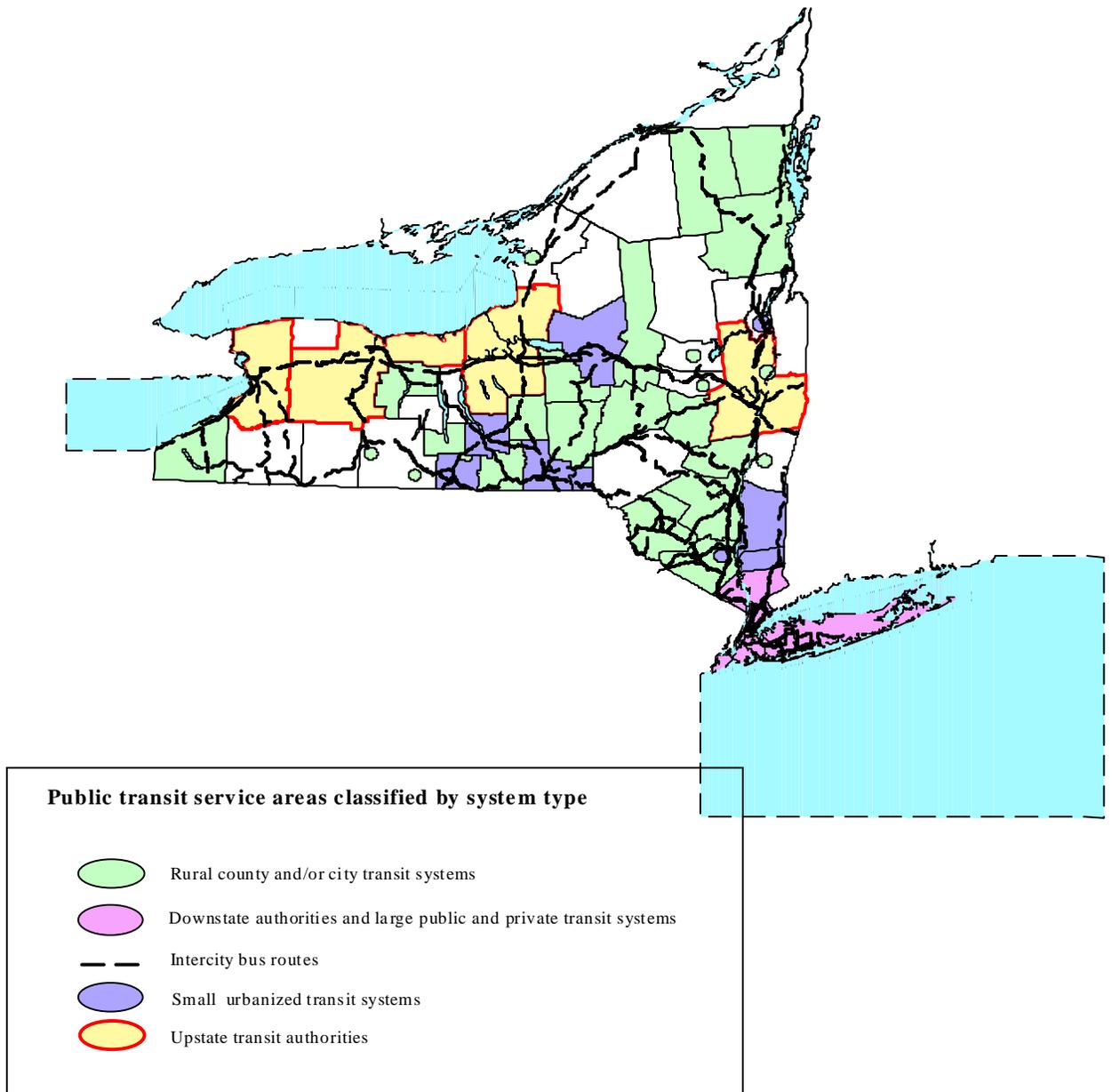
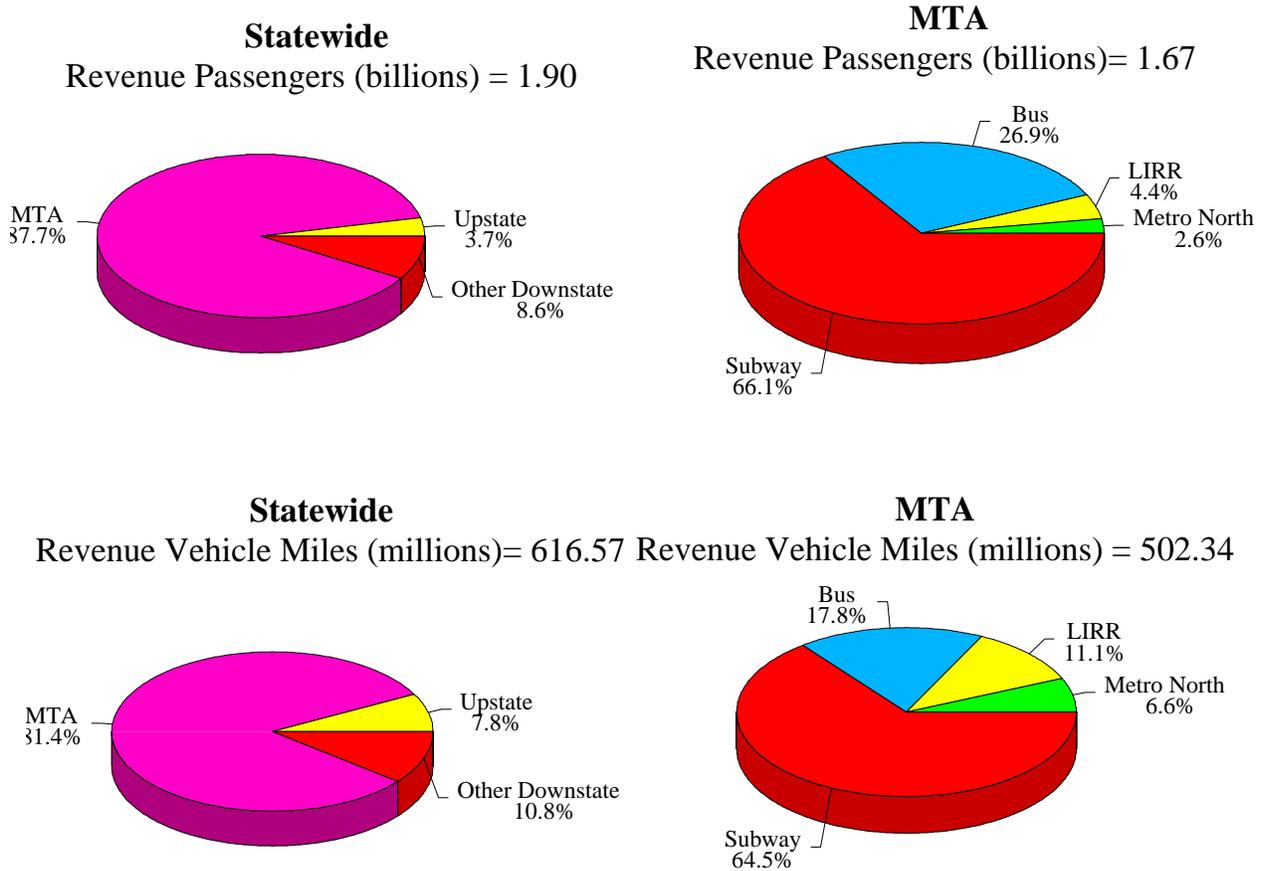


Figure 19. Public transit revenue passengers and miles: SFY 1995-96.*



* 4/1/95 - 3/31/96

Figure 20. NYS public transportation ridership trend.

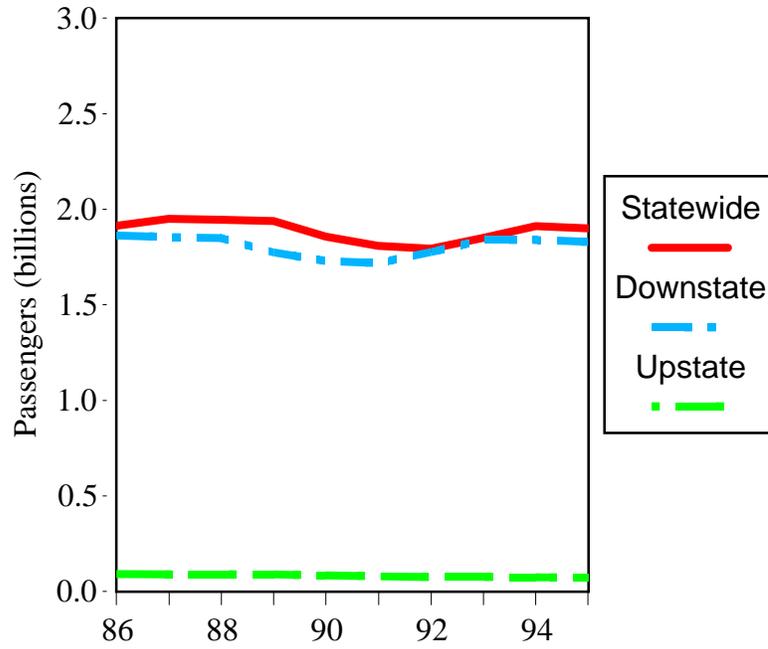


Figure 21. NYS Empire Corridor Amtrak passengers.

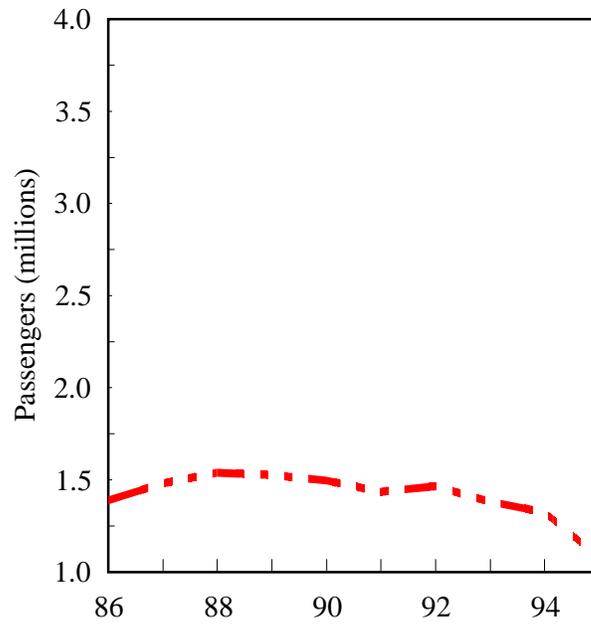
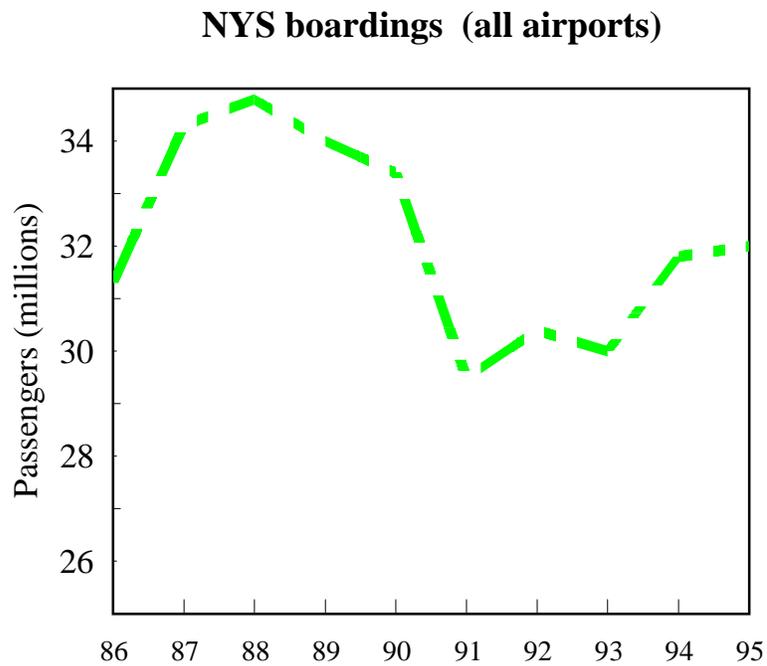
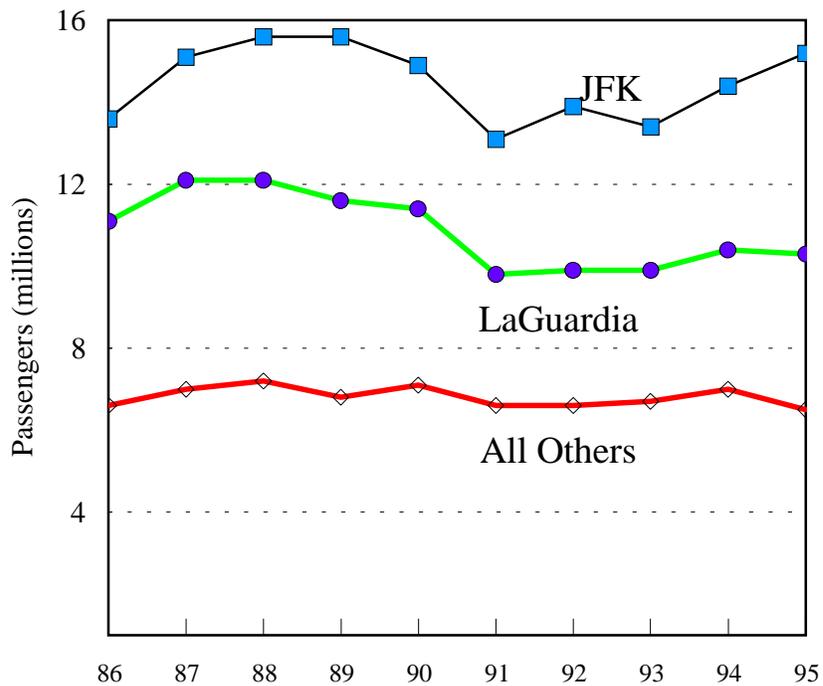


Figure 22. Airport Boardings: 1986-1995.



Boardings at New York City and all other NYS airports



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6. FREIGHT MOVEMENTS

No discussion of the transportation network in New York State is complete without an overview of the importance in moving freight from origin to destination. The nickname, "The Empire State," is derived from the State's preeminent economic position in the nation.

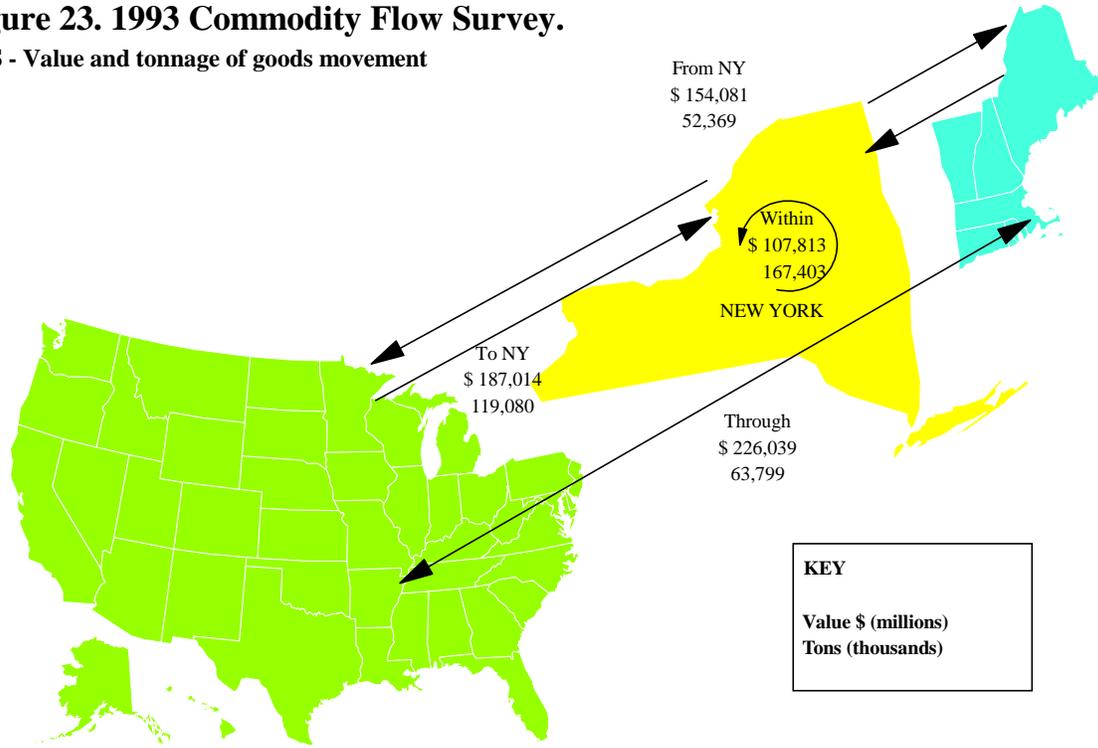
Three independent sources of data collected, analyzed, and distributed by the Bureau of Transportation Statistics (BTS) at the United States Department of Transportation (USDOT) were fused by NYSDOT to provide a reasonably comprehensive portrait of goods' movement in the State: (1) The 1993 Commodity Flow Survey (CFS), which contains the value and tonnage of most products sold within the United States, but does not include foreign trade, crude petroleum and natural gas shipments, and/or many local transactions; (2) Trans-Border Surface Freight Transportation Data (TBSFTD), which has information on the value and tonnage of commodities of freight passing between the United States and Canada; and, (3) The US Waterway Data (USWD), which includes statistics on tonnage only (not value) for interstate, intrastate and US foreign trade conducted by waterborne vessels. A more complete discussion focused on the data fusion and the value and limitations of these sources can be found in "*An Overview of Commodity Flow in New York State*" issued by NYSDOT's Planning and Strategy Group (September 1997). Figure 23 indicates that \$674.9 billion in goods were transported to-from-within-through New York State in 1993, according to CFS. Moreover, the value and tonnage of goods transported through New York State amounts to one-third of the total value and one-sixth of the total tonnage. Most significant is the estimate that trucks carried 76% of the value, 89% of the tonnage, and 72% of the ton-mileage of commodities in or through New York State (Figure 24).

New York State plays a key role in the reciprocal trade between the United States and Canada. According to TBSFTD, for the year beginning April 1, 1994--the first full year after the passage of the North American Free Trade Agreement (NAFTA)--\$37.1 billion in commodities entered the U.S. from Canada through New York State's border crossings. Most of the value entered the State in Western New York at Buffalo, but "the North Country" ports of entry, such as Rouses Point and Alexandria Bay, processed more than \$10 billion. Imports from Canada entering through New York State amount to \$37.1 billion or more than one-quarter (28.2%) of all U.S. imports from Canada. With respect to U.S. exports to Canada, \$32.5 billion in commodities were transported across the State's international borders, representing 25.4% of U.S. exports to Canada (Figure 25). It must be mentioned that Buffalo ranks only behind Detroit in the value of goods carried between the U.S. and Canada.

As exhibited in Figure 26, trucks again transported the great majority of value between the two countries. (There is no data on tonnage). Trucks hauled 72.7% of all import value and almost 90% (89.7%) of the value of US exports from New York State. It should be noted, however, that the share of trade value borne by rail is considerably greater in TBSFTD than the corresponding figures in CFS. TBSFTD estimates that rail carried nearly one-quarter of the value of Canada's exports and 10.0% of the imports through New York State's ports-of-entry.

The United States Waterway Data (USWD) indicate that New York State port facilities handled 86,559,854 tons of goods (imports and exports) in 1993. Figure 27 shows the tonnage by origin and destination. The State imported nearly twice the amount of tonnage that it exported. The greatest difference is in the "Foreign" trade component which could be attributed to foreign petroleum imports. It should be noted that waterborne trade within the State is significant at 15,610,458 tons.

Figure 23. 1993 Commodity Flow Survey.
NYS - Value and tonnage of goods movement



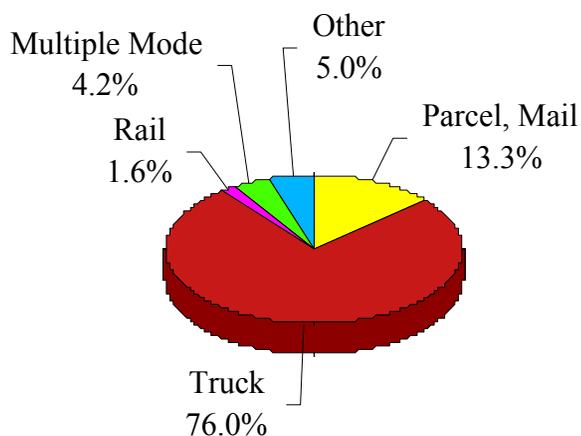
NYS commodity flow

Shipment direction	Value \$ (000,000)		Tons (000)		All modes
	All modes		By Truck		
Goods From NYS	\$ 154,081	(23%)	(75%)	52,369	(13%)
Goods Within NY	\$ 107,813	(16%)	(79%)	167,403	(42%)
Total Originating In NYS	\$ 261,894	(39%)	(76%)	219,772	(55%)
Goods To NYS	\$ 187,014	(28%)	(61%)	119,080	(30%)
Goods Through NYS	\$ 226,039	(33%)	(88%)	63,799	(16%)
Net NYS	\$ 674,947	(100%)	(76%)	402,651	(100%)

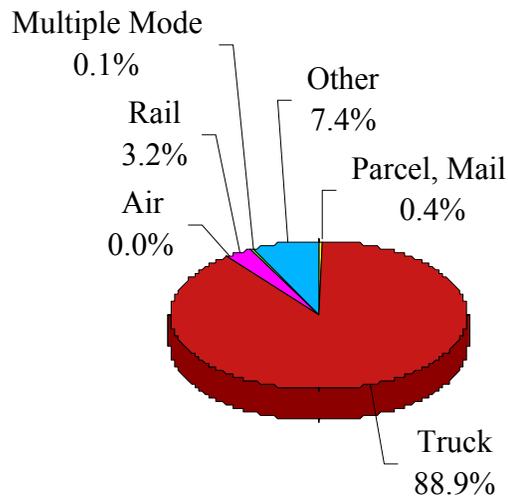
Figure 24. Freight shipments by mode.

From NYS to all other states

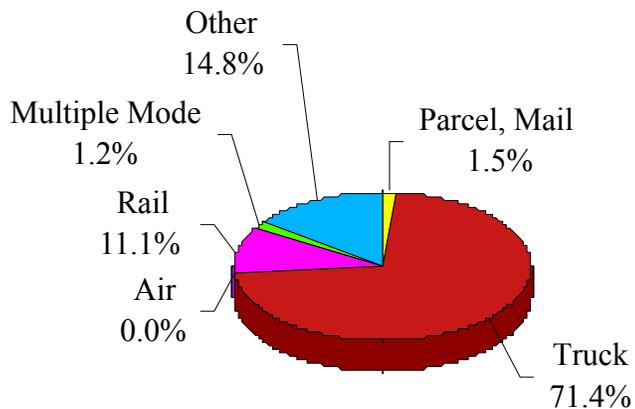
Value \$ (000,000)



Tons (000)



Ton-miles (000,000)



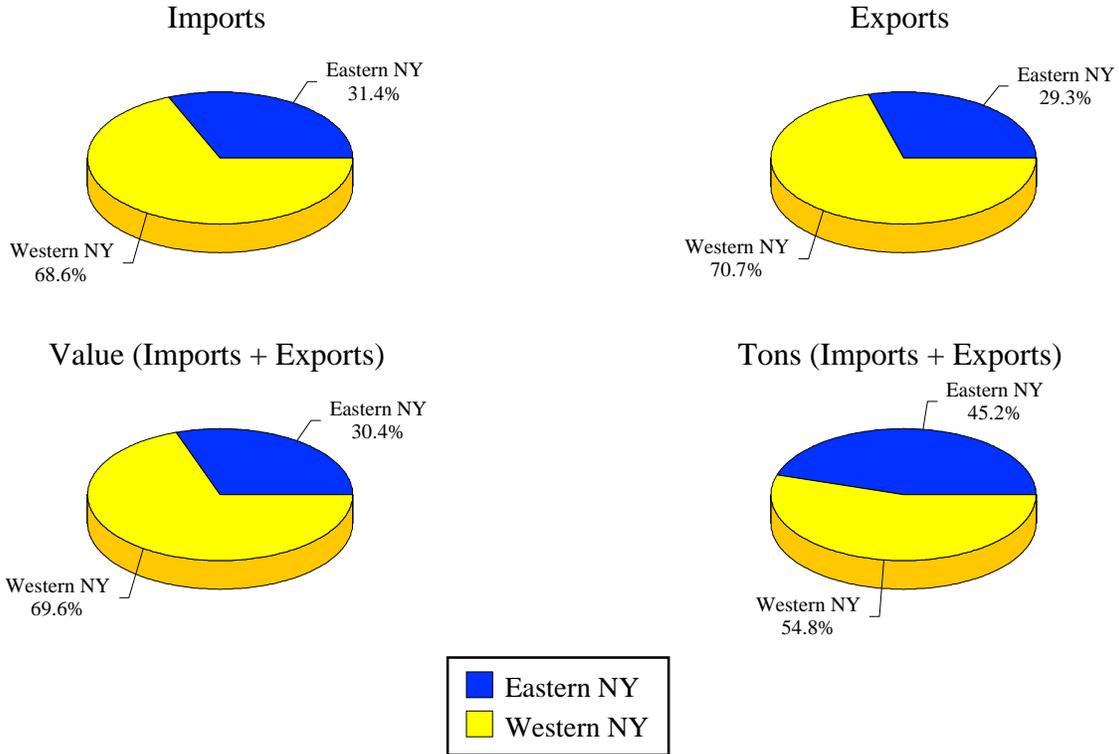
All modes*

Value \$(000,000)	\$ 261,894
Tons (000)	219,772
Ton-miles (000,000)	36,148

*Multi-mode includes rail and air freight movements which have a truck component at one or more ends.

Figure 25. Trade with Canada.

NYS border trade



NYS share of Canada - US trade.

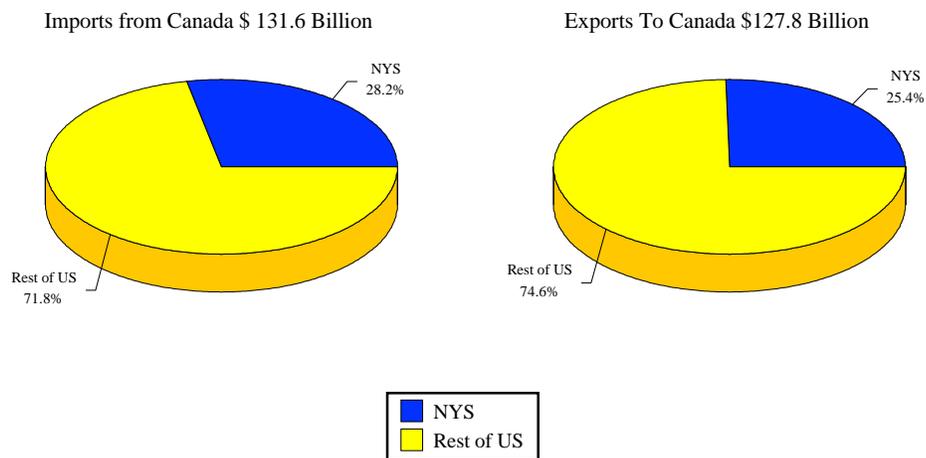
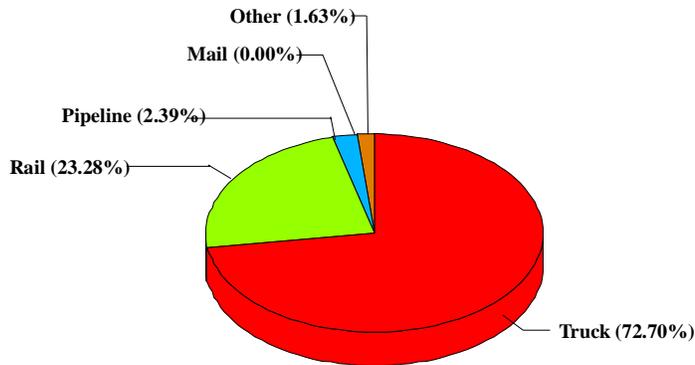


Figure 26. NYS- Canada trade, imports and exports by mode.

NY-Imports (\$37,090.7 Bil)



NY-Exports (\$32,446.5 Bil)

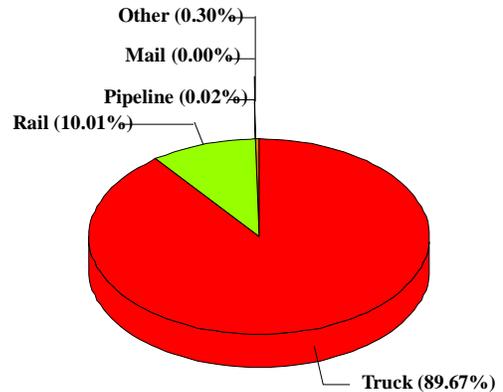
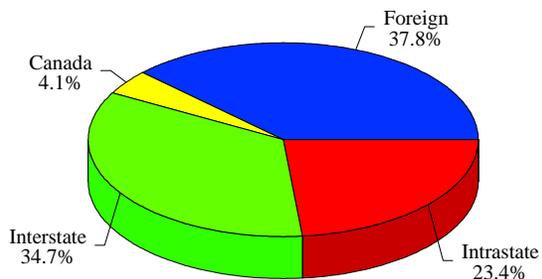


Figure 27. Waterborne freight movements.

Imports to NYS (tons)

Total imports 66,732,170 tons
includes 15,610,458 tons intrastate



Exports from NYS (tons)

Total exports 35,438,142 tons
includes 15,610,458 tons intrastate

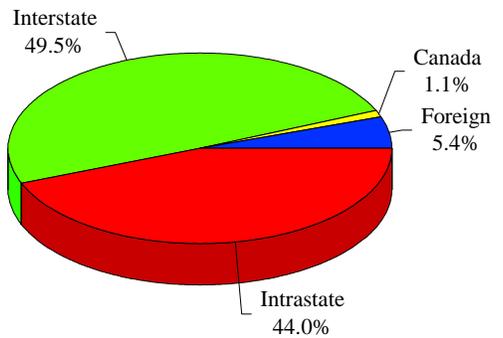


FIGURE DATA SOURCES

- FIGURE 1 New York State's transportation rankings.
Data Source: NYSDOT Planning and Strategy Group
- FIGURE 2 Decennial Census state population: 1900 - 96.
Data Source: World Almanac 1995, page 377 and Annual Population Estimates for New York State Governmental Units, Empire State Development Corporation, November, 1997
Source: NYSDOT Planning and Strategy Group
- FIGURE 3 Age distribution of state and national populations: 1990.
Data Source: US Department of Commerce, Bureau of Census and 1990 Summary Tape File #3
Source: NYSDOT Planning and Strategy Group
- FIGURE 4 Population by geographic area.
Data Source: US Department of Commerce, Bureau of Census
Source: NYSDOT Planning and Strategy Group
- FIGURE 5 Population mobility (persons 5 years or older): 1985 - 90.
Data Source: 1990 Census Summary Tape File #3
Source: NYSDOT Planning and Strategy Group
- FIGURE 6 Non-farm employment change by occupational category: 1980 - 94.
Data Source: *New York State Statistical Yearbook 1997*, Table C-20 and Statistical Abstract of the United States 1997, Table 649.
Source: NYSDOT Planning and Strategy Group
- FIGURE 7 Non-farm employment in the state and nation: 1995.
Data Source: *New York State Statistical Yearbook 1997*, Table C-20 and Statistical Abstract of the United States 1997
Source: NYSDOT Planning and Strategy Group
- FIGURE 8 Licenses, vehicle registrations, gasoline usage, and per-capita VMT in the most populous states: 1995.
Data Source: USDOT, FHWA, *Highway Statistics 1995*, Tables DL1-C, MF33-GA and NYSDOT Planning and Strategy Group
Source: NYSDOT Planning and Strategy Group

- FIGURE 9 Vehicle registrations, gasoline sales, licenses, annual VMT and Gross Domestic Product: 1971 -95.
Data Source: USDOT, FHWA, *Highway Statistics 1971-1995*, The WEFA Group, NYS Department of Labor, Division of Research and Statistics, and NYS Department of Motor Vehicles
Source: NYSDOT Planning and Strategy Group
- FIGURE 10 State VMT by jurisdiction, federal-aid category and urban-rural ratio: 1995
Data Source: USDOT, FHWA, *Highway Statistics 1995*, Tables HM-20, VM-2, NYSDOT Planning Data Production Group *1995 Highway Mileage Report for New York State*, and NYSDOT 1995 GIS State Universe File
Source: NYSDOT Planning and Strategy Group
- FIGURE 11 National Highway System in New York State:1995.
Data Source: NYSDOT Mapping and Geographic Information Systems Division
Source: NYSDOT Planning and Strategy Group
- FIGURE 12 State and national fatalities per 100 million VMT: 1970 - 95.
Data Source: *USDOT Highway Statistics: Summary to 1985, Table HA-202A, Highway Statistics 1986-95, Table FL-3*, NYSDOT Planning and Strategy Group
Source: NYSDOT Planning and Strategy Group
- FIGURE 13 Census journey-to-work: 1990.
Data Source: US Department of Commerce, 1990, Summary Tape File #3, P49
Source: NYSDOT Planning and Strategy Group
- FIGURE 14 Modes for Census journey-to-work by mode: 1980 and 1990.
Data Source: US Department of Commerce, 1990 Census, Summary Tape File #3
Source: NYSDOT Planning and Strategy Group
- FIGURE 15 Census travel time to work (regional/state/national): 1990.
Data Source: US Department of Commerce, 1990 Census, Summary Tape File #3
Source: NYSDOT Planning and Strategy Group
- FIGURE 16 Person-trips by purpose.
Data Source: 1995 Nationwide Personal Transportation Survey, New York State Summarization, unpublished tables
Source: NYSDOT Planning and Strategy Group

- FIGURE 17 Person-trips by mode: 1995.
Data Source: 1995 Nationwide Personal Transportation Survey, New York State
Summarization, unpublished tables
Source: NYSDOT Planning and Strategy Group
- FIGURE 18 Public transit system service areas in NYS
Data Source: NYSDOT Passenger Transportation Division
Source: NYSDOT Passenger Transportation Division
- FIGURE 19 Public transit revenue passengers and miles: SFY 1995-96.
Data Source: NYSDOT Passenger Transportation Division, *1996 Annual Report on
Public Transportation Assistance Programs in New York State*, Tables III 1-4
Source: NYSDOT Planning and Strategy Group
- FIGURE 20 NYS public transportation ridership trend
Data Source: NYSDOT Passenger Transportation Division, *1996,1997 Annual Report on
Public Transportation Assistance Programs in New York State*, Tables III 1, 2, Passenger
Transportation Division, unpublished tables
Source: NYSDOT Planning and Strategy Group
- FIGURE 21 NYS Empire Corridor Amtrak passengers
Data Source: NYSDOT Freight and Economic Development Division, Unpublished
Tables
Source: NYSDOT Planning and Strategy Group
- FIGURE 22 Airport boardings: 1986-95.
Data Source: NYSDOT Passenger Transportation Division, USDOT Back Information
Service
Source: NYSDOT Planning and Strategy Group
- FIGURE 23 1993 Commodity Flow Survey
Data Source: 1993 Census of Transportation, Communications and Utilities, *Commodity
Flow Survey*
Source: NYSDOT Planning and Strategy Group
- FIGURE 24 Freight shipments by mode
Data Source: 1993 Census of Transportation, Communications and Utilities, *Commodity
Flow Survey*
Source: NYSDOT Planning and Strategy Group

- FIGURE 25 Trade with Canada
Data Source: USDOT, Bureau of Transportation Statistics, Trans-border Surface Freight Transportation Data 4/94-3/95; *NAFTA Trade: Past, Present, and Future*, Dean International; *1995 World Almanac and Book of Facts, Trade and Transportation*
Source: NYSDOT Planning and Strategy Group
- FIGURE 26 NYS-Canada trade, imports and exports by mode
Data Source: USDOT, Bureau of Transportation Statistics, Trans-border Surface Freight Transportation Data 4/94-3/95
Source: NYSDOT Planning and Strategy Group
- FIGURE 27 Waterborne freight movements
Data Source: USDOT, Bureau of Transportation Statistics, United States Waterway Data 1993
Source: NYSDOT Planning and Strategy Group

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