

Introduction

The New York Metropolitan Transportation Council (NYMTC) is an association of government agencies and transportation providers which serves as the federally-designated Metropolitan Planning Organization (MPO) for the New York metropolitan region. NYMTC provides a collaborative planning forum to address transportation-related issues from a regional perspective and plans and makes decisions on the use of federal transportation funds. NYMTC also collects and analyzes data related to freight movements at toll barriers in the metropolitan region. The region comprises the five boroughs of New York City; the lower Hudson Valley counties of Putnam, Rockland and Westchester; and Nassau and Suffolk counties on Long Island.



NYMTC's voting membership includes Nassau and Suffolk counties on Long Island and Putnam, Rockland and Westchester counties in the lower Hudson Valley. New York City is represented through its Departments of Transportation and City Planning. Voting members also include the New York State Department of Transportation and the Metropolitan Transportation Authority. NYMTC's advisory members include the Port Authority of New York and New Jersey, New Jersey Transit, the North Jersey Transportation Planning Authority, the New York State Department of Environmental Conservation, the Federal Highway Administration, the Federal Transit Administration and the United States Environmental Protection Agency.

This annual publication forms an important part of a series of reports that monitors freight vehicle movements in the New York metropolitan region. This report analyzes truck traffic that passed through toll facilities within the region in 2004, and includes a comparison with 2003. It is produced to support the planning process of the New York Metropolitan Transportation Council and other interested agencies and organizations.

The Regional Transportation Plan (RTP) adopted by the Council in 2005 focuses on three major themes: to provide adequate mobility for people and freight by the year 2030; to maximize the transportation system's level of service, and to manage demand to the extent possible. In the area of freight transportation, the goal is to minimize costs and improve the region's reliability and safety of freight movement. The data presented is also used in part to measure the performance of the region towards achieving the **Mobility, Freight Transportation** and **Regional Decision Making** goals of the Regional Transportation Plan.

The information presented is derived from several operators who oversee and manage the major highway facilities in the region. These seven operating agencies that supply monthly vehicle reports to NYMTC showing truck volume by vehicle type are: the Port Authority of New York and New Jersey (PANY&NJ); Metropolitan Transportation Authority Bridges & Tunnels (MTA-B&T); New York State Bridge Authority (NYSBA); New York State Thruway Authority (NYSTA); New Jersey Highway Authority (NJHA) - Garden State Parkway; New Jersey Turnpike Authority (NJTA); and Nassau County Bridge Authority (NCBA).

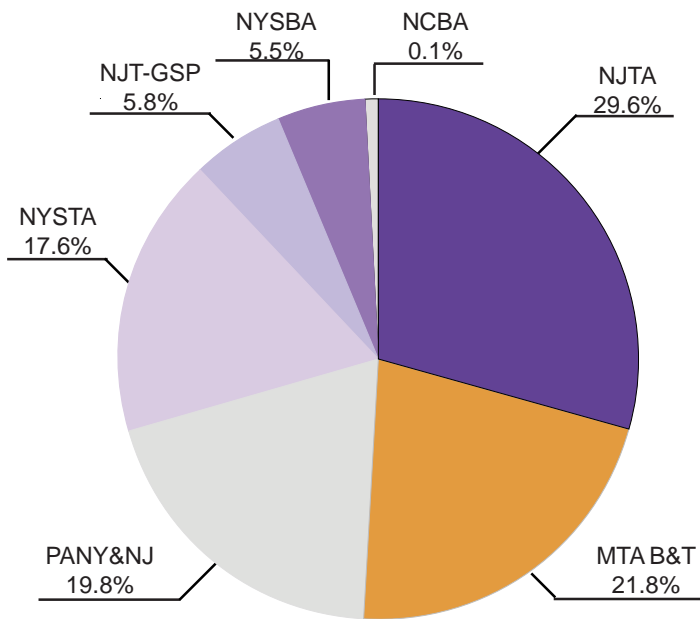
The comparative performance tables and graphical analyses presented in the report capture the most significant truck activity at major toll barriers/plazas during the 20 year period (1984-2004) under review. The data also portray the changes in truck travel that occurred over the last two years (2003-2004). The collection of this data and its comparison to the previous period will be useful in the analysis and planning of future truck routes in the region.

TRUCK TOLL VOLUMES: 2004-2005

This report presents an analysis of the movement of truck traffic over toll bridges and crossings in the downstate New York and northern New Jersey metropolitan area during the two-year interval of 2004 and 2005, and also includes some truck related data from southwestern Connecticut. The report is based on truck data supplied by agencies in the region entrusted with maintaining the region's toll barriers and includes characteristics such as: number of truck trips by operating agency (in case of one-way toll collection, the volume is doubled); identification of the 27 facilities managed by the respective authorities; types of trucks (two to eight-axle vehicles, and in case of NYSTA - by vehicle class) that use these facilities; toll rates levied for usage of the various facilities; and seasonal trips (monthly, quarterly, annually) made during the period, as well as commercial vehicle registration data. The seven operating agencies that supply monthly vehicle reports are: the Port Authority of New York and New Jersey (PANY&NJ); Metropolitan Transportation Authority Bridges & Tunnels (MTA-B&T); New York State Bridge Authority (NYSBA); New York State Thruway Authority (NYSTA); New Jersey Turnpike Authority - Garden State Parkway (GSP) Division; New Jersey Turnpike Authority (NJTA); and Nassau County Bridge Authority (NCBA). The NYCDOT-operated East River Bridges (Brooklyn, Manhattan, Queensborough and Williamsburg bridges) are non-toll bridges and therefore are not included in this report.

- Major Highlights:** The post-September 11, 2001 changes in vehicular travel patterns that occurred as result of operational and security restrictions have remained the same over some routes and facilities, especially in New York City. On the whole, however, the extent of truck

Figure A
Operating Agencies Share of Truck Toll Volumes
2004



for NYSBA and GSP and 0.1 percent for NCBA.

travel has risen consistently but unevenly in the region over the past 20 years. The period under review is no exception. The region's truck toll volume totaled 84 million vehicle trips in 2005 compared to 80.5 million in 2003 and 79.2 million in 2001. The time series data for 1985 to 2005 included in Table 1 indicate that in 2005, as in the last 20 years, the New Jersey Turnpike Authority (NJTA) retained the highest volume of trucks, handling almost 30 percent of the region's truck trips (0.3 million truck trips more than last year), followed by MTA B&T and the Port Authority of New York and New Jersey, with 22 and 20 percent, respectively (see Table 1). The New York State Thruway Authority (NYSTA) facilities handled 18 percent of all truck volumes in 2005, similar to counts over the past five years. The contribution of the New York State Bridge Authority (NYSBA), the Garden State Parkway, and the Nassau County Bridge Authority (NCBA) remained mostly unchanged at approximately 5 percent



River Crossings: The 10 toll bridges and tunnels that span the Hudson River carried a combined 23.1 million trips in 2005, 1.8 percent less than in 2004. The Lincoln Tunnel has the highest percentage increase in truck trips in 2005 over 2004 (21 percent). The GWB, followed by the VNB and the NBB were the three most heavily traveled Hudson River facilities in both 2005 and 2004.

The year 2005 also saw a 3.7 percent increase from the previous year in truck trips traveling via the two tunnels and three toll bridges that span the East River, to 13.7 million trips. Two of MTA-B&T's facilities, the Triborough Bridge and the Throgs Neck Bridge, contributed 60 percent of truck trips using the East River's crossings. These two bridges provide the most traveled link between New York City and upstate New York, other northeastern states, and Canada.

Truck traffic over the Arthur Kill and Kill Van Kull waterways between Staten Island and New Jersey increased from 4.9 million trucks to 5.1 million trucks, an increase of 3 percent between 2005 and 2004. The largest increase was noted on the Bayonne Bridge, followed by the Goethals Bridge, which was most traveled bridge over this crossings.

Henry Hudson Bridge is closed to commercial vehicles, except for those transporting material for bridge-related improvements that are counted as truck traffic. As the construction activity on this Harlem River crossing continued, activity decreased by 3 percent from 2004.

On the South Shore's three toll bridges, number of truck trips in 2005 was 0.6 million, increase in truck volumes by 5 percent.

Vehicle Classification: Most agencies classify vehicles according to number of axles. In 2005, as in previous year, most popular were 2-axle vehicles (29 million) and 5-axle vehicles (24 million trips).

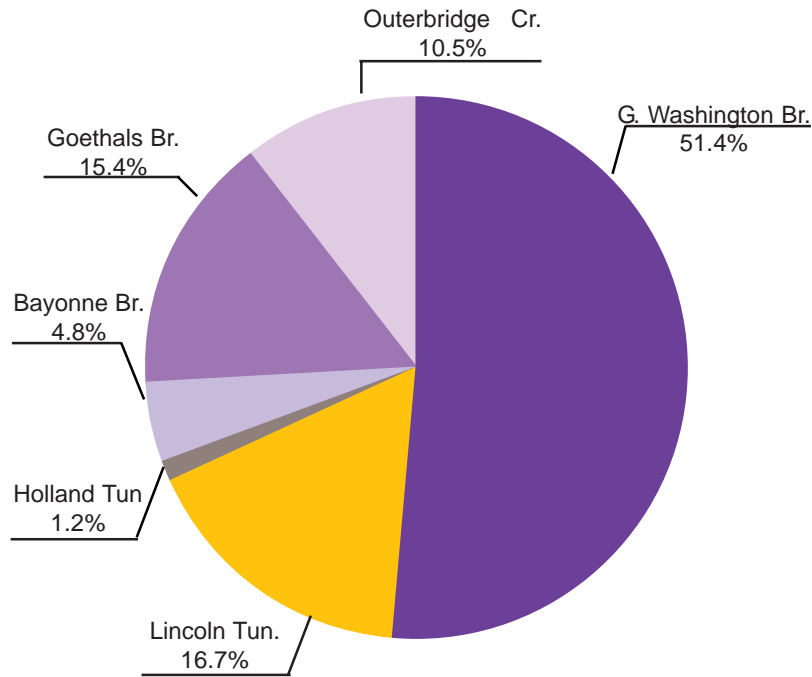
Toll increases went into effect in two agencies (MTA B&T and NYSTA) during 2005. Except for NCBA, all of the operating agencies have installed E-ZPass lanes on their toll plazas and crossings. Operating agencies allow a discount to EZPass' holders when an account is established. To fight congestion, some agencies (PANY&NJ) has introduced flexible tolls depending on the time of day and if the trip is performed on a weekday or weekend.

FACILITIES OPERATED BY PANY&NJ

Port Authority operates six bridges and tunnels, connecting New York City with different areas in New Jersey. The facilities under the PANY&NJ's jurisdiction are: George Washington Bridge (GWB), Goethals Bridge (GB), Bayonne Bridge (BB), Outerbridge Crossing (OC), Lincoln Tunnel (LT) and Holland Tunnel (HT). In 2005, facilities operated by PANY&NJ account for 19.8 percent of all truck toll trips in the New York metropolitan area.

Overall, during 2005 the six bridges and tunnels under the PANY&NJ's jurisdiction handled a total of 16.5 million truck trips, an increase of half percent or 89,000 trips from 2004. The five-axle truck remained the most popular type of commercial vehicle on four of the Port Authority's six bridges, while the two-axle truck was the most popular type going through the Lincoln and Holland Tunnels. These two types of vehicles represent almost 80 percent of all trucks using the PANY&NJ facilities in both 2004 and 2005.

Figure B
PANY&NJ Share of Truck Toll Volume by Facility
2005



DESCRIPTION OF FACILITIES:

GEORGE WASHINGTON BRIDGE (GWB)

The GWB was opened to traffic in 1931. This two-level suspension bridge crosses the Hudson River between upper Manhattan and Fort Lee, New Jersey, and forms part of Interstate Highway 1-95. It also provides connection to highways U.S.-1&9, U.S.-46, NJ-4, 1-80, 1-95, and Palisades Interstate Parkway. The length of this bridge totals 4,760 feet long and 119 feet wide, with a 90 foot wide roadway, plus 12 toll lanes of traffic on the upper and on lower levels. Seven lanes lead to Palisades Parkway. In 2005, truck and trailer traffic using the GWB



increased by half percent to 8.5 million trips. The Class 5 trucks are still the most popular type, with 54 percent of all GWB trips or 4.5 million trips in 2005. The trips over GWB still represent over 50 percent of the total PANY&NJ truck traffic. It maintained its place as the Port Authority's leading truck route of the northern corridor, from New Jersey and southeastern states to New York, Connecticut, Massachusetts and Canada. Also, the loads arriving at northern New Jersey by water or by rail and destined to New York or northern states, are usually reloaded on trucks and moved through the GWB on the route leading north and east.

LINCOLN AND HOLLAND TUNNELS (LT AND HT)

The Lincoln Tunnel is the world's only three-tube underwater vehicular tunnel facility. The tunnel was opened to traffic between December 1937 (center tube) to May 1957 (south tube). It provides a vital link between midtown Manhattan and central New Jersey, and forms part of New Jersey Route 495. In New Jersey, this highway connects the tunnel with U.S. Routes 1 & 9, 3 and the New Jersey Turnpike. The permanent restrictions state that no trucks are allowed in center tube and special permits are required for trucks 102 inches or wider. The width of each tunnel roadway is 21 feet 6 inches, and operating headroom is 13 feet. The external diameter of the tunnel is 31 feet and the length of tubes range from 7,482 feet (north tube) to 8,216 feet (center). In 2005, truck traffic reached 2.8 million trips, increase by 21 percent from 2004. It represents about 16 percent of all PANY&NJ truck trips. The most popular type of trucks was Class 2, which accounted for 69 percent of the total truck trips and Class 3 which accounted for 18 percent.



The Holland Tunnel was opened to traffic in November 1927. The roadway is 20 feet with an external diameter of 29 feet 6 inches and operating headroom of 12 feet 6 inches. The length of the tunnel is 8,558 feet (north tube) and 8,371 feet (south tube). After 9/11 all trucks were prohibited in the NYC-bound direction, while tractor-trailers were excluded from NJ-bound lanes. The ban on trucks at the Holland Tunnel was partly lifted in April 2002, but reinstated in August 2004 for safety reasons. The Holland Tunnel truck volume decreased by 74 percent over the 2004-2005 periods and accounted for 5 percent of the total PANY&NJ truck traffic, with 0.2 million trips. Small trucks (Class 2 accounts for 80 percent of all trips over this tunnel) are still the most popular.



STATEN ISLAND CROSSINGS (GB, BB, and OC)

Staten Island Crossings cover the three spans that link Staten Island to Hudson and Union counties in New Jersey: Bayonne Bridge (BB), the Goethals Bridge (GB) and the Outerbridge Crossing (OC). These crossings traverse the waterways known as the Arthur Kill and Kill-Van Kull.

The Goethals Bridge (GB), opened to traffic in 1928, links Elizabeth in Union County, (NJ) with the Howland Hook area of Staten Island. The GB leads directly to the New Jersey Turnpike (Interchange 13) and is accessible to Route 1 & 9 and other New Jersey highways. It is a major route for traffic moving between Brooklyn and New Jersey with direct connections across the Staten Island Expressway to the Verrazano Narrows Bridge. The bridge's length totals 7,100 feet with a width of 62 feet and 4 lanes of traffic, and channel clearance at mid-span of 135 feet that permits passage of deep-sea vessels through the Arthur Kill. In 2005, the truck traffic on the GB reached 2.5 million truck trips and accounts for 15 percent of all PA truck toll volumes. The most popular type of trucks on GB were trucks Class 5 with 1.3 million truck trips, which accounted for 50 percent of total truck trips over the bridge.

The Bayonne Bridge (BB), opened to traffic in 1931, links Bayonne in Hudson County, NJ, with the Port Richmond area of Staten Island. This bridge is an important part of the regional highway system, leading to



the Verrazano Narrows Bridge via the Martin Luther King Expressway, and to the eastbound Staten Island Expressway (1-278). It also leads to GB and OC via westbound 1-278. This bridge measures 5,780 feet long, 85 feet wide with 4 lanes of traffic. Channel clearance at mid-span is 150 feet which permits ocean-going vessels to use this entrance to Port Newark/Port Elizabeth without interference. The Bayonne Bridge (BB) had the lightest truck volumes of Staten Island crossings in 2005, (0.7 million truck trips) and accounts for 4.8 percent of all PA truck toll volumes. The most popular type of trucks on BB was Class 5, which accounted for 40 percent of total truck trips.

The Outerbridge Crossing (OC), located at the southern tip of Richmond County, links Perth Amboy, NJ, with the Tottenville section of Staten Island and the New Jersey shore. On the New York side, OC leads to the Verrazano Narrow Bridge via the West Shore Expressway and Staten Island Expressway. On its New Jersey side it leads to the New Jersey Turnpike and Garden State Parkway via Highway 440. This bridge, which was opened to traffic in 1928, is 8,800 feet long and 62 feet wide, has 4 lanes of traffic, and channel clearance at mid-span of 145 feet. The Outerbridge Crossing (OC) had a total 2005 volume of 1.7 million trips, an increase of 0.1 percent over 2004. The most popular type of trucks on the OC was Class 5 which accounted for 49 percent of total truck trip. The OC traffic accounts for 10.5 percent of all PA truck toll volumes.



PANYNJ Toll Structure: Since 2001, round trip tolls on the Port Authority's six facilities for truck classes 2-6 were \$6 per axle while paying cash during peak hours, \$5 per axle during the off-peak hours, and \$3.50 overnight for holder of E-ZPass. Tolls are collected for eastbound traffic only, therefore truck traffic data are doubled to reflect total trips. In March 2001, PANY&NJ instituted value pricing on its bridges and tunnels. For trucks with E-ZPass the current discount is 17 percent for off-peak hours and 42 percent for overnight hours.

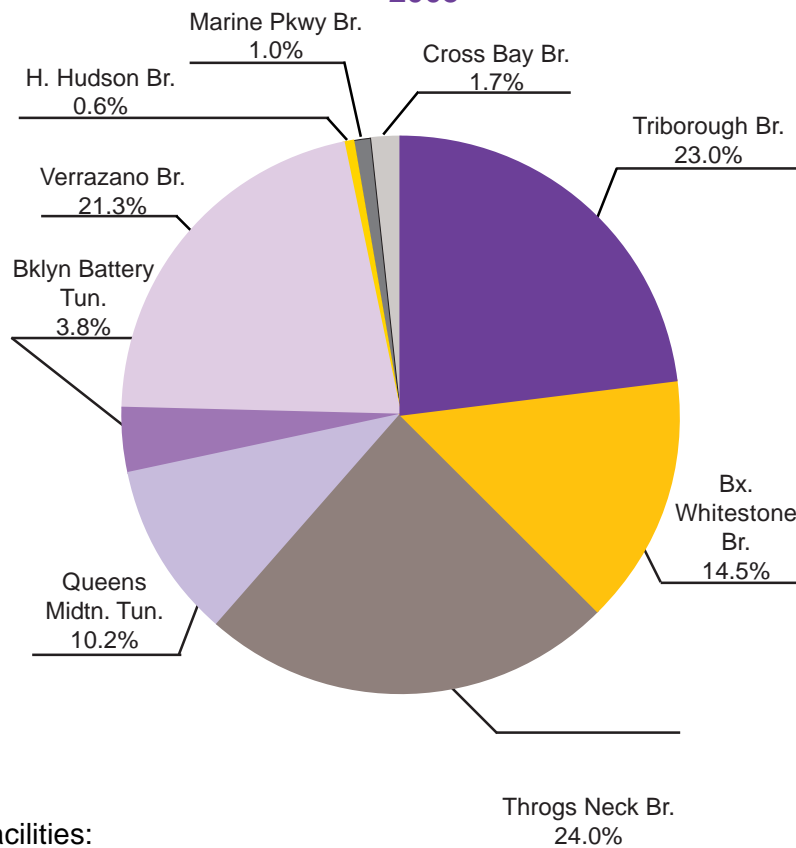
FACILITIES OPERATED BY METROPOLITAN TRANSPORTATION AUTHORITY

Bridges & Tunnels (MTAB&T)

The MTA-B&T operates seven bridges and two tunnels in New York City: Triborough Bridge (TB in Bronx and Manhattan toll Plazas), Throgs Neck Bridge (TNB), Verrazano-Narrows Bridge (VNB), Bronx-Whitestone Bridge (BWB), Henry Hudson Bridge (HHB), Marine Parkway/Gil Hodges Memorial Bridge (MP), Cross Bay/Veterans Memorial Bridge (CB), Brooklyn Battery Tunnel (BBT), and Queens-Midtown Tunnel (QMT). Facilities operated by MTA B&T account for 21.8 percent of all truck toll trips in the New York metropolitan area.

During 2005, the facilities under the MTA-B&T's jurisdiction handled a total of 18.2 million truck trips, an increase of 4.0 percent from 2004. The highest increase in percentage gain was on the Midtown Tunnel (11 percent increase). Two and five-axle trucks were the most popular and accounted for 57 and 25 percent of the total trips. The two-axle truck was the most common truck type on all the MTA-B&T facilities (56 percent of total), with the exception of the Throgs Neck Bridge, which was dominated by five-axle trucks.

Figure c
MTA B&T Share of Truck Toll Volume by Facility
2005



Description of Facilities:

Triborough Bridge (TB) was opened in 1936. It consists of three bridges, a viaduct and 14-mile approach roads connecting Manhattan, Queens and the Bronx. The three branches are: Manhattan branch linking Franklin D. Roosevelt Drive and Harlem commercial centers; Bronx Crossing leading north via the Bruckner and Deegan expressways; and East River suspension bridge to Queens, which connects with the Grand Central Parkway and Brooklyn-Queens Expressway. The three branches meet on Randall's Island interchange, where there are two toll plazas and traffic is sorted out in 12 directions. In 2005, this bridge handled 4.2 million truck trips or 23 percent of all truck traffic over the MTA B&T bridges and tunnels. Between 2004 and 2005, the increase in truck traffic reached 8.5 percent (on both Manhattan and Bronx toll plazas). The most popular type of trucks on TB was Class 2, which accounted for 67 percent of total truck trips on the bridge, followed by Class 5, which accounted for 16 percent of total truck trips on the bridge.



Bronx-Whitestone Bridge (BWB):

The Bronx Whitestone Bridge was opened to traffic in April 1939 and provides a vehicular connection between Queens and the Bronx. On the Bronx side, the bridge provides access to the Hutchinson River Parkway, and the Bruckner and Cross-Bronx Expressways. On the Queens side the bridge provides access to Whitestone and Malba communities, and connection to the Cross Island Parkway and the Whitestone Expressway. This bridge handled in 2005 2.6 million truck trips and accounts for 14.5 percent of all truck traffic over the MTA B&T bridges. The most popular type of trucks was Class 2, which accounted for 49 percent of the total truck trips and Class 5 which accounted for 31 percent.



The Throgs Neck Bridge (TNB)

connecting the Bronx and Queens boroughs opened in 1961. This heavily used bridge serves as an important link in the city's interstate highway system. On the Bronx side, it provides access to New Jersey, upstate New York and New England via the Cross Bronx and Bruckner expressways, the Hutchinson River Parkway and the New England Thruway. On the Queens side, it provides access to Cross Island Parkway, Grand Central Parkway and Clearview and Long Island expressways, which lead to Long Island, Manhattan, Brooklyn, and points west. In 2005, the Throgs Neck Bridge handled the largest share of MTA-B&T total truck traffic 4.4 million trips or 24 percent. The most popular type of trucks was Class 5, which accounted for 43 percent of total truck trips, followed by Class 2 which accounted for 38 percent of total truck trips.



Verrazano Narrows Bridge (VNB)

was opened in 1964 and was then the world's longest suspension span with the distance between the two 695 foot high towers measuring 4,260 feet. The bridge, located on the upper New York Bay, connects Brooklyn to Staten Island and provides a major link in the interstate highway system. In Brooklyn, it connects to the Belt Parkway and Brooklyn-Queens Expressway, by extension to Long Island, and on Staten Island to the Staten Island Expressway, providing direct access to the New Jersey highway system and the middle Atlantic states. This bridge handled in 2005 3.9 million trips and accounts for 21.3 percent of all traffic over the MTA B&T facilities. The most popular type of trucks were Class 2, which accounted for 48 percent of total truck trips on VNB, followed by truck Class 5 which accounted for 32 percent of total



truck trips on the bridge.

The Queens Midtown Tunnel (QMT) was opened in 1940 by the New York City Tunnel Authority (later replaced by MTA B&T) to relieve congestion on the city's East River bridges. It represented the most advanced tunnel engineering techniques of its day. The tunnel serves as a major connection between midtown Manhattan and Queens, providing access to Long Island City and highways leading in the east-north direction. The tunnel links Murray Hill residential neighborhood in Manhattan to Hunters Point district of Long Island City on the Queens side. The diameter of each of the QMT's twin tubes is one and a half feet wider than the older Holland Tunnel, to accommodate the wider cars of the period. In 2005, this tunnel handled 1.9 million truck trips and accounted for 10.2 percent of all truck traffic over MTA B&T facilities. The most popular type of truck was Class 2 which accounted for 84 percent of total trips, followed by Class 3.



The Brooklyn Battery Tunnel (BBT) opened in 1950, and was then the longest continuous underwater vehicular tunnel in North America. The tunnel links Brooklyn and Manhattan. On the Brooklyn side is the community of South Brooklyn, comprising Red Hook, Columbia Terrace, Carroll Gardens, Cobble Hill and Boerum Hill districts. The Manhattan end leads to the Financial District including Wall Street, the South Street Seaport, Battery Park City and the World Financial Center. In 2005, this tunnel handled 0.7 million truck trips and accounted for 3.8 percent of all truck traffic over MTA B&T facilities. The most popular type of truck was Class 2 which accounted for 84 percent of total trips, followed by Class 3.

Henry Hudson Bridge (HHB) was named in honor of the 17th century explorer. This bridge was opened in 1936, connecting northern Manhattan to the Bronx as part of the Henry Hudson Parkway. Built by the Henry Hudson Parkway Authority, the bridge became part of MTA B&T after a series of merges. When opened, it was the longest plate girder arch and fixed arch bridge in the world. Only a restricted number of commercial vehicles, such as authorized commercial delivery vehicles (U.S. Post Office, UPS, FedEx), authorized tow trucks and school buses, and authorized contractor vehicles for HHB road and infrastructure improvements, are allowed to cross the bridge. All other unauthorized vehicles are "turned around" on the plaza. Truck traffic on HHB in 2005 totaled 101,000 trips, and accounts only for 0.6 percent of all truck trips over MTA B&T bridges. The most popular type of trucks was Class 2, which accounted for 97 percent of total trips, followed by truck Class 3.



The Marine Parkway/Gil Hodges Memorial Bridge, named in honor of the Brooklyn Dodgers first baseman and Mets manager, opened in 1937 to provide access to the Rockaway Peninsula, which previously could be reached only by ferry. When it was built, the bridge's vertical lift span was the longest in the world. The tapering, curled tops of its towers added a special aspect to the bridge's design. Today, the land at both ends of the bridge are part of the Gateway National Recreation Area. The bridge has direct connection to the Shore Parkway and Flatbush Avenue. The Marine Parkway Bridge handled in 2005 181,000 truck trips and accounts for less than 1 percent of all truck trips on MTA B&T facilities. The most popular type of trucks was Class 2, which accounted for 84 percent of total trips, followed by truck Class 3.



The Cross Bay/Veteran Memorial Bridge, completed in 1970, sits four miles east of the Marine Parkway Bridge. It connects the Rockaway Peninsula to Queens, the Belt Parkway and the Southern State Parkway on Long Island. It is a high level bridge which permits boats to pass underneath. This bridge handled in 2005 311,000 truck trips and accounts for 1.7 percent of total MTA-B&T trips. The most popular type of trucks was Class 2, which accounted for 81 percent of total trips, followed by truck Class 3.

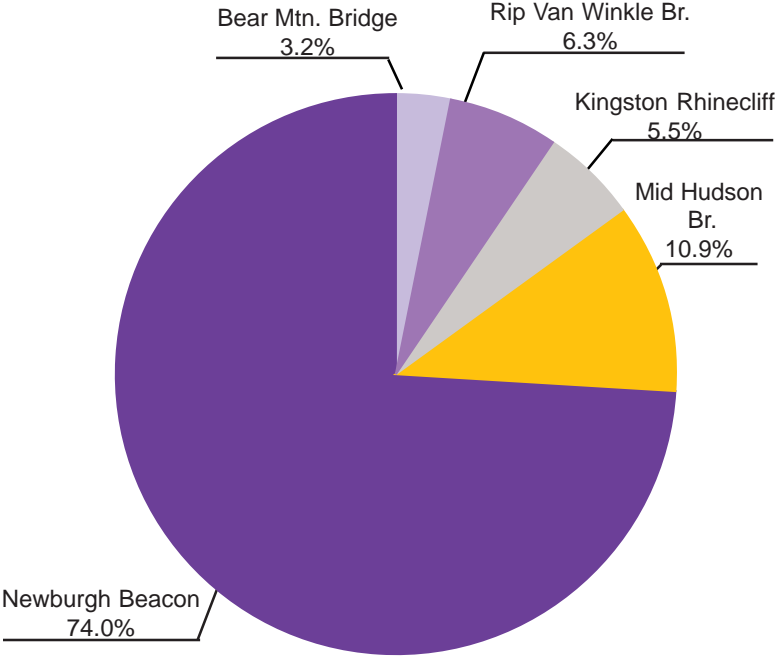


MTA-B&T Toll Structure: Truck tolls were collected in both directions at each of the MTA-B&T's facilities except for the Verrazano Narrows Bridge, where tolls are collected from westbound traffic only. Toll rates increased in 2005. For the Bronx-Whitestone, Triborough, and Throgs Neck Bridges, as well as the Queens Midtown and Brooklyn-Battery tunnels, the one-way trip fee was \$4.50 for 2-axle trucks with a maximum gross weight of 7,000 lbs or under, with \$2 for additional axle, and \$9.00 for 2-axle trucks greater than 7,000 lbs. (\$5 for each additional axle). For the Verrazano Narrows Bridge, the toll collected is \$4.50 or \$9.00. For small bridges (Marine Parkway and Cross Bay bridges) the cost for 2-axle trucks with a maximum gross weight of 7,000 lbs or under is \$2.25 with \$1.25 for each additional axle. Discount for E-ZPass.

NEW YORK STATE BRIDGE AUTHORITY (NYS BA)

New York State Bridge Authority (NYSBA), created by then Governor Franklin D. Roosevelt in 1932, operates five toll bridges spanning the Hudson River: Rip Van Winkle Bridge, Kingston-Rhinecliff Bridge, Mid-Hudson Bridge, Newburgh-Beacon Bridge, and Bear Mountain Bridge. These facilities operated by the NYS BA account for 5.5 percent of all truck toll trips in the New York metropolitan area. In 2005, NYSBA handled 4.6 million truck trips. Two and five-axle trucks were the most prevalent.

Figure D
NYS BA Share of Truck Toll Volume by Facility
2005



Description of Facilities:

Newburgh-Beacon Bridge (NBB), the two-lane bridge between Beacon and Newburgh, was first opened to traffic in November 1963 as a part of the interstate network. The overall length of the bridge is 7,855 feet (north) and 7,789 feet (south), and the main span length is 1,000 feet. Clearance above the river is 135 feet. The bridge is supported by an articulated deck truss. This bridge was the heaviest traveled in 2005, with 3.4 million truck trips which accounted for 74 percent of total NYSBA truck trips. -The most popular truck type was Class 5 (2.3 million trips) which accounted for 66 percent of total truck trips over this bridge.

Mid-Hudson Bridge (MHB) with 0.5 million truck trips was opened to traffic in August 1930. It provides a vital route across the Hudson, between Poughkeepsie and Highland, and was the second span across the Hudson below Albany after the completion of the Bear Mountain Bridge. Its overall length is 3,000 feet, the main span measures 1,500 feet, and its clearance above river is 135 feet. This is a parallel wire cable suspension bridge, with suspended side spans. In 2005, the Mid-Hudson Bridge accounted for 11 percent of all NYSBA truck traffic. The most popular truck type was Class 2 (0.3 million trips) which accounted for 63 percent of total truck trips over this bridge.



Bear Mountain Bridge (BMB) was the first vehicular bridge on the Hudson south of Albany, opened in November 1924, and was then listed as the longest suspension bridge in the world. Though its title has been lost, the BMB continues to provide an important link to Bear Mountain State Park, the centerpiece of the Palisades Interstate Park System. Unlike most suspension bridges, the side spans are relatively short and are not supported by the main cables but by the ground beneath, which rises at a sharp angle from the river. Its overall length is 2,255 feet, with main span length of 1,632 feet, and clearance from the river at 155 feet. It provides a vital route between New York City and Albany. In 2005, the BMB accounted for only 3.2 percent of all NYSBA truck traffic, with 145,000 truck

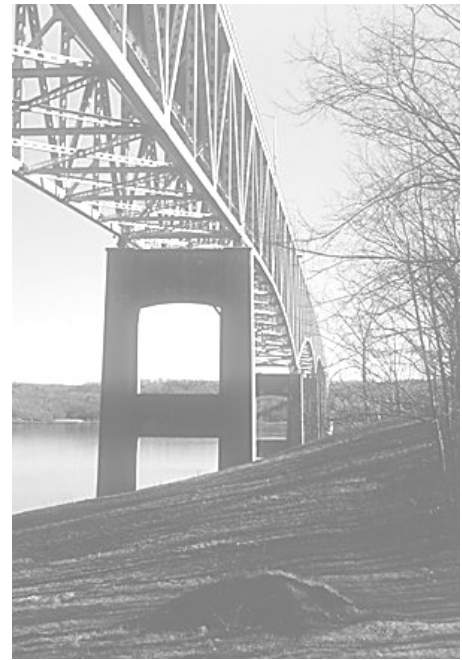


trips. The most popular truck type was Class 2 (82,000 trips) which accounted for 56 percent of total truck trips over this bridge.

Rip Van Winkle Bridge (RVW) built during the Great Depression, this bridge was opened to traffic in July 1935. The bridge was designed as cantilevered and has suspended deck trusses. It has an overall length of 5,041 feet, main span length of 800 feet, and clearance above river of 145 feet. In 2005, this bridge accounted for 6.3 percent of all NYSBA truck traffic, with 291,000 truck trips. The most popular truck type was Class 2 (146,000 trips) which accounted for 50 percent of total truck trips over this bridge.



Kingston-Rhinecliff Bridge (KRB) was opened to traffic in February 1957 to replace the Kingston-Rhinecliff ferry which was abandoned. It still serves as a vital link across the Hudson. The structure is supported by a continuous under-deck truss. The overall length is 7,793 feet, the main span length is 800 feet, and clearance above river is 250 feet. In 2005, this bridge accounted for 5.5 percent of all NYSBA truck traffic, with 255,000 truck trips. The most popular truck type was Class 2 (160,000 trips) which accounted for 63 percent of total truck trips over this bridge.

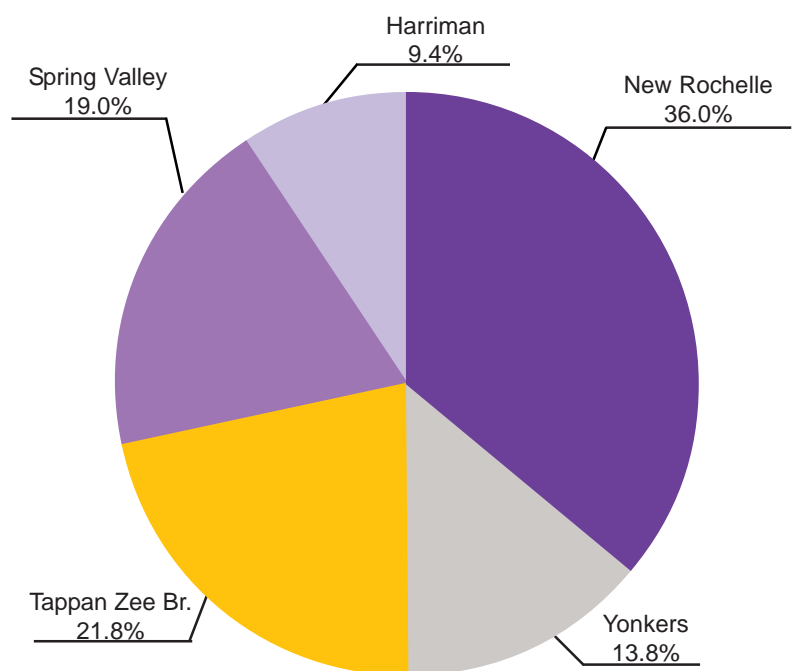


NYSBA Toll Structure: Truck tolls were collected in one direction at each of the NYSBA facilities. In order to calculate total truck volume, one-way traffic is doubled for the five Hudson spans. The toll rate was not changed in 2005.

FACILITIES OPERATED BY THE NEW YORK STATE THRUWAY AUTHORITY (NYS TA)

The Governor Thomas E. Dewey Thruway, the 641-mile superhighway crossing New York State, operated by the New York State Thruway Authority, is the longest toll highway system in the United States, connecting with several major highways in New Jersey and Pennsylvania. In the New York metropolitan region, the Thruway connects with the Major Deegan Expressway at the New York line, the Connecticut Turnpike (1-95) near Port Chester, New Jersey Garden State Parkway near Spring Valley in Rockland County, and Interstate 287 in northern Rockland County. Only the 14-mile part of the Thruway in the area of the Garden State Parkway connection in New Jersey and Cross-Westchester Expressway (1-287 connection) is under

Figure E
NYS TA Share of Truck Toll Volume by Facility 2005



review in this report. The Thruway is generally a four-lane (two lanes in each direction) highway. The Harriman-New York City stretch has six lanes, and the part between Nyack and the Tappan Zee Bridge has eight lanes. Facilities operated by the NYS TA account for 17.6 percent of all truck toll trips in the New York metropolitan area. Toll facilities include New Rochelle, Yonkers, Spring Valley and Harriman Barriers and Tappan Zee Bridge and accounted for 14.7 million toll truck trips in 2005.

Description of Facilities:

Governor Malcolm Wilson Tappan Zee Bridge (TZB), the three-mile long one of the largest bridges in the U.S., carries the New York Thruway's mainline across the Hudson River, about 13 miles north of New York City. It was opened to traffic on December 1955. In 2005, the TZB carried 3.2 million truck trips and accounts for 22 percent of all NYS TA truck toll volume. Because of different classification system, it is difficult



to compare truck class with other agencies. In 2005, the most popular truck type was large trucks category which accounted for 67 percent of total truck trips over this bridge.



New Rochelle and Harriman toll barriers truck trips accounted for 36 percent and 9.3 percent of all truck traffic registered by the New York State Thruway Authority. In 2005, the most popular truck type was large trucks category which accounted for 60 and 63 percent of total truck trips over this bridge, respectively.

Yonkers Barrier and Spring Valley Barrier accounted for 14 and 19 percent of all truck traffic registered by the New York State Thruway Authority. In 2005, the most popular truck type was large trucks category which accounted for 57 and 62 percent of total truck trips over this bridge, respectively.



NYSTA Toll Structure: The Thruway's vehicle classification system does not reflect direct correlation between classification of vehicles and number of axles. This system incorporates the ability to use axle offsets for vehicles that deviate from the standard number of axles. The classification system was changed in May 2005 and cover two categories: trucks under 7 feet 6 inches height (type 2L through 4L, depending of number of axles) and trucks 7 feet 6 inches or greater (type 2H through 7H, depending of number of axles). Toll volume depends of vehicle class. On the New Rochelle barrier, Spring Valley barrier and Tappan Zee bridge the round-trip toll is collected only in one direction (eastbound-trip on New Rochelle, northbound on Spring Valley, and southbound on TZB). Tolls are collected in both direction at the Yonkers and Harriman barriers. There is a significant discount for E-ZPass, and time-related incentive pricing on Spring Valley and Tappan Zee Bridge, with a discount during the weekday a.m. peak period.

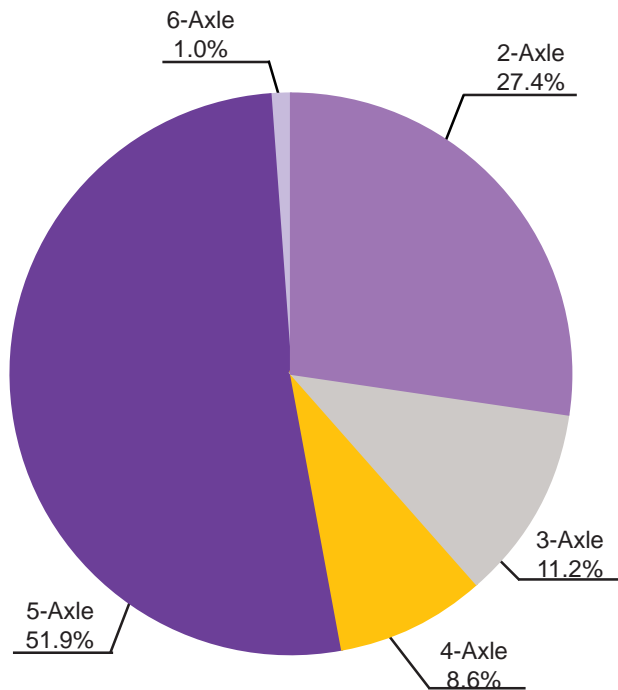


NEW JERSEY TURNPIKE AUTHORITY (NJTA)

Running through one of the nation's busiest regions, the New Jersey Turnpike is a major thoroughfare in the New York metropolitan area, linking southeastern states with New York, New England and Canada. Two tunnels and three bridges connect it to New York City. The first section of New Jersey Turnpike was officially open to traffic in November 1951. Fifty-three years later, the New Jersey Turnpike annually serves almost 248 million vehicles traveling 5.7 billion miles. It has expanded to 28 interchanges and covers 148 miles. The lanes have been widened and additional lanes added, making the turnpike as wide as 14 lanes in some areas. Since September 2000, when E-ZPass became operational, the agency has issued over 2 million transponders. NJTA placed limitations on vehicles by height (13 feet 6 inches), width (8 feet 6 inches), length (semitrailer in excess of 53 feet in length when in a tractor-semitrailer combination), and weight



Figure F
NJ Turnpike Truck Toll Volumes by Type
2005



(80,000 lbs). A new Secaucus Interchange completed in 2004 (between interchanges 15E and 16E) provides direct access to New Jersey Transit Secaucus rail station and the nearby warehouse district. In 2003, the agency consolidated NJTA and NJHA governing the Garden State Parkway. In 2005, NJT truck traffic north of exit 7A (northeastern part of New Jersey, included in the NY metropolitan region) represented 29.6 percent of all of toll truck movement in the New York metropolitan region. This report includes an analysis of only the northern part of the turnpike, starting from interchange 7A up to the exit for George Washington Bridge. Truck usage of the New Jersey Turnpike between interchanges 7A and 18W increased by 1.4 percent between 2004 and 2005. Truck toll traffic registered 24.7 million commercial

vehicles in 2005, up from 24.4 million in 2004. These trips represent an estimated 80 percent of the commercial vehicle traffic using the NJT. In 2005, the share of five-axle trucks as a percent of total Turnpike traffic was reported to be 52 percent, similar to 2004. Class 5 truck volume reported increase by 1.6 percent.

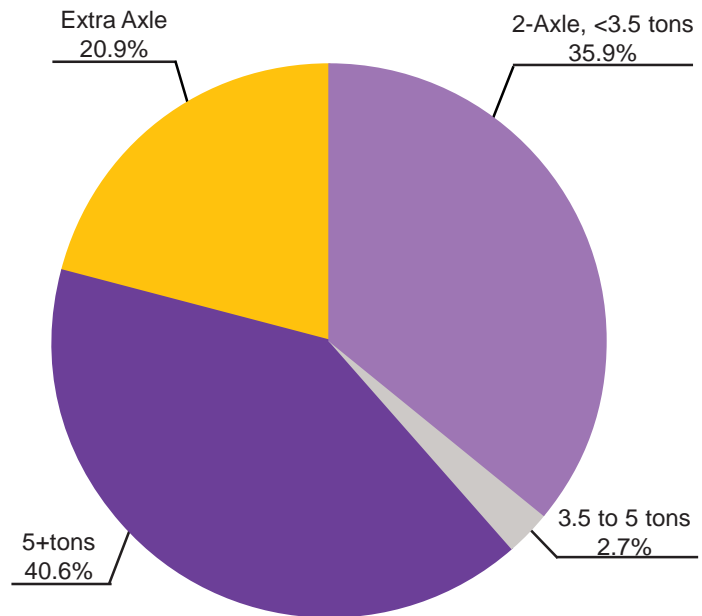
NJTA Toll Structure: Toll for travel between interchanges is determined by the cost of construction and maintenance of the roadway between these points. Vehicles are divided into classes determined by number of axles, while buses have their own qualification system. The toll was not raised in 2005. It is established on a distance-based schedule and varies by vehicle class. It recognizes peak and off-peak travel time differences and offers a significant discount for vehicles using E-ZPass and entering during off-peak hours.

New Jersey Turnpike Authority – **Garden State Parkway (GSP):** The 173-mile Garden State Parkway (GSP) runs north-south through 50 municipalities in 10 counties, from the New York border to Cape May in the south. The Parkway maintains 359 exits and entrances. Heavy trucks (3.5 tons or more, 6 tires or 3-or more axles) are prohibited north of interchange 105, unless on special permit. Therefore, this report covers only part of GSP and interchanges south of Asbury toll plaza. In 2005, the GSP truck traffic south of exit 105 represented 5.8 percent of all of toll truck movement in the New York metropolitan region. Between 2004 and 2005 truck volumes on Garden State Parkway increased by 5 percent, from 4.6 million to 4.8 million truck trips. This data reflects the 14 of 43 toll plazas on the GSP that carry commercial traffic. - With the exception of two plazas (Toms River and Lacey)



all other facilities recorded an increase in truck traffic. The most popular facilities in 2005 were Asbury with 799,000 trips, Toms River Plaza, which registered 757,000 truck trips, and Barnegat, with 738,000 trips. Wildwood and Somers Point, as in former years, had the lightest truck traffic (18,000 and 81,000 trips, respectively). The most utilized type of trucks were those weighing 5 tons and over (2 million trips) which account for 41 percent of all truck trips on GSP, and 2-axle trucks (1.8 million trips), which made up 36 percent.

Figure G
Garden State Parkway Truck Toll Volumes by Type
2005



NJTA - GSP Toll Structure: Most operators classify trucks according to the number of axles, except for the Garden State Parkway, where both weight and axles are used. Truck tolls are collected for both directions of travel. There was no change in toll schedule in 2005. There are 14 toll plazas within the described area, but not all are mainline toll plazas. There are six mainline toll plazas and eight ramp plazas. Since 1989, six mainline toll plazas and one ramp plaza (Somers Point) have charge 35 cents for two-axle, Class one vehicles. The other seven ramp plazas charged 25 cents. Additional axles are charged increments of 35 or 25 cents. No E-ZPass discount for trucks in 2005.

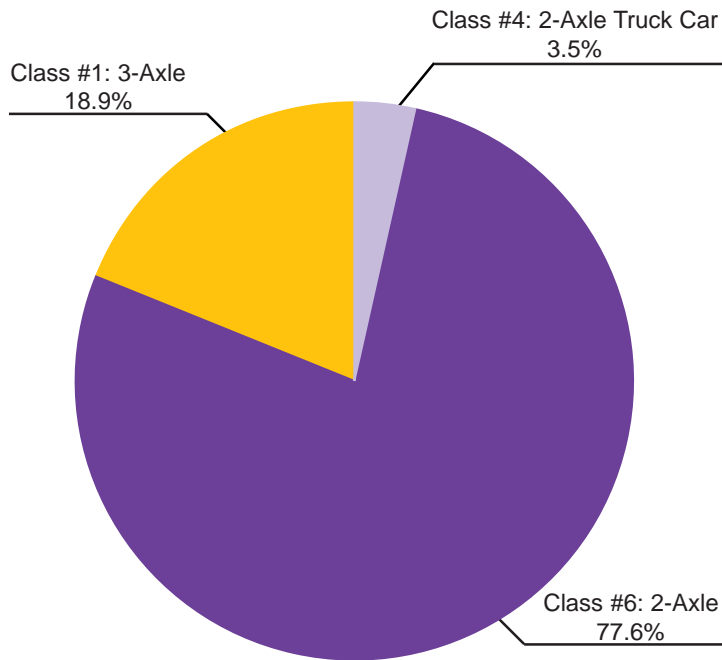
NASSAU COUNTY BRIDGE AUTHORITY

The only toll-collecting drawbridge in Nassau County is the Atlantic Beach Bridge located along the South Shore of Long Island. It was opened to traffic in July 1950. The bridge is 1,173 feet long and 68 feet wide (on roadway), with 6 traffic lanes (three in each direction). There are special restrictions for trucks. In 2005, this bridge accounted for only 0.1 percent of all of toll truck movement in the New York metropolitan region, with 71,000 trips. The most popular was Class 6 (2-axle truck) which accounted for 78 percent of all truck trips on the bridge.



NCBA Toll Structure: The only trucks allowed on the bridge are Commercial Class 4 with

**Figure H
Nassau County Bridge Authority by Type
2005**

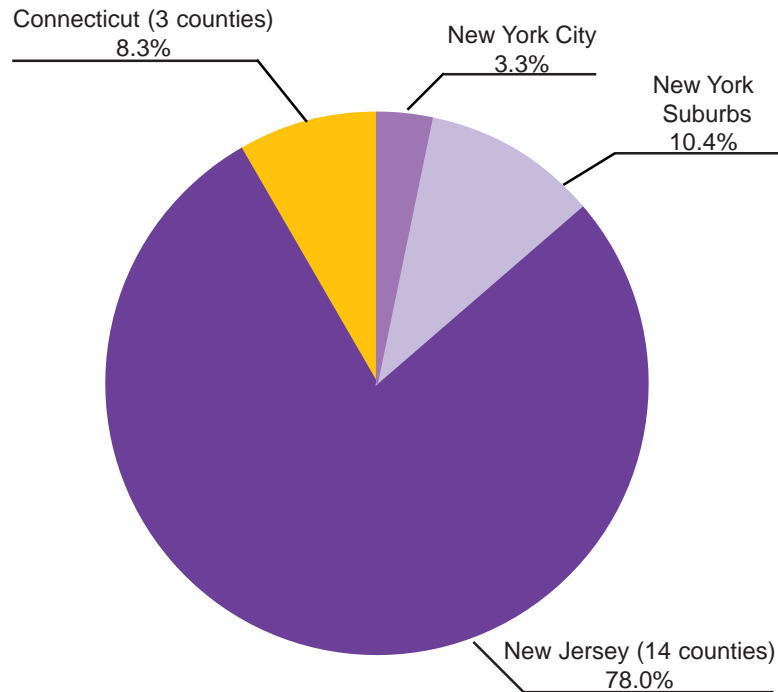


2 axle Truck-Car; Class 6 with 2-axle trucks, and Class 1 with 3-axle trucks. Tolls vary according to the vehicle class (number of truck axles). The tolls were not increased in 2004. Cash fares for light-duty trucks range from \$1.25 for a Class 4, 2-axle truck to \$3.75 for a Class 1, 3-axle truck. For Class 6 (2-axle trucks) the toll is \$2.50. At this time, the Atlantic Beach Bridge does not utilize the E-ZPass system.

COMMERCIAL VEHICLE REGISTRATION

Despite rule changes by some agencies, there was a 5 percent (0.13 million) increase in 2005 over 2004 in the number of vehicles with commercial license plates registered in the tri-state New York Metropolitan region. New Jersey had the highest number of registrations (2 millions or 81.1 percent of total commercial registrations) accounting for 7 percent of increase in the region. The downstate New York area received 253,000 commercial registrations, 10.2 percent of total, decrease of 0.6 percent from 2004. In the New York suburbs, registrations decreased by 1,500 or 0.8 percent. The Hudson Valley suburbs registered a 1.6 percent decrease (mostly in Dutchess and Orange counties), and Long Island counties registered decrease of 1.6 percent, mostly in Nassau. The southwest Connecticut counties, with 216,000 commercial registrations, accounted for 8.7 percent of all tri-state truck registrations, and registered a 0.6 percent decrease. Starting in 1999, the Connecticut recording system lists vehicle registration by county (Fairfield, Litchfield and New Haven), rather than by six planning regions, as was before 1999.

**Figure I
Commercial Vehicle Registration
2005**

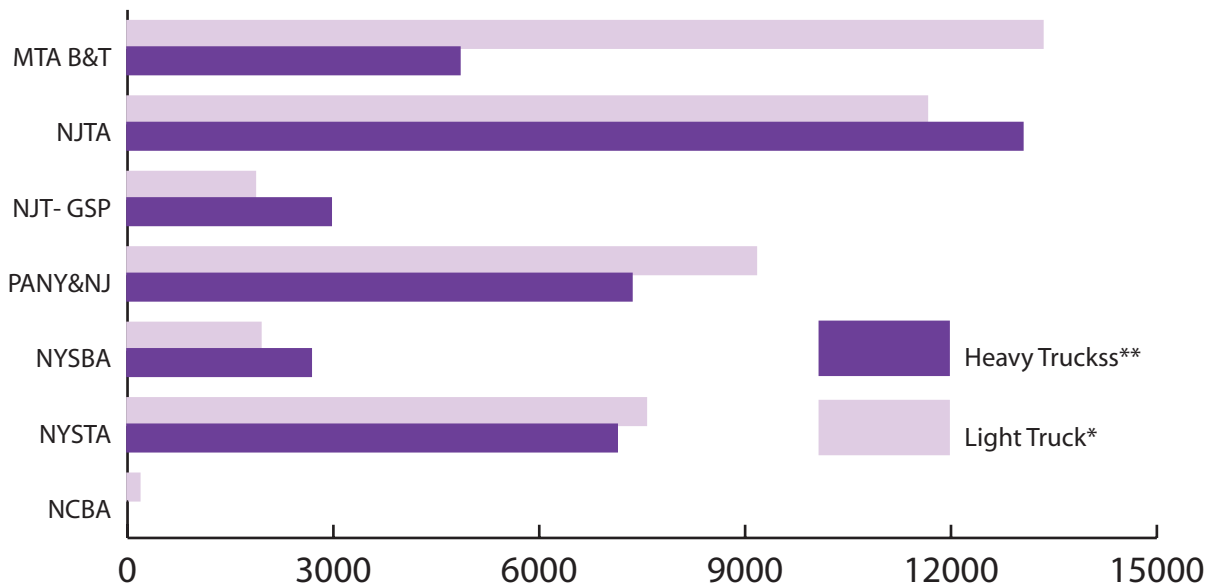


TRUCKING INDUSTRY SHARE IN THE METROPOLITAN REGION

Vehicle mode choice revolves around two to eight-axle trucks, although the classification system of some agencies is based on different approaches. For example, the New York State Thruway Authority classification system incorporates the ability to use axle offsets for vehicles that deviate from the standard number of axles. The New Jersey Highway Authority (Garden State Parkway) uses both number of axles and weight in its vehicle classification. For example, the smallest (Class 2) are trucks with 2-axles and less than 3.5 tons, while Class 3 includes trucks weighing 3.5 to 5 tons. Class 4 contains trucks weighing 5 plus tons, and Class 5 are trucks with extra axles. The Nassau County Bridge Authority permits only light trucks on its bridge: 2-axle truck/car (Class 4 by NCBA classification), 2-axle regular trucks (NCBA Class 6), and 3-axle trucks (NCBA Class 1). The vehicle classification system is discussed in the text and in Attachment C.

The most popular types in the region were 2-axle and 5-axle trucks, which accounted for 36.8 percent and 30.2 percent of all toll truck trips in 2005. The third most common were 3-axle vehicles, which account for 12.5 percent of all truck trips, followed by large trucks (6-axles and over), with 11.7 percent share of all trips. Over the two-year period 2004 - 2005 there was a 4.3 percent rise in light duty trucks (two and three-axle) trips, from 37.2 million to 38.7 million truck trips. It is difficult to quantify the actual number of small trucks on these facilities, as some toll agencies make no distinction between vans and passenger automobiles and count vans as passenger automobiles and not as trucks. Also, the classification system of some agencies does not clearly relate toll classes and axle number, as discussed above.

Figure J
Operating Agencies Share of Truck Toll Volumes by Type
2005



Source: Toll Agency data

* Light Trucks - 2 to 4 axles

** Heavy Trucks - 5 - axles, over 5 tons

Seasonal variation in truck trips remained constant during 2004- 2005, with the most heavily traveled season being that of April to June and July to September (21.8 million in spring and 21.5 million in fall season of 2005) when goods are delivered for the upcoming winter season. The high concentration of trucks has been cited as one of the underlying reasons for air pollution. However, the adherence to federal standards imposed in 1990 (clean fuel, change in truck structure) has helped to reduce ground level pollution from highway mobile sources.

The tolled crossings remained sources of only part of truck traffic in the New York area. In 2005, the New York City Department of Transportation operated 47 non-toll bridges, the most popular being the Kosciuszko Bridge over Newton Creek, between the boroughs Brooklyn and Queens, where truck and commercial vans accounted for 6.9 million truck trips. The East River bridges 2005 survey (New York City Department of Transportation report) shows the annual average daily number of total vehicle trips (two-way traffic), as follows:

Brooklyn Bridge: 132,210	Queensboro Bridge: 178,610
Manhattan Bridge: 80,363	Williamsburg Bridge: 107,030
Total East River Bridges: 498,213 trips (1.8 percent less than in 2004).	

Commercial vehicles (commercial vans and trucks) accounted for:

Brooklyn Bridge: 5,262 commercial vehicle trips (4 percent of total traffic);
 Queensboro Bridge: 26,628 vehicles;
 Manhattan Bridge: 32,536 vehicles;
 Williamsburg Bridge: 19,134 commercial vehicles daily.

ATTACHMENT A

Figure 1
Toll Agency Annual Truck Toll Volumes
2003-2005

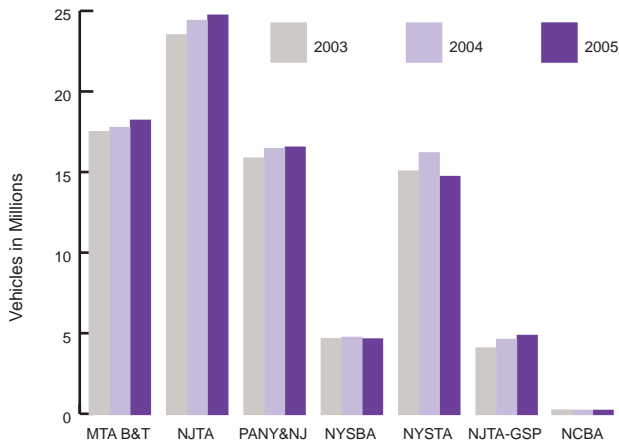


Figure 2A
PANY&NJ Annual Truck Toll Volumes by
Facility

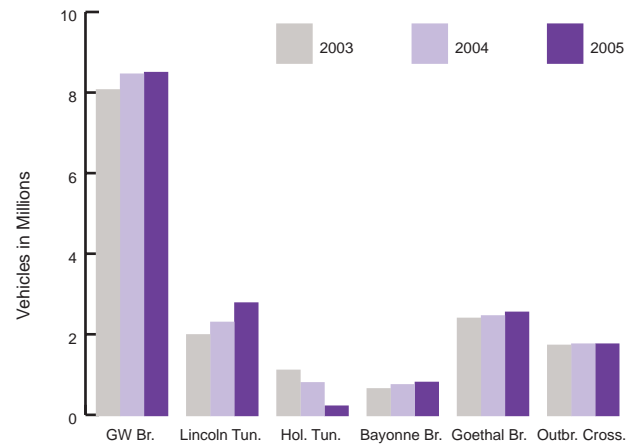


Figure 2B
PANY&NJ Quarterly Truck Toll Volumes
2003-2005

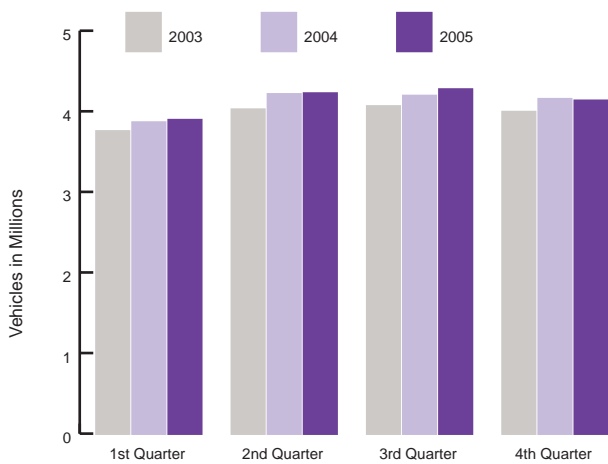


Figure 2C
PANY&NJ Truck Toll Volumes by Type
2005

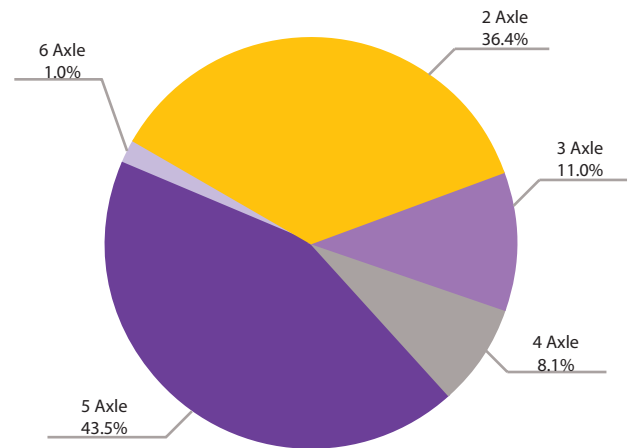


Figure 3A
MTA B&T Annual Truck Toll Volumes by Facility
2003-2005

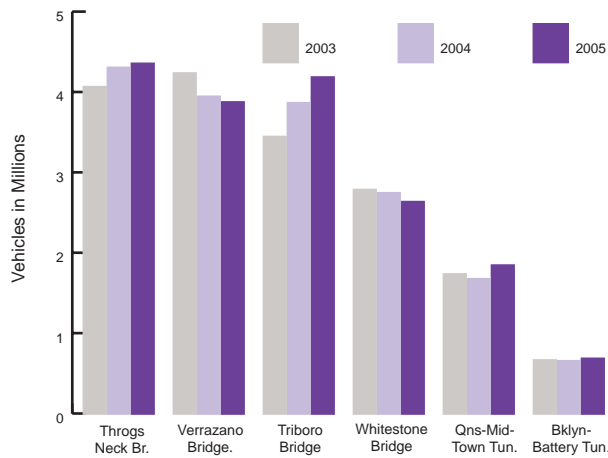


Figure 3B
MTA B&A Quarterly Truck Toll Volumes
2003-2005

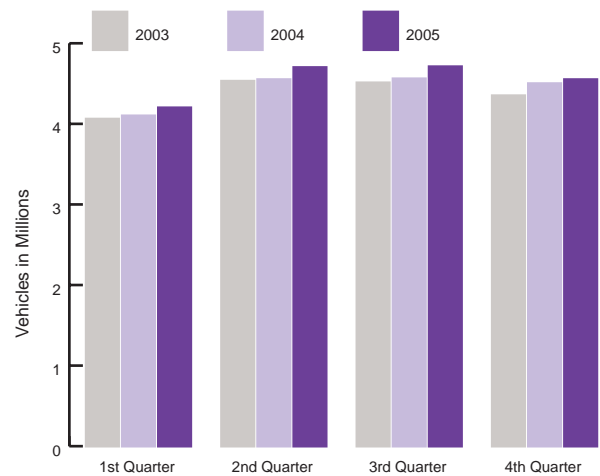


Figure 3C
MTA B&T Truck Toll Volumes by Type
2005

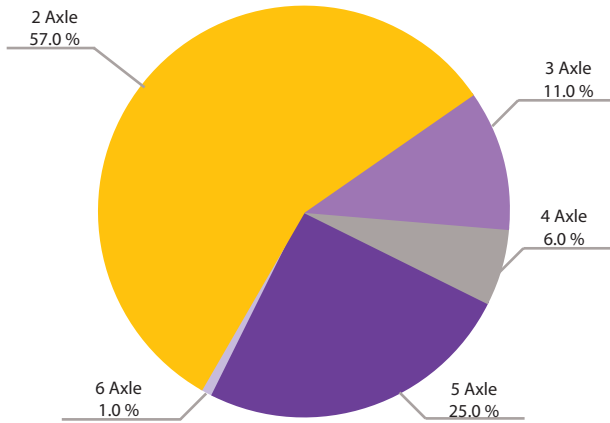


Figure 4A
NYSBA Annual Truck Toll Volumes by Facility
2003-2005

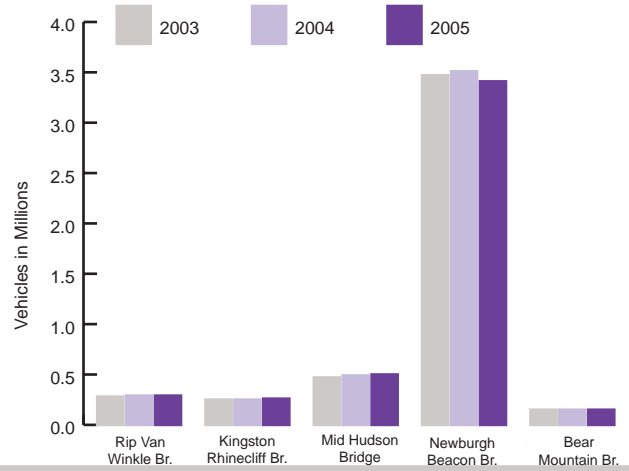


Figure 4B
NYSBA Quarterly Truck Toll Volumes
2003-2005

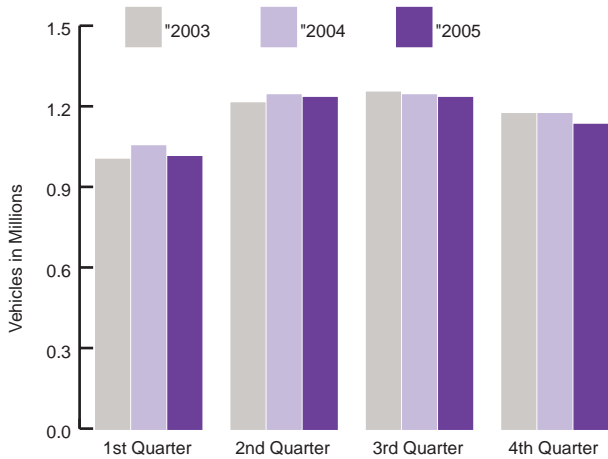


Figure 4C
NYSBA Truck Toll Volumes by Type
2005

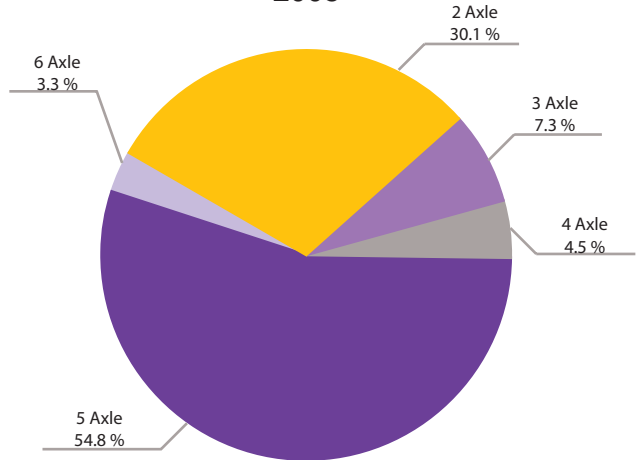


Figure 5A
NYSTA Annual Truck Toll Volumes by Facility
2003-2005

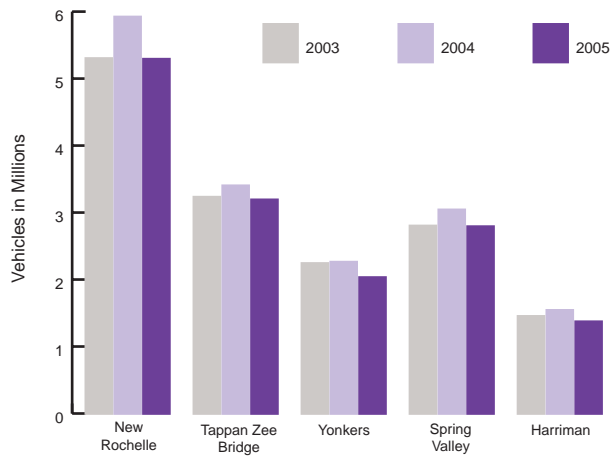


Figure 5B
NYSTA Quarterly Truck Toll Volumes
2003-2005

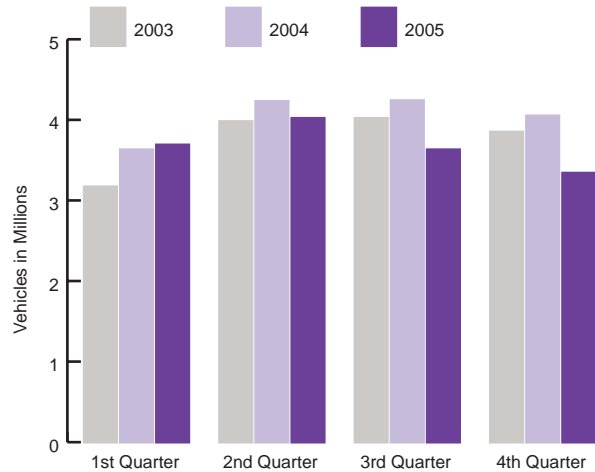


Figure 5C
NYSTA Truck Toll Volumes by Type
2005

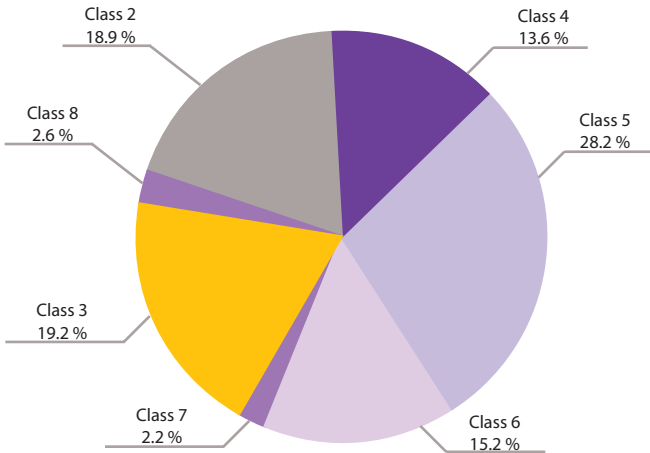


Figure 6A
New Jersey Annual Truck Toll Volumes by Agency
2003-2005

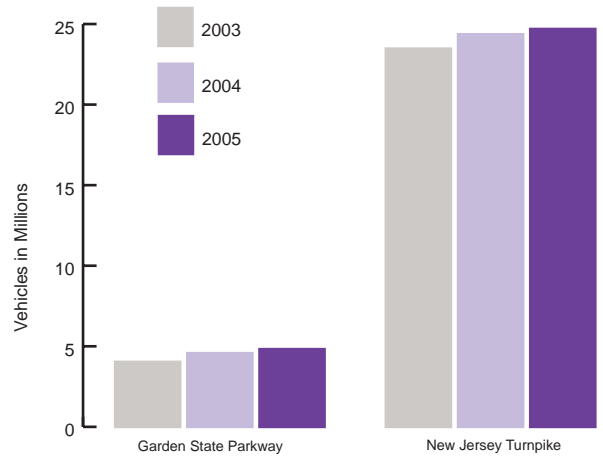


Figure 6B
Garden State Parkway, Quarterly Truck Toll Volumes by Type
2003-2005

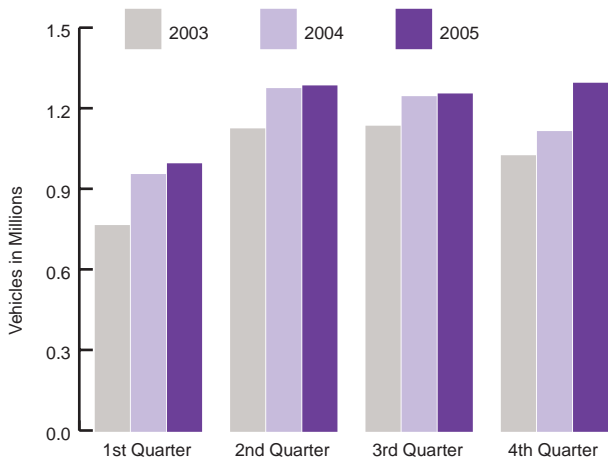


Figure 6C
Garden State Parkway, Truck Toll Volumes by Type
2005

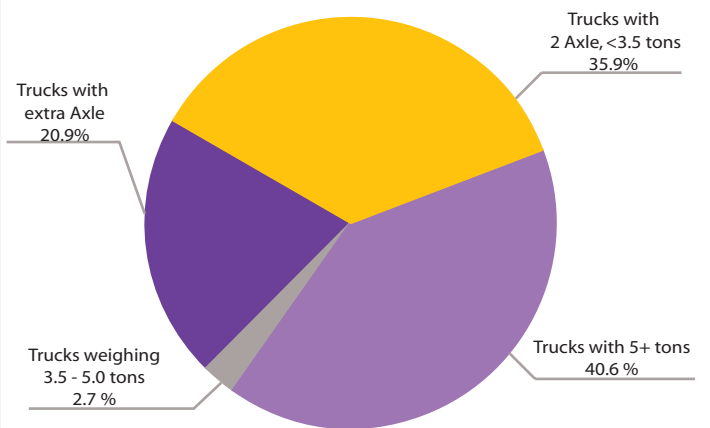


Figure 6D
NJ Turnpike, Quarterly Truck Toll Volumes
2003-2005

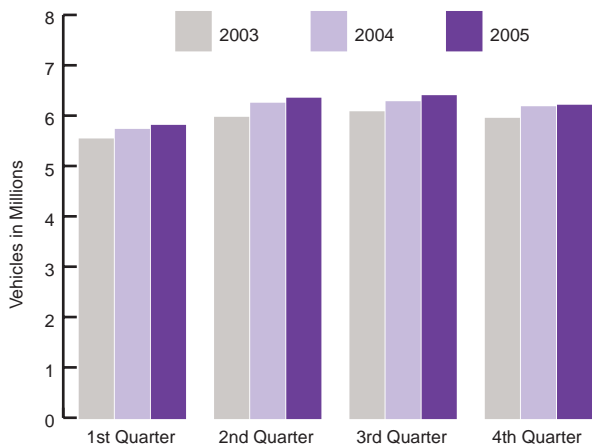


Figure 6E
NJ Turnpike, Truck Toll Volumes by Type
2005

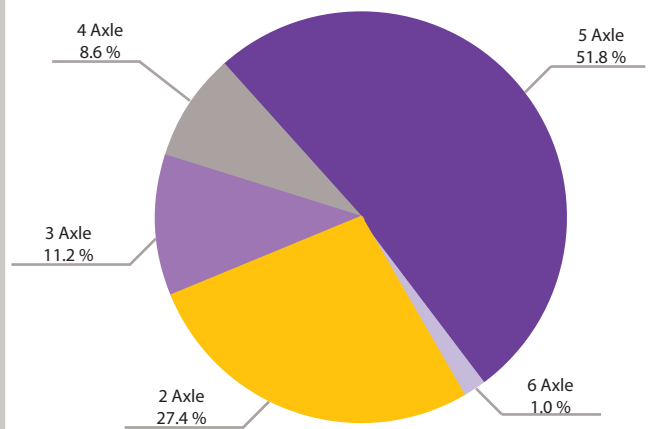
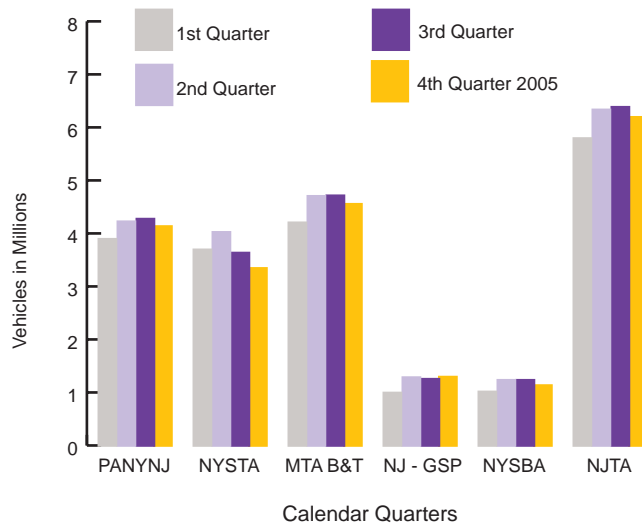


Figure 7
 NY and NJ Quarterly Truck Toll Volumes by Agency
 2005



Source: Toll Agency data

Figure 8
 MTA B&T Annual Truck Toll Volumes by Facility
 1995-2005

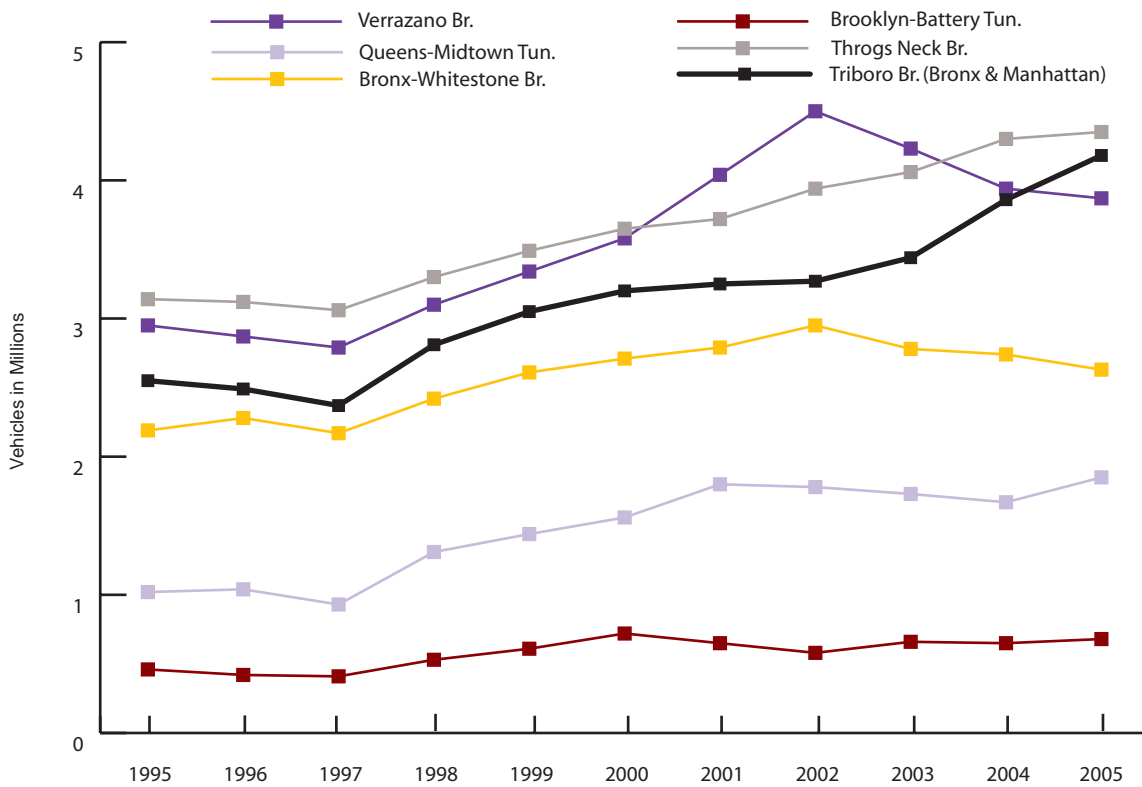


Figure 9
 PANY&NJ Annual Truck Toll Volumes by Facility
 1995-2005

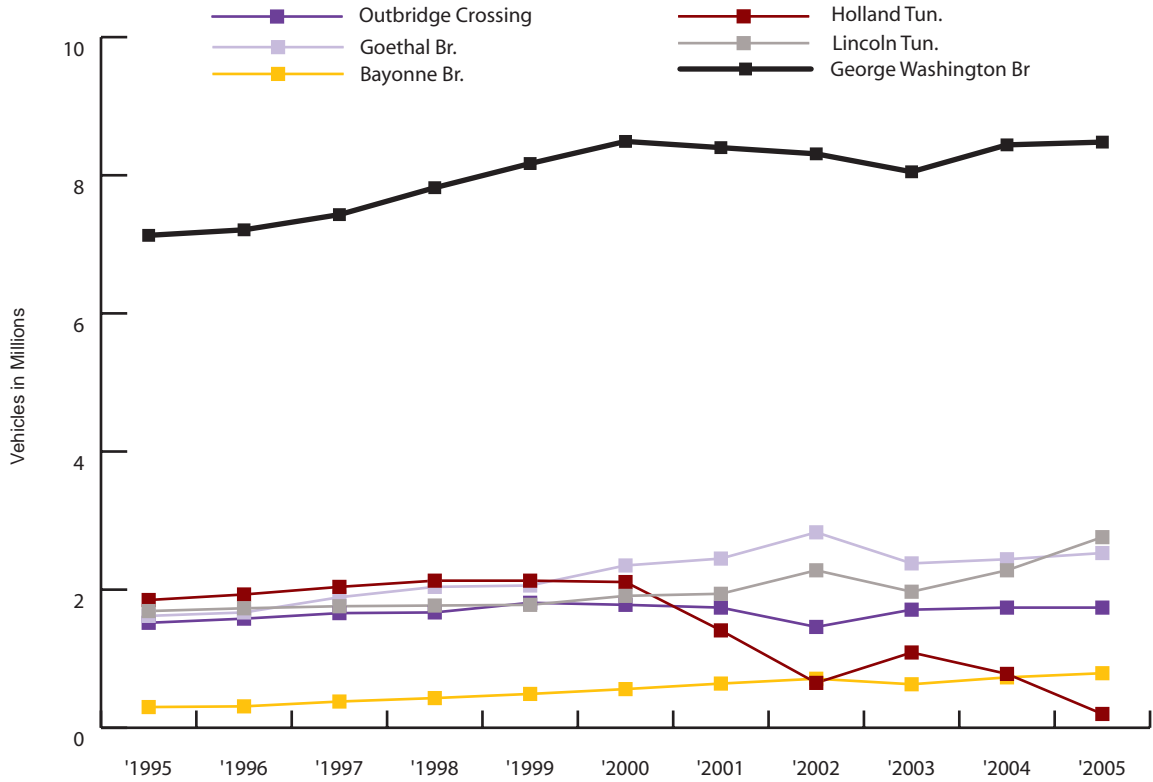


Figure 10
 NJ Turnpike and Garden State Parkway
 Annual Truck Toll Volumes by Facility
 1995-2005

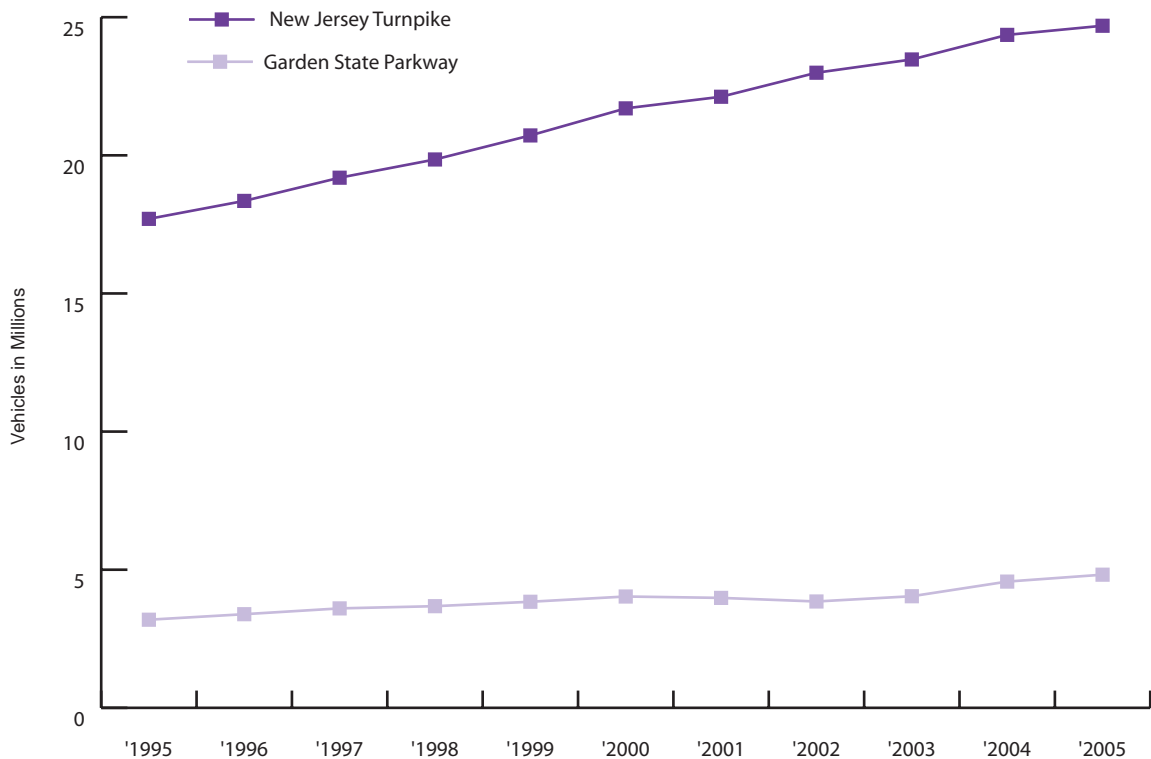


Figure 11
 NYSBA Annual Truck Toll Volumes by Facility
 1995-2005

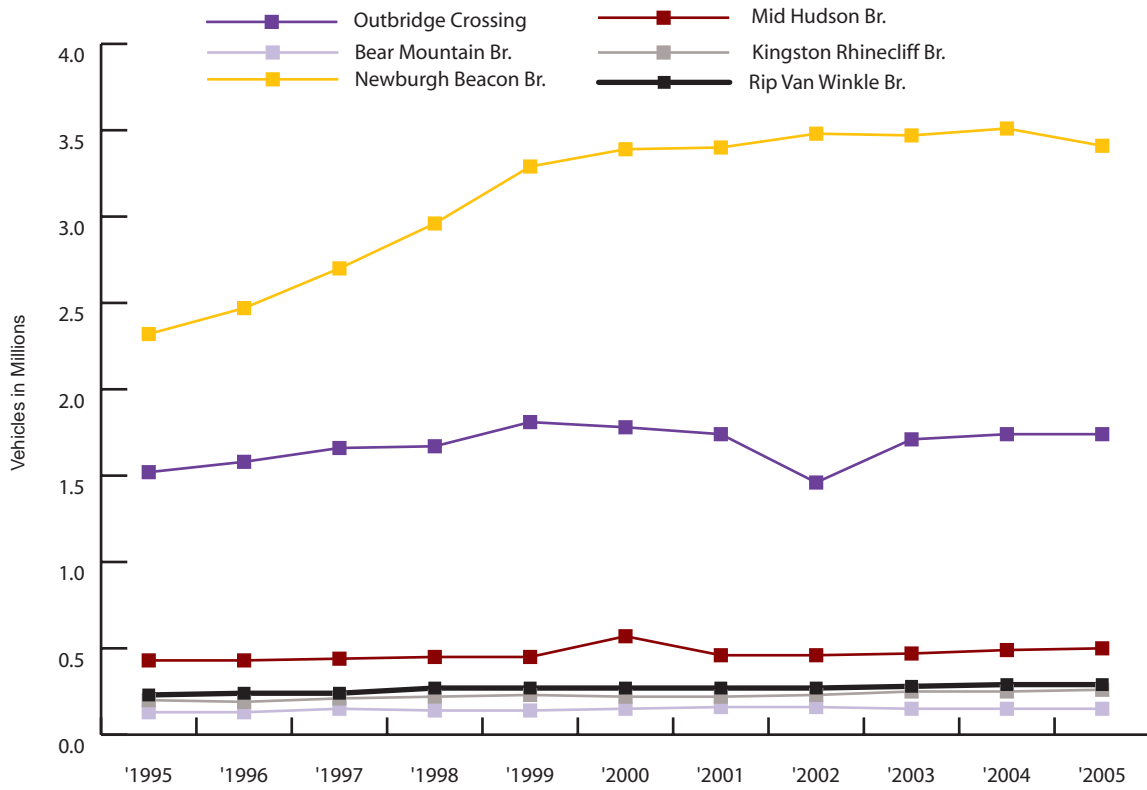


Figure 12
 NYSTA Annual Truck Toll Volumes by Facility
 1995-2005

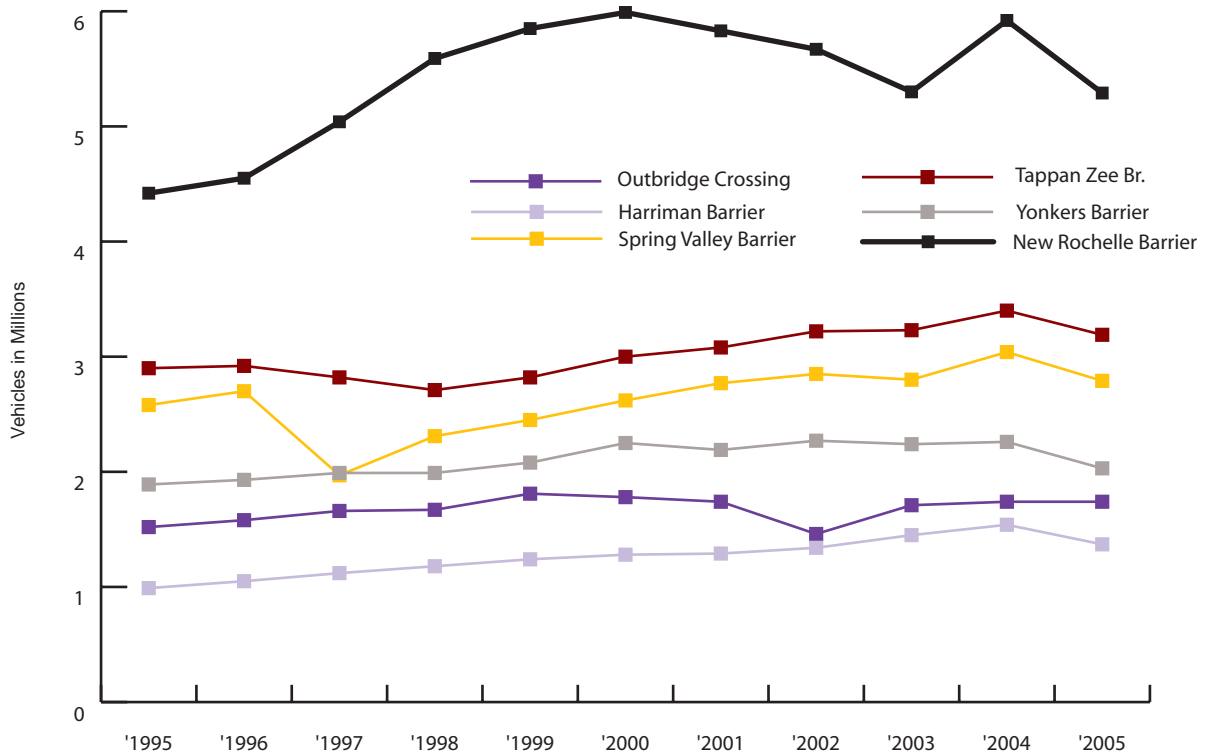


Figure 13
Northern Corridor (GWB & NJT)
Annual Truck Toll Volumes by Facility
1995-2005

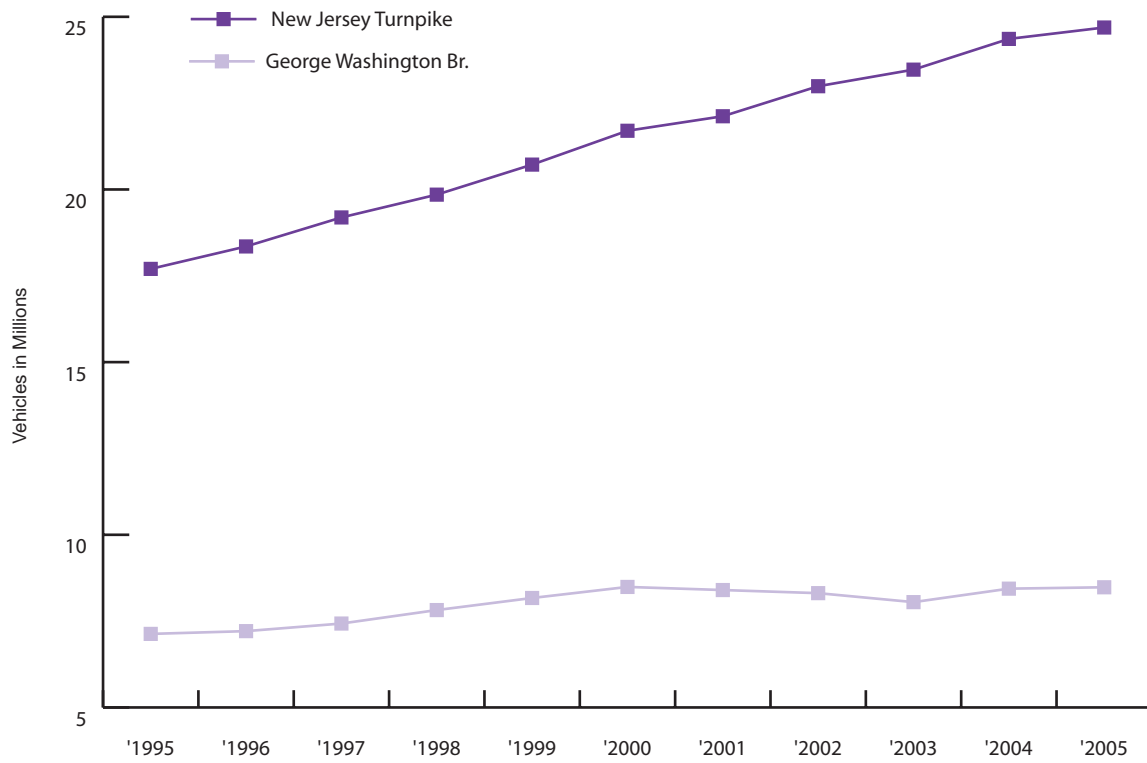


Figure 14
Staten Island Annual Truck Toll Volumes by Facility
1995-2005

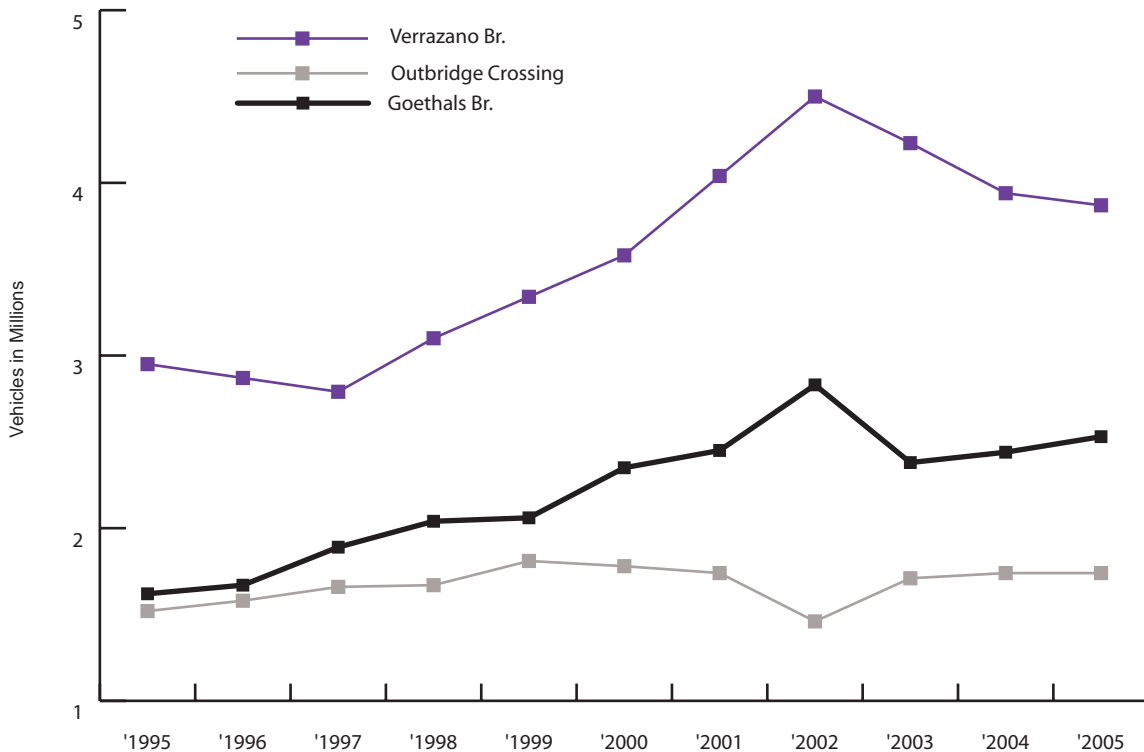


Figure 15
Annual Commercial Vehicle Registration
New York City
1995-2005

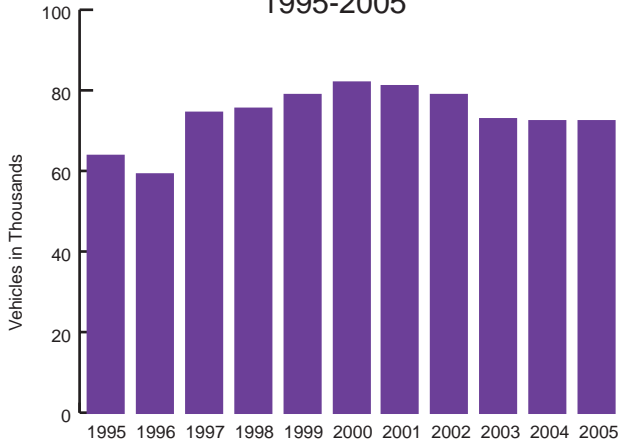


Figure 16
Annual Commercial Vehicle Registration
New York Suburbs
1995-2005

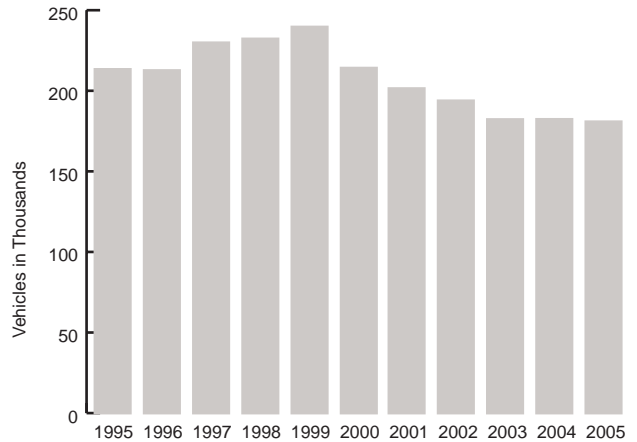


Figure 17
Annual Commercial Vehicle Registration
Downstate New York, New Jersey and Connecticut
1995-2005

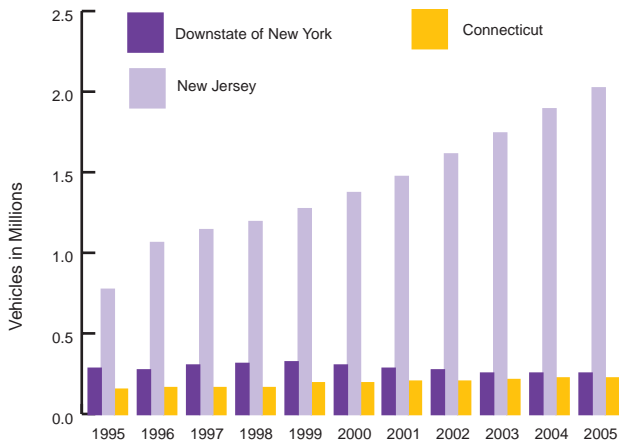


Figure 18
Annual Commercial Vehicle Registration
New York City, Nassau-Suffolk, and Mid-Hudson
1995-2005

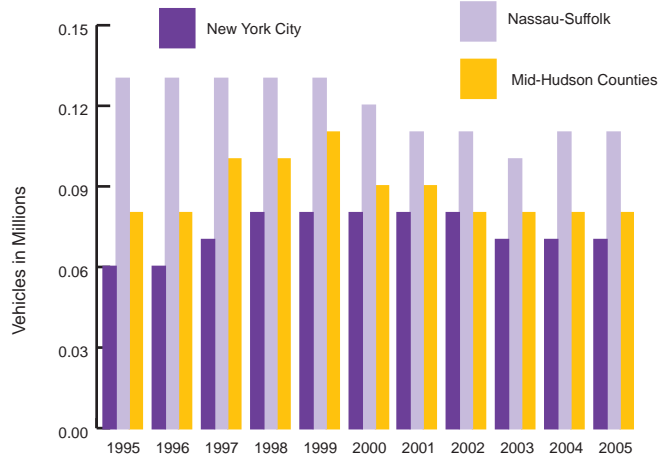


Figure 19
Annual Commercial Vehicle Registrations
Total: Downstate New York,
New Jersey and Connecticut
1995-2005

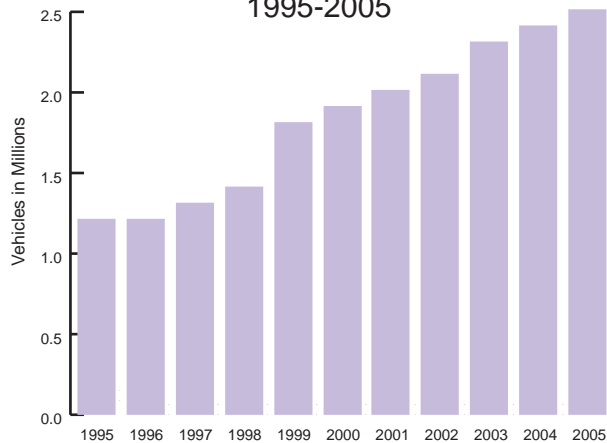


Figure 20
Truck Toll Volumes, Population and Employment
Total: Downstate New York,
New Jersey, and Connecticut
1980-2005

