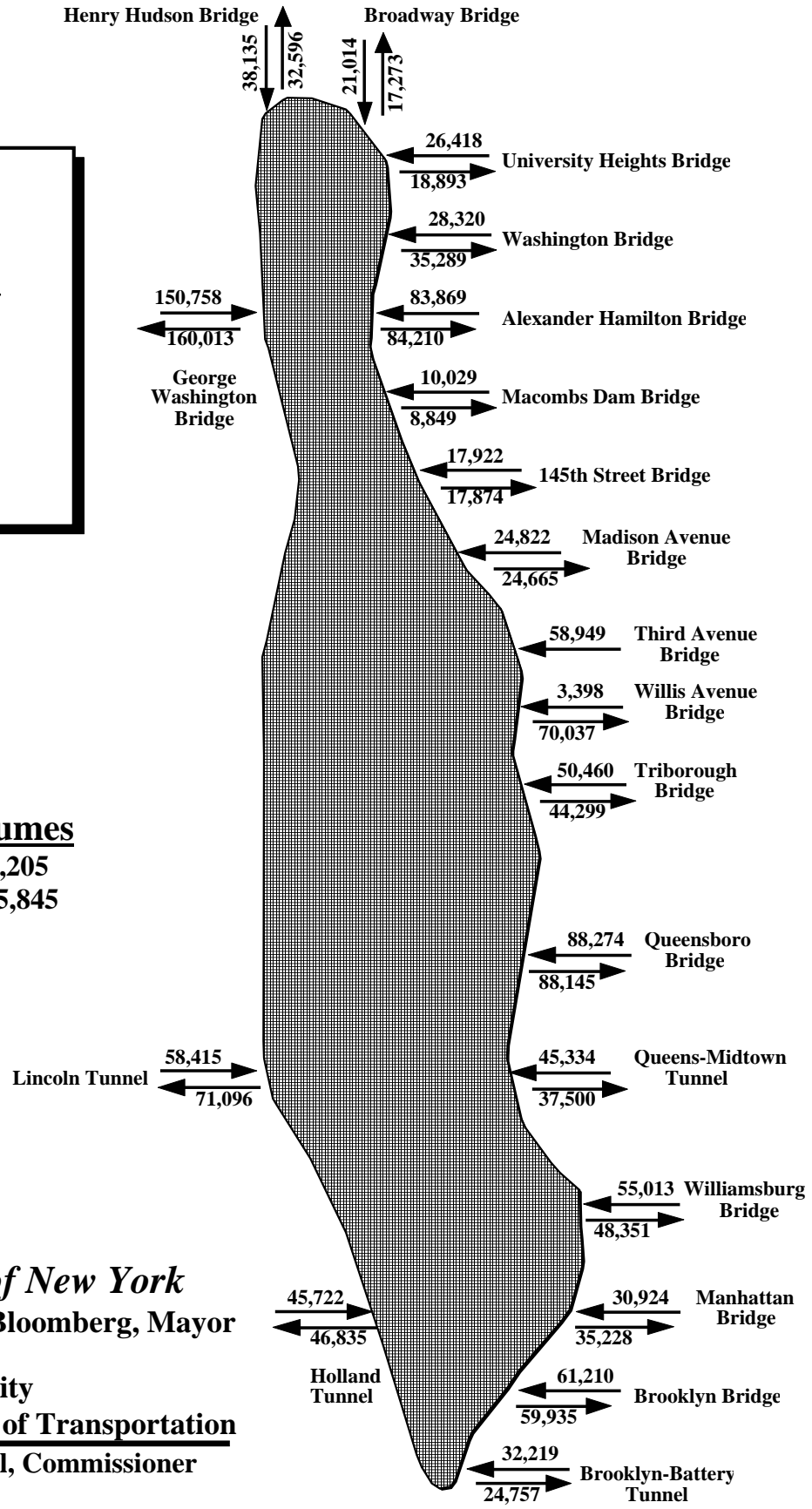


2002 Manhattan River Crossings

24 Hour Volumes
 Inbound = 931,205
 Outbound = 925,845



The City of New York
 Michael R. Bloomberg, Mayor



New York City
 Department of Transportation
 Iris Weinshall, Commissioner

May 2004

Manhattan River Crossings 2002

**PT 2220914 and PT 2221915
Contract D00642**

Task CDOT-02-02 and CDOT-02-03

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Prepared by:
New York City Department of Transportation

Iris Weinshall
Commissioner

Judy Bergtraum
First Deputy Commissioner

David Woloch
Deputy Commissioner/Senior Policy Advisor

Michael Primeggia
Deputy Commissioner

Ann Marie Sledge-Doherty
Director, Research, Implementation, and Safety

Richard P. Roan
Research, Implementation, and Safety

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INTRODUCTION

Since 1948, the City of New York has been monitoring traffic flow over the 20 bridges and tunnels serving Manhattan. The *Manhattan River Crossings* report, published annually by the New York City Department of Transportation (NYCDOT) since 1972, presents vehicular volumes, classification, and trends for all bridge and tunnel facilities serving Manhattan. All toll-free bridges are monitored with automatic traffic recording (ATR) machines during the fall season.

The average hourly volumes by direction for 2002 are presented in histograms for each facility. Trends were developed from a regression analysis of volumes from 1948 to 2002. The annual growth rate was derived from the linear regression equation that reflects the best fitting straight line. The total vehicular flow to and from Manhattan has been summarized similarly with growth curves, hourly histograms, and a graph of vehicle accumulation in Manhattan. The statistical analysis presented in the report was performed by Subregional Transportation Planning Program staff of NYCDOT during the 2002-2003 and 2003-2004 program years.

NYCDOT extends its appreciation to the Port Authority of New York and New Jersey (PANYNJ) and the Metropolitan Transportation Authority (MTA) for their assistance in the data collection process.

SUMMARY

2001-2002 Impacts of 9/11

- Traffic volumes on Manhattan bridges and tunnels serving the area south of 63rd Street were heavily impacted by the events of 9/11, and by restrictions on traffic entering Manhattan south of 63rd Street during the ensuing months. The most significant impacts were on facilities south of Canal Street. In the fall of 2001, Brooklyn Bridge traffic was 35.3% below its year-earlier level. Brooklyn-Battery Tunnel traffic was down 78.2%, and Holland Tunnel traffic was down 57.1%.
- Following 9/11, non-essential single-occupant vehicles were prohibited from entering Manhattan via any bridge or tunnel south of 63rd Street between 6:00am and 11:00am on weekdays.
- On weekdays between 5:00am and 6:00pm, only emergency and official vehicles, residential vehicles, commercial traffic, licensed taxis, liveries, and buses were permitted south of Canal Street in Manhattan.
- The following additional restrictions were also placed in effect at Lower Manhattan entry points:
 - The Brooklyn-Battery tunnel was completely closed to non-essential vehicles round-the-clock in both directions.
 - The Manhattan-bound Holland Tunnel was completely closed to all vehicular traffic round-the-clock, except for emergency vehicles. The New Jersey-bound Holland Tunnel was open to passenger cars and buses only (no trucks).
 - On the Brooklyn Bridge, Manhattan-bound traffic was required to access the bridge from the eastbound Brooklyn-Queens Expressway or from Sands Street. The Tillary/Adams Streets entrance was open to emergency vehicles only. Manhattan-bound traffic was directed to the northbound FDR Drive, and was not permitted to exit to either Pearl Street or Centre Street. Brooklyn-bound traffic was required to access the bridge from the southbound FDR Drive only.
- In mid-October, 2001, the hours during which non-essential single-occupant vehicles were prohibited from entering Manhattan via any bridge or tunnel south of 63rd Street were reduced, to between 6:00am and 10:00am on weekdays. The following additional easing of restrictions also went into effect:
 - The Brooklyn-Battery tunnel was reopened to Brooklyn-bound traffic, but the only access was from a single southbound FDR Drive lane. The Manhattan-bound Brooklyn-Battery tunnel remained closed to non-essential vehicles round-the-clock.
 - The Manhattan-bound Holland Tunnel was reopened to passenger cars only, with a round-the-clock ban on single-occupant vehicles. The New Jersey-

bound Holland Tunnel remained open to passenger cars and buses only (no trucks).

- On the Brooklyn Bridge, the Manhattan-bound entrance from Tillary/Adams Streets was reopened. Manhattan-bound traffic was permitted to exit to northbound Centre Street, as well as to the northbound FDR Drive. Manhattan-bound traffic was still not permitted to exit to Pearl Street. Brooklyn-bound traffic was permitted to access the bridge from Lafayette Street, as well as from the southbound FDR Drive. There was still no Brooklyn-bound access from Centre Street or from Park Row.
- On November 15, 2001, the Manhattan-bound Brooklyn-Battery Tunnel was reopened to passenger vehicles only (no trucks or commercial traffic) on week nights between 8:00pm and 6:00am, and from 8:00pm Friday to 6:00am Monday. Between 6:00am and 8:00pm on weekdays, the Manhattan-bound tunnel was open to emergency vehicles and express buses only. The tunnel also remained open to Brooklyn-bound traffic, with the only access from the southbound FDR Drive.
- On November 29, 2001, the round-the-clock ban on single-occupant Manhattan-bound cars at the Holland Tunnel was reduced, to between 6:00am and 10:00am on weekdays. The round-the-clock ban on trucks remained in effect. The New Jersey-bound Holland Tunnel remained open to passenger cars and buses only (no trucks).
- Also as of November 29, 2001, all passenger cars were allowed south of Canal Street, except between 6:00am and 10:00am on weekdays. Passenger cars still were not allowed in the frozen zone around Ground Zero. Previously, only residential vehicles had been allowed south of Canal Street, along with emergency and official vehicles, commercial vehicles, taxi and limousine commission certified vehicles, buses, and delivery vehicles.
- As of March 29, 2002, the Brooklyn-Battery Tunnel was reopened on a 24-hour basis to all vehicle types in both directions. The ban on Manhattan-bound single-occupant vehicles remained in effect between 6:00-10:00am on weekdays.
- As of April 6, 2002, the round-the-clock ban on Manhattan-bound trucks was modified at the Holland Tunnel. Two-axle and three-axle single unit trucks were permitted eastbound to Manhattan. Tractor trailers, and single unit trucks with more than three axles, were still banned. The total ban on New Jersey-bound trucks remained in effect. The 6-10am weekday ban against non-essential, single-occupant Manhattan-bound vehicles also remained in effect.
- As of April 22, 2002, the 6-10am weekday ban against single-occupant Manhattan-bound vehicles was discontinued at the Queens-Midtown Tunnel, the Lincoln Tunnel, and the Queensboro Bridge.

2002 Daily Traffic

- In fall 2002, daily Manhattan River Crossings rose 8.4%, to 1.857 million. This was 144,000 more than the depressed level of 1.713 million recorded during fall 2001, shortly after the events of 9/11/2001. Nevertheless, it was still 99,000 fewer daily vehicles than the all-time record of 1.956 million recorded two years earlier, during fall 2000.

- Volumes on the East River Bridges increased sharply in fall 2002, following a major decline resulting from the events of 9/11/2001, which had severely restricted traffic flow into lower Manhattan. Traffic on the four East River bridges was up 9.3%, to 467,100 in fall 2002 from 427,300 in fall 2001. Nevertheless, this was still some 47,700 fewer daily vehicles using the four East River Bridges than the 514,800 that had been recorded two years earlier in fall 2000.
- Some 67,800 vehicles entered Manhattan during the 7-8 am morning peak hour, 24.6% more than the 54,400 peak hour entries recorded in 2001. Just over 64,000 vehicles exited during the 4-5 pm evening peak hour, 6.6% more than the 60,100 peak hour departures in 2001.
- For the 41st consecutive year, the George Washington Bridge carried more traffic than any other river crossing serving Manhattan. Some 310,800 daily vehicles used this bridge in fall 2002, 0.5% more than the average volume of 309,300 in fall 2001.
- For the sixth consecutive year, the Queensboro Bridge was the second busiest river crossing, serving 176,400 daily vehicles in fall 2002, the same volume as in fall 2001. The Alexander Hamilton Bridge, which had been in second place continuously from 1978 to 1996, was the third busiest, as its daily volume declined 0.3%, to 168,100 in fall 2002 from 168,600 in fall 2001.
- The average automobile entering Manhattan during the morning peak period carried 1.6 persons including the driver. A total of 62% of peak period automobiles were occupied only by the driver.
- The peak accumulation of motor vehicles in Manhattan on an average weekday occurred at about 2 pm when an estimated 374,400 vehicles were either moving or parked on the island, 0.8% more than in 2001. This includes vehicles operating only within Manhattan as well as those entering via the river crossings.

Recent Trends

- In 2002, Manhattan river crossings increased 8.4% to 1.857 million daily vehicles. Volumes increased on twelve of the twenty river crossings.
- The Brooklyn-Battery Tunnel had the most dramatic traffic increase of all Manhattan river crossings in 2002, as its daily volume quadrupled, to 57,000 in fall 2002 from 13,800 in fall 2001 when severe restrictions on tunnel usage were in effect following the events of 9/11.
- Major rebounds in daily traffic were also recorded on other crossings near Ground Zero. Daily volume through the Holland Tunnel increased 113%, to 92,600 in fall 2002 from 43,400 in fall 2001. Brooklyn Bridge daily traffic rose 26.7%, to 121,100 from 95,600. On the Williamsburg Bridge, daily traffic was up 25.7%, to 103,400 from 82,200. Conversely, Manhattan Bridge daily traffic was down 9.5%, to 66,200 in fall 2002 from 73,100 in fall 2001; the North Upper Roadway was closed round-the-clock during fall 2002, reducing capacity by approximately one-third.
- The largest decrease in daily traffic occurred on the Macombs Dam Bridge, where volume fell by 52.3%, to 18,900 in fall 2002 from 39,600 in fall 2001. With one of two lanes closed round-the-clock in both directions, capacity was reduced by approximately 50% during fall 2002.

- The largest proportion of traffic diverted from the Macombs Dam Bridge was accommodated by the nearby 145th Street Bridge, where daily traffic rose 34.8%, to 35,800 in fall 2002 from 26,600 in fall 2001. Some motorists also diverted to the Washington Bridge (daily volume up 10.7%, to 63,600 from 57,400), and to the Madison Avenue Bridge (daily volume up 14.2%, to 49,500 from 43,300).
- Annual subway ridership citywide rose 0.6% to 1.413 billion in 2002, the highest level since 1954.

Ten-Year Trends (1992-2002)

- In the ten-year period from 1992 to 2002, Manhattan traffic volume has risen 5.7%, to 1,857,100 from 1,757,600, an increase of 99,500 daily vehicles.
- Daily vehicle trips entering Manhattan were 5.3% higher in 2002 than in 1992. The biggest increase in inbound trips occurred during the 4-7am period, which rose 26.0% during the decade. Trips leaving Manhattan increased 6.0% since 1992. The biggest outbound increase also occurred during the 4-7am period (+34.8%).
- Vehicle trips on the 13 toll-free East and Harlem River bridges grew at an average annual rate of 0.8% per year from 1992 to 2002. The highest average annual growth rate was on the Madison Avenue Bridge: +7.2% per year. The greatest volume increase occurred on the Queensboro Bridge (35,300 more daily vehicles in 2002 than in 1992). The Macombs Dam Bridge had the highest annual rate of decline: -4.1% per year.
- Traffic volumes on the four MTA Bridges and Tunnels (MTABT) river crossings serving Manhattan increased at an average annual rate of 0.4% per year since 1992. The highest average annual growth rate was on the Henry Hudson Bridge (+2.1% per year), which also had the biggest volume increase (+12,100 vehicles per day).
- Traffic volumes on the three trans-Hudson Port Authority of New York and New Jersey (PANYNJ) river crossings serving Manhattan increased 1.1% per year since 1992. The highest average annual growth rate was at the George Washington Bridge (+2.3% per year), which also had the biggest volume increase (+42,800 vehicles per day).
- New York City motor vehicle registrations increased 0.7% per year. In Manhattan, registrations increased 1.6% per year.

Historical Trends

- During the 25 years following 1948, motor vehicle traffic to and from Manhattan increased 2.9% per year. By 1973 it had reached 1.493 million daily trips. Gasoline shortages arising from the first OPEC oil crisis contributed to traffic declining by 1.5% per year between 1973 and 1976. In 1977 and 1978, traffic growth resumed at 2.3% per year. Another OPEC crisis caused traffic to decline 2.4% in 1979. The 1980s brought new growth at 2.9% per year until 1987, when traffic volume declined by less than 1%. This slow downward trend continued through 1994. This was followed by increases of 3.0% in 1995, 0.4% in 1996, 4.4% in 1997, 2.9% in 1998, 1.7% in 1999, and 1.2% in 2000 (to an all time record of 1.956 million). By fall 2001, shortly after the events of 9/11, daily volume had decreased 12.4%, to 1.713 million. In fall 2002, daily volume rebounded by 8.4%, to 1,857 million.

- Between 1948 and 2002, daily vehicle trips to and from Manhattan rose 177%, to 1,857,000 from 670,000 (1,187,000 additional daily trips). The biggest growth was on the PANYNJ's three trans-Hudson facilities, where traffic climbed by 360%. Traffic rose 84% on the four toll-free East River bridges, 166% on the nine toll-free Harlem River bridges, and 228% on the MTABT's four toll crossings.
- Between 1952 and 1962, daily traffic growth to and from Manhattan averaged 2.7% per year. The largest annual growth rates occurred on the Brooklyn Bridge (+14.1%), and on the Washington Bridge over the Harlem River (+7.5%). The largest annual decline was on the Manhattan Bridge, where daily traffic decreased 4.5% per year.
- Between 1962 and 1972, daily traffic growth to and from Manhattan averaged 2.5% per year. The largest annual growth rates occurred on the George Washington and Triborough Bridges, +6.4% and +3.7%, respectively. The biggest annual decline was on the Washington Bridge over the Harlem River (-3.2% per year).
- Between 1972 and 1982, traffic growth on all Manhattan crossings averaged 0.7% per year. The largest annual growth rates were on the Broadway Bridge over the Harlem River, and through the Brooklyn-Battery Tunnel (+2.4% at both crossings). The biggest annual decline was on the Henry Hudson Bridge (-2.7% per year).
- Between 1982 and 1992, traffic growth on all Manhattan river crossings averaged 1.0% per year. The largest annual growth rates were on the Henry Hudson Bridge (+6.8%), and the Broadway Bridge over the Harlem River (+3.0%). The largest annual decline was on the Manhattan Bridge, where daily traffic decreased 2.5% per year.
- During the 54-year period from 1948 to 2002, average daily Manhattan vehicular river crossings rose 177%, to 1,857,000 from 670,000. During the same period, annual citywide subway ridership declined by 30%, to 1,413,000,000 from 2,031,000,000.

Origin-Destination

- According to the 1990 census data, 45% of all automobile work trips ending in Manhattan originated in the other four boroughs, 43% came from outside the city, and the remaining 12% originated within Manhattan.
- Origin and Destination (O & D) surveys conducted by PANYNJ in 1989 at its trans-Hudson crossings show that 40% of all automobiles entering Manhattan from New Jersey each day have final destinations outside Manhattan. Similar surveys conducted in 1991 show that 78% of the trucks entering from New Jersey have final destinations outside Manhattan. These figures indicate that 108,375 autos and trucks entering Manhattan from New Jersey in 2002 each day were simply passing through.
- PANYNJ's O & D surveys show that 79% (86,050 vehicles) of all daily "through-Manhattan" auto and truck trips from New Jersey use the George Washington Bridge and the Trans-Manhattan Expressway. The remaining 21% (22,325 vehicles) use the Lincoln and Holland Tunnels and proceed across Manhattan along congested City streets.
- PANYNJ reports show that 66% (29,675 automobiles) of morning peak period (7-10 am) automobiles entering from New Jersey have final destinations in Manhattan.

2002 Bridge and Tunnel Reconstruction

Brooklyn Bridge

Throughout 2002, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Brooklyn Bridge on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001.

From January 1 to June 28, all Manhattan-bound traffic was directed to Centre Street and the northbound FDR Drive. Brooklyn-bound traffic had access to the bridge only from Lafayette Street and the southbound FDR Drive.

Westbound lane closures were in effect on the Brooklyn Bridge according to the following schedule.

07/13:	12:01am - 5:00am intermittently.	Sat	2 w/b lanes closed
08/03-08/30:	11:00pm - 5:00am intermittently.	Sun-Fri	1 w/b lane closed

Eastbound lane closures were in effect on the Brooklyn Bridge according to the following schedule.

02/02-02/09:	7:00am - 2:00pm	Sat	1 e/b lane closed.
01/12-07/12:	10:00am - 3:00pm intermittently.	Mon-Fri	1 e/b lane closed
08/03-12/31:	10:00am - 3:00pm intermittently, 5:00am - 2:00pm intermittently.	Mon-Fri Sat	1 e/b lane closed 1 e/b lane closed

The **exit from the northbound FDR Drive to the eastbound Brooklyn Bridge** and the Civic Center was closed according to the following schedule.

07/13-08/02:	10:00pm - 6:00am	All days.
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The **exit from the southbound FDR Drive to the eastbound Brooklyn Bridge** was closed according to the following schedule.

07/13-07/19:	2:00am - 6:00am	All days.
07/20-07/26:	11:00pm - 6:00am	All days.
07/27-08/02:	12:01am - 6:00am 12:01am - 7:00am 1:00am - 8:00am	Mon-Fri, Sat. Sun.

The **Pearl Street entrance ramp to the eastbound Brooklyn Bridge** was closed according to the following schedule.

07/20-08/02:	2:00am - 6:00am	All days.
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Throughout 2002, there were additional intermittent closings of single lanes in both directions on the Brooklyn Bridge during off-peak hours.

Manhattan Bridge

Throughout 2002, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Manhattan Bridge on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001.

Throughout 2002, **pedestrian and bicycle access** was provided on the south side of the Manhattan Bridge, on an interim roadway.

As of 5:00am, Thursday, August 1, 2002, the **North Upper Roadway was closed** round-the-clock for approximately one year to facilitate NYCDOT bridge reconstruction.

Manhattan Bridge Operation: January 1 - July 31, 2002

South Upper Roadway closed as follows.

01/01-07/31: 9:00pm – 5:00am Weeknights.

Lower Roadway (reversible) lane closures in effect as follows.

01/01-07/31: Round the clock All days 1 Lower Rdwy lane closed.

10:00am – 3:00pm Mon-Fri 2nd Lower Roadway lane closed intermittently.

Four peak direction lanes on weekdays (6:00-10:00am inbound, 3:00-9:00pm outbound).

5:00am - 6:00am Mon - Fri. January 1 – July 31

- Manhattan-bound: 2 lanes on North Upper Roadway.
- Brooklyn-bound: 4 lanes: 2 on South Upper Roadway, 2 on Lower Roadway.

6:00am - 10:00am Mon - Fri. January 1 – July 31

- Manhattan-bound: 4 lanes: 2 on North Upper Roadway, 2 on Lower Roadway.
- Brooklyn-bound: 2 lanes on South Upper Roadway.

10:00am - 1:00pm Mon – Fri. January 1 – July 31

- Manhattan-bound: 3-4 lanes: 2 on North Upper Roadway, 1-2 on Lower Roadway.
- Brooklyn-bound: 2 lanes on South Upper Roadway.

1:00pm - 3:00pm Mon - Fri. January 1 – July 31

- Manhattan-bound: 2 lanes on North Upper Roadway.
- Brooklyn-bound: 3-4 lanes: 2 on South Upper Roadway, 1-2 on Lower Roadway.

3:00pm - 9:00pm Mon - Fri. January 1 – July 31

- Manhattan-bound: 2 lanes on North Upper Roadway.
- Brooklyn-bound: 4 lanes: 2 on South Upper Roadway,
2 on Lower Roadway.

9:00pm - 5:00am Mon - Fri. January 1 – July 31

- Manhattan-bound: 2 lanes on North Upper Roadway. *South Upper Rdwy*
- Brooklyn-bound: 2 lanes on Lower Roadway. *closed these hours.*

6:00am - 6:00pm Sat-Sun. March 23-24 & April 6 - May 11 only.

- Manhattan-bound: 4 lanes: 2 on North Upper Roadway,
2 on Lower Roadway.
- Brooklyn-bound: 2 lanes on South Upper Roadway.
- *4 Manhattan-bound lanes to accommodate trucks and other vehicles diverted from the Williamsburg Bridge where both the North Inner and North Outer Roadways were closed during these weekends, with Manhattan-bound trucks banned from the Williamsburg Bridge.*

All other times. January 1 – July 31

- Manhattan-bound: 2 lanes on North Upper Roadway.
- Brooklyn-bound: 4 lanes: 2 on South Upper Roadway,
2 on Lower Roadway.
- *Additional intermittent closings of single lanes in either or both directions during off-peak hours.*

Manhattan Bridge Operation: August 1 - December 31, 2002

North Upper Roadway closed round-the-clock.

Manhattan-bound traffic could access westbound Canal Street and northbound Bowery only. No direct access to Chrystie Street or eastbound Canal Street.

Brooklyn-bound traffic could access Flatbush Avenue and Jay Street.

Commercial traffic permitted at all times in both directions, with Brooklyn-bound commercial traffic required to use the South Upper Roadway at all times.

Lower Roadway (reversible) lane closures in effect as follows.

08/01-12/31: 5:00am - 10:00am Mon-Fri No closures.
3:00pm - 9:00pm Mon-Fri No closures.
All other times 1 lane closed intermittently.

North Upper Roadway closed round-the-clock as of 08/01/2002.

Three peak direction lanes on weekdays (5:00-10:00am inbound, 3:00-9:00pm outbound).

5:00am - 10:00am Mon - Fri. August 1 – December 31

- Manhattan-bound: 3 lanes on Lower Roadway.
- Brooklyn-bound: 2 lanes on South Upper Roadway.

3:00pm - 9:00pm Mon - Fri. August 1 – December 31

- Manhattan-bound: 2 lanes on Lower Roadway.
- Brooklyn-bound: 3 lanes: 2 lanes on South Upper Roadway, 1 reversed lane on Lower Roadway for passenger cars only.

All other times. August 1 – December 31

- Manhattan-bound: 2 lanes on Lower Roadway, 3rd lane available when work not occurring.
- Brooklyn-bound: 2 lanes on South Upper Roadway.
- *Additional intermittent closings of single lanes in either or both directions during off-peak hours.*

Queensboro Bridge

From January 1 to April 19, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Queensboro Bridge on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001, and was discontinued as of April 20, 2002.

Throughout 2002, **trucks** were permitted on the two lower inner roadways only.

Throughout 2002, a **High Occupancy Vehicle (HOV) facility** was in effect on the Queensboro Bridge. The normally Queens-bound South Upper Roadway was reversed between 6:00am and 10:00am on weekdays to accommodate Manhattan-bound HOVs (no trucks) carrying two or more occupants.

The Manhattan-bound **South Inner Roadway** of the Queensboro Bridge was subject to closures according to the following schedule.

01/30-01/31:	1:00am - 5:00am	Wed-Thu	Both lanes closed.
02/08:	1:00am - 5:00am	Fri	Both lanes closed.
09/29:	12:01am - 8:30am	Sun	One lane closed.

Manhattan-bound trucks banned from bridge during these times.

Queensboro Bridge Operation: All of 2002

North Inner Roadway:	W/B all times; W/B trucks required to use this roadway.
South Inner Roadway:	E/B all times; E/B trucks required to use this roadway.
North Upper Roadway:	W/B all times.
North. Outer Roadway:	Bicyclists and pedestrians all times.
South Outer Roadway:	E/B all times (passenger cars only).

South Upper Roadway: Closed for reversal 5:30-6:00am & 10:00-11:00am weekdays,
W/B HOVs 6:00-10:00am weekdays,
E/B all other times.

Throughout 2002, there were additional intermittent closings of single lanes on individual roadways of the Queensboro Bridge during off-peak hours. These closings were limited to one lane in each direction.

Williamsburg Bridge

Throughout 2002, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Williamsburg Bridge on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001.

Throughout 2002, **trucks** were permitted only on the outer roadways of the Williamsburg Bridge.

The **North Inner Roadway**, which had been closed round-the-clock for reconstruction since January 29, 2001, was reopened on June 10, 2002.

Williamsburg Bridge Operation: January 1 - June 9, 2002

North Inner Roadway closed round-the-clock.

North Outer Roadway closed as follows.

03/23-03/25: 12:01am Sat - 5:00am Mon. *Manhattan-bound trucks*

04/06-05/06: 12:01am Sat - 5:00am Mon. *banned from Williamsburg*

05/11: 12:01am - 6:00pm Sat. *Bridge these times.*

North Inner Roadway closed round-the-clock.

South Inner Roadway reversed to Manhattan-bound these times.

South Inner Roadway reversed to Manhattan-bound as follows.

01/01-06/09 6:00am - 2:30pm Mon-Fri.

03/23-03/25: 12:01am Sat - 5:00am Mon.

04/06-05/06: 12:01am Sat - 5:00am Mon.

05/11: 12:01am - 6:00pm Sat.

6:00am - 2:30pm Mon-Fri. January 1 – June 9

- Manhattan-bound: 4 lanes: 2 on North Outer Roadway,
2 on reversed South Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.

12:01am Sat - 5:00am Mon. March 23-25 & April 6 - May 6 only.

- Manhattan-bound: 2 lanes on reversed South Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.
- *North Outer & North Inner Roadways both closed during these times, and
Manhattan-bound trucks banned from Williamsburg Bridge.*
- *Manhattan Bridge Lower Roadway operated Manhattan-bound
6:00am – 6:00pm Sat.-Sun. on these dates to accommodate diversion.*

12:01am - 6:00pm Sat. May 11 only.

- Manhattan-bound: 2 lanes on reversed South Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.
- *North Outer & North Inner Roadways both closed during these hours, and
Manhattan-bound trucks banned from Williamsburg Bridge.*
- *Manhattan Bridge Lower Roadway operated Manhattan-bound
6:00am – 6:00pm on this date to accommodate diversion.*

All other times. January 1 – June 9

- Manhattan-bound: 2 lanes on North Outer Roadway.
- Brooklyn-bound: 4 lanes: 2 on South Outer Roadway,
2 on South Inner Roadway.
- *Additional intermittent closings of one of two Manhattan-bound lanes
during overnight hours.*
- *Additional intermittent closings of one of four Brooklyn-bound lanes
during
overnight hours, and during off-peak midday hours.*

Williamsburg Bridge Operation: June 10 - December 31, 2002

North Inner Roadway closed as follows.

06/10-12/31: 5:00am - 3:00pm Mon-Fri.
09/21-09/28: 5:00am - 3:00pm Sat.

*South Inner Roadway reversed to Manhattan-bound during these
times.*

North Outer Roadway closed as follows.

09/21-09/28: 5:00am - 8:00am Sat.

*Manhattan-bound trucks banned from the bridge during these hours.
North Inner Roadway also closed 5:00am-3:00pm these dates, and
South Inner Roadway reversed to Manhattan-bound 5:00am-3:00pm
these dates.*

South Inner Roadway closed as follows.

08/03-08/17: 5:00am - 5:00pm Sat.
08/23-08/26: 10:00pm Fri - 5:30am Mon.

South Outer Roadway closed as follows.

08/23-08/26: 10:00pm Fri - 10:00am Sat. *Brooklyn-bound trucks
banned from
Williamsburg*
10:00pm Sat - 10:00am Sun.
7:00pm Sun – 5:30am Mon. *Bridge these hours.*
*South Inner Roadway also closed these hours, and North Inner
Roadway
reversed to Brooklyn-bound these hours.*

North Inner Roadway reversed to Brooklyn-bound as follows.

08/23-08/26 10:00pm Fri – 10:00am Sat. *South Inner & South
Outer*
10:00pm Sat – 10:00am Sun. *Roadways both closed
these times.*
7:00pm Sun – 5:30am Mon.

South Inner Roadway reversed to Manhattan-bound as follows.

06/10-12/31 5:00am - 3:00pm Mon-Fri.
North Inner Roadway closed 5:00am-3:00pm.
09/21-09/28: 5:00am - 3:00pm Sat.
*North Inner Roadway closed 5:00am-3:00pm.
North Outer Roadway closed 5:00am-8:00am.*

5:00am - 3:00pm Mon-Fri. June 10 – December 31.

- Manhattan-bound: 4 lanes: 2 on North Outer Roadway,
2 on reversed South Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.

5:00am - 5:00pm Sat. August 3, 10, & 17 only.

- Manhattan-bound: 4 lanes: 2 on North Outer Roadway,
2 on North Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.

**10:00pm Fri - 10:00am Sat. August 23-24 only. Both South Roadways
closed,**

**10:00pm Sat - 10:00am Sun. August 24-25 only. and Brooklyn-bound
trucks**

7:00pm Sun - 5:30am Mon. August 25-26 only. banned from the bridge.

- Manhattan-bound: 2 lanes on North Outer Roadway,
- Brooklyn-bound: 2 lanes on reversed North Inner Roadway.

10:00am - 10:00pm Sat. August 24 only.

10:00am - 7:00pm Sun. August 25 only.

- Manhattan-bound: 4 lanes: 2 on North Outer Roadway,
2 on North Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.

5:00am - 8:00am Sat. September 21 & 28 only.

- Manhattan-bound: 2 lanes on reversed South Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway.
- *North Outer & North Inner Roadways both closed during these times, and
Manhattan-bound trucks banned from Williamsburg Bridge.*

8:00am - 3:00pm Sat. September 21 & 28 only.

- Manhattan-bound: 4 lanes: 2 on North Outer Roadway,
2 on reversed South Inner Roadway.
- Brooklyn-bound: 2 lanes on South Outer Roadway,

All other times. June 10 – December 31.

- Manhattan-bound: 4 lanes: 2 on North Outer Roadway,
2 on North Inner Roadway.
- Brooklyn-bound: 4 lanes: 2 on South Outer Roadway,
2 on South Inner Roadway.
- *Additional intermittent closings of one of four lanes in either or both directions during overnight hours, and during off-peak midday hours.*

Alexander Hamilton Bridge

From January 1 to May 10, one of three lanes in each direction on the Cross Bronx Expressway between the Alexander Hamilton Bridge and Castle Hill Avenue was closed intermittently at work areas from 10:00pm to 6:00am weeknights. Two of three lanes were closed intermittently from 12:01am to 5:00am.

Macombs Dam Bridge

From January 1 to February 19, one of two lanes in each direction on the Macombs Dam Bridge and the 155th Street viaduct was closed at all times. In addition, the ramp from southbound Major Deegan Expressway to the bridge (Exit 5), and the ramp from the bridge to southbound Major Deegan Expressway, were also closed. The ramp from the bridge to northbound Major Deegan Expressway remained open. Motorists were advised to use alternate Harlem River crossings.

From February 20 to October 11, there were intermittent closings of single lanes on the Macombs Dam Bridge during off-peak hours, between 10:00am and 3:00pm weekdays, and between 10:00pm and 5:00am weeknights. There were no lane closures during New York Yankee home games.

From October 12 to December 31, one of two lanes in each direction on the Macombs Dam Bridge and the 155th Street viaduct was closed at all times. In addition, the ramp from southbound Major Deegan Expressway to the bridge (Exit 5), and the ramp from the bridge to southbound Major Deegan Expressway, were also closed. Access to/from the bridge via Adam Clayton Powell, Jr. Boulevard and Macombs Place was also closed.

Madison Avenue Bridge

Throughout 2002, there were intermittent weekday closings of one of the two Manhattan-bound lanes between 9:30am and 3:00pm, and one of the two Bronx-bound lanes between 8:00am and 3:00pm. There were no lane closures during New York Yankee home games.

The Madison Avenue Bridge was completely closed in both directions according to the following schedule.

08/26-08/27: 11:00pm Mon - 5:00am Tue.

Third Avenue Bridge (Harlem River)

From January 1 to October 2, there were intermittent weekday closures of one lane on the approach from Bruckner Boulevard and from Third Avenue between 10:am and 3:00pm.

The Third Avenue Bridge was completely closed according to the following schedule.

04/28: 2:00am - 7:00am Sun.

As of October 3, 2002, two of the four Manhattan-bound lanes were closed for long term bridge rehabilitation. The bridge entrance from Bruckner Boulevard was also closed. Motorists were detoured to the entrance from Third Avenue.

During this period, on weekdays between 6:00-10:00am, and from 10:00pm to 2:00am following Yankee home games, Manhattan-bound passenger cars were accommodated in a reverse lane on the Willis Avenue Bridge.

Willis Avenue Bridge

From January 1 to October 2, there were intermittent weekday closures of one lane between 10:00am and 3:00pm.

One of two lanes from the First Avenue and FDR Drive approaches was closed according to the following schedule.

02/02-09/13: 11:00pm - 5:00am Weeknights.

The Willis Avenue Bridge was completely closed according to the following schedule.

08/09: 2:00am - 4:00am Fri.

Motorists were advised to use either the Triborough Bridge or the Madison Avenue Bridge during these hours.

As of October 3, 2002, one lane was reversed to Manhattan-bound between 6:00-10:00am weekdays, and from 10:00pm to 2:00am following Yankee home games, to accommodate traffic (passenger cars only) from the Third Avenue Bridge reconstruction. Direct access to the reversal lane was available from southbound Major Deegan Expressway (Exit 2), and from local streets via East 134th Street. Passenger cars using the reversal lane exited at First Avenue and 125th Street in Manhattan, and were permitted to turn left for access to southbound FDR Drive, or

right for access to local streets.. During these hours, there were two Bronx-bound lanes open (one lane from the First Avenue approach and one lane from the FDR Drive approach).

One of two lanes from the First Avenue approach was closed intermittently according to the following schedule.

12/07-12/20: 10:00am - 3:00pm Mon-Fri.
12:01am – 8:00am Sat-Sun.
12/21-12/31: 12:01am – 8:00am Mon-Fri.

Brooklyn-Battery Tunnel

Immediately following the events of 9/11/2001, the Brooklyn-Battery tunnel was completely closed to non-essential vehicles round-the-clock in both directions.

On October 13, 2001, the tunnel was reopened to Brooklyn-bound traffic, but the only access was from the southbound FDR Drive. The Manhattan-bound Brooklyn-Battery tunnel remained closed to non-essential vehicles round-the-clock.

On November 15, 2001, the Manhattan-bound Brooklyn-Battery Tunnel was reopened to passenger vehicles only (no trucks or commercial traffic) on week nights between 8:00pm and 6:00am, and from 8:00pm Friday to 6:00am Monday. Between 6:00am and 8:00pm on weekdays, the Manhattan-bound tunnel was open to emergency vehicles and express buses only. The tunnel also remained open to Brooklyn-bound traffic, with the only access from the southbound FDR Drive.

On March 29, 2002, the tunnel was reopened on a 24-hour basis to all vehicle types in both directions. The ban on Manhattan-bound single-occupant vehicles remained in effect between 6:00-10:00am on weekdays.

Throughout 2002, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Brooklyn-Battery Tunnel on weekdays between 6:00-10:00 am.

As of September 3, 2002, the inbound **exit to Trinity Place** was closed weekdays between 6:00-10:00am, and between 3:00-7:00pm, in conjunction with implementation of the Church Street Transitway.

One of the two tubes was completely closed according to the following schedule.

09/21-09/22: 2:00am Sat - 6:00pm Sun.
Two-way traffic was maintained in the other tube.
09/28-09/29: 2:00am -6:00pm Sat,
10:00am –Noon Sun.
Two-way traffic was maintained in the other tube.

From January 1 to March 29, a special **Gowanus Expressway contra-flow lane** on the outbound roadway of the Gowanus Expressway, from 92nd Street to the Brooklyn-Battery Tunnel, was open to buses and emergency vehicles from 6:00-10:00am on weekdays, with access to the Brooklyn-Battery Tunnel only Entry to this special lane was available at 65th Street, and from the Upper Level of the Verrazano-Narrows Bridge. During operation of the special lane, two outbound lanes were available on the Gowanus Expressway.

As of April 1, 2002, with the Brooklyn-Battery Tunnel reopened to all vehicle types in both directions on a round-the-clock basis, the **Gowanus Expressway contra-flow bus lane was converted to an HOV-3 lane**. The new HOV-3 lane is available to buses, emergency vehicles, and cars occupied by three or more persons and equipped with *EZ-Pass*.

In order to accommodate the special lane, the outbound Gowanus Expressway entrance ramp from Third Avenue/Prospect Avenue was closed between 5:00-11:00am. The ramp from the outbound Gowanus Expressway to the outbound Prospect Expressway was closed from 5:00-6:00am, and from 10:00-11:00am, and was reversed from 6:00-10:00am in order to accommodate the Prospect Expressway contra-flow bus lane as described below.

Throughout 2002, from 6:00-10:00am on weekdays, a Manhattan-bound **contra-flow lane for buses from the Prospect Expressway** was also provided by reversing the ramp from the outbound Gowanus Expressway to the outbound Prospect Expressway. This Prospect Expressway priority bus lane runs parallel to the Gowanus Expressway contra-flow lane from the Prospect/Gowanus interchange to the Brooklyn-Battery Tunnel.

Henry Hudson Bridge

Northbound (upper level) lane closures were in effect according to the following schedule.

01/01-09/16:	6:00am - 2:00pm	Mon-Fri	1 of 3 n/b lanes closed.
09/17-12/31:	Round-the-clock	All days	1 of 3 n/b lanes closed.

Southbound (lower level) lane closures were in effect according to the following schedule.

01/01-09/19:	10:00am - 2:00pm	Mon-Fri	1 s/b toll lane closed.
09/20-12/31:	Round-the-clock	All days	1 of 4 s/b lanes closed.

Queens-Midtown Tunnel

From January 1 to April 19, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Queens-Midtown Tunnel on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001, and was discontinued as of April 20, 2002.

One lane in each direction was closed according the following schedule.

01/01-08/16:	11:30pm Sun - 5:30am Mon	
	10:00pm - 5:30am	Mon-Fri.

Triborough Bridge

Lane closures were in effect on the Triborough Bridge according to the following schedule.

01/01-07/08:	10:00am - 3:00pm	Mon-Thu	1 lane closed on each roadway,
	10:00am - 2:30pm	Fri	1 lane closed on each roadway.
07/08-12/31:	All hours	All days	1 lane closed round-the-clock. <i>4 lanes maintained during peak hours, 3 lanes off-peak.</i>

The Manhattan-bound approach ramp from Queens was subject to lane reductions according to the following schedule.

09/16-10/18:	Round-the-clock from 3.	All days	Ramp reduced to 1 lane
10/19-10/25:	Round-the-clock from 3.	All days	Ramp reduced to 2 lanes

Throughout 2002, there were additional closures of single lanes on the Triborough Bridge roadways during off-peak hours.

George Washington Bridge

Throughout 2002, **trucks** were required to use the upper level.

Multiple Upper Level lane closures were in effect according to the following schedule.

04/13-04/14:	10:00pm - 1:30am	Fri-Sat	3 of 4 upper level lanes closed in each direction.
	1:30am - 5:00am	Fri-Sat	all 4 upper level lanes closed in each direction.
	5:00am - 10:00am	Fri-Sat	3 of 4 upper level lanes closed in each direction.

Throughout 2002, there were intermittent closures of single lanes on the various George Washington Bridge roadways and ramps during off-peak hours.

Holland Tunnel

Immediately following the events of 9/11/2001, the tunnel was completely closed to Manhattan-bound traffic round-the-clock, except for emergency vehicles. The tunnel was open to New Jersey-bound traffic, but trucks were banned.

In mid-October, 2001, the tunnel was opened to Manhattan-bound traffic, but single-occupant passenger cars were banned round-the-clock. Trucks were banned in both directions round-the-clock.

As of November 29, 2001, single-occupant Manhattan-bound passenger cars were banned only on weekdays between 6:00-10:00am. The round-the-clock ban on trucks in both directions remained in effect.

As of April 6, 2002, the round-the-clock ban on Manhattan-bound two-axle and three-axle single unit trucks was discontinued. Tractor trailers and single unit trucks larger than three axles were still banned. The ban on all New Jersey-bound trucks remained in effect.

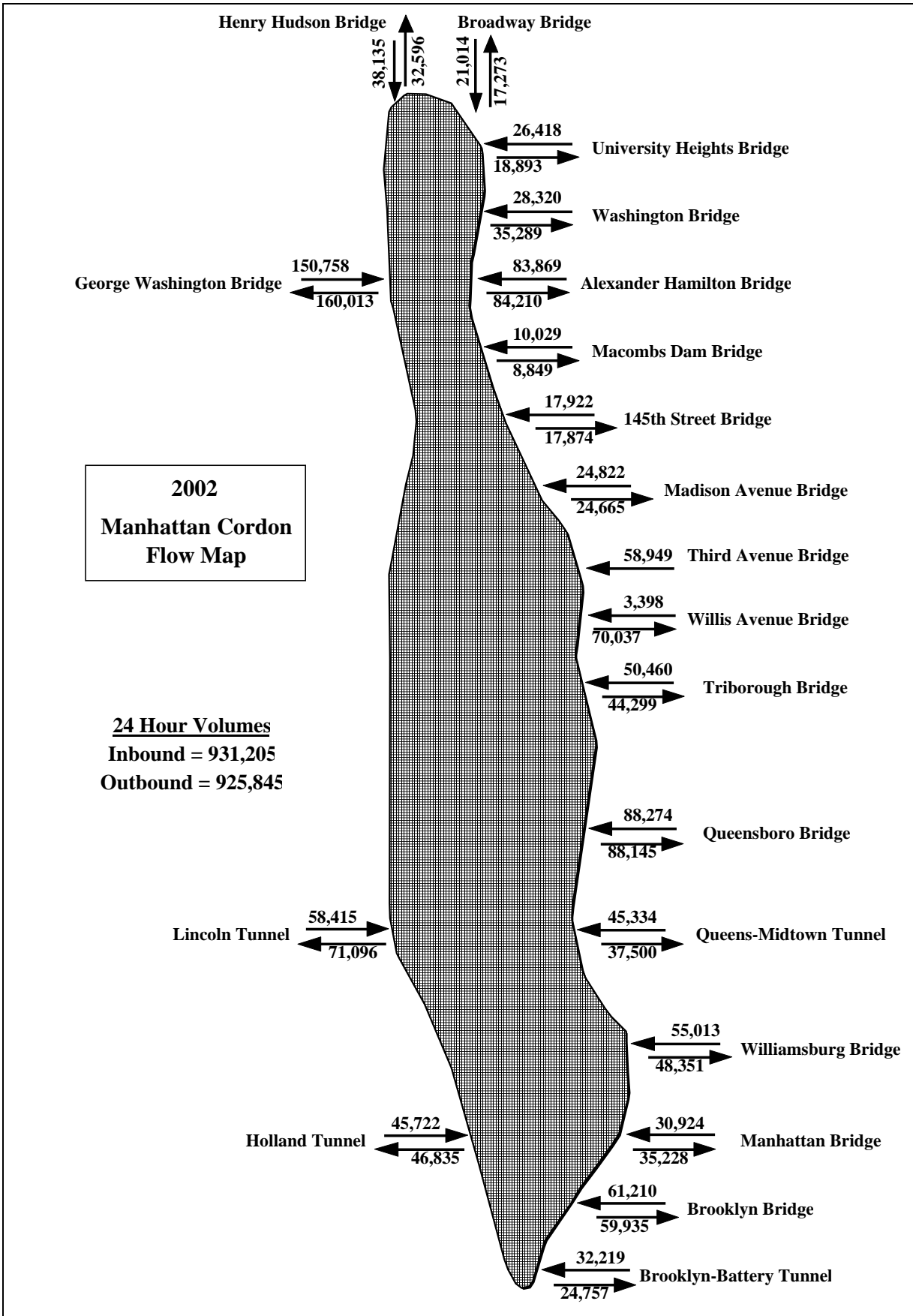
Throughout 2002, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Holland Tunnel on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001.

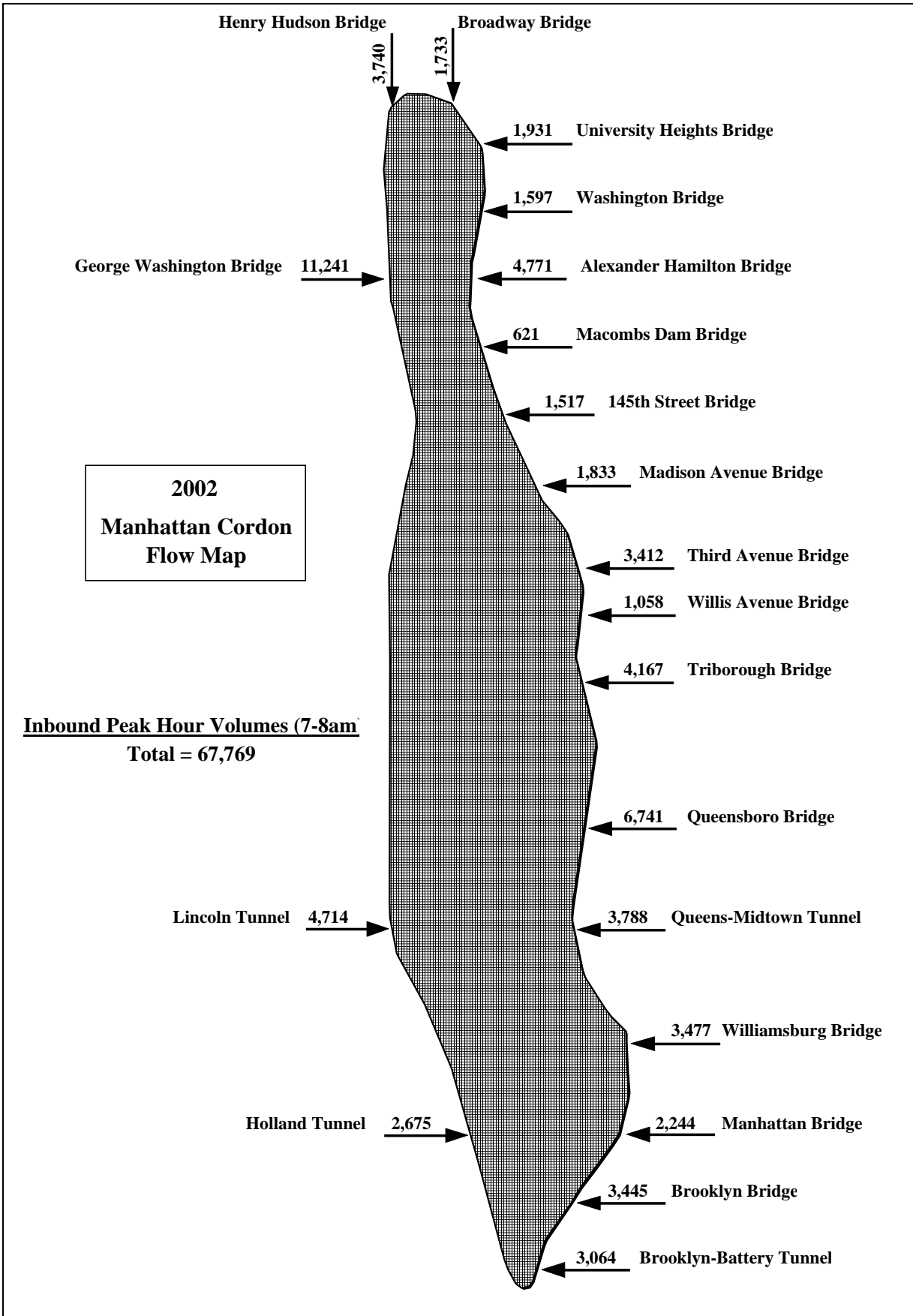
Lincoln Tunnel

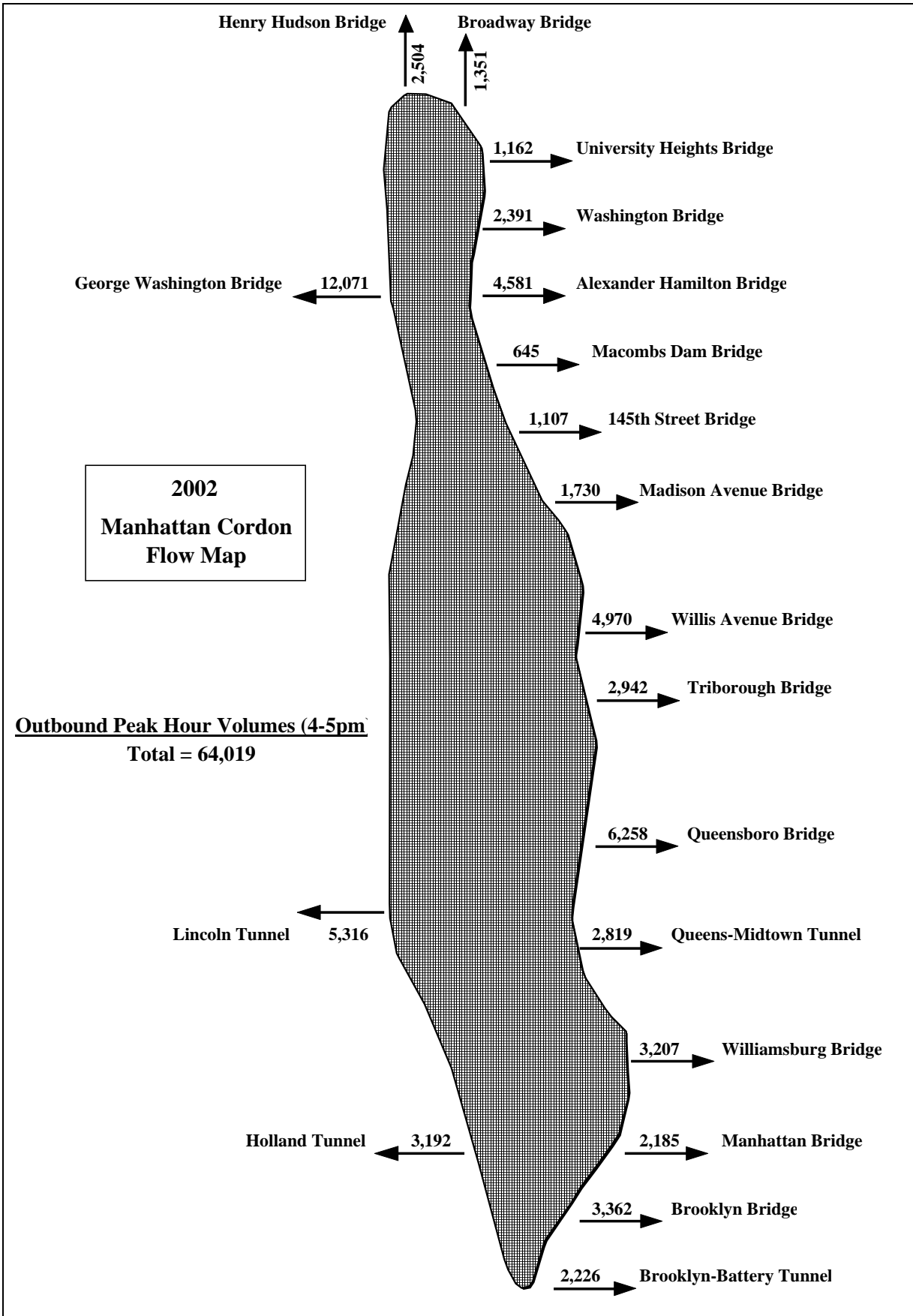
From January 1 to April 21, 2002, non-essential **single-occupant vehicles** were banned from entering Manhattan via the Lincoln Tunnel on weekdays between 6:00-10:00 am. This restriction went into effect following the events of 9/11/2001, and was discontinued as of April 22, 2002.

Throughout 2002, one of the three tubes of the Lincoln Tunnel was closed according to the following schedule.

All 2002:	11:00pm - 5:00am	Mon-Fri,	<i>Two tubes open, providing</i>
	<i>two</i>		
	12:30am - 8:00am	Sat-Sun.	<i>traffic lanes in each</i>
	<i>direction.</i>		







**Manhattan Crossings
2002 Average Daily Traffic Volumes
To and From Manhattan**

<i>EAST RIVER BRIDGES</i>	To Manhattan	From Manhattan	2-way Total
Brooklyn Bridge	61,210	59,935	121,145
Manhattan Bridge	30,924	35,228	66,152
Queensboro Bridge	88,274	88,145	176,419
Williamsburg Bridge	55,013	48,351	103,364
Total East River	235,421	231,659	467,080

HARLEM RIVER BRIDGES

Alexander Hamilton Bridge	83,869	84,210	168,079
Broadway Bridge	21,014	17,273	38,287
Macombs Dam Bridge	10,029	8,849	18,878
Madison Avenue Bridge	24,822	24,665	49,487
Third Avenue Bridge	58,949	-----	58,949
University Heights Bridge	26,418	18,893	45,311
Washington Bridge	28,320	35,289	63,609
Willis Avenue Bridge	3,398	70,037	73,435
145th Street Bridge	17,922	17,874	35,796
Total Harlem River	274,741	277,090	551,831

MTABT FACILITIES

Brooklyn-Battery Tunnel	32,219	24,757	56,976
Henry Hudson Bridge	38,135	32,596	70,731
Queens-Midtown Tunnel	45,334	37,500	82,834
Triborough Bridge	50,460	44,299	94,759
Total MTABT	166,148	139,152	305,300

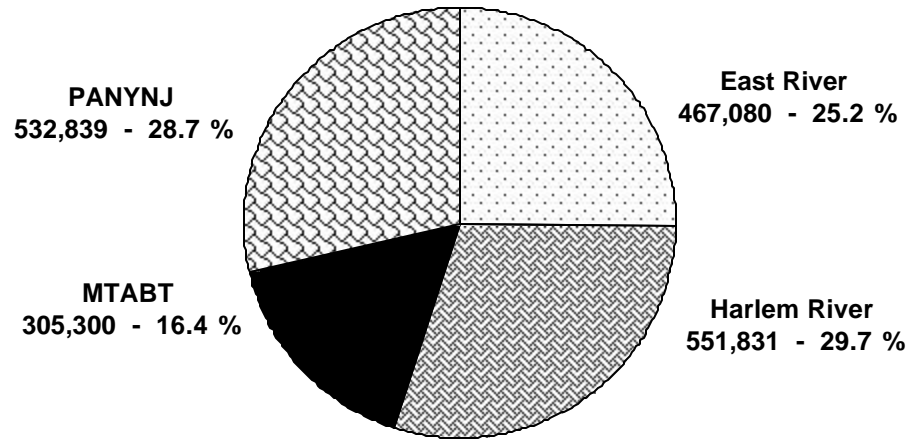
PANYNJ FACILITIES

George Washington Bridge	150,758	160,013	310,771
Holland Tunnel	45,722	46,835	92,557
Lincoln Tunnel	58,415	71,096	129,511
Total PANYNJ	254,895	277,944	532,839

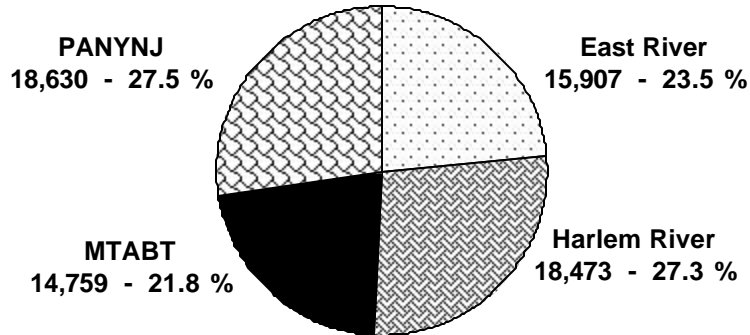
GRAND TOTAL	931,205	925,845	1,857,050
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Manhattan Crossings Vehicle Volumes

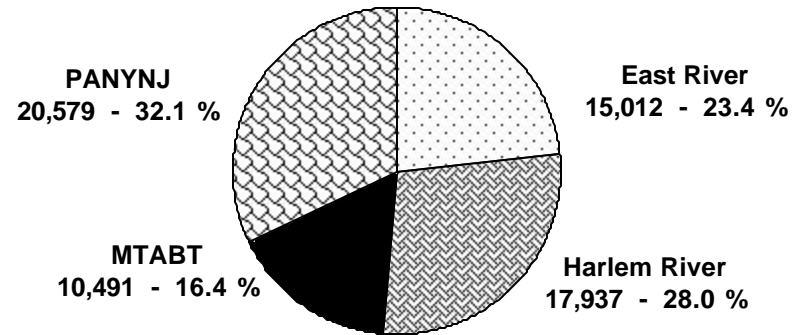
24-Hour Volumes – Both Directions



A.M. Peak Hour Volumes – Inbound 7-8 am



P.M. Peak Hour Volumes – Outbound 4-5 pm



Total Manhattan Crossings 2002 Average Hourly Traffic Volumes To and From Manhattan (All Facilities)

	Entering Manhattan	Leaving Manhattan	2-Way Total
12-1am	15,881	26,244	42,125
1-2am	10,473	16,361	26,834
2-3am	8,177	11,424	19,601
3-4am	8,484	9,810	18,294
4-5am	12,744	12,041	24,785
5-6am	31,580	19,168	50,748
6-7am	58,440	33,557	91,997
7-8am	67,769 **	42,361	110,130
8-9am	63,970	43,521	107,491
9-10am	55,982	37,983	93,965
10-11am	48,702	36,716	85,418
11-12am	43,936	36,934	80,870
12-1pm	42,780	39,232	82,012
1-2pm	42,397	42,132	84,529
2-3pm	46,195	49,521	95,716
3-4pm	49,414	59,119	108,533
4-5pm	51,603	64,019 **	115,622
5-6pm	52,739	63,440	116,179
6-7pm	50,862	61,359	112,221
7-8pm	45,166	54,972	100,138
8-9pm	36,097	48,939	85,036
9-10pm	32,749	43,292	76,041
10-11pm	30,004	39,322	69,326
11-12pm	25,061	34,378	59,439
24 hrs	931,205	925,845	1,857,050
7-10am	187,721	123,865	311,586
10am-1pm	135,418	112,882	248,300
1-4pm	138,006	150,772	288,778
4-7pm	155,204	188,818	344,022
7am-7pm	616,349	576,337	1,192,686

** Peak Volumes

2002 East & Harlem River Bridges 7am-7pm Two-Way Vehicle Classification

EAST RIVER BRIDGES	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Total
Brooklyn	64,431	222	2,471	45	2,701	69,870
Manhattan	18,616	959	3,900	9,340	6,523	39,338
Queensboro	79,416	2,207	5,571	5,542	9,712	102,448
Williamsburg	40,391	1,136	9,682	6,090	5,009	62,308
Total East River	202,854	4,524	21,624	21,017	23,945	273,964

HARLEM RIVER BRIDGES

Alexander Hamilton	83,271	263	2,228	14,284	3,118	103,164
Broadway	24,832	790	408	781	947	27,758
Macombs Dam	10,938	164	135	535	951	12,723
Madison Avenue	27,027	1,461	1,360	1,584	1,994	33,426
Third Avenue	28,557	730	2,315	2,720	2,560	36,882
University Heights	26,270	349	920	1,016	1,613	30,168
Washington	36,511	1,082	978	1,201	1,633	41,405
Willis Avenue	38,227	732	1,228	2,657	3,143	45,987
145th Street	20,833	619	842	1,118	1,002	24,414
Total Harlem River	296,466	6,190	10,414	25,896	16,961	355,927

2002 MTABT & PANYNJ Facilities 24 Hour Two-Way Vehicle Classification

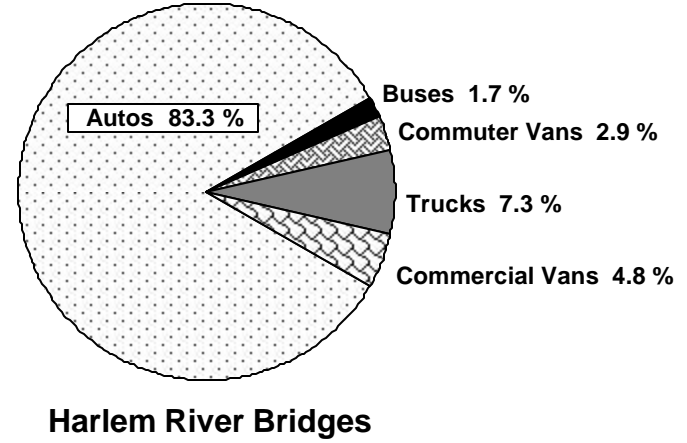
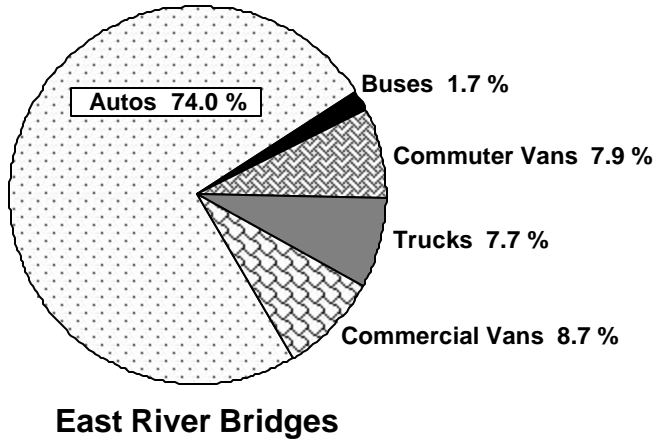
MTABT FACILITIES	Autos*	Buses	Trucks	Total
Brooklyn-Battery Tunnel	52,109	2,259	2,608	56,976
Henry Hudson Bridge	70,287	0	444	70,731
Queens-Midtown Tunnel	75,162	1,207	6,465	82,834
Triborough Bridge	90,864	1,018	2,877	94,759
Total MTABT	288,422	4,484	12,394	305,300

PANYNJ FACILITIES

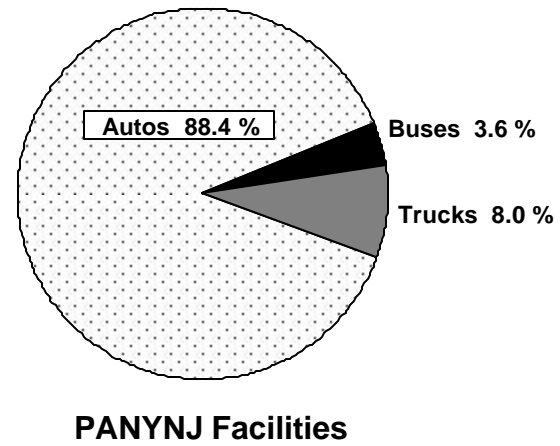
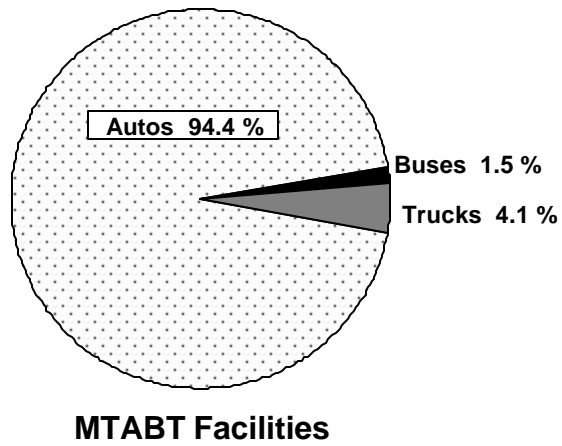
George Washington Bridge	276,639	3,663	30,469	310,771
Holland Tunnel	87,559	1,476	3,522	92,557
Lincoln Tunnel	106,978	14,141	8,392	129,511
Total PANYNJ	471,176	19,280	42,383	532,839

* Light trucks & vans included with autos.

7am – 7pm Two-Way Classification



24-Hour Two-Way Classification



ORIGINS AND DESTINATIONS OF MANHATTAN AUTO COMMUTERS

DESTINATIONS

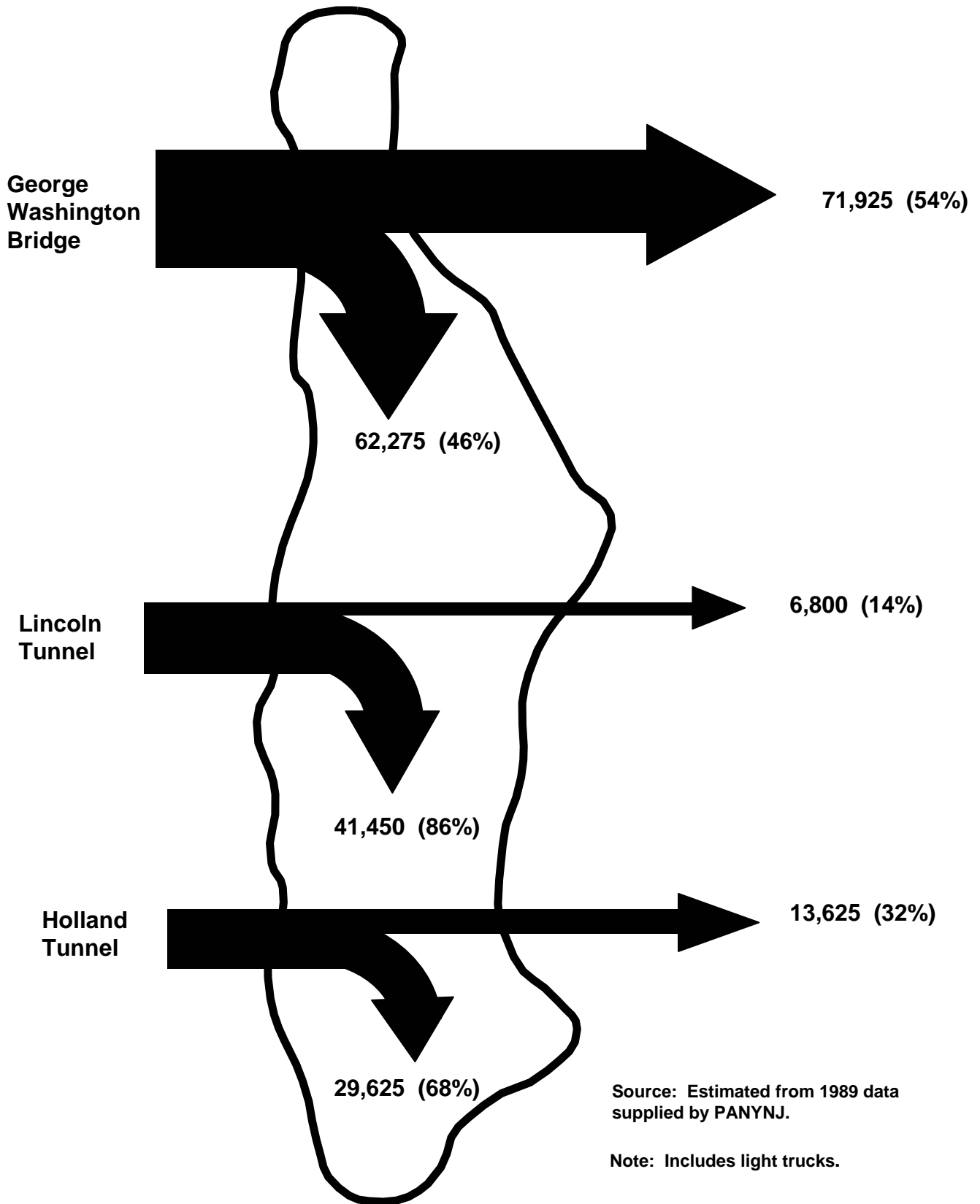
ORIGINS	Manhattan CBD	Upper Manhattan	Total
Bronx	7.8%	13.5%	9.0%
Brooklyn	13.7%	9.0%	12.7%
Manhattan	11.0%	17.6%	12.4%
Queens	18.7%	17.9%	18.5%
Staten Island	5.2%	2.1%	4.6%
Subtotal NYC Origins	56.4%	60.1%	57.1%
Long Island	10.4%	7.7%	9.9%
Upstate NY	10.9%	14.6%	11.7%
New Jersey	20.3%	15.9%	19.4%
Connecticut	1.5%	1.2%	1.4%
Pennsylvania	0.5%	0.5%	0.5%
Subtotal Suburbs	43.6%	39.9%	42.9%
GRAND TOTAL	100.0%	100.0%	100.0%

Definitions: CBD - Manhattan Central Business District (area south of and including 60th Street).

Upper Manhattan - Area of Manhattan north of 60th Street.

Source: PANYNJ, Commutation to Districts within Manhattan, October 31, 1994, analysis based on 1990 U.S. Census Journey to Work data.

2002 Thru vs. Local E/B Auto Trips via Hudson River Crossings



DESTINATIONS OF HUDSON RIVER CROSSINGS EASTBOUND AUTO TRAFFIC

TOTAL OF HOLLAND TUNNEL, LINCOLN TUNNEL AND GEORGE WASHINGTON BRIDGE

1989

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Midtown	19.9%	23.6%	11.0%	17.5%
Valley	13.1%	13.4%	11.5%	13.4%
Downtown	12.0%	9.9%	5.8%	8.4%
CBD Total	45.0%	46.9%	28.2%	39.3%
Upper Manhattan	18.7%	19.5%	19.7%	19.9%
Manhattan Total	63.6%	66.4%	47.9%	59.2%
Bronx	9.7%	11.1%	11.3%	10.1%
Brooklyn	7.6%	4.7%	7.9%	6.3%
Queens	10.9%	8.1%	14.3%	11.3%
Westchester	3.0%	3.8%	6.4%	4.4%
Long Island	3.5%	4.2%	8.0%	5.7%
Other	1.6%	1.8%	4.2%	3.0%
Thru Trip Total	36.4%	33.6%	52.1%	40.8%
GRAND TOTAL	100.0%	100.0%	100.0%	100.0%

Source: PANYNJ, Vehicular Origin and Destination Survey - 1989, May 1990.

DESTINATIONS OF HOLLAND TUNNEL EASTBOUND AUTO TRAFFIC

1989

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Midtown	6.8%	10.6%	6.6%	8.9%
Valley	15.3%	19.8%	23.4%	22.7%
Downtown	40.9%	38.8%	22.1%	29.9%
CBD Total	63.0%	69.1%	52.1%	61.5%
Upper Manhattan	5.1%	5.2%	7.9%	7.0%
Manhattan Total	68.1%	74.3%	60.0%	68.5%
Bronx	1.4%	0.9%	1.1%	0.9%
Brooklyn	17.6%	16.2%	22.8%	18.0%
Queens	9.7%	6.5%	12.1%	9.4%
Westchester	0.3%	0.6%	0.1%	0.2%
Long Island	2.0%	1.4%	2.7%	2.4%
Other	0.9%	0.1%	1.2%	0.6%
Thru Trip Total	31.9%	25.7%	40.0%	31.5%
GRAND TOTAL	100.0%	100.0%	100.0%	100.0%

Source: PANYNJ, Vehicular Origin and Destination Survey - 1989, May 1990.

DESTINATIONS OF LINCOLN TUNNEL EASTBOUND AUTO TRAFFIC

1989

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Midtown	37.8%	45.8%	30.8%	38.9%
Valley	23.0%	25.5%	22.6%	23.8%
Downtown	8.9%	7.3%	4.2%	6.7%
CBD Total	69.8%	78.6%	57.6%	69.4%
Upper Manhattan	11.7%	11.3%	22.0%	16.5%
Manhattan Total	81.5%	89.9%	79.6%	85.9%
Bronx	0.8%	1.0%	1.0%	0.8%
Brooklyn	5.8%	3.0%	5.9%	4.2%
Queens	9.6%	4.1%	10.7%	7.0%
Westchester	0.2%	0.5%	0.5%	0.3%
Long Island	1.3%	1.4%	1.9%	1.4%
Other	0.8%	0.2%	0.4%	0.4%
Thru Trip Total	18.5%	10.1%	20.4%	14.1%
GRAND TOTAL	100.0%	100.0%	100.0%	100.0%

Source: PANYNJ, Vehicular Origin and Destination Survey - 1989, May 1990.

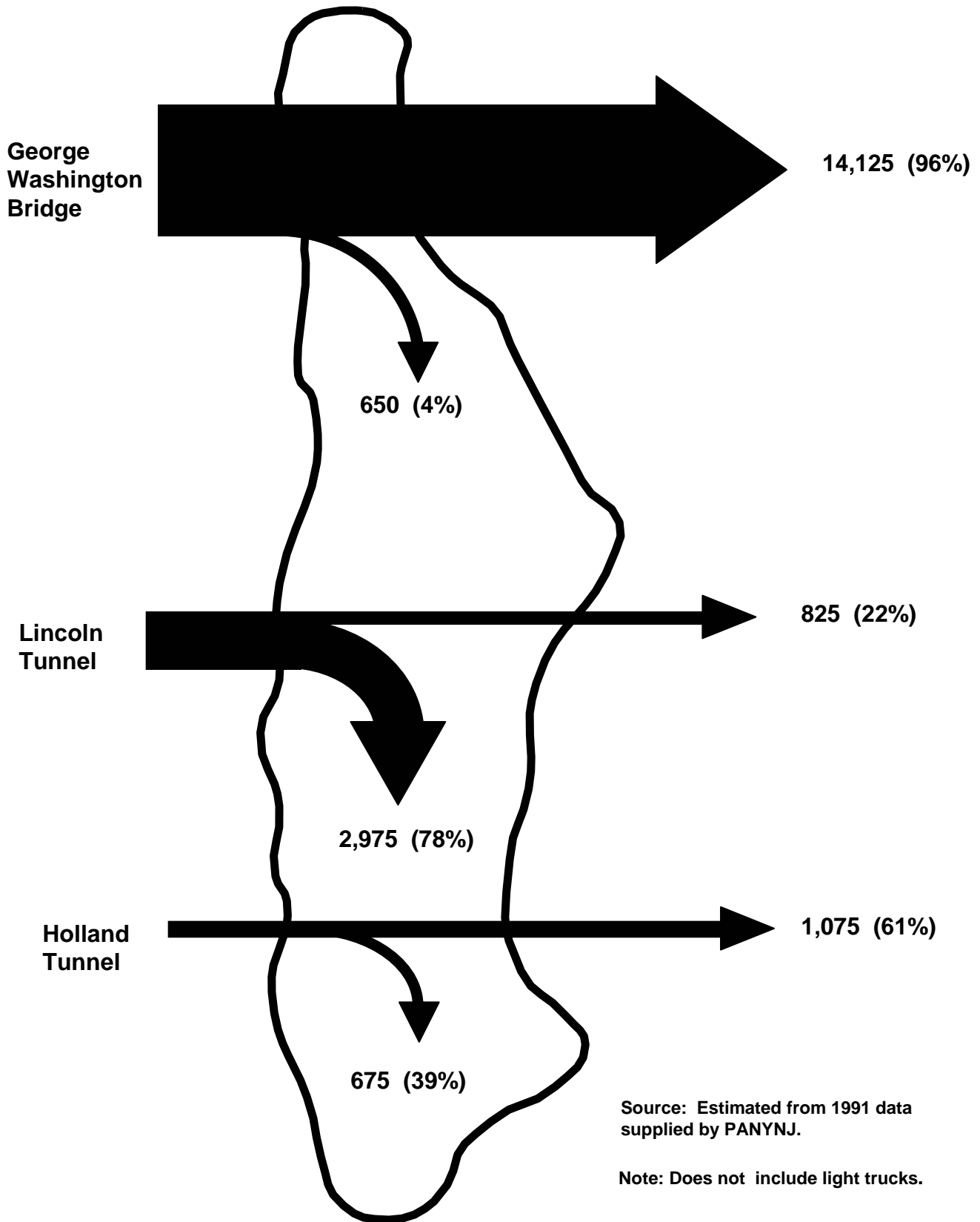
DESTINATIONS OF GEORGE WASHINGTON BRIDGE EASTBOUND AUTO TRAFFIC

1989

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Midtown	15.6%	17.9%	7.3%	11.8%
Valley	8.5%	7.1%	5.6%	6.9%
Downtown	6.1%	4.2%	1.8%	3.0%
CBD Total	30.2%	29.2%	14.7%	21.7%
Upper Manhattan	24.9%	26.1%	22.2%	24.7%
Manhattan Total	55.1%	55.3%	36.9%	46.4%
Bronx	15.4%	17.4%	16.6%	16.2%
Brooklyn	5.9%	2.6%	4.5%	3.8%
Queens	11.8%	10.0%	15.8%	13.5%
Westchester	4.9%	5.9%	9.4%	7.2%
Long Island	4.7%	6.0%	10.9%	8.2%
Other	2.2%	2.8%	5.9%	4.7%
Thru Trip Total	44.9%	44.7%	63.1%	53.6%
GRAND TOTAL	100.0%	100.0%	100.0%	100.0%

Source: PANYNJ, Vehicular Origin and Destination Survey - 1989, May 1990.

2002 Thru vs. Local E/B Truck Trips via Hudson River Crossings



DESTINATIONS OF HUDSON RIVER WEEKDAY EASTBOUND TRUCK TRAFFIC
(December 1991)

Destinations	Holland Tunnel	Lincoln Tunnel	G. Washington Bridge
Manhattan	38.91%	78.35%	4.46%
NY City outer boroughs			
Bronx	0.98%	0.29%	16.13%
Brooklyn	34.44%	9.20%	2.68%
Queens	16.67%	6.85%	10.96%
Staten Island	0.08%	0.00%	0.10%
Subtotal outer boroughs	52.18%	16.34%	29.87%
NY City Total	91.07%	94.69%	34.33%
Destinations outside NY City			
Long Island	8.32%	4.73%	17.26%
Westchester	0.21%	0.00%	7.62%
New England	0.23%	0.21%	37.87%
Other	0.16%	0.39%	2.92%
Subtotal outside NY City	8.93%	5.34%	65.67%
Thru Trips Total (non-Manhattan destinations)	61.09%	21.65%	95.54%
GRAND TOTAL	100.00%	100.00%	100.00%

Source: PANYNJ, 1991 Truck Origin-Destination Commodity Survey, March 1992.

VEHICLE OCCUPANCY STUDY -- PEAK HOUR INBOUND TO MANHATTAN

Due to changes in travel patterns and restrictions on Manhattan vehicle entries following the events of 9/11/2001, occupancy data collected before 9/11/2001 may no longer be valid. As a result, this table exhibits occupancy data only for crossings surveyed after 9/11/2001. The note "not available post-9/11/2001," appears for other crossings for which occupancy data has traditionally been included in this publication. When new occupancy surveys are completed for those crossings, they will be reinstated in future publications.

VEHICLE OCCUPANCY -- TO MANHATTAN

Average Number of Persons per Auto (AM peak)

	Auto Occupancy Survey Date	Peak Hour Persons per Auto	7-10 am Pct. Autos with Driver Only
Brooklyn-Battery Tunnel	Spring 2002	1.72	38.7%
Brooklyn Bridge	Spring 2002	1.77	46.7%
Manhattan Bridge	Spring 2002	1.92	35.8%
Williamsburg Bridge	Spring 2002	1.79	45.5%
Holland Tunnel	Fall 2002	1.94	34.9%
<i>Average of 5 Lower Manhattan Crossings</i>		1.81	41.1%
Queens-Midtown Tunnel		not available post-9/11/2001	
Queensboro Bridge	Various 2002	1.53	63.9%
Lincoln Tunnel	Fall 2002	1.31	79.4%
<i>Average of 2 Midtown Manhattan Crossings</i>		1.44	70.9%
Triborough Bridge		not available post-9/11/2001	
Third Avenue Bridge		not available post-9/11/2001	
Macombs Dam Bridge		not available post-9/11/2001	
Washington Bridge		not available post-9/11/2001	
Henry Hudson Bridge		not available post-9/11/2001	
George Washington Bridge	Fall 2002	1.34	78.6%
Overall Average of 8 Manhattan Crossings		1.55	61.7%

Manhattan Crossings

2001-2002 Traffic Volume Trends

Both Directions

<i>EAST RIVER BRIDGES</i>	Highway Functional Classification	2001	2002	Percent Change
Brooklyn	Principal Arterial	95,586	121,145	26.7 %
Manhattan	Principal Arterial	73,064	66,152	- 9.5 %
Queensboro	Principal Arterial	176,469	176,419	- 0.0 %
Williamsburg	Principal Arterial	82,202	103,364	25.7 %
Total East River		427,321	467,080	9.3 %
<i>HARLEM RIVER BRIDGES</i>				
Alexander Hamilton	Interstate	168,605	168,079	- 0.3 %
Broadway	Principal Arterial	41,175	38,287	- 7.0 %
Macombs Dam	Principal Arterial	39,615	18,878	- 52.3 %
Madison Avenue	Principal Arterial	43,331	49,487	14.2 %
Third Avenue	Principal Arterial	72,756	58,949	- 19.0 %
University Heights	Principal Arterial	46,381	45,311	- 2.3 %
Washington	Minor Arterial	57,443	63,609	10.7 %
Willis Avenue	Principal Arterial	72,901	73,435	0.7 %
145th Street	Minor Arterial	26,552	35,796	34.8 %
Total Harlem River		568,759	551,831	- 3.0 %
<i>MTABT Manhattan Facilities</i>				
Brooklyn-Battery Tunnel	Interstate	13,762	56,976	314.0 %
Henry Hudson Bridge	Principal Arterial	69,087	70,731	2.4 %
Queens-Midtown Tunnel	Interstate	72,864	82,834	13.7 %
Triborough Bridge Manhattan Plaza	Principal Arterial	102,224	94,759	- 7.3 %
Total MTABT Manhattan		257,937	305,300	18.4 %
<i>PANYNJ Manhattan Facilities</i>				
George Washington Bridge	Interstate	309,310	310,771	0.5 %
Holland Tunnel	Interstate	43,377	92,557	113.4 %
Lincoln Tunnel	Principal Arterial	106,257	129,511	21.9 %
Total Manhattan - New Jersey		458,944	532,839	16.1 %
GRAND TOTALS		1,712,961	1,857,050	8.4 %

Manhattan Crossings

Hourly Vehicular Volumes

2001 vs 2002

	<i>Inbound</i>			<i>Outbound</i>		
	2001	2002	Percent Change	2001	2002	Percent Change
Mid-1	17,160	15,881	-7.5 %	26,978	26,244	-2.7 %
1-2 am	11,210	10,473	-6.6 %	16,623	16,361	-1.6 %
2-3 am	8,286	8,177	-1.3 %	11,463	11,424	-0.3 %
3-4 am	8,665	8,484	-2.1 %	9,504	9,810	3.2 %
4-5 am	13,010	12,744	-2.0 %	11,273	12,041	6.8 %
5-6 am	30,698	31,580	2.9 %	16,002	19,168	19.8 %
6-7 am	44,459	58,440	31.4 %	27,062	33,557	24.0 %
7-8 am	53,439	67,769	26.8 %	35,481	42,361	19.4 %
8-9 am	54,396	63,970	17.6 %	38,134	43,521	14.1 %
9-10 am	49,514	55,982	13.1 %	33,747	37,983	12.6 %
10-11 a	44,630	48,702	9.1 %	32,463	36,716	13.1 %
11-Noon	41,320	43,936	6.3 %	33,062	36,934	11.7 %
Noon-1	40,760	42,780	5.0 %	34,462	39,232	13.8 %
1-2 pm	40,552	42,397	4.5 %	37,218	42,132	13.2 %
2-3 pm	42,749	46,195	8.1 %	44,001	49,521	12.5 %
3-4 pm	45,991	49,414	7.4 %	54,210	59,119	9.1 %
4-5 pm	48,444	51,603	6.5 %	60,053	64,019	6.6 %
5-6 pm	49,207	52,739	7.2 %	57,777	63,440	9.8 %
6-7 pm	47,934	50,862	6.1 %	56,033	61,359	9.5 %
7-8 pm	43,965	45,166	2.7 %	53,377	54,972	3.0 %
8-9 pm	36,210	36,097	-0.3 %	47,734	48,939	2.5 %
9-10 pm	31,770	32,749	3.1 %	43,031	43,292	0.6 %
10-11 p	29,955	30,004	0.2 %	38,546	39,322	2.0 %
11-Mid	25,370	25,061	-1.2 %	35,033	34,378	-1.9 %
Totals	859,694	931,205	8.3 %	853,267	925,845	8.5 %
7-10am	157,349	187,721	19.3 %	107,362	123,865	15.4 %
10am-1pm	126,710	135,418	6.9 %	99,987	112,882	12.9 %
1-4pm	129,292	138,006	6.7 %	135,429	150,772	11.3 %
4-7pm	145,585	155,204	6.6 %	173,863	188,818	8.6 %
7am-7pm	558,936	616,349	10.3 %	516,641	576,337	11.6 %

Manhattan Crossings Hourly Vehicular Volumes 1992 vs 2002

	<i>Inbound</i>			<i>Outbound</i>		
	1992	2002	Percent Change	1992	2002	Percent Change
Mid-1	14,046	15,881	13.1 %	25,105	26,244	4.5 %
1-2 am	8,745	10,473	19.8 %	14,418	16,361	13.5 %
2-3 am	6,733	8,177	21.4 %	9,848	11,424	16.0 %
3-4 am	6,502	8,484	30.5 %	7,593	9,810	29.2 %
4-5 am	9,059	12,744	40.7 %	8,163	12,041	47.5 %
5-6 am	20,516	31,580	53.9 %	12,604	19,168	52.1 %
6-7 am	51,962	58,440	12.5 %	27,276	33,557	23.0 %
7-8 am	68,835	67,769	-1.5 %	40,190	42,361	5.4 %
8-9 am	67,252	63,970	-4.9 %	41,636	43,521	4.5 %
9-10 am	58,610	55,982	-4.5 %	35,311	37,983	7.6 %
10-11 a	47,932	48,702	1.6 %	34,650	36,716	6.0 %
11-Noon	43,938	43,936	0.0 %	36,472	36,934	1.3 %
Noon-1	41,846	42,780	2.2 %	37,267	39,232	5.3 %
1-2 pm	40,707	42,397	4.2 %	39,072	42,132	7.8 %
2-3 pm	43,238	46,195	6.8 %	47,077	49,521	5.2 %
3-4 pm	47,222	49,414	4.6 %	57,572	59,119	2.7 %
4-5 pm	48,659	51,603	6.1 %	62,620	64,019	2.2 %
5-6 pm	50,196	52,739	5.1 %	61,670	63,440	2.9 %
6-7 pm	48,428	50,862	5.0 %	60,118	61,359	2.1 %
7-8 pm	42,298	45,166	6.8 %	53,570	54,972	2.6 %
8-9 pm	33,203	36,097	8.7 %	47,921	48,939	2.1 %
9-10 pm	30,776	32,749	6.4 %	40,894	43,292	5.9 %
10-11 p	29,090	30,004	3.1 %	37,674	39,322	4.4 %
11-Mid	24,402	25,061	2.7 %	34,657	34,378	-0.8 %
Totals	884,195	931,205	5.3 %	873,378	925,845	6.0 %
7-10am	194,697	187,721	-3.6 %	117,137	123,865	5.7 %
10am-1pm	133,716	135,418	1.3 %	108,389	112,882	4.1 %
1-4pm	131,167	138,006	5.2 %	143,721	150,772	4.9 %
4-7pm	147,283	155,204	5.4 %	184,408	188,818	2.4 %
7am-7pm	606,863	616,349	1.6 %	553,655	576,337	4.1 %

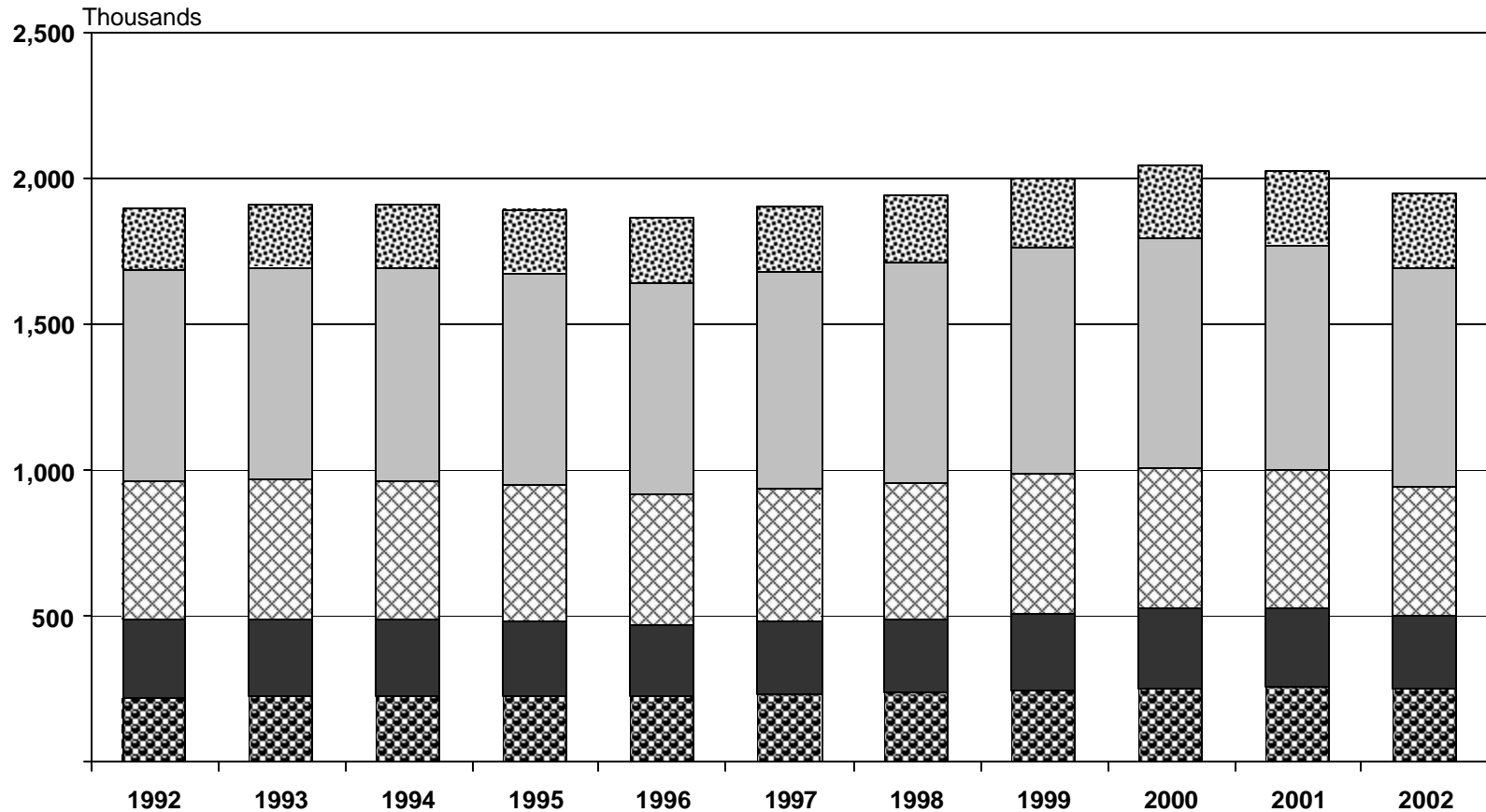
**Percent Difference by Period of Day
Manhattan Crossings
1992 - 2002**

<i>Time Period</i>	<i>To Manhattan</i>	<i>From Manhattan</i>
1am - 4am	23.4 %	18.0 %
4am - 7am	26.0 %	34.8 %
7am - 10am	- 3.6 %	5.7 %
10am - 1pm	1.3 %	4.1 %
1pm - 4pm	5.2 %	4.9 %
4pm - 7pm	5.4 %	2.4 %
7pm - 10pm	7.3 %	3.4 %
10pm - 1am	5.0 %	2.6 %
24 Hour Total	5.3 %	6.0 %

**Average Annual Growth Rate by Period of Day
Manhattan Crossings
1992 - 2002**

<i>Time Period</i>	<i>To Manhattan</i>	<i>From Manhattan</i>
1am - 4am	3.4 %	2.9 %
4am - 7am	2.0 %	3.2 %
7am - 10am	- 0.5 %	0.6 %
10am - 1pm	0.4 %	0.5 %
1pm - 4pm	0.6 %	0.6 %
4pm - 7pm	0.7 %	0.5 %
7pm - 10pm	1.3 %	0.9 %
10pm - 1am	1.3 %	1.1 %
24 Hour Total	0.7 %	0.9 %

New York City Motor Vehicle Registrations 1992-2002



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Staten Is.	210,241	214,434	216,624	218,095	220,987	226,808	232,790	240,258	247,848	252,657	252,542
Queens	722,905	728,402	727,167	727,175	721,961	742,288	754,729	773,921	784,848	774,887	749,146
Brooklyn	475,869	477,996	476,612	469,105	448,116	455,177	463,637	479,118	486,987	470,290	439,716
Bronx	266,317	264,391	260,974	254,944	245,225	248,191	252,189	260,742	268,910	269,577	255,087
Manhattan	222,472	225,582	226,287	226,480	226,028	234,175	239,308	247,395	255,780	257,531	249,716
NYC Total	1,897,804	1,910,805	1,907,664	1,895,799	1,862,317	1,906,639	1,942,653	2,001,434	2,044,373	2,024,942	1,946,207

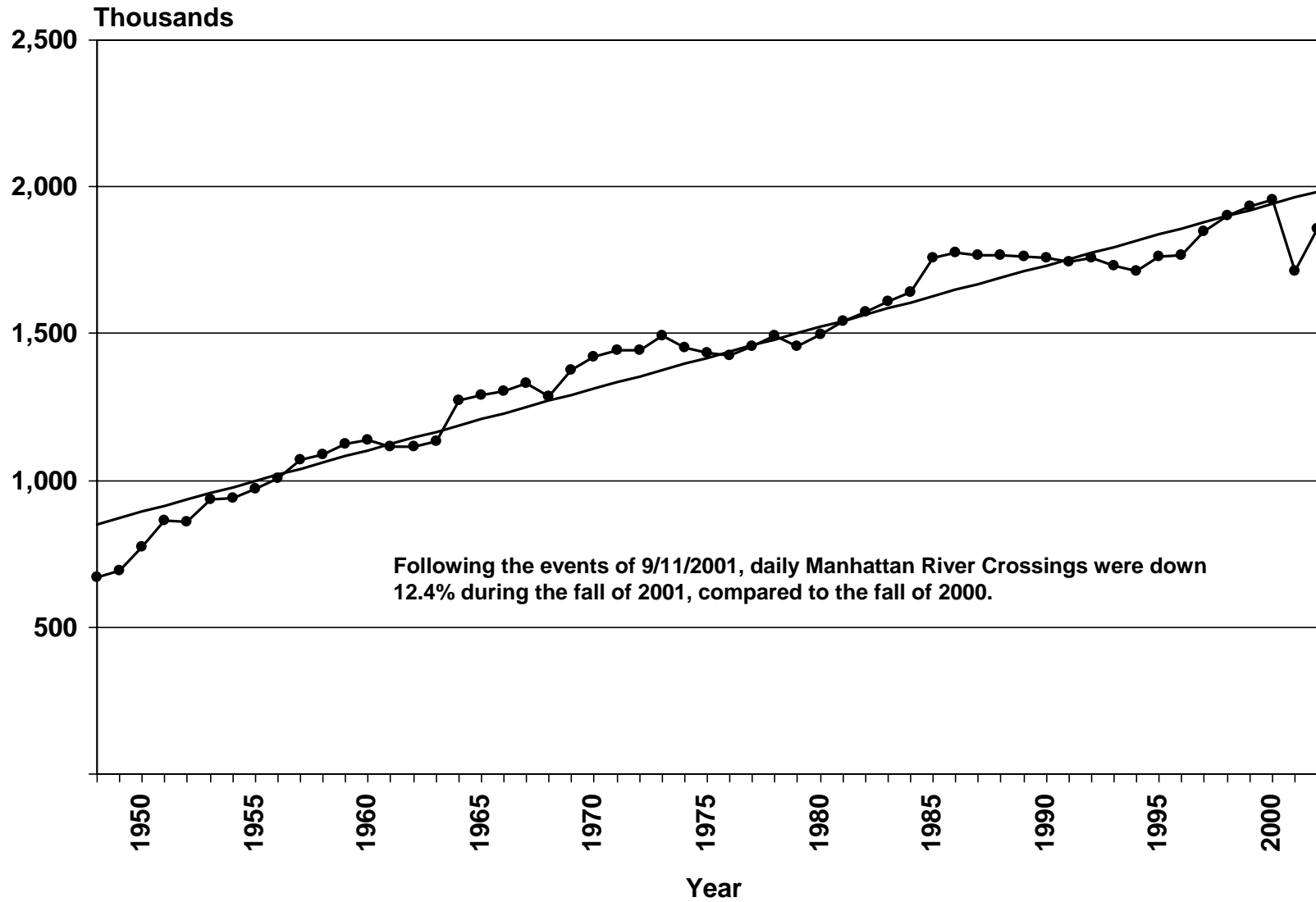
NYC Annual Growth Rate = 0.7%
Manhattan Annual Growth Rate = 1.6%

Total Manhattan Crossings
Average Daily Traffic Volumes
1948 - 2002

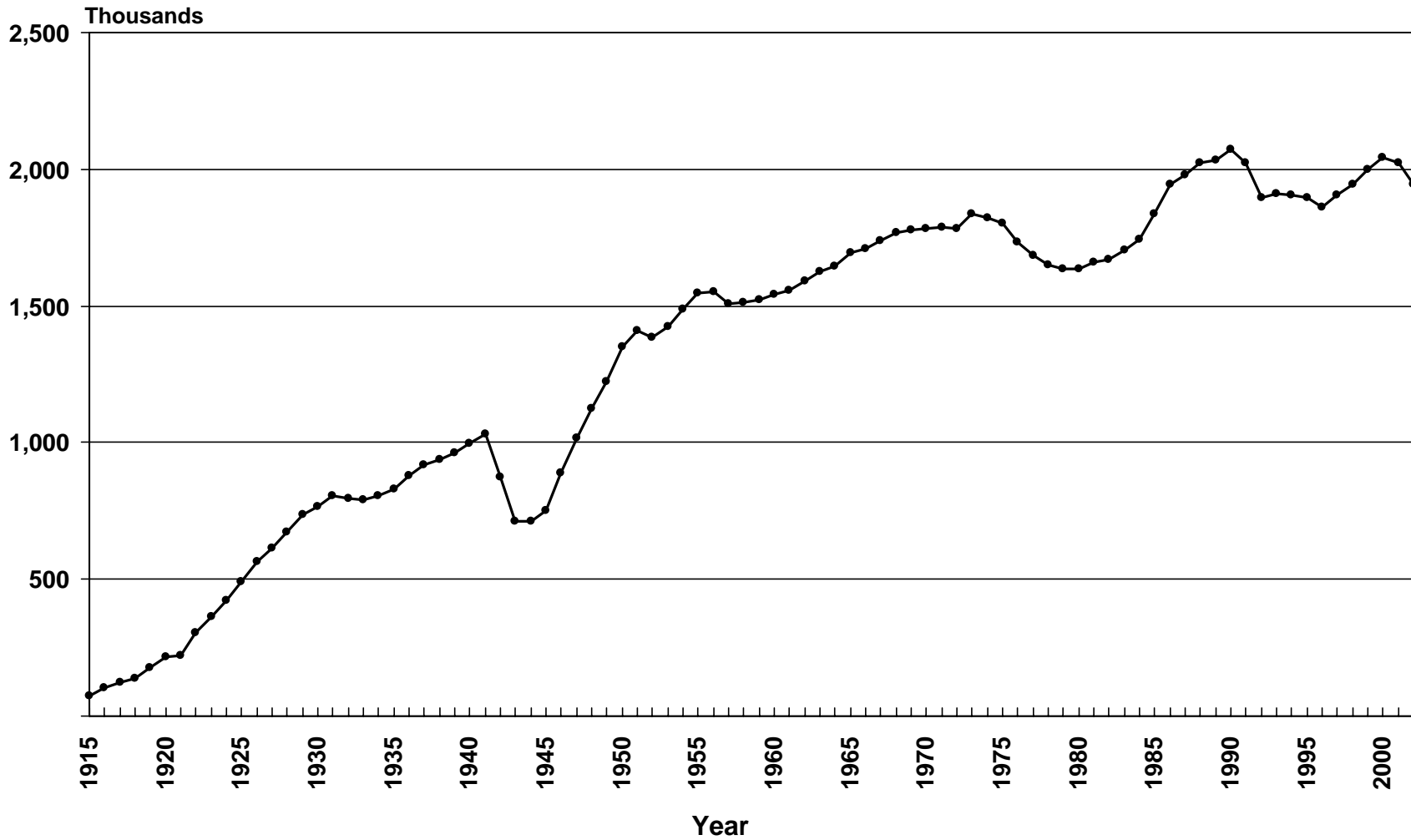
Year	East River Bridges	Harlem River Bridges	M.T.A.B.T. Facilities	P.A.N.Y.N.J. Facilities	Totals
1948	254,068	207,177	92,977	115,785	670,007
1949	260,933	193,510	110,071	129,943	694,457
1950	240,227	222,671	161,856	146,653	771,407
1951	269,352	249,199	180,272	166,150	864,973
1952	261,704	222,196	194,327	181,253	859,480
1953	292,726	248,629	200,535	194,577	936,467
1954	297,903	236,056	204,616	202,394	940,969
1955	293,633	250,239	216,835	211,926	972,633
1956	297,866	266,781	231,535	213,088	1,009,270
1957	297,028	316,530	236,343	218,623	1,068,524
1958	304,470	329,747	232,413	221,494	1,088,124
1959	312,431	342,349	231,501	237,021	1,123,302
1960	322,660	345,199	230,768	239,620	1,138,247
1961	316,813	333,463	227,241	236,833	1,114,350
1962	318,170	313,230	233,010	250,646	1,115,056
1963	333,880	309,090	225,100	265,603	1,133,673
1964	341,030	407,680	236,513	285,824	1,271,047
1965	353,518	401,259	240,949	293,339	1,289,065
1966	355,745	402,487	243,107	303,981	1,305,320
1967	352,936	427,744	244,038	308,153	1,332,871
1968	357,232	362,095	247,924	320,292	1,287,543
1969	379,416	412,992	254,863	329,123	1,376,394
1970	371,743	429,690	271,063	347,838	1,420,334
1971	364,070	432,195	286,692	362,063	1,445,020
1972	390,292	422,364	252,871	378,620	1,444,147
1973	394,290	449,670	251,593	397,203	1,492,756
1974	394,631	439,112	242,846	376,547	1,453,136
1975	404,379	440,354	214,120	374,707	1,433,560
1976	398,248	429,629	217,207	381,250	1,426,334
1977	398,140	442,200	229,766	385,013	1,455,119
1978	400,146	450,758	241,125	399,512	1,491,541
1979	382,028	427,816	251,544	393,724	1,455,112
1980	392,460	446,292	255,858	404,734	1,499,344
1981	395,125	448,323	269,854	427,381	1,540,683
1982	414,984	470,785	253,499	433,744	1,573,012
1983	413,152	491,153	263,510	441,164	1,608,979
1984	428,541	496,949	262,985	453,775	1,642,250
1985	476,032	538,263	275,858	468,452	1,758,605
1986	469,711	546,896	274,693	485,751	1,777,051
1987	460,092	530,228	289,642	486,639	1,766,601
1988	460,858	520,282	293,550	490,179	1,764,869
1989	461,102	539,381	275,358	487,693	1,763,534
1990	448,713	539,563	289,066	482,243	1,759,585
1991	447,969	533,368	295,265	467,501	1,744,103
1992	443,145	537,353	300,203	476,872	1,757,573
1993	431,874	542,306	282,159	473,069	1,729,408
1994	448,263	526,044	263,351	473,799	1,711,457
1995	464,903	521,882	293,574	482,098	1,762,457
1996	463,482	530,950	281,116	493,194	1,768,742
1997	511,410	546,750	283,686	504,788	1,846,634
1998	523,690	560,062	293,990	522,512	1,900,254
1999	516,507	563,182	303,966	549,352	1,933,007
2000	514,767	578,770	313,504	548,465	1,955,506
2001	427,321	568,759	257,937	458,944	1,712,961
2002	467,080	551,831	305,300	532,839	1,857,050

Average Daily Manhattan River Crossings

1948-2002 Average Annual Growth Rate 1.6%



New York City Motor Vehicle Registrations 1915-2002



Note: As of 1992, registration data are not strictly comparable to earlier data because of a revised method adopted by NY State Department of Motor Vehicles.

10-Year Traffic Growth Rate Trends Manhattan Crossings 1952-2002

East River Bridges	1952-1962	1962-1972	1972-1982	1982-1992	1992-2002
Brooklyn	14.1%	3.0%	0.2%	1.6%	- 1.0%
Manhattan	- 4.5%	2.9%	1.3%	- 2.5%	- 0.5%
Queensboro	1.3%	1.7%	- 0.6%	0.4%	2.9%
Williamsburg	1.4%	- 1.2%	0.5%	2.3%	1.1%
Total	1.5%	1.6%	0.2%	0.6%	0.9%

Harlem River Bridges					
Alexander Hamilton	<i>Opened January 1963</i>		1.1%	1.6%	- 0.4%
Broadway	3.2%	2.2%	2.4%	3.0%	1.0%
Macombs Dam	3.1%	0.8%	0.7%	- 1.2%	- 4.1%
Madison Avenue	- 0.7%	0.0%	- 0.2%	0.2%	7.2%
Third Avenue	7.1%	- 2.5%	0.2%	0.8%	0.0%
University Heights	7.0%	- 0.3%	- 0.3%	- 0.2%	3.1%
Washington	7.5%	- 3.2%	- 0.4%	2.4%	1.9%
Willis Avenue	4.6%	- 1.1%	0.3%	0.6%	1.0%
145th Street	1.6%	- 2.3%	- 0.3%	0.7%	2.9%
Total	4.4%	2.6%	0.5%	1.1%	0.7%

MTABT Facilities					
Brooklyn-Battery Tunnel	0.7%	2.1%	2.4%	0.7%	- 2.9%
Henry Hudson Bridge	- 1.8%	- 1.7%	- 2.7%	6.8%	2.1%
Queens-Midtown Tunnel	6.6%	1.9%	0.7%	0.2%	0.5%
Triborough (Manhattan Plz)	2.2%	3.7%	1.4%	0.6%	1.0%
Total	1.7%	1.8%	0.8%	1.5%	0.4%

PANYNJ Facilities					
George Washington Bridge	3.0%	6.4%	1.3%	0.6%	2.3%
Holland Tunnel	1.0%	0.1%	1.1%	2.3%	- 1.5%
Lincoln Tunnel	4.4%	1.9%	1.1%	0.6%	0.4%
Total	2.9%	3.9%	1.2%	0.9%	1.1%

Grand Total	2.7%	2.5%	0.7%	1.0%	0.8%
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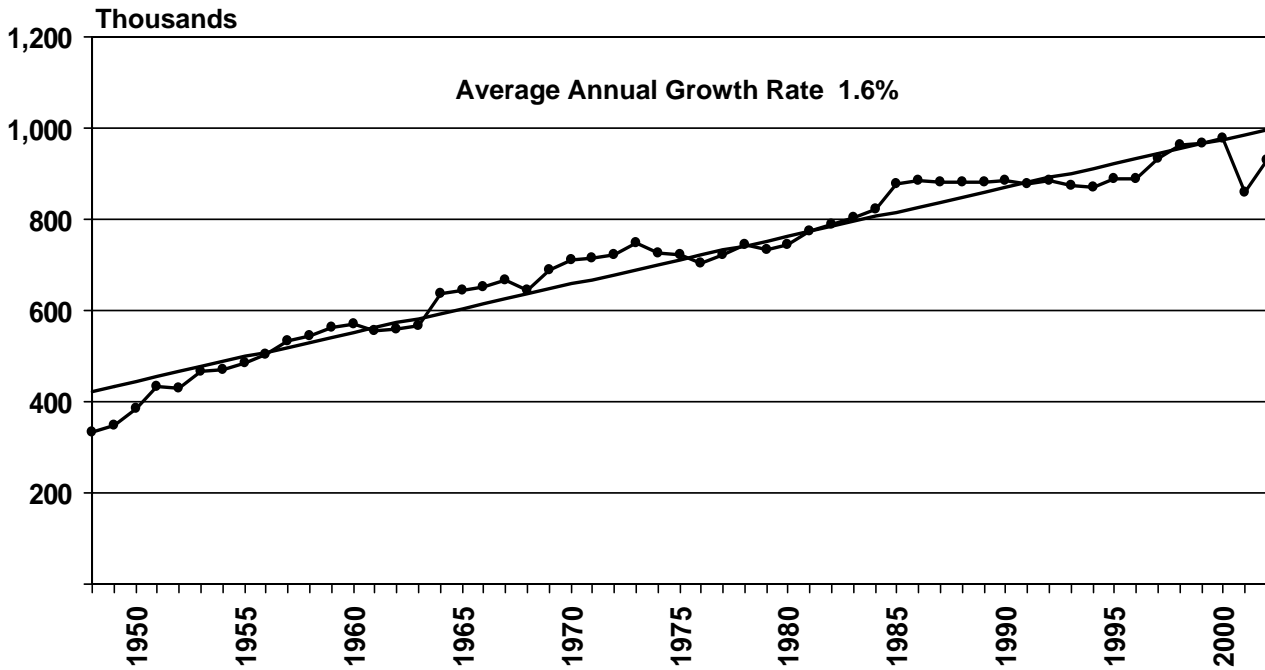
**Average Daily Manhattan River Motor Vehicle Crossings
vs.
Annual Subway Ridership**

Year	Daily Manhattan River Crossings	Annual Subway Ridership (millions)	Year	Daily Manhattan River Crossings	Annual Subway Ridership (millions)
1948	670,007	2,031			
1949	694,457	1,764			
1950	771,407	1,681			
1951	864,973	1,636	1981	1,540,683	1,011
1952	859,480	1,574	1982	1,573,012	989
1953	936,467	1,552	1983	1,608,979	1,005
1954	940,969	1,416	1984	1,642,250	997
1955	972,633	1,378	1985	1,758,605	1,010
1956	1,009,270	1,363	1986	1,777,051	1,030
1957	1,068,524	1,355	1987	1,766,601	1,058
1958	1,088,124	1,319	1988	1,764,869	1,074
1959	1,123,302	1,324	1989	1,763,534	1,073
1960	1,138,247	1,345	1990	1,759,585	1,028
1961	1,114,350	1,363	1991	1,744,103	995
1962	1,115,056	1,370	1992	1,757,573	997
1963	1,133,673	1,362	1993	1,729,408	1,030
1964	1,271,047	1,375	1994	1,711,457	1,081
1965	1,289,065	1,363	1995	1,762,457	1,093
1966	1,305,320	1,296	1996	1,768,742	1,110
1967	1,332,871	1,298	1997	1,846,634	1,130
1968	1,287,543	1,303	1998	1,900,254	1,199
1969	1,376,394	1,330	1999	1,933,007	1,283
1970	1,420,334	1,258	2000	1,955,506	1,381
1971	1,445,020	1,197	2001	1,712,961	1,405
1972	1,444,147	1,145	2002	1,857,050	1,413
1973	1,492,756	1,102			
1974	1,453,136	1,100			
1975	1,433,560	1,054			
1976	1,426,334	1,010			
1977	1,455,119	998			
1978	1,491,541	1,042			
1979	1,455,112	1,077			
1980	1,499,344	1,009			

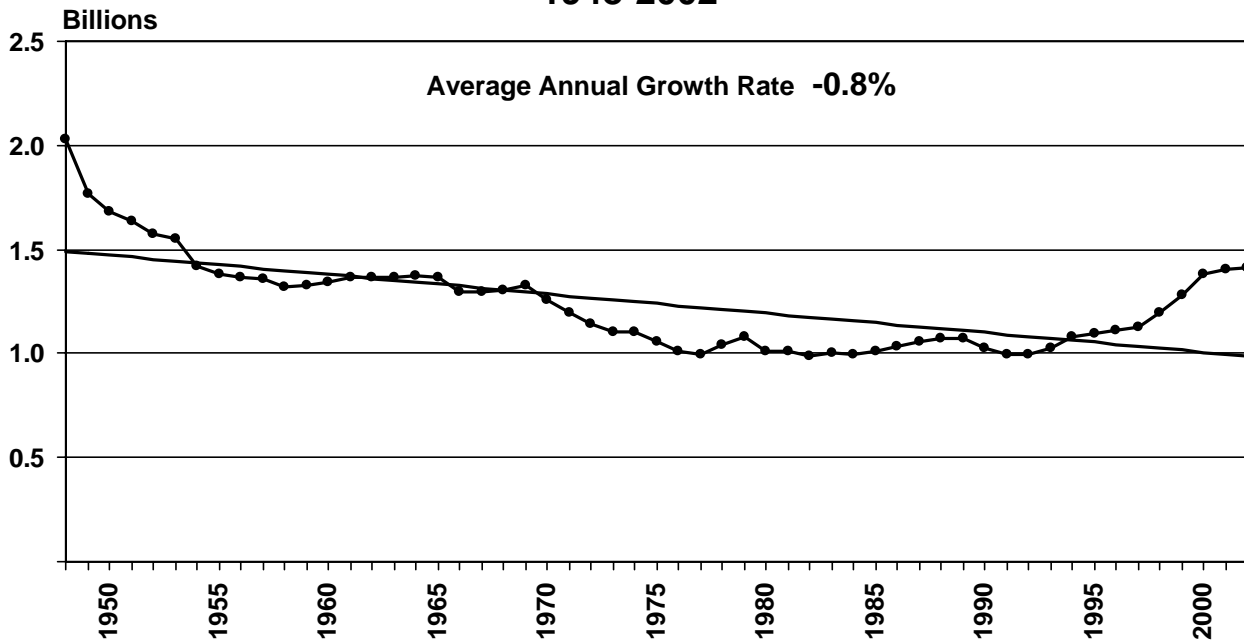
Percent Changes	Average Daily Crossings	Annual Subway Ridership	Period	Average Daily Crossings	Annual Subway Ridership
	+ 47.6 %	- 20.0 %	1950-1960	+ 11.1 %	+ 34.3 %
	+ 24.8 %	- 6.5 %	1960-1970	- 5.0 %	+ 2.3 %
	+ 5.6 %	- 19.8 %	1970-1980	+177.2 %	- 30.4 %
	+ 17.4 %	+ 1.9 %	1980-1990		

Source for Annual Subway Ridership: MTA

Daily Traffic Flow to Manhattan 1948-2002



N.Y.C. Annual Subway Passengers 1948-2002



PAST & PRESENT PASSENGER CAR TOLL STRUCTURES

MTA BRIDGES & TUNNELS FACILITIES

Tolls collected both directions

	Brooklyn Battery Tunnel	Queens Midtown Tunnel	Triborough Bridge	Henry Hudson Bridge
Prior to Jan. 1972	\$ 0.35	\$ 0.25	\$ 0.25	\$ 0.10
Jan. 1972	0.70	0.50	0.50	0.25
Sep. 1975	0.75	0.75	0.75	0.50
May 1980	1.00	1.00	1.00	0.60
Apr. 1982	1.25	1.25	1.25	0.90
Jan. 1984	1.50	1.50	1.50	0.90
Jan. 1986	1.75	1.75	1.75	1.00
Feb. 1987	2.00	2.00	2.00	1.00
July 1989	2.50	2.50	2.50	1.25
Jan. 1993	3.00	3.00	3.00	1.50
Mar. 1996	3.50	3.50	3.50	1.75

\$0.50 discount on all MTABT facilities with *EZ Pass*.

PORT AUTHORITY OF NEW YORK & NEW JERSEY

Tolls collected eastbound only

	George Washington Bridge	Holland Tunnel	Lincoln Tunnel
Aug. 1970	\$ 1.00	\$ 1.00	\$ 1.00
May 1975	1.50	1.50	1.50
Jan. 1984	2.00	2.00	2.00
Apr. 1987	3.00	3.00	3.00
Apr. 1991	4.00	4.00	4.00
Mar. 2001	6.00	6.00	6.00

\$1.00 discount on PANYNJ facilities with *EZ Pass* weekdays 6-9am & 4-7pm, and weekends noon-8pm.

\$2.00 discount on PANYNJ facilities with *EZ Pass* during all other hours.

One way toll collection system initiated on PANYNJ facilities August 12, 1970. Prior to that, tolls of \$ 0.50 were collected each way from date each facility opened.

East River Bridges
Average Daily Traffic Volumes
1948 - 2002

<i>Year</i>	<i>Brooklyn Bridge</i>	<i>Manhattan Bridge</i>	<i>Queensboro Bridge</i>	<i>Williamsburg Bridge</i>	<i>Totals</i>
1948	37,011	86,717	83,201	47,139	254,068
1949	37,244	80,420	88,821	54,448	260,933
1950	13,397	84,027	84,863	57,940	240,227
1951	14,865	100,826	90,922	62,739	269,352
1952	16,907	96,476	85,748	62,573	261,704
1953	14,513	94,320	106,391	77,502	292,726
1954	42,455	77,698	101,285	76,465	297,903
1955	53,964	66,968	91,958	80,743	293,633
1956	54,981	69,656	90,786	82,443	297,866
1957	23,852	89,793	93,676	89,707	297,028
1958	43,089	82,128	100,555	78,698	304,470
1959	53,115	74,329	103,522	81,465	312,431
1960	73,486	60,481	107,536	81,157	322,660
1961	68,997	62,797	104,505	80,514	316,813
1962	78,850	51,450	105,930	81,940	318,170
1963	78,770	58,510	116,350	80,250	333,880
1964	80,230	59,250	120,900	80,650	341,030
1965	84,141	71,222	117,588	80,567	353,518
1966	89,124	63,693	122,896	80,032	355,745
1967	87,387	75,741	124,033	65,775	352,936
1968	72,475	79,906	130,777	74,074	357,232
1969	97,565	75,473	132,553	73,825	379,416
1970	100,050	72,077	126,554	73,062	371,743
1971	102,535	68,681	120,555	72,299	364,070
1972	103,815	73,803	136,455	76,219	390,292
1973	102,834	73,401	138,066	79,989	394,290
1974	99,959	77,198	138,560	78,914	394,631
1975	103,750	74,320	144,252	82,057	404,379
1976	102,590	68,057	145,130	82,471	398,248
1977	104,532	64,835	146,283	82,490	398,140
1978	104,848	74,257	138,415	82,626	400,146
1979	91,319	75,403	133,966	81,340	382,028
1980	103,954	77,914	127,929	82,663	392,460
1981	102,572	79,589	127,864	85,100	395,125
1982	110,991	87,760	136,864	79,369	414,984
1983	115,825	85,222	125,158	86,947	413,152
1984	110,432	89,104	134,107	94,898	428,541
1985	116,929	100,825	150,892	107,386	476,032
1986	126,555	77,784	158,191	107,181	469,711
1987	123,523	77,519	151,688	107,362	460,092
1988	129,153	75,221	153,841	102,643	460,858
1989	131,951	68,593	152,591	107,967	461,102
1990	129,626	69,550	140,063	109,474	448,713
1991	128,491	72,695	131,438	115,345	447,969
1992	125,643	78,117	141,078	98,307	443,145
1993	134,793	74,526	135,964	86,591	431,874
1994	134,837	78,418	151,483	83,525	448,263
1995	131,883	75,126	157,306	100,588	464,903
1996	131,872	81,075	161,965	88,570	463,482
1997	147,898	83,209	184,179	96,124	511,410
1998	144,131	78,172	192,119	109,268	523,690
1999	127,065	92,311	189,190	107,941	516,507
2000	147,767	75,684	182,940	108,376	514,767
2001	95,586	73,064	176,469	82,202	427,321
2002	121,145	66,152	176,419	103,364	467,080

Hourly Vehicular Volumes Brooklyn Bridge - 2002

	<i>Eastbound to Brooklyn</i>						<i>Westbound to Manhattan</i>						2-Way Totals
	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	
12-1am	---	---	---	---	---	2,696	---	---	---	---	---	1,634	4,330
1-2am	---	---	---	---	---	1,705	---	---	---	---	---	991	2,696
2-3am	---	---	---	---	---	1,073	---	---	---	---	---	667	1,740
3-4am	---	---	---	---	---	815	---	---	---	---	---	653	1,468
4-5am	---	---	---	---	---	841	---	---	---	---	---	1,078	1,919
5-6am	---	---	---	---	---	1,155	---	---	---	---	---	2,550	3,705
6-7am	---	---	---	---	---	2,161	---	---	---	---	---	3,217	5,378
7-8am	2,354	2	101	1	62	2,520	3,174	16	31	3	221	3,445 **	5,965
8-9am	2,403	27	113	0	80	2,623	3,134	5	51	7	190	3,387	6,010
9-10am	2,129	18	70	2	125	2,344	2,577	4	49	4	248	2,882	5,226
10-11am	2,083	4	83	0	125	2,295	2,710	3	124	7	151	2,995	5,290
11-12am	2,008	1	83	0	63	2,155	2,372	6	133	4	148	2,663	4,818
12-1pm	2,137	1	105	2	106	2,351	2,627	0	118	3	119	2,867	5,218
1-2pm	2,227	1	130	0	94	2,452	2,512	52	125	2	135	2,826	5,278
2-3pm	2,764	10	81	1	106	2,962	2,860	5	179	1	117	3,162	6,124
3-4pm	3,175	19	57	0	67	3,318	2,931	10	128	0	120	3,189	6,507
4-5pm	3,235	10	83	0	34	3,362	2,803	5	202	1	96	3,107	6,469
5-6pm	3,384	3	87	1	22	3,497 **	2,788	14	146	1	137	3,086	6,583 **
6-7pm	3,277	3	67	4	39	3,390	2,767	3	125	1	96	2,992	6,382
7-8pm	---	---	---	---	---	3,306	---	---	---	---	---	2,957	6,263
8-9pm	---	---	---	---	---	3,428	---	---	---	---	---	2,891	6,319
9-10pm	---	---	---	---	---	3,251	---	---	---	---	---	2,885	6,136
10-11pm	---	---	---	---	---	3,076	---	---	---	---	---	2,613	5,689
11-12pm	---	---	---	---	---	3,159	---	---	---	---	---	2,473	5,632
Totals	---	---	---	---	---	59,935	---	---	---	---	---	61,210	121,145
7-10am	6,886	47	284	3	267	7,487	8,885	25	131	14	659	9,714	17,201
10am-1pm	6,228	6	271	2	294	6,801	7,709	9	375	14	418	8,525	15,326
1-4pm	8,166	30	268	1	267	8,732	8,303	67	432	3	372	9,177	17,909
4-7pm	9,896	16	237	5	95	10,249	8,358	22	473	3	329	9,185	19,434
7am-7pm	31,176	99	1,060	11	923	33,269	33,255	123	1,411	34	1,778	36,601	69,870

Based on October 1996 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Manhattan Bridge - 2002

	<i>Eastbound to Brooklyn</i>						<i>Westbound to Manhattan</i>						2-Way Totals
	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	
12-1am	---	---	---	---	---	1,463	---	---	---	---	---	798	2,261
1-2am	---	---	---	---	---	1,023	---	---	---	---	---	716	1,739
2-3am	---	---	---	---	---	718	---	---	---	---	---	478	1,196
3-4am	---	---	---	---	---	623	---	---	---	---	---	484	1,107
4-5am	---	---	---	---	---	642	---	---	---	---	---	585	1,227
5-6am	---	---	---	---	---	713	---	---	---	---	---	1,257	1,970
6-7am	---	---	---	---	---	1,078	---	---	---	---	---	2,048	3,126
7-8am	642	52	129	375	127	1,325	1,263	81	184	379	337	2,244	** 3,569
8-9am	730	133	131	444	151	1,589	1,054	31	176	384	393	2,038	3,627
9-10am	513	81	157	466	178	1,395	743	26	123	452	354	1,698	3,093
10-11am	562	24	158	505	228	1,477	570	25	119	530	295	1,539	3,016
11-12am	524	22	136	447	216	1,345	554	24	122	436	281	1,417	2,762
12-1pm	517	19	98	436	300	1,370	642	30	163	415	167	1,417	2,787
1-2pm	509	24	184	434	315	1,466	681	36	144	465	173	1,499	2,965
2-3pm	638	18	210	429	326	1,621	704	24	99	348	281	1,456	3,077
3-4pm	835	65	264	462	357	1,983	680	36	149	240	204	1,309	3,292
4-5pm	1,024	50	235	402	474	2,185	832	23	97	253	215	1,420	3,605
5-6pm	1,237	41	236	379	512	2,405	** 962	37	157	202	174	1,532	** 3,937
6-7pm	1,229	37	317	333	336	2,252	971	20	112	124	129	1,356	3,608
7-8pm	---	---	---	---	---	2,040	---	---	---	---	---	1,240	3,280
8-9pm	---	---	---	---	---	1,803	---	---	---	---	---	1,151	2,954
9-10pm	---	---	---	---	---	1,563	---	---	---	---	---	1,122	2,685
10-11pm	---	---	---	---	---	1,595	---	---	---	---	---	1,072	2,667
11-12pm	---	---	---	---	---	1,554	---	---	---	---	---	1,048	2,602
Totals	---	---	---	---	---	35,228	---	---	---	---	---	30,924	66,152
7-10am	1,885	266	417	1,285	456	4,309	3,060	138	483	1,215	1,084	5,980	10,289
10am-1pm	1,603	65	392	1,388	744	4,192	1,766	79	404	1,381	743	4,373	8,565
1-4pm	1,982	107	658	1,325	998	5,070	2,065	96	392	1,053	658	4,264	9,334
4-7pm	3,490	128	788	1,114	1,322	6,842	2,765	80	366	579	518	4,308	11,150
7am-7pm	8,960	566	2,255	5,112	3,520	20,413	9,656	393	1,645	4,228	3,003	18,925	39,338

Based on October 1996 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Queensboro Bridge - 2002

	Eastbound to Queens						Westbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	
12-1am	---	---	---	---	---	4,046	---	---	---	---	---	2,040	6,086
1-2am	---	---	---	---	---	2,625	---	---	---	---	---	1,355	3,980
2-3am	---	---	---	---	---	1,744	---	---	---	---	---	1,069	2,813
3-4am	---	---	---	---	---	1,369	---	---	---	---	---	1,274	2,643
4-5am	---	---	---	---	---	1,569	---	---	---	---	---	1,964	3,533
5-6am	---	---	---	---	---	2,096	---	---	---	---	---	4,068	6,164
6-7am	---	---	---	---	---	3,017	---	---	---	---	---	6,388	9,405
7-8am	2,491	116	243	101	166	3,117	5,286	110	293	295	757	6,741	** 9,858
8-9am	2,225	168	241	168	148	2,950	4,240	66	292	355	888	5,841	8,791
9-10am	1,859	172	212	225	184	2,652	3,327	55	337	281	661	4,661	7,313
10-11am	2,359	75	175	215	296	3,120	2,729	55	244	341	523	3,892	7,012
11-12am	2,367	70	260	212	415	3,324	2,632	80	278	274	414	3,678	7,002
12-1pm	2,629	82	189	183	437	3,520	2,941	46	233	215	314	3,749	7,269
1-2pm	2,486	61	304	274	473	3,598	3,020	94	232	237	265	3,848	7,446
2-3pm	3,126	64	192	348	462	4,192	3,136	66	234	187	418	4,041	8,233
3-4pm	4,117	135	152	398	542	5,344	3,388	38	255	136	287	4,104	9,448
4-5pm	4,842	175	185	433	623	6,258	** 3,705	36	218	123	226	4,308	** 10,566
5-6pm	4,436	190	174	312	515	5,627	3,891	32	150	54	153	4,280	9,907
6-7pm	4,343	164	240	101	361	5,209	3,841	57	238	74	184	4,394	9,603
7-8pm	---	---	---	---	---	4,752	---	---	---	---	---	3,948	8,700
8-9pm	---	---	---	---	---	4,718	---	---	---	---	---	3,325	8,043
9-10pm	---	---	---	---	---	4,407	---	---	---	---	---	3,213	7,620
10-11pm	---	---	---	---	---	4,298	---	---	---	---	---	3,172	7,470
11-12pm	---	---	---	---	---	4,593	---	---	---	---	---	2,921	7,514
Totals	---	---	---	---	---	88,145	---	---	---	---	---	88,274	176,419
7-10am	6,575	456	696	494	498	8,719	12,853	231	922	931	2,306	17,243	25,962
10am-1pm	7,355	227	624	610	1,148	9,964	8,302	181	755	830	1,251	11,319	21,283
1-4pm	9,729	260	648	1,020	1,477	13,134	9,544	198	721	560	970	11,993	25,127
4-7pm	13,621	529	599	846	1,499	17,094	11,437	125	606	251	563	12,982	30,076
7am-7pm	37,280	1,472	2,567	2,970	4,622	48,911	42,136	735	3,004	2,572	5,090	53,537	102,448

Based on October 1996 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Williamsburg Bridge - 2002

	Eastbound to Brooklyn						Westbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	
12-1am	---	---	---	---	---	1,994	---	---	---	---	---	1,249	3,243
1-2am	---	---	---	---	---	1,221	---	---	---	---	---	852	2,073
2-3am	---	---	---	---	---	869	---	---	---	---	---	754	1,623
3-4am	---	---	---	---	---	662	---	---	---	---	---	774	1,436
4-5am	---	---	---	---	---	756	---	---	---	---	---	1,071	1,827
5-6am	---	---	---	---	---	1,014	---	---	---	---	---	2,188	3,202
6-7am	---	---	---	---	---	1,576	---	---	---	---	---	3,160	4,736
7-8am	1,350	22	221	165	101	1,859	2,192	101	481	339	364	3,477 **	5,336
8-9am	1,293	114	225	187	142	1,961	1,950	41	494	288	421	3,194	5,155
9-10am	1,021	76	299	183	122	1,701	1,951	42	477	296	316	3,082	4,783
10-11am	1,105	42	264	409	76	1,896	1,799	34	485	291	274	2,883	4,779
11-12am	1,074	21	272	399	106	1,872	1,551	34	456	293	286	2,620	4,492
12-1pm	1,154	13	326	290	161	1,944	1,487	31	396	219	270	2,403	4,347
1-2pm	1,244	22	328	325	153	2,072	1,439	69	559	245	216	2,528	4,600
2-3pm	1,289	27	397	298	53	2,064	2,018	46	488	195	250	2,997	5,061
3-4pm	1,971	71	441	364	172	3,019	2,019	36	390	191	241	2,877	5,896
4-5pm	2,173	89	406	345	194	3,207	1,960	37	472	128	216	2,813	6,020
5-6pm	2,260	70	427	258	243	3,258 **	2,007	40	474	135	226	2,882	6,140 **
6-7pm	2,275	25	375	132	187	2,994	1,809	33	529	115	219	2,705	5,699
7-8pm	---	---	---	---	---	2,877	---	---	---	---	---	2,448	5,325
8-9pm	---	---	---	---	---	2,610	---	---	---	---	---	2,177	4,787
9-10pm	---	---	---	---	---	2,439	---	---	---	---	---	2,115	4,554
10-11pm	---	---	---	---	---	2,227	---	---	---	---	---	1,934	4,161
11-12pm	---	---	---	---	---	2,259	---	---	---	---	---	1,830	4,089
Totals	---	---	---	---	---	48,351	---	---	---	---	---	55,013	103,364
7-10am	3,664	212	745	535	365	5,521	6,093	184	1,452	923	1,101	9,753	15,274
10am-1pm	3,333	76	862	1,098	343	5,712	4,837	99	1,337	803	830	7,906	13,618
1-4pm	4,504	120	1,166	987	378	7,155	5,476	151	1,437	631	707	8,402	15,557
4-7pm	6,708	184	1,208	735	624	9,459	5,776	110	1,475	378	661	8,400	17,859
7am-7pm	18,209	592	3,981	3,355	1,710	27,847	22,182	544	5,701	2,735	3,299	34,461	62,308

Based on October 1996 Classification Survey Data

** Peak Volumes

Harlem River Bridges
Average Daily Traffic Volumes
1948 - 2002

Year	Alexander Hamilton	Broadway	Macombs Dam	Madison Avenue	Third Avenue
1948		16,020	33,608	27,222	31,403
1949		17,369	23,854	17,363	20,024
1950		15,462	28,641	27,933	34,984
1951	<i>Bridge</i>	16,374	31,072	33,576	51,478
1952	<i>Opened</i>	17,412	36,100	27,468	34,023
1953	<i>Jan. 1963</i>	16,821	35,331	24,382	37,593
1954		15,958	27,911	23,408	33,667
1955		17,046	27,914	34,681	38,201
1956		17,960	32,761	46,591	42,735
1957		20,345	55,609	40,860	47,269
1958		22,132	50,227	33,393	61,367
1959		25,491	48,720	27,967	56,525
1960		23,025	50,865	22,541	68,079
1961		21,097	32,447	28,375	61,584
1962		19,170	39,580	25,400	53,580
1963		23,110	43,450	27,090	63,840
1964	87,840	25,020	31,050	31,170	63,250
1965	125,133	17,555	37,451	26,315	55,644
1966	104,559	22,438	39,922	28,865	70,938
1967	135,803	22,844	35,595	27,683	52,931
1968	92,771	23,621	33,875	27,658	41,243
1969	132,487	22,224	38,845	28,219	57,748
1970	141,609	23,115	46,523	24,941	48,110
1971	137,881	28,232	40,489	28,891	50,548
1972	142,139	25,178	39,702	26,923	47,454
1973	137,133	24,408	38,349	34,815	60,415
1974	144,909	21,825	40,934	30,425	54,770
1975	134,013	30,638	38,995	29,823	62,079
1976	137,141	26,453	36,065	27,838	54,957
1977	158,710	26,465	33,539	29,832	52,969
1978	151,342	25,145	35,764	34,938	54,177
1979	143,973	27,673	37,145	29,036	54,428
1980	152,852	29,838	37,464	27,476	54,152
1981	148,609	30,485	42,064	29,456	51,483
1982	156,038	30,846	45,178	30,485	60,236
1983	161,772	29,875	42,747	30,715	67,813
1984	164,734	28,338	46,870	33,101	56,706
1985	171,602	33,086	52,497	37,956	59,907
1986	175,635	32,314	50,602	39,809	64,404
1987	180,908	31,934	48,021	31,506	62,089
1988	172,970	33,047	43,318	31,321	62,379
1989	183,661	35,066	43,450	31,688	64,849
1990	192,848	41,705	41,113	32,458	63,516
1991	187,309	40,444	42,393	34,826	65,787
1992	176,279	35,184	42,022	32,907	66,967
1993	180,507	33,752	39,251	32,432	68,812
1994	178,522	32,833	39,876	22,923	66,104
1995	175,279	42,555	41,571	22,739	68,663
1996	176,856	40,040	40,031	17,948	67,206
1997	176,102	34,645	44,033	28,646	71,365
1998	176,632	35,770	42,027	32,922	70,757
1999	180,201	35,412	41,813	38,102	68,544
2000	177,899	37,990	21,008	47,583	73,121
2001	168,605	41,175	39,615	43,331	72,756
2002	168,079	38,287	18,878	49,487	58,949

Harlem River Bridges (cont'd)
Average Daily Traffic Volumes
1948 - 2002

<i>Year</i>	<i>University Heights</i>	<i>Washington</i>	<i>Willis Avenue</i>	<i>145th Street</i>	<i>Totals</i>
1948	21,706	29,374	29,648	18,196	207,177
1949	14,098	32,122	42,772	25,908	193,510
1950	24,986	29,541	38,708	22,416	222,671
1951	25,270	28,599	35,958	26,872	249,199
1952	21,527	28,270	33,207	24,189	222,196
1953	29,240	37,298	38,579	29,385	248,629
1954	22,979	39,339	46,675	26,119	236,056
1955	18,151	33,988	44,809	35,449	250,239
1956	21,834	30,598	43,752	30,550	266,781
1957	34,077	38,861	51,395	28,114	316,530
1958	37,078	50,100	49,773	25,677	329,747
1959	33,580	51,652	58,705	39,709	342,349
1960	36,763	54,008	59,050	30,868	345,199
1961	43,749	61,542	50,902	33,767	333,463
1962	35,940	56,110	55,910	27,540	313,230
1963	26,030	32,760	65,290	27,520	309,090
1964	31,490	41,410	65,190	31,260	407,680
1965	23,458	35,560	53,219	26,924	401,259
1966	25,700	31,104	53,677	25,284	402,487
1967	26,990	33,921	69,609	22,368	427,744
1968	26,126	35,218	58,730	22,853	362,095
1969	29,941	19,136	60,192	24,200	412,992
1970	26,718	33,661	61,433	23,580	429,690
1971	29,622	38,522	53,609	24,401	432,195
1972	31,620	36,812	49,431	23,105	422,364
1973	33,503	46,079	51,537	23,431	449,670
1974	29,297	42,014	53,322	21,616	439,112
1975	29,111	41,522	52,984	21,189	440,354
1976	34,494	39,058	53,873	19,750	429,629
1977	29,128	38,185	52,484	20,888	442,200
1978	35,883	37,690	54,335	21,484	450,758
1979	31,796	37,348	44,851	21,566	427,816
1980	32,562	38,061	52,061	21,826	446,292
1981	34,454	38,061	52,561	21,150	448,323
1982	25,416	44,168	55,762	22,656	470,785
1983	32,233	42,186	60,296	23,516	491,153
1984	30,485	46,896	66,017	23,802	496,949
1985	37,553	51,302	65,638	28,722	538,263
1986	36,192	54,935	66,824	26,181	546,896
1987	37,223	46,094	67,558	24,895	530,228
1988	38,542	48,025	64,862	25,818	520,282
1989	42,246	49,092	66,012	23,317	539,381
1990	19,768	61,668	62,315	24,172	539,563
1991	18,220	57,526	60,415	26,448	533,368
1992	39,232	51,925	66,522	26,315	537,353
1993	38,895	52,795	70,472	25,390	542,306
1994	38,134	57,009	67,344	23,299	526,044
1995	21,238	56,372	67,716	25,749	521,882
1996	35,280	56,204	70,229	27,156	530,950
1997	39,639	54,708	73,461	24,151	546,750
1998	41,640	57,307	78,145	24,862	560,062
1999	42,287	58,907	71,555	26,361	563,182
2000	45,557	68,075	73,175	34,362	578,770
2001	46,381	57,443	72,901	26,552	568,759
2002	45,311	63,609	73,435	35,796	551,831

Hourly Vehicular Volumes Alexander Hamilton Bridge - 2002

	Eastbound to Bronx						Westbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	
12-1am	---	---	---	---	---	1,496	---	---	---	---	---	2,254	3,750
1-2am	---	---	---	---	---	1,260	---	---	---	---	---	1,705	2,965
2-3am	---	---	---	---	---	1,313	---	---	---	---	---	1,456	2,769
3-4am	---	---	---	---	---	1,507	---	---	---	---	---	1,404	2,911
4-5am	---	---	---	---	---	1,845	---	---	---	---	---	1,675	3,520
5-6am	---	---	---	---	---	3,115	---	---	---	---	---	2,539	5,654
6-7am	---	---	---	---	---	4,850 **	---	---	---	---	---	4,092	8,942
7-8am	3,697	12	214	706	107	4,736	4,035	9	86	429	212	4,771	9,507 **
8-9am	3,332	4	218	837	194	4,585	4,096	34	34	475	151	4,790 **	9,375
9-10am	3,106	4	199	1,018	112	4,439	3,499	50	29	768	204	4,550	8,989
10-11am	3,719	3	88	291	42	4,143	3,806	27	17	411	138	4,399	8,542
11-12am	3,096	9	222	688	114	4,129	2,879	12	18	897	255	4,061	8,190
12-1pm	3,696	0	104	417	46	4,263	3,596	10	9	502	127	4,244	8,507
1-2pm	2,915	6	139	695	69	3,824	3,002	11	21	781	204	4,019	7,843
2-3pm	3,221	5	172	669	95	4,162	2,931	16	36	786	158	3,927	8,089
3-4pm	3,952	7	80	308	87	4,434	3,378	18	14	397	73	3,880	8,314
4-5pm	3,841	6	144	480	110	4,581	3,134	3	36	791	191	4,155	8,736
5-6pm	3,886	5	109	366	91	4,457	3,235	2	26	721	141	4,125	8,582
6-7pm	3,661	8	192	420	74	4,355	3,558	2	21	431	123	4,135	8,490
7-8pm	---	---	---	---	---	3,934	---	---	---	---	---	4,318	8,252
8-9pm	---	---	---	---	---	3,836	---	---	---	---	---	3,822	7,658
9-10pm	---	---	---	---	---	3,476	---	---	---	---	---	3,538	7,014
10-11pm	---	---	---	---	---	3,191	---	---	---	---	---	3,122	6,313
11-12pm	---	---	---	---	---	2,279	---	---	---	---	---	2,888	5,167
Totals	---	---	---	---	---	84,210	---	---	---	---	---	83,869	168,079
7-10am	10,135	20	631	2,561	413	13,760	11,630	93	149	1,672	567	14,111	27,871
10am-1pm	10,511	12	414	1,396	202	12,535	10,281	49	44	1,810	520	12,704	25,239
1-4pm	10,088	18	391	1,672	251	12,420	9,311	45	71	1,964	435	11,826	24,246
4-7pm	11,388	19	445	1,266	275	13,393	9,927	7	83	1,943	455	12,415	25,808
7am-7pm	42,122	69	1,881	6,895	1,141	52,108	41,149	194	347	7,389	1,977	51,056	103,164

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Broadway Bridge - 2002

	<i>Northbound to Bronx</i>						<i>Southbound to Manhattan</i>						2-Way Totals
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	
12-1am	---	---	---	---	---	339	---	---	---	---	---	286	625
1-2am	---	---	---	---	---	242	---	---	---	---	---	182	424
2-3am	---	---	---	---	---	143	---	---	---	---	---	103	246
3-4am	---	---	---	---	---	95	---	---	---	---	---	91	186
4-5am	---	---	---	---	---	113	---	---	---	---	---	154	267
5-6am	---	---	---	---	---	235	---	---	---	---	---	390	625
6-7am	---	---	---	---	---	459	---	---	---	---	---	941	1,400
7-8am	642	36	19	64	27	788	1,529	70	48	35	51	1,733	2,521
8-9am	844	61	21	37	28	991	1,702	58	39	60	58	1,917	2,908
9-10am	652	23	3	26	58	762	1,045	40	30	62	47	1,224	1,986
10-11am	699	17	2	36	24	778	878	23	13	41	10	965	1,743
11-12am	717	22	9	29	44	821	785	26	26	56	57	950	1,771
12-1pm	790	23	6	23	25	867	963	24	5	20	13	1,025	1,892
1-2pm	826	25	3	28	29	911	962	27	10	22	18	1,039	1,950
2-3pm	895	25	1	38	76	1,035	1,057	33	25	37	19	1,171	2,206
3-4pm	1,145	28	10	15	38	1,236	1,303	37	15	21	12	1,388	2,624
4-5pm	1,197	42	29	25	58	1,351	1,207	32	22	38	37	1,336	2,687
5-6pm	1,296	30	9	13	68	1,416	1,303	33	34	21	26	1,417	2,833
6-7pm	1,172	22	0	13	115	1,322	1,223	33	29	21	9	1,315	2,637
7-8pm	---	---	---	---	---	1,049	---	---	---	---	---	1,046	2,095
8-9pm	---	---	---	---	---	783	---	---	---	---	---	755	1,538
9-10pm	---	---	---	---	---	630	---	---	---	---	---	634	1,264
10-11pm	---	---	---	---	---	484	---	---	---	---	---	535	1,019
11-12pm	---	---	---	---	---	423	---	---	---	---	---	417	840
Totals	---	---	---	---	---	17,273	---	---	---	---	---	21,014	38,287
7-10am	2,138	120	43	127	113	2,541	4,276	168	117	157	156	4,874	7,415
10am-1pm	2,206	62	17	88	93	2,466	2,626	73	44	117	80	2,940	5,406
1-4pm	2,866	78	14	81	143	3,182	3,322	97	50	80	49	3,598	6,780
4-7pm	3,665	94	38	51	241	4,089	3,733	98	85	80	72	4,068	8,157
7am-7pm	10,875	354	112	347	590	12,278	13,957	436	296	434	357	15,480	27,758

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Macombs Dam Bridge - 2002

	<i>Eastbound to Bronx</i>						<i>Westbound to Manhattan</i>						2-Way Totals
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	
12-1am	---	---	---	---	---	200	---	---	---	---	---	185	385
1-2am	---	---	---	---	---	131	---	---	---	---	---	119	250
2-3am	---	---	---	---	---	86	---	---	---	---	---	96	182
3-4am	---	---	---	---	---	73	---	---	---	---	---	78	151
4-5am	---	---	---	---	---	72	---	---	---	---	---	89	161
5-6am	---	---	---	---	---	118	---	---	---	---	---	148	266
6-7am	---	---	---	---	---	223	---	---	---	---	---	335	558
7-8am	353	14	9	22	32	430	479	15	2	34	91	621	1,051
8-9am	453	6	8	28	46	541	521	4	1	41	74	641	1,182
9-10am	365	8	6	23	24	426	378	8	5	44	72	507	933
10-11am	306	3	1	13	16	339	425	4	3	19	26	477	816
11-12am	294	4	5	24	29	356	388	3	6	34	38	469	825
12-1pm	342	4	2	11	15	374	465	9	2	9	20	505	879
1-2pm	375	1	2	12	11	401	441	9	3	10	35	498	899
2-3pm	358	5	9	28	31	431	494	11	7	24	42	578	1,009
3-4pm	484	10	4	26	31	555	616	19	5	12	23	675	1,230
4-5pm	501	4	16	43	81	645	608	5	17	22	41	693	1,338 **
5-6pm	567	5	8	20	75	675 **	598	7	5	10	33	653	1,328
6-7pm	589	2	3	14	24	632	538	4	6	12	41	601	1,233
7-8pm	---	---	---	---	---	583	---	---	---	---	---	549	1,132
8-9pm	---	---	---	---	---	490	---	---	---	---	---	475	965
9-10pm	---	---	---	---	---	424	---	---	---	---	---	400	824
10-11pm	---	---	---	---	---	359	---	---	---	---	---	350	709
11-12pm	---	---	---	---	---	285	---	---	---	---	---	287	572
Totals	---	---	---	---	---	8,849	---	---	---	---	---	10,029	18,878
7-10am	1,171	28	23	73	102	1,397	1,378	27	8	119	237	1,769	3,166
10am-1pm	942	11	8	48	60	1,069	1,278	16	11	62	84	1,451	2,520
1-4pm	1,217	16	15	66	73	1,387	1,551	39	15	46	100	1,751	3,138
4-7pm	1,657	11	27	77	180	1,952	1,744	16	28	44	115	1,947	3,899
7am-7pm	4,987	66	73	264	415	5,805	5,951	98	62	271	536	6,918	12,723

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Madison Avenue Bridge - 2002

	Eastbound to Bronx						Westbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	
12-1am	---	---	---	---	---	691	---	---	---	---	---	362	1,053
1-2am	---	---	---	---	---	372	---	---	---	---	---	198	570
2-3am	---	---	---	---	---	235	---	---	---	---	---	134	369
3-4am	---	---	---	---	---	180	---	---	---	---	---	106	286
4-5am	---	---	---	---	---	194	---	---	---	---	---	181	375
5-6am	---	---	---	---	---	310	---	---	---	---	---	637	947
6-7am	---	---	---	---	---	849	---	---	---	---	---	1,381	2,230
7-8am	928	46	102	60	54	1,190	1,500	120	17	61	135	1,833	3,023 **
8-9am	947	65	84	50	62	1,208	1,367	113	32	72	140	1,724	2,932
9-10am	829	73	107	89	55	1,153	1,048	75	42	182	139	1,486	2,639
10-11am	800	36	48	35	44	963	1,052	88	29	29	95	1,293	2,256
11-12am	647	26	84	104	95	956	915	35	47	90	115	1,202	2,158
12-1pm	853	28	34	41	43	999	972	43	33	39	70	1,157	2,156
1-2pm	939	33	35	48	52	1,107	1,012	68	35	19	54	1,188	2,295
2-3pm	1,005	38	88	122	124	1,377	1,085	91	37	41	104	1,358	2,735
3-4pm	1,410	29	45	80	73	1,637	1,333	92	27	35	61	1,548	3,185
4-5pm	1,289	32	145	120	144	1,730	1,448	90	38	35	64	1,675	3,405 **
5-6pm	1,360	37	117	96	91	1,701	1,489	66	47	37	57	1,696	3,397
6-7pm	1,397	81	55	71	93	1,697	1,402	56	32	28	30	1,548	3,245
7-8pm	---	---	---	---	---	1,615	---	---	---	---	---	1,356	2,971
8-9pm	---	---	---	---	---	1,371	---	---	---	---	---	1,044	2,415
9-10pm	---	---	---	---	---	1,200	---	---	---	---	---	789	1,989
10-11pm	---	---	---	---	---	1,033	---	---	---	---	---	521	1,554
11-12pm	---	---	---	---	---	897	---	---	---	---	---	405	1,302
Totals	---	---	---	---	---	24,665	---	---	---	---	---	24,822	49,487
7-10am	2,704	184	293	199	171	3,551	3,915	308	91	315	414	5,043	8,594
10am-1pm	2,300	90	166	180	182	2,918	2,939	166	109	158	280	3,652	6,570
1-4pm	3,354	100	168	250	249	4,121	3,430	251	99	95	219	4,094	8,215
4-7pm	4,046	150	317	287	328	5,128	4,339	212	117	100	151	4,919	10,047
7am-7pm	12,404	524	944	916	930	15,718	14,623	937	416	668	1,064	17,708	33,426

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Third Avenue Bridge - 2002

	Northbound to Bronx						Southbound to Manhattan						2-Way Totals
	Autos	Commuter		Commercial		Totals	Autos	Commuter		Commercial		Totals	
		Buses	Vans	Trucks	Vans			Buses	Vans	Trucks	Vans		
12-1am							---	---	---	---	---	1,202	1,202
1-2am							---	---	---	---	---	754	754
2-3am							---	---	---	---	---	631	631
3-4am							---	---	---	---	---	712	712
4-5am							---	---	---	---	---	1,186	1,186
5-6am							---	---	---	---	---	2,448	2,448
6-7am							---	---	---	---	---	3,329	3,329
7-8am							2,194	45	339	457	377	3,412	3,412
8-9am							2,110	30	209	427	445	3,221	3,221
9-10am							1,862	31	246	363	287	2,789	2,789
10-11am							2,363	29	157	152	125	2,826	2,826
11-12am							1,791	50	291	344	213	2,689	2,689
12-1pm							2,372	71	122	137	105	2,807	2,807
1-2pm							2,120	97	185	161	276	2,839	2,839
2-3pm							2,224	110	277	273	320	3,204	3,204
3-4pm							2,908	86	100	81	73	3,248	3,248
4-5pm							2,782	64	150	144	166	3,306	3,306
5-6pm							2,941	58	122	103	87	3,311	3,311
6-7pm							2,890	59	117	78	86	3,230	3,230
7-8pm							---	---	---	---	---	2,882	2,882
8-9pm							---	---	---	---	---	2,400	2,400
9-10pm							---	---	---	---	---	2,258	2,258
10-11pm							---	---	---	---	---	2,282	2,282
11-12pm							---	---	---	---	---	1,983	1,983
Totals							---	---	---	---	---	58,949	58,949
7-10am							6,166	106	794	1,247	1,109	9,422	9,422
10am-1pm							6,526	150	570	633	443	8,322	8,322
1-4pm							7,252	293	562	515	669	9,291	9,291
4-7pm							8,613	181	389	325	339	9,847	9,847
7am-7pm							28,557	730	2,315	2,720	2,560	36,882	36,882

**Bridge is 1-way southbound
to Manhattan**

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes University Heights Bridge - 2002

	Eastbound to Bronx						Westbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	
12-1am	---	---	---	---	---	373	---	---	---	---	---	433	806
1-2am	---	---	---	---	---	328	---	---	---	---	---	314	642
2-3am	---	---	---	---	---	197	---	---	---	---	---	224	421
3-4am	---	---	---	---	---	164	---	---	---	---	---	175	339
4-5am	---	---	---	---	---	188	---	---	---	---	---	299	487
5-6am	---	---	---	---	---	291	---	---	---	---	---	716	1,007
6-7am	---	---	---	---	---	674	---	---	---	---	---	1,480	2,154
7-8am	765	54	97	47	49	1,012	1,675	27	43	48	138	1,931	2,943
8-9am	851	10	90	64	82	1,097	1,448	14	31	58	118	1,669	2,766
9-10am	667	9	66	76	77	895	1,176	16	19	60	119	1,390	2,285
10-11am	728	4	38	36	29	835	1,155	5	5	32	69	1,266	2,101
11-12am	666	8	69	81	41	865	1,032	8	14	65	93	1,212	2,077
12-1pm	908	15	28	31	26	1,008	1,198	2	6	33	57	1,296	2,304
1-2pm	906	45	44	35	27	1,057	1,242	4	5	23	42	1,316	2,373
2-3pm	916	14	78	57	54	1,119	1,282	12	25	57	121	1,497	2,616
3-4pm	940	16	21	28	27	1,032	1,398	49	7	30	62	1,546	2,578
4-5pm	1,012	5	62	47	36	1,162	1,469	23	20	31	109	1,652	2,814
5-6pm	974	0	61	29	45	1,109	1,470	1	18	16	65	1,570	2,679
6-7pm	995	0	61	21	62	1,139	1,397	8	12	11	65	1,493	2,632
7-8pm	---	---	---	---	---	1,097	---	---	---	---	---	1,311	2,408
8-9pm	---	---	---	---	---	992	---	---	---	---	---	1,121	2,113
9-10pm	---	---	---	---	---	831	---	---	---	---	---	961	1,792
10-11pm	---	---	---	---	---	764	---	---	---	---	---	863	1,627
11-12pm	---	---	---	---	---	664	---	---	---	---	---	683	1,347
Totals	---	---	---	---	---	18,893	---	---	---	---	---	26,418	45,311
7-10am	2,283	73	253	187	208	3,004	4,299	57	93	166	375	4,990	7,994
10am-1pm	2,302	27	135	148	96	2,708	3,385	15	25	130	219	3,774	6,482
1-4pm	2,762	75	143	120	108	3,208	3,922	65	37	110	225	4,359	7,567
4-7pm	2,981	5	184	97	143	3,410	4,336	32	50	58	239	4,715	8,125
7am-7pm	10,328	180	715	552	555	12,330	15,942	169	205	464	1,058	17,838	30,168

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Washington Bridge - 2002

	Eastbound to Bronx						Westbound to Manhattan						2-Way Totals	
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals		
12-1am	---	---	---	---	---	1,204	---	---	---	---	---	564	1,768	
1-2am	---	---	---	---	---	821	---	---	---	---	---	339	1,160	
2-3am	---	---	---	---	---	503	---	---	---	---	---	231	734	
3-4am	---	---	---	---	---	432	---	---	---	---	---	204	636	
4-5am	---	---	---	---	---	540	---	---	---	---	---	311	851	
5-6am	---	---	---	---	---	410	---	---	---	---	---	763	1,173	
6-7am	---	---	---	---	---	1,026	---	---	---	---	---	1,359	2,385	
7-8am	1,634	62	35	56	120	1,907	1,348	63	120	39	27	1,597	3,504	
8-9am	1,559	48	28	84	143	1,862	1,252	69	76	57	30	1,484	3,346	
9-10am	1,331	44	28	105	100	1,608	1,204	41	61	46	32	1,384	2,992	
10-11am	1,250	37	8	35	46	1,376	1,213	43	13	33	27	1,329	2,705	
11-12am	1,207	29	17	67	76	1,396	1,159	55	34	37	44	1,329	2,725	
12-1pm	1,369	46	21	27	66	1,529	1,304	34	12	25	19	1,394	2,923	
1-2pm	1,455	36	6	37	56	1,590	1,375	35	20	22	16	1,468	3,058	
2-3pm	1,517	37	28	74	87	1,743	1,497	70	53	64	50	1,734	3,477	
3-4pm	1,854	43	12	36	93	2,038	1,715	53	53	53	26	1,900	3,938	
4-5pm	1,990	47	60	73	221	2,391	1,557	45	79	96	53	1,830	4,221	
5-6pm	2,326	43	65	46	122	2,602	**	1,615	32	49	37	46	1,779	4,381
6-7pm	2,270	29	40	31	100	2,470	1,510	41	60	21	33	1,665	4,135	
7-8pm	---	---	---	---	---	2,127	---	---	---	---	---	1,575	3,702	
8-9pm	---	---	---	---	---	1,866	---	---	---	---	---	1,257	3,123	
9-10pm	---	---	---	---	---	1,385	---	---	---	---	---	1,038	2,423	
10-11pm	---	---	---	---	---	1,184	---	---	---	---	---	882	2,066	
11-12pm	---	---	---	---	---	1,279	---	---	---	---	---	904	2,183	
Totals	---	---	---	---	---	35,289	---	---	---	---	---	28,320	63,609	
7-10am	4,524	154	91	245	363	5,377	3,804	173	257	142	89	4,465	9,842	
10am-1pm	3,826	112	46	129	188	4,301	3,676	132	59	95	90	4,052	8,353	
1-4pm	4,826	116	46	147	236	5,371	4,587	158	126	139	92	5,102	10,473	
4-7pm	6,586	119	165	150	443	7,463	4,682	118	188	154	132	5,274	12,737	
7am-7pm	19,762	501	348	671	1,230	22,512	16,749	581	630	530	403	18,893	41,405	

Based on 1989 Classification Survey Data

** Peak Volumes

Hourly Vehicular Volumes Willis Avenue Bridge - 2002

	Northbound to Bronx						Southbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	Autos	Buses	Commuter Vans	Commercial Trucks	Vans	Totals	
12-1am	---	---	---	---	---	2,279						0	2,279
1-2am	---	---	---	---	---	1,304						0	1,304
2-3am	---	---	---	---	---	954						0	954
3-4am	---	---	---	---	---	822						0	822
4-5am	---	---	---	---	---	998						0	998
5-6am	---	---	---	---	---	1,629						0	1,629
6-7am	---	---	---	---	---	2,511						1,005	3,516
7-8am	2,603	77	121	151	105	3,057	1,058	0	0	0	0	1,058	4,115
8-9am	2,527	107	94	183	222	3,133	840	0	0	0	0	840	3,973
9-10am	2,094	123	103	251	232	2,803	495	0	0	0	0	495	3,298
10-11am	2,474	57	79	185	175	2,970						0	2,970
11-12am	2,187	38	128	314	290	2,957						0	2,957
12-1pm	2,631	45	56	162	110	3,004						0	3,004
1-2pm	2,949	27	45	124	156	3,301						0	3,301
2-3pm	2,874	35	141	414	418	3,882						0	3,882
3-4pm	4,054	74	70	195	190	4,583						0	4,583
4-5pm	3,914	45	150	335	526	4,970						0	4,970
5-6pm	3,802	68	127	212	467	4,676						0	4,676
6-7pm	3,725	36	114	131	252	4,258						0	4,258
7-8pm	---	---	---	---	---	3,791						0	3,791
8-9pm	---	---	---	---	---	3,516						0	3,516
9-10pm	---	---	---	---	---	3,156						0	3,156
10-11pm	---	---	---	---	---	2,870						0	2,870
11-12pm	---	---	---	---	---	2,613						0	2,613
Totals	---	---	---	---	---	70,037						3,398	73,435
7-10am	7,224	307	318	585	559	8,993	2,393	0	0	0	0	1	11,386
10am-1pm	7,292	140	263	661	575	8,931	0	0	0	0	0	0	8,931
1-4pm	9,877	136	256	733	764	11,766	0	0	0	0	0	0	11,766
4-7pm	11,441	149	391	678	1,245	13,904	0	0	0	0	0	0	13,904
7am-7pm	35,834	732	1,228	2,657	3,143	43,594	2,393	0	0	0	0	2,393	45,987

This bridge is normally 1-way northbound to The Bronx.

In 2002, one lane was reversed to southbound 6-10am weekdays (for passenger cars only) in order to compensate for reconstruction lane closures on the Third Avenue Bridge.

Based on 1989 Classification Survey Data

** Peak Volumes

**Hourly Vehicular Volumes
145th Street Bridge - 2002**

	Eastbound to Bronx						Westbound to Manhattan						2-Way Totals
	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	
12-1am	---	---	---	---	---	480	---	---	---	---	---	298	778
1-2am	---	---	---	---	---	291	---	---	---	---	---	181	472
2-3am	---	---	---	---	---	201	---	---	---	---	---	126	327
3-4am	---	---	---	---	---	163	---	---	---	---	---	128	291
4-5am	---	---	---	---	---	174	---	---	---	---	---	156	330
5-6am	---	---	---	---	---	244	---	---	---	---	---	285	529
6-7am	---	---	---	---	---	422	---	---	---	---	---	736	1,158
7-8am	690	33	44	44	11	822	1,320	61	27	57	52	1,517	2,339
8-9am	746	27	46	49	28	896	1,305	45	51	43	80	1,524	2,420
9-10am	701	16	48	75	30	870	873	29	52	41	93	1,088	1,958
10-11am	730	12	20	34	35	831	709	24	48	36	71	888	1,719
11-12am	665	21	39	90	58	873	619	16	62	64	74	835	1,708
12-1pm	783	17	23	56	23	902	802	15	15	12	20	864	1,766
1-2pm	851	17	48	44	25	985	779	39	15	19	11	863	1,848
2-3pm	792	24	43	136	58	1,053	802	31	38	36	53	960	2,013
3-4pm	957	25	26	47	33	1,088	1,004	39	11	10	14	1,078	2,166
4-5pm	882	14	58	98	55	1,107	1,051	23	19	11	29	1,133	2,240
5-6pm	896	10	51	74	67	1,098	1,004	22	17	12	16	1,071	2,169
6-7pm	960	30	34	26	53	1,103	912	29	7	4	13	965	2,068
7-8pm	---	---	---	---	---	1,044	---	---	---	---	---	859	1,903
8-9pm	---	---	---	---	---	1,064	---	---	---	---	---	729	1,793
9-10pm	---	---	---	---	---	907	---	---	---	---	---	654	1,561
10-11pm	---	---	---	---	---	686	---	---	---	---	---	539	1,225
11-12pm	---	---	---	---	---	570	---	---	---	---	---	445	1,015
Totals	---	---	---	---	---	17,874	---	---	---	---	---	17,922	35,796
7-10am	2,137	76	138	168	69	2,588	3,498	135	130	141	225	4,129	6,717
10am-1pm	2,178	50	82	180	116	2,606	2,130	55	125	112	165	2,587	5,193
1-4pm	2,600	66	117	227	116	3,126	2,585	109	64	65	78	2,901	6,027
4-7pm	2,738	54	143	198	175	3,308	2,967	74	43	27	58	3,169	6,477
7am-7pm	9,653	246	480	773	476	11,628	11,180	373	362	345	526	12,786	24,414

Based on 1989 Classification Survey Data

** Peak Volumes

Manhattan MTABT Facilities
Average Daily Traffic Volumes
1948 - 2002

Year	Brooklyn- Battery Tunnel	Henry Hudson Bridge	Queens- Midtown Tunnel	Triborough Bridge Manh. Plz.	Manhattan Totals
1948	<i>Opened</i>	40,050	26,462	26,465	92,977
1949	<i>05/25/1950</i>	47,472	30,045	32,554	110,071
1950	37,258	53,559	34,044	36,995	161,856
1951	41,253	57,700	36,680	44,639	180,272
1952	45,366	61,592	38,866	48,503	194,327
1953	47,999	65,432	38,509	48,595	200,535
1954	45,120	69,025	38,185	52,286	204,616
1955	45,843	71,240	39,839	59,913	216,835
1956	48,054	69,477	49,544	64,460	231,535
1957	54,490	62,865	54,311	64,677	236,343
1958	53,789	57,321	58,321	62,982	232,413
1959	49,468	56,529	61,115	64,389	231,501
1960	48,970	56,675	62,008	63,115	230,768
1961	48,197	57,140	62,301	59,603	227,241
1962	48,173	59,548	65,038	60,251	233,010
1963	48,271	52,803	63,038	60,988	225,100
1964	51,893	50,768	67,713	66,139	236,513
1965	56,455	45,353	69,386	69,755	240,949
1966	57,674	44,043	69,850	71,540	243,107
1967	57,611	43,409	69,416	73,602	244,038
1968	60,652	44,908	66,432	75,932	247,924
1969	62,116	45,382	68,884	78,481	254,863
1970	62,042	46,720	77,180	85,121	271,063
1971	64,032	50,541	81,747	90,372	286,692
1972	52,065	45,818	74,936	80,052	252,871
1973	49,916	41,871	74,214	85,592	251,593
1974	46,620	38,331	75,219	82,676	242,846
1975	45,636	30,603	65,315	72,566	214,120
1976	52,444	30,557	65,881	68,325	217,207
1977	53,500	31,840	71,150	73,276	229,766
1978	58,252	33,605	72,696	76,572	241,125
1979	60,445	33,387	69,827	87,885	251,544
1980	62,386	31,817	73,216	88,439	255,858
1981	58,657	36,625	81,211	93,361	269,854
1982	56,189	30,923	78,229	88,158	253,499
1983	61,130	31,279	78,134	92,967	263,510
1984	58,032	34,898	74,808	95,247	262,985
1985	63,469	41,680	76,065	94,644	275,858
1986	60,778	49,005	71,478	93,432	274,693
1987	63,256	52,778	77,813	95,795	289,642
1988	62,959	54,910	76,243	99,438	293,550
1989	59,254	50,556	72,828	92,720	275,358
1990	60,512	57,528	71,186	99,840	289,066
1991	63,883	56,279	80,616	94,487	295,265
1992	62,510	58,660	81,835	97,198	300,203
1993	57,561	54,650	77,288	92,660	282,159
1994	57,013	58,291	68,511	79,536	263,351
1995	61,097	62,899	73,882	95,696	293,574
1996	57,091	58,759	72,285	92,981	281,116
1997	54,690	59,660	78,023	91,313	283,686
1998	61,091	59,339	79,697	93,863	293,990
1999	63,307	61,165	80,941	98,553	303,966
2000	63,242	66,304	80,879	103,079	313,504
2001	13,762	69,087	72,864	102,224	257,937
2002	56,976	70,731	82,834	94,759	305,300

MTABT Toll Increases 1/72, 9/75, 5/80, 4/82, 1/84, 1/86, 2/87, 7/89, 1/93, & 3/96.

Hourly Vehicular Volumes

Metropolitan Transportation Authority Bridges & Tunnels 2002

	<i>Brooklyn-Battery Tunnel</i>		<i>Henry Hudson Bridge</i>		<i>Queens-Midtown Tunnel</i>		<i>Triborough Bridge (Mahattan Plaza)</i>		<i>Totals</i>	
	<i>N/B</i>	<i>S/B</i>	<i>S/B</i>	<i>N/B</i>	<i>W/B</i>	<i>E/B</i>	<i>W/B</i>	<i>E/B</i>	<i>Entering Manhattan</i>	<i>Leaving Manhattan</i>
12-1am	209	591	196	645	348	884	237	630	990	2,750
1-2am	90	248	90	290	163	438	106	278	449	1,254
2-3am	54	130	52	143	113	269	77	175	296	717
3-4am	57	66	55	92	134	200	77	141	323	499
4-5am	158	91	132	89	234	261	147	378	671	819
5-6am	967	117	542	151	994	557	924	1,054	3,427	1,879
6-7am	2,098	305	2,455	587	2,485	1,087	3,283	1,891	10,321	3,870
7-8am	3,064	598	3,740 **	1,363	3,788	1,256	4,167 **	2,434	14,759	5,651
8-9am	3,313 **	757	3,518	1,800	4,110 **	1,265	3,997	2,382	14,938 **	6,204
9-10am	2,589	761	3,156	1,200	3,855	1,233	3,275	2,257	12,875	5,451
10-11am	2,036	794	2,026	1,018	2,861	1,521	2,824	2,014	9,747	5,347
11-12am	1,652	866	1,817	1,088	2,522	1,508	2,713	2,057	8,704	5,519
12-1pm	1,495	944	1,714	1,244	2,351	1,753	2,388	2,202	7,948	6,143
1-2pm	1,343	1,042	1,591	1,371	2,110	2,016	2,522	2,372	7,566	6,801
2-3pm	1,565	1,398	1,688	1,803	2,172	2,455	2,892	2,704	8,317	8,360
3-4pm	1,686	1,913	2,418	2,104	2,283	2,809	3,134	3,328 **	9,521	10,154
4-5pm	1,862	2,226	2,535	2,504	2,578	2,819 **	3,016	2,942	9,991	10,491
5-6pm	1,912	2,284	2,836	2,843	2,975	2,786	3,033	2,610	10,756	10,523
6-7pm	1,593	2,343 **	2,697	3,004 **	2,619	2,620	3,076	2,944	9,985	10,911 **
7-8pm	1,232	2,009	1,870	2,629	2,124	2,440	2,780	2,713	8,006	9,791
8-9pm	891	1,802	1,092	2,079	1,459	2,217	1,876	2,190	5,318	8,288
9-10pm	795	1,545	876	1,749	1,303	2,081	1,566	1,872	4,540	7,247
10-11pm	1,005	1,116	652	1,656	971	1,732	1,584	1,681	4,212	6,185
11-12pm	553	811	387	1,144	782	1,293	766	1,050	2,488	4,298
Totals	32,219	24,757	38,135	32,596	45,334	37,500	50,460	44,299	166,148	139,152
7-10am	8,966	2,116	10,414	4,363	11,753	3,754	11,439	7,073	42,572	17,306
10am-1pm	5,183	2,604	5,557	3,350	7,734	4,782	7,925	6,273	26,399	17,009
1-4pm	4,594	4,353	5,697	5,278	6,565	7,280	8,548	8,404	25,404	25,315
4-7pm	5,367	6,853	8,068	8,351	8,172	8,225	9,125	8,496	30,732	31,925
7am-7pm	24,110	15,926	29,736	21,342	34,224	24,041	37,037	30,246	125,107	91,555

** Peak Volumes

PANYNJ Manhattan - New Jersey Facilities
Average Daily Traffic Volumes
1948 - 2002

<i>Year</i>	<i>George Washington Bridge</i>	<i>Holland Tunnel</i>	<i>Lincoln Tunnel</i>	<i>Totals</i>
1948	42,306	42,623	30,856	115,785
1949	49,261	45,167	35,515	129,943
1950	54,437	49,660	42,556	146,653
1951	64,516	53,792	47,842	166,150
1952	76,446	51,317	53,490	181,253
1953	84,398	53,270	56,909	194,577
1954	90,306	54,560	57,528	202,394
1955	98,013	55,445	58,468	211,926
1956	97,059	56,961	59,068	213,088
1957	98,110	56,801	63,712	218,623
1958	97,435	55,881	68,178	221,494
1959	105,334	57,926	73,761	237,021
1960	106,245	57,678	75,697	239,620
1961	104,107	56,277	76,449	236,833
1962	111,090	58,518	81,038	250,646
1963	127,452	58,814	79,337	265,603
1964	143,193	59,702	82,929	285,824
1965	155,967	55,060	82,312	293,339
1966	167,304	55,559	81,118	303,981
1967	173,093	54,181	80,879	308,153
1968	182,934	53,962	83,396	320,292
1969	189,817	54,438	84,868	329,123
1970	194,910	58,574	94,354	347,838
1971	210,749	57,968	93,346	362,063
1972	221,172	61,485	95,963	378,620
1973	232,686	64,731	99,786	397,203
1974	211,955	64,765	99,827	376,547
1975	215,927	62,381	96,399	374,707
1976	215,136	64,663	101,451	381,250
1977	222,897	63,015	99,101	385,013
1978	229,666	66,405	103,441	399,512
1979	232,739	61,403	99,582	393,724
1980	235,615	64,417	104,702	404,734
1981	250,804	68,750	107,827	427,381
1982	249,294	73,997	110,453	433,744
1983	254,728	76,226	110,210	441,164
1984	258,723	71,819	123,233	453,775
1985	275,934	76,121	116,397	468,452
1986	286,398	77,300	122,053	485,751
1987	288,642	73,655	124,342	486,639
1988	284,984	84,626	120,569	490,179
1989	281,812	84,429	121,452	487,693
1990	272,556	87,976	121,711	482,243
1991	262,491	87,502	117,508	467,501
1992	268,007	90,206	118,659	476,872
1993	260,732	92,685	119,652	473,069
1994	259,863	94,637	119,299	473,799
1995	266,029	96,310	119,759	482,098
1996	275,469	96,798	120,927	493,194
1997	282,293	100,986	121,509	504,788
1998	297,188	100,872	124,452	522,512
1999	317,640	103,020	128,692	549,352
2000	317,618	101,137	129,710	548,465
2001	309,310	43,377	106,257	458,944
2002	310,771	92,557	129,511	532,839

PANYNJ one-way tolls initiated 8/12/1970.

PANYNJ toll increases May 1975, January 1984, April, 1987, April 1991, March 2001.

Hourly Vehicular Volumes

Port Authority of New York & New Jersey

2002

	George Washington Bridge		Holland Tunnel		Lincoln Tunnel		Totals	
	<i>E/B</i>	<i>W/B</i>	<i>E/B</i>	<i>W/B</i>	<i>E/B</i>	<i>W/B</i>	Entering Manhattan	Leaving Manhattan
12-1am	1,886	2,933	847	1,372	853	1,928	3,586	6,233
1-2am	1,273	1,968	523	888	522	928	2,318	3,784
2-3am	1,116	1,487	383	595	413	589	1,912	2,671
3-4am	1,261	1,393	365	502	452	511	2,078	2,406
4-5am	2,006	1,897	551	649	767	744	3,324	3,290
5-6am	5,595	3,672	2,210	1,164	2,359	1,123	10,164	5,959
6-7am	11,597	6,946	2,197	2,043	4,854	1,852	18,648 **	10,841
7-8am	11,241	8,986	2,675	2,323	4,714	2,638	18,630	13,947
8-9am	9,981	8,975	2,454	2,505	4,327	2,401	16,762	13,881
9-10am	9,308	7,120	2,222	1,875	4,341	2,489	15,871	11,484
10-11am	7,875	6,121	2,701	1,784	3,627	2,441	14,203	10,346
11-12am	6,867	6,248	2,109	1,558	3,131	2,560	12,107	10,366
12-1pm	6,420	6,788	1,941	1,370	2,743	2,800	11,104	10,958
1-2pm	6,294	7,373	1,965	1,835	2,641	3,359	10,900	12,567
2-3pm	6,974	9,154	2,124	2,275	2,695	4,091	11,793	15,520
3-4pm	7,795	11,520	2,424	2,726	2,932	4,452	13,151	18,698
4-5pm	9,073	12,071	2,684	3,192	2,427	5,316	14,184	20,579 **
5-6pm	9,752	11,445	2,893	3,248	1,936	5,703	14,581	20,396
6-7pm	9,391	10,630	2,836	3,171	2,251	5,826 **	14,478	19,627
7-8pm	7,411	9,453	2,546	2,916	2,714	4,597	12,671	16,966
8-9pm	5,496	7,632	1,968	2,488	2,168	4,054	9,632	14,174
9-10pm	4,767	6,314	1,805	2,238	2,030	3,824	8,602	12,376
10-11pm	4,203	5,421	1,814	2,197	1,890	3,752	7,907	11,370
11-12pm	3,176	4,466	1,485	1,921	1,628	3,118	6,289	9,505
Totals	150,758	160,013	45,722	46,835	58,415	71,096	254,895	277,944
7-10am	30,530	25,081	7,351	6,703	13,382	7,528	51,263	39,312
10am-1pm	21,162	19,157	6,751	4,712	9,501	7,801	37,414	31,670
1-4pm	21,063	28,047	6,513	6,836	8,268	11,902	35,844	46,785
4-7pm	28,216	34,146	8,413	9,611	6,614	16,845	43,243	60,602
7am-7pm	100,971	106,431	29,028	27,862	37,765	44,076	167,764	178,369

** Peak Volumes