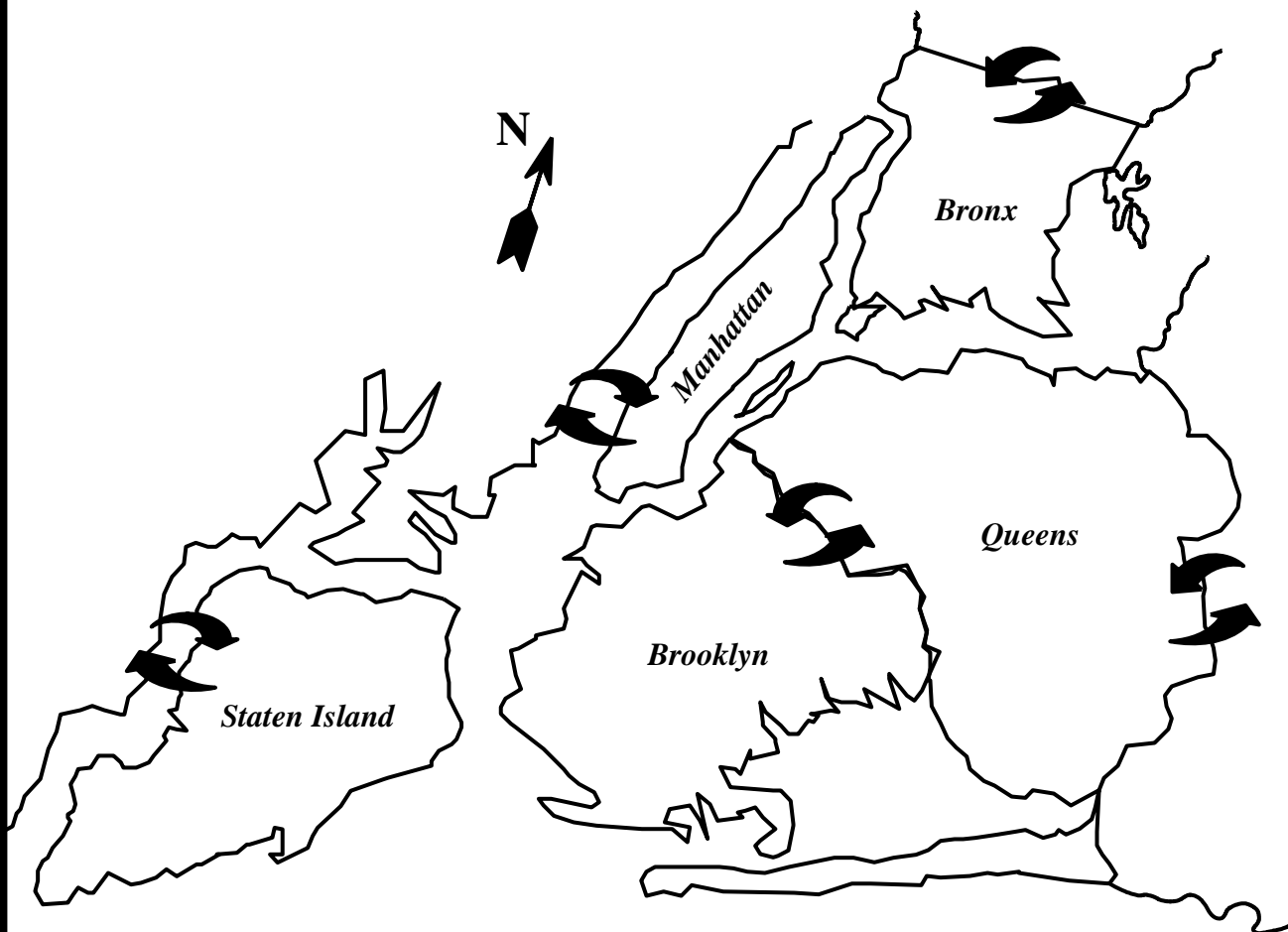


New York City Screenline Traffic Flow 2007



The City of New York
Michael R. Bloomberg, Mayor



New York City Department of Transportation
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INTRODUCTION

The 2007 *New York City Screenline Traffic Flow* report is an annual publication prepared by the New York City Department of Transportation (NYCDOT), and funded by the Unified Planning Work Program (UPWP), and the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU). The report presents vehicular volumes and historical comparisons across the Bronx–Westchester, Queens–Nassau, Manhattan–New Jersey, Staten Island–New Jersey, and Brooklyn–Queens screenlines.

The average hourly volumes by direction for 2007 are presented in tabular form and in histograms for each monitored roadway facility. Historical comparisons are based on screenline data collected in 1963, 1973, 1982, 1986, and 1993–2006. The statistical analysis presented in the report was performed by staff of NYCDOT during the 2007–2008 and 2008–2009 program years.

Each of the 47 screenline monitoring locations has been classified under a highway functional classification system. Functional classification is the method by which streets and highways are grouped into classes, or systems, according to the character of service each roadway provides.

The five functional classifications are defined as follows:

1. Interstate - connects population centers across state lines.
2. Principal Arterial - serves major centers of activity of an urban area and carries a high proportion of the total urban area travel on a minimum of mileage.
3. Minor Arterial - interconnects with and augments urban principal arterials; provides service for trips of moderate length at a somewhat lower level of travel mobility than principal arterials; distributes travel to geographic areas smaller than those identified with the higher system.
4. Collector Street - provides both land access service and traffic circulation within residential neighborhoods, and commercial and industrial areas. Differs from the arterial systems in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from arterials to the ultimate destination. Conversely, collector streets also collect traffic from local streets in residential neighborhoods and channel it into the arterial system.
5. Local Street - comprises all facilities not on one of the higher systems. Serves primarily to provide direct access to abutting land and access to the higher order systems. Offers the lowest level of mobility and usually contains no bus or truck route.

NEW YORK CITY SCREENLINE

SUMMARY

2007 Daily Traffic

- Over 2,272,000 daily motor vehicles crossed the 32 New York City border screenline monitoring locations in 2007, virtually unchanged from the nearly 2,273,000 daily vehicles recorded in 2006.
- Since the first survey in 1963, the highest volumes have been at the Queens–Nassau border. In 2007, 952,200 daily vehicles were counted at the fifteen Queens–Nassau monitoring locations, 41.9% of the total traffic recorded at the City boundaries. The eleven Bronx–Westchester locations yielded 28.0% of the total (635,800), the three Manhattan–New Jersey river crossings 22.6% (514,000), and the three Staten Island–New Jersey bridges 7.5% (170,200). The six New York–New Jersey facilities are operated by the Port Authority of New York and New Jersey (PANYNJ).
- Morning hourly inbound volume peaked between 7-8 am, when 76,000 vehicles were recorded entering the City limits. Between 6-10 am, a total of 278,400 vehicles entered the City from Nassau and Westchester Counties, and New Jersey.
- During the 5-6 pm evening peak hour, 76,700 vehicles were recorded leaving the City. Between 3-7 pm, 300,500 vehicles exited the City.
- Traffic crossing the City boundaries was heavy throughout the day. The combined total of entries and departures exceeded 100,000 vehicles per hour continuously from 6 am until 9 pm.

10-Year Trends (1997-2007)

- Total monitored daily traffic volume at the City boundaries increased 7.3% during this ten-year period, to 2,272,200 in 2007 from 2,118,200 in 1997. This represents an average annual growth rate of 0.7%.
- The largest increase occurred at the eleven Bronx–Westchester border monitoring sites, where traffic volume was 14.6% higher in 2007 than in 1997: 635,800 daily vehicles vs. 554,700, an average annual growth rate of 1.4%.
- Volume at the fifteen monitored Queens–Nassau locations rose 5.0%, to 952,200 daily vehicles in 2007 from 907,100 in 1997, an average annual growth rate of 0.5%.
- On the three Hudson River crossings between Manhattan and New Jersey, daily traffic increased 1.8%, to 514,000 in 2007 from 504,800 in 1997, an average annual growth rate of 0.2%.
- On the three bridges between Staten Island and New Jersey, daily traffic increased 12.3%, to 170,200 in 2007 from 151,600 in 1997, an average annual growth rate of 1.2%.

Historical Comparisons

- In 1963, when the first comprehensive New York City border screenline data were collected, average daily two-way volume at the 29 locations studied was 1,109,200 (volumes on Van Cortlandt Park East in The Bronx, and Central Avenue and Seagirt Boulevard in Queens were not collected prior to 1986). The 546,600 daily vehicles recorded at the Queens–Nassau border accounted for 49.3% of the total.
- During the ten years between 1963 and 1973, volume recorded at the City borders rose 36.2% to an average of 1,510,700 vehicles per day (401,500 additional vehicles), with increases exceeding 20% at all border screenlines. Daily volume on the three Staten Island–New Jersey bridges nearly tripled to 81,000 from 27,400. The largest numerical increase was at the Manhattan–New Jersey screenline, where daily volume rose to 397,200 vehicles from 265,600, an increase of 49.5%. Bronx–Westchester traffic rose 34.1% to 361,700 from 269,700, while traffic between Queens and Nassau was up 22.7% to 670,700 from 546,600.
- Growth subsided between 1973 and 1982, with volume recorded at the City borders rising 10.4% during the nine-year period, to 1,667,300 daily vehicles. Traffic continued to increase at all City boundaries: Staten Island–New Jersey up 31.6% to 106,700, Bronx–Westchester up 14.4% to 413,800, Manhattan–New Jersey up 9.2% to 433,700, and Queens–Nassau up 6.3% to 713,100.
- Between 1982 and 1986, there was increased growth, as monitored traffic at the City borders increased 14.8% during the four-year period, to 1,914,800 daily vehicles (excluding Van Cortlandt Park East in The Bronx, and Central Avenue and Seagirt Boulevard in Queens where traffic was not counted in 1982). Daily volume was up 29.8% to 138,400 on the Staten Island–New Jersey bridges, up 14.6% to 474,000 at the Bronx–Westchester border, up 14.5% to 816,600 between Queens and Nassau, and up 12.0% to 485,800 crossing the Hudson River between Manhattan and New Jersey.
- From 1986 to 1997, monitored traffic at the New York City boundaries increased modestly, rising by 8.6% during that eleven-year period, to 2,118,200 daily vehicles in 1997 from 1,951,000 in 1986. The largest volume and percentage increase was at the Bronx–Westchester screenline, where daily volume was up 14.8%, to 554,700 in 1997 from 483,300 in 1986 (+71,400 daily vehicles). Daily traffic volume between Queens and Nassau increased 7.5%, to 907,100 in 1997 from 843,500 in 1986. Staten Island–New Jersey daily volume rose 9.5%, to 151,600 from 138,400. Daily traffic between Manhattan and New Jersey increased 3.9%, to 504,800 from 485,800.
- From 1963 to 2007, daily two-way traffic at the 29 City border locations monitored throughout the period doubled, to 2,226,300 in 2007 from 1,109,200 in 1963.
- Staten Island–New Jersey traffic expanded by 521%, to 170,200 daily vehicles in 2007 from 27,400 in 1963, largely as a result of the opening of the Verrazano–Narrows Bridge in 1964.
- Manhattan–New Jersey volume nearly doubled, to 514,000 in 2007 from 265,600 in 1963, fostered in part by the opening of the George Washington Bridge's lower level in 1962 and the Alexander Hamilton Bridge/Trans-Manhattan Expressway route in 1963 which facilitated travel between Bronx/Queens/Long Island/New England and New Jersey via upper Manhattan. From 1962 to 1966, George Washington Bridge traffic increased 50.6% to 167,300 daily vehicles from 111,100.

- During the 44-year period from 1963 to 2007, continuously monitored daily traffic increased 132% between The Bronx and Westchester (to 625,900 from 269,700), and 68% between Queens and Nassau (to 916,100 from 546,600).

BRONX - WESTCHESTER SCREENLINE

SUMMARY

2007 Daily Traffic

- On a typical 2007 weekday, 635,800 vehicles crossed the eleven Bronx-Westchester screenline monitoring locations, 1.8% more than the 624,600 daily vehicles recorded in 2006.
- Over 86% of the recorded vehicles (549,900 per day) were on the five limited access highways (interstate and principal arterials) that cross the screenline.
- The New England Thruway, with a total two-way volume of 137,800 daily vehicles, is the most-traveled Bronx-Westchester highway, carrying 21.7% of the total traffic on the monitored thoroughfares. The Major Deegan Expressway (including service roads) is second with 126,000 daily vehicles, 19.8% of the total. The Henry Hudson Parkway serves 104,300 daily vehicles (16.4%), the Bronx River Parkway 92,000 (14.5%), and the Hutchinson River Parkway 89,800 (14.1%).
- Boston Road is the busiest surface arterial monitored, averaging 24,400 vehicles per day, 3.8% of the total.
- The morning inbound (southbound) peak hour occurred during 7-8am, when 24,700 vehicles were recorded entering The Bronx from Westchester. The Henry Hudson Parkway carried 5,600 of those peak hour inbound vehicles, with another 4,700 on the Major Deegan Expressway and its service road, and 4,500 on the Bronx River Parkway.
- During the 6-10 am inbound rush period, 83,200 vehicles were recorded entering The Bronx. Some 18,200 of those vehicles were on the Henry Hudson Parkway, with another 16,500 accommodated by the Major Deegan Expressway and its service road, and 13,700 on the Bronx River Parkway.
- A total of 21,600 vehicles were counted crossing the screenline from The Bronx into Westchester during the 5-6 pm evening peak hour. Over 4,600 of those vehicles used the Major Deegan Expressway and its service road.
- During the 3-7 pm evening rush period, 84,200 vehicles were recorded leaving The Bronx. The Major Deegan Expressway and its service road accommodated 17,900 of those northbound vehicles.
- Reverse traffic was heavy during the 3-7 pm evening period, with an inbound volume of 84,100, compared to the outbound total of 84,200. During this period, the New England Thruway actually carried more inbound than outbound traffic (18,200 inbound vs. 15,000 outbound), consistent with recent screenline counts.
- Reverse traffic was less intense during the 6-10 am morning period: 83,200 inbound vs. 65,600 outbound. New England Thruway traffic was heavier in the reverse direction: 16,200 outbound vs. 12,200 inbound.

10-Year Trends (1997-2007)

- Bronx-Westchester screenline traffic increased 14.6% during this ten-year period, to 635,800 daily vehicles in 2007, from 554,700 in 1997. This represents an average annual growth rate of 1.4%.
- The largest increases since 1997 occurred on the Henry Hudson Parkway and the New England Thruway, with average annual growth rates of 2.4% and 1.8%, respectively. Volume on the Henry Hudson Parkway was 26.5% higher in 2007 than in 1997 (104,300 daily vehicles vs. 82,500). Daily volume on the New England Thruway was up 19.8%, to 137,800 in 2007 from 115,000 in 1997.
- The biggest decline occurred on Boston Road, where volume was down 3.0%, to 24,400 daily vehicles in 2007 from 25,100 in 1997.

Historical Comparisons

- In 1963, the first year that Bronx-Westchester screenline data were analyzed, average daily two-way volume on the ten roadways studied was 269,700 (volumes on Van Cortlandt Park East were not collected prior to 1986). The Major Deegan Expressway and the New England Thruway were the most-traveled facilities, serving 68,300 and 56,100 vehicles per day, respectively.
- By 1973, daily volume had risen 34.1% to 361,700, some 92,000 more than in 1963. The Major Deegan Expressway remained the highest volume facility, carrying 90,900 daily vehicles, 33.2% more than in 1963, followed by 82,600 on the New England Thruway, 47.4% above the 1963 count. Daily traffic on the Hutchinson River Parkway jumped 80.1% to 29,100 from 16,200. Traffic on Boston Road doubled, to 22,800 daily vehicles from 11,000.
- Between 1973 and 1982, growth moderated, with average daily traffic rising 14.4% to 413,800 daily vehicles. The largest increase occurred on the Hutchinson River Parkway, where daily traffic rose 65.9% to 48,300 from 29,100.
- Growth accelerated between 1982 and 1986, boosting Bronx-Westchester traffic to 474,000 daily vehicles, an increase of 14.6% over the four-year period (excluding 9,200 on Van Cortlandt Park East where traffic was not counted in 1982). Large increases in daily volumes were recorded on the Henry Hudson Parkway (up 27.5% to 53,300 from 41,800), the Major Deegan Expressway (up 27.0% to 124,900 from 98,300), and the Bronx River Parkway (up 20.3% to 79,200 from 65,800).
- From 1986 to 1997, Bronx-Westchester screenline traffic volume increased 14.8%, to 554,700 from 483,300 (including Van Cortlandt Park East, where traffic was counted for the first time in 1986). The largest increases occurred on the Henry Hudson Parkway (up 54.9%, to 82,500 daily vehicles from 53,300), and on the Hutchinson River Parkway (up 52.9%, to 83,000 from 54,300). The only significant decline was on the Major Deegan Expressway, where daily volume decreased 12.6%, to 109,100 in 1997 from 124,900 in 1986.
- During the 44 years from 1963 to 2007, total daily traffic on the ten facilities monitored throughout the period more than doubled, to 625,900 from 269,700.
- Most of the growth in Bronx-Westchester traffic since 1963 has occurred on the five limited access highways crossing the screenline. Of the 356,300 additional daily vehicles on the ten continuously-monitored facilities, 336,200 (94% of the total

increase) are on the limited access highways. The fastest growth occurred on the Hutchinson River Parkway, where daily volume soared 456%, to 89,800 daily vehicles from 16,200. Henry Hudson Parkway volume more than tripled, to 104,300 from 29,000. New England Thruway volume climbed 146%, to 137,800 from 56,100. Bronx River Parkway volume doubled (to 92,000 from 44,100), while volume on the Major Deegan Expressway and its service roads was up 85% (to 126,000 from 68,300).

- Boston Road exhibited the largest change of any arterial facility since 1963, with daily volume rising 122%, to 24,400 from 11,000. Volume on White Plains Road increased 46% to 13,400 daily vehicles from 9,200.

QUEENS - NASSAU SCREENLINE

SUMMARY

2007 Daily Traffic

- A total of 952,200 motor vehicles crossed the fifteen Queens-Nassau screenline monitoring locations on a typical 2007 weekday, 1.9% more than the 934,500 daily vehicles recorded in 2006.
- The three limited access highways that cross the screenline accommodated more than half (56.5%) of the recorded vehicles (537,800 per day).
- The Long Island Expressway (including service roads) was the highest volume Queens-Nassau facility in 2007, with a total two-way volume of 201,400 daily vehicles, 21.2% of the total daily traffic on the monitored thoroughfares. The Laurelton Parkway was second with 173,700 daily vehicles (18.2% of the total), followed by 162,700 on the Grand Central Parkway and its service road (17.1%).
- Rockaway Boulevard and Sunrise Highway are the busiest surface arterials, with average daily volumes of 77,800 and 68,900 vehicles, respectively.
- Other high volume principal arterials are Hempstead Avenue and Northern Boulevard, serving 46,100 and 39,000 daily vehicles, respectively.
- The morning inbound peak hour occurred during 7-8am, when 28,800 vehicles were recorded entering Queens from Nassau. The Long Island Expressway (including service road) was the route for 6,100 of those morning inbound peak hour vehicles, with the Laurelton Parkway accommodating an additional 5,200, and the Grand Central Parkway (including service road) serving another 4,900.
- The morning outbound peak hour occurred during 8-9am, when 32,000 vehicles were recorded entering Nassau from Queens. The Grand Central Parkway (including service road) was the route for 6,700 of those morning outbound peak hour vehicles. The Long Island Expressway (including service road) accommodated 6,600. Another 5,000 used the Laurelton Parkway.
- During the 6-10 am rush period, traffic was almost equally heavy in both directions (106,700 vehicles entering Queens, 106,000 entering Nassau). The Long Island Expressway and its service roads carried a total of 45,300 vehicles, 22,200 to Queens and 23,100 to Nassau. The Laurelton Parkway was used by 20,200 Queens-bound vehicles, and 18,600 entering Nassau. On the Grand Central Parkway and its service road, the heavier volume was in the eastbound direction (leaving New York City), with 19,400 entering Queens and 22,200 entering Nassau.
- The evening outbound peak hour occurred during 4-5pm, when 32,700 vehicles were recorded departing Queens for Nassau. The Long Island Expressway and its service road were used by 6,600 of those evening outbound peak hour vehicles. Another 6,100 used the Laurelton Parkway. The Grand Central Parkway and its service road accommodated an additional 5,300.
- The evening inbound peak hour occurred during 5-6pm, when 32,600 vehicles were recorded departing Nassau for Queens. The Long Island Expressway (including service

road) was used by 6,600 of those inbound evening peak hour vehicles. Another 5,900 used the Grand Central Parkway and its service road, with the Laurelton Parkway accommodating an additional 4,600.

- Throughout the 3-7 pm evening rush period, traffic was heavy in both directions, with 129,200 vehicles entering Nassau, and 120,400 entering Queens. The Laurelton Parkway served 24,900 vehicles entering Nassau and 17,600 entering Queens. The Long Island Expressway and its service roads accommodated 24,800 vehicles entering Nassau and 25,100 entering Queens. The Grand Central Parkway and its service road were used by 21,200 vehicles entering Nassau and 21,300 entering Queens.
- Volumes were heavy crossing the Queens-Nassau screenline throughout the day, with two-way traffic exceeding 40,000 vehicles per hour continuously between 6 am and 9 pm.

10-Year Trends (1997-2007)

- Traffic growth between Queens and Nassau has been moderate since 1997. Monitored daily volume rose 5.0% to 952,200 in 2007 from 907,100 in 1997. This represents an average annual growth rate of 0.5%.
- The largest volume increase since 1997 occurred on the Laurelton Parkway (growth of 18,300 daily vehicles, or 1.1% annually, to 173,700 from 155,400). This was followed by Rockaway Boulevard (growth of 14,200 daily vehicles, or 2.0% annually, to 77,800 from 63,600).
- The largest percentage increases occurred on Seagirt Boulevard (up 36.1%, or 3.1% annually, to 22,400 daily vehicles from 16,500), Rockaway Boulevard (up 22.2%, or 2.0% annually, to 77,800 from 63,600), and Beach Channel Drive (up 16.2%, or 1.5% annually, to 29,000 from 25,000).
- The most significant declines since 1997 occurred on the Northern Boulevard (decrease of 7.0%, or 0.7% annually, to 39,000 daily vehicles from 41,900), Union Turnpike (decrease of 12.2%, or 1.3% annually, to 19,600 from 22,300), Hillside Avenue (decrease of 7.9%, or 0.8% annually, to 24,300 from 26,400), and Linden Boulevard (decrease of 6.8%, or 0.7% annually, to 26,000 from 27,900).

Historical Comparisons

- In 1963, the first year that Queens-Nassau screenline data were analyzed, average daily two-way total volume on the thirteen roadways studied was 546,600 (volumes on Central Avenue and Seagirt Boulevard were not collected prior to 1986). The highest volume facilities were the Long Island Expressway and its service roads (143,800 daily vehicles), Laurelton Parkway (85,400), Sunrise Highway (59,500), and the Grand Central Parkway and its service road (51,700).
- By 1973, daily volume had increased 22.7% to 670,700, approximately 124,100 more than in 1963. The Long Island Expressway remained the highest volume facility, carrying 172,200 daily vehicles, 19.8% more than in 1963. Daily volume on the Grand Central Parkway facility doubled, to 104,800 from 51,700, making it the second busiest. Laurelton Parkway volume rose 15.6% to 98,800. Sunrise Highway remained the busiest surface arterial, carrying 62,700 daily vehicles, 5.4% more than in 1963.
- Between 1973 and 1982, growth slowed, as volume increased just 6.3% to 713,100 daily vehicles. The largest numerical increase occurred on Laurelton Parkway, where

daily traffic rose 23.2%, to 121,700 from 98,800. The largest percentage increase occurred on Northern Boulevard where daily traffic increased 26.4%, to 42,000 daily vehicles from 33,200.

- Growth intensified between 1982 and 1986, raising daily volume to 816,600, an increase of 14.5% over the four-year period (excluding 14,500 on Central Avenue and 12,400 on Seagirt Boulevard where volumes were not counted in 1982). Large increases in daily volume were recorded on the Grand Central Parkway (up 30.8% to 144,000 from 110,000), Laurelton Parkway (up 22.0% to 148,400 from 121,700), the Long Island Expressway (up 12.8% to 189,000 from 167,600), and Rockaway Boulevard (up 22.0% to 56,700 from 46,500).
- From 1986 to 1997, growth was moderate, as Queens-Nassau screenline volume increased 7.5% during that eleven-year period, to 907,100 daily vehicles from 843,500. The largest volume increase occurred on the Grand Central Parkway and its service road (increase of 13,800 daily vehicles, or 9.6%, to 157,800 from 144,000). On the Long Island Expressway and its service roads, daily volume increased by 12,600, or 6.7%, to 201,600 from 189,000. The largest percentage increases occurred on Seagirt Boulevard (up 33.1%, to 16,500 daily vehicles from 12,400), and Linden Boulevard (up 20.9%, to 27,900 from 23,100). The biggest decline in daily volume was on Central Avenue (decrease of 1,400 daily vehicles, or 9.9%, to 13,100 from 14,500).
- During the 44 years from 1963 to 2007, daily traffic on the thirteen Queens-Nassau facilities monitored throughout the period increased 67.6%, to 916,100 from 546,600.
- The bulk of growth in Queens-Nassau traffic since 1963 has occurred on the three limited access facilities crossing the screenline. Of the 369,600 additional daily vehicles on the thirteen continuously-monitored facilities, 256,900 (69.5% of the total increase) are on the three limited access routes. The Grand Central Parkway alone absorbed nearly one-third the total screenline traffic increase, its daily volume more than tripling, to 162,700 in 2007 from 51,700 in 1963. On the Laurelton Parkway, volume doubled (to 173,700 daily vehicles from 85,400). Daily traffic on the Long Island Expressway rose 40.1% (to 201,400 from 143,800).
- Surface arterials undergoing the most significant volume changes since 1963 are Rockaway Boulevard, where volume more than doubled, to 77,800 daily vehicles from 36,500, Jamaica Avenue (up 89.6% to 29,000 from 15,300), and Linden Boulevard (up 81.2% to 26,000 from 14,300).

NEW YORK - NEW JERSEY SCREENLINE

SUMMARY

2007 Daily Traffic

- On a fall 2007 weekday, 684,200 motor vehicles traveled between New York City and New Jersey via the six bridges and tunnels operated by the Port Authority of New York and New Jersey (PANYNJ), 4.1% fewer than the 713,700 recorded in fall of 2006.
- Manhattan-New Jersey traffic decreased 4.4% (to 514,000 daily vehicles in 2007 from 537,700 in 2006), while daily volume between Staten Island and New Jersey decreased 3.2% (to 170,200 from 175,900).
- The George Washington Bridge, with a total two-way volume of 291,400 daily vehicles in 2007, continues to be the highest volume crossing by a wide margin. In fall 2007, this facility carried 43% of total New York City-New Jersey traffic, and 57% of the volume between Manhattan and New Jersey. The George Washington Bridge, with eight lanes on the upper level and six lanes on the lower level, is the busiest of all screenline facilities citywide.
- The Lincoln Tunnel accommodated 122,100 daily vehicles in 2007; the Holland Tunnel, 100,500.
- The Outerbridge Crossing was the busiest Staten Island-New Jersey facility, with an average daily volume of 75,800 vehicles in 2007, down 12.2% from 86,300 in 2006. Traffic on the Goethals Bridge increased 11.7%, to 73,000 daily vehicles in 2007 from 65,400 in 2006. The Bayonne Bridge accommodated 21,500 daily vehicles, a decrease of 11.5% from the 24,200 daily vehicles recorded in 2006.
- Some 19,400 vehicles entered Manhattan from New Jersey during the 6-7 am morning peak hour. The George Washington Bridge was used by 10,900 (56%) of those Manhattan-bound peak hour vehicles.
- During the 6-10 am inbound rush period, Manhattan vehicle entries from New Jersey amounted to 70,000. The George Washington Bridge was the route for 55% of these 6-10 am entries (38,800 vehicles).
- Some 17,800 vehicles departed Manhattan for New Jersey during the 5-6 pm evening peak hour, with the George Washington Bridge accommodating 10,100 (57%) of those departing vehicles.
- During the 3-7 pm evening rush period, 68,100 vehicles crossed the Hudson River from Manhattan to New Jersey. The George Washington Bridge carried 58% of that departing traffic (39,200 vehicles).
- Staten Island-New Jersey traffic is predominantly westbound (to New Jersey) during the morning rush period and eastbound (to Staten Island) during the evening rush.
- Between 6-10 am, 21,200 vehicles crossed from Staten Island to New Jersey. During the same period, 18,600 vehicles entered Staten Island.

- Between 3-7 pm, traffic entering Staten Island from New Jersey amounted to 26,300 vehicles, while traffic bound for New Jersey totaled 19,000.

10-Year Trends (1997-2007)

- Daily traffic between Manhattan and New Jersey increased 1.8% during this ten-year period, to 514,000 in 2007 from 504,800 in 1997, an average annual growth rate of 0.2%. The fastest growth rate was at the George Washington Bridge, where daily traffic rose 3.2%, or 0.3% annually (to 291,400 in 2007 from 282,300 in 1997). Traffic using the Holland Tunnel decreased 0.5%, to 100,500 daily vehicles in 2007 from 101,000 in 1997. Daily volume through the Lincoln Tunnel increased 0.5%, (to 122,100 in 2007 from 121,500 in 1997).
- Concurrently, daily volume on the three Staten Island-New Jersey bridges rose 12.3%, to 170,200 in 2007 from 151,600 in 1997, equivalent to an average annual growth rate of 1.2%. Daily traffic on the Outerbridge Crossing increased 7.5%, or 0.7% annually (to 75,800 in 2007 from 70,500 in 1997). Traffic using the Goethals Bridge was up 11.9%, or 1.1% annually (to 73,000 in 2007 from 65,200 in 1997). Bayonne Bridge traffic was up 34.9%, or 3.0% annually (to 21,500 in 2007 from 15,900 in 1997).

Historical Comparisons

- In 1963, daily traffic between Manhattan and New Jersey averaged 265,600 vehicles. The George Washington Bridge was the most heavily-traveled crossing, serving 127,500 vehicles per day (48.0% of the total).
- Between 1963 and 1973, Manhattan-New Jersey volume grew to 397,200 vehicles per day, an increase of 49.5% (131,600 additional daily vehicles). George Washington Bridge volume increased 82.6% (to 232,700 from 127,500), partly as a result of the opening of the lower level in 1962 and the Alexander Hamilton Bridge/Trans-Manhattan Expressway route in 1963 which facilitated travel between Bronx/Queens/Long Island/New England and New Jersey via upper Manhattan. That increase of 105,200 daily vehicles using the George Washington Bridge accounted for 80.0% of the total 1963-1973 growth in Manhattan-New Jersey screenline traffic. Lincoln Tunnel traffic increased 25.8% to 99,800 daily vehicles from 79,300 and Holland Tunnel traffic was up 10.1% to 64,700 from 58,800.
- Growth slowed considerably between 1973 and 1982, with daily Manhattan-New Jersey volume increasing by just 36,500 vehicles (+9.2%) to 433,700. Daily traffic was up 14.3% to 74,000 through the Holland Tunnel, up 10.7% to 110,500 through the Lincoln Tunnel, and up 7.1% to 249,300 via the George Washington Bridge.
- Faster growth resumed between 1982 and 1986, as daily Manhattan-New Jersey traffic reached 485,800, up 12.0% over the four-year period. Daily volume was up 14.9% to 286,400 via the George Washington Bridge, up 10.5% to 122,100 through the Lincoln Tunnel, and up 4.5% to 77,300 through the Holland Tunnel.
- From 1986 to 1997, Manhattan-New Jersey traffic increased 3.9%, to 504,800 daily vehicles from 485,800. Volume was down 1.4% on the George Washington Bridge, to 282,300 daily vehicles from 286,400 (decrease of 4,100 daily vehicles), and down 0.4% at the Lincoln Tunnel (to 121,500 daily vehicles from 122,100). Those declines were more than offset by a 30.6% increase at the Holland Tunnel, to 101,000 daily vehicles from 77,300.

- During the 44 years from 1963 to 2007, daily traffic between Manhattan and New Jersey nearly doubled, to 514,000 from 265,600. George Washington Bridge traffic climbed 129%, to 291,400 from 127,500. Volume increased 54% at the Lincoln Tunnel (to 122,100 from 79,300), and 71% at the Holland Tunnel (to 100,500 from 58,800).
- In 1963, Staten Island-New Jersey screenline traffic was only 27,400 vehicles per day. The highest volume was on the Goethals Bridge, 12,500 vehicles per day.
- By 1973, motor travel between Staten Island and New Jersey had nearly tripled, to 81,000 daily vehicles, amplified by the opening of the Verrazano-Narrows Bridge between Brooklyn and Staten Island in 1964. Much of the new traffic was simply passing through Staten Island. Goethals Bridge traffic jumped 355.6%, to 56,900 daily vehicles from 12,500 just ten years earlier. Daily volume increased 64.8% at the Outerbridge Crossing (to 11,700 from 7,100), and 59.6% at the Bayonne Bridge (to 12,500 from 7,800).
- Growth slowed between 1973 and 1982; nevertheless, Staten Island-New Jersey traffic volume rose to 106,700 daily vehicles, an increase of 31.6% during the nine-year period, the highest rate of any City border screenline. Virtually all growth was concentrated at the Outerbridge Crossing, where volume nearly quadrupled, to 44,700 daily vehicles. Completion of the West Shore Expressway in the late 1970s provided a continuous limited access route between the Outerbridge Crossing and the Verrazano-Narrows Bridge. Bayonne Bridge traffic increased 9.3%, to 13,600. On the other hand, daily volume on the Goethals Bridge decreased 15.0%, to 48,300.
- Renewed growth between 1982 and 1986 boosted daily Staten Island-New Jersey traffic volume to 138,400, a gain of 29.8% in just four years. Growth was fairly evenly distributed among the three facilities: Goethals Bridge up 33.8% to 64,600, Outerbridge Crossing up 29.4% to 57,900, Bayonne Bridge up 16.8% to 15,900.
- From 1986 to 1997, Staten Island-New Jersey traffic increased 9.5%. Virtually all of this increase occurred at the Outerbridge Crossing, where daily traffic increased 21.7%, to 70,500 from 57,900. Daily traffic using the Goethals Bridge increased 0.9%, to 65,200 from 64,600. Bayonne Bridge traffic volume was unchanged at 15,900 daily vehicles.
- During the 44 years from 1963 to 2007, daily traffic between Staten Island and New Jersey soared 521%, to 170,200 from just 27,400. Outerbridge Crossing traffic skyrocketed nearly tenfold, to 75,800 from 7,100. Volume on the Goethals Bridge jumped 485%, to 73,000 from 12,500. Bayonne Bridge traffic nearly tripled, to 21,500 from 7,800.

BROOKLYN - QUEENS SCREENLINE

SUMMARY

2007 Daily Traffic

- On a typical 2007 weekday, 601,000 vehicles crossed the fifteen monitored Brooklyn-Queens screenline locations. This was virtually the same as the 601,200 daily vehicles that had been recorded in 2006. Except for the four bridges over Newtown Creek (monitored annually in the *New York City Bridge Traffic Volumes* report), traffic volumes at this screenline were analyzed for the first time in 1993.
- Over two-thirds (70.2%) of the vehicles (421,700 per day) crossing the Brooklyn-Queens screenline used the three limited access (interstate and principal arterial) facilities that cross the screenline: Jackie Robinson Parkway (formerly Interborough Parkway), Kosciuszko Bridge (Brooklyn-Queens Expressway), and Shore Parkway. Some 43.8% (263,300 per day) were crossing Newtown Creek via the Grand Street, Greenpoint Avenue, Kosciuszko, and Pulaski Bridges.
- The highest volume Brooklyn-Queens highway was the Kosciuszko Bridge on the Brooklyn-Queens Expressway, with two-way daily volume of 186,500 vehicles, 31.0% of all traffic on the monitored thoroughfares and 70.8% of Newtown Creek crossings. Shore Parkway was second with 164,500 vehicles per day, 27.4% of the total recorded screenline traffic.
- Shore Parkway, Jackie Robinson Parkway, Linden Boulevard, Pulaski Bridge, Greenpoint Avenue Bridge, and Atlantic Avenue were the busiest of the principal arterials surveyed, with average daily volumes of 164,500, 70,700, 49,400, 37,200, 27,000, and 22,200 vehicles, respectively.
- A total of 19,800 vehicles were recorded entering Brooklyn from Queens during the 7-8 am morning peak hour. The Kosciuszko Bridge and Shore Parkway accommodated 5,100 and 5,300 of those vehicles, respectively.
- Morning traffic to Queens also peaked between 7-8 am, at 17,100 vehicles, including 5,000 on the Kosciuszko Bridge and 4,800 on Shore Parkway.
- During the 6-10 am rush period, 72,300 vehicles were recorded entering Brooklyn, with the Kosciuszko Bridge and Shore Parkway carrying 20,000 and 19,400, respectively. Simultaneously, 63,600 vehicles entered Queens, including 19,300 on the Kosciuszko Bridge and 17,900 on Shore Parkway.
- Evening traffic entering Queens from Brooklyn peaked between 4-5 pm, when 19,400 vehicles were recorded. The Kosciuszko Bridge was the route of 4,900 of those vehicles, while 5,400 used Shore Parkway.
- Evening traffic entering Brooklyn from Queens also peaked between 4-5 pm, at 17,800 vehicles. The Kosciuszko Bridge was used by 4,600 of those vehicles, while another 4,600 were also on Shore Parkway.
- During the 3-7 pm evening rush period, 75,100 vehicles were recorded entering Queens, while 68,800 were counted in the opposite direction. The Kosciuszko Bridge carried

19,500 to Queens and 18,400 to Brooklyn, while Shore Parkway carried 20,600 to Queens and 18,700 to Brooklyn.

10 Year Trends (1997-2007)

- Traffic between Brooklyn and Queens increased only 3.6% during this ten-year period, to 601,000 daily vehicles in 2007 from 580,100 in 1997. This represents an average annual growth rate of 0.4%.
- The largest volume increase since 1997 occurred on the Shore Parkway (growth of 17,100 daily vehicles, or 1.1% annually, to 164,500 from 147,400). This was followed by the Jackie Robinson Parkway (growth of 8,900 daily vehicles, or 1.4% annually, to 70,700 from 61,800), and the Pulaski Bridge over Newtown Creek (growth of 5,700 daily vehicles, or 1.7% annually, to 37,200 from 31,600).
- The largest percentage increases occurred on Sutter Avenue (up 22.2%, or 2.0% annually, to 9,100 from 7,400), the Pulaski Bridge over Newtown Creek (up 17.9%, or 1.7% annually, to 37,200 from 31,600), and the Jackie Robinson Parkway (up 14.4%, or 1.4% annually, to 70,700 from 61,800).
- The largest decrease occurred on Atlantic Avenue (down 21.6%, or 2.4% annually, to 22,200 from 28,400).

Historical Comparisons

- In 1963, average daily two-way total daily volume on the four Newtown Creek bridges was 160,400. The Kosciuszko Bridge carried the bulk of that traffic, 102,200 daily vehicles (63.7% of the total). The Grand Street Bridge served 12,000 daily vehicles (7.5%), the Greenpoint Avenue Bridge 17,600 (11.0%), and the Pulaski Bridge 28,600 (17.8%).
- By 1973, Newtown Creek crossings had increased 4.8% to 168,000 vehicles per day, just 7,600 more than ten years earlier. The Kosciuszko Bridge remained the most-traveled facility, although its volume slipped to 99,000 daily vehicles, 3.1% fewer than in 1963. The Grand Street Bridge was accommodating 11,700 daily vehicles (down 2.5%), the Greenpoint Avenue Bridge 26,800 (up 52.0%), and the Pulaski Bridge 30,500 (up 6.7%).
- Between 1973 and 1982, daily volume crossing Newtown Creek rose 7.0%, to 179,800 vehicles. Growth was concentrated solely on the Kosciuszko Bridge, where daily volume rose 30.8% to 129,600. Daily volumes fell on the other three bridges: Grand Street Bridge down 21.5% to 9,200, Greenpoint Avenue Bridge down 33.2% to 17,900, and Pulaski Bridge down 24.1% to 23,100.
- From 1982 to 1986, traffic over Newtown Creek increased rapidly, by 25.0% to 224,800 daily vehicles, with increases occurring on three of the four bridges. By 1986, the Kosciuszko Bridge was carrying 168,300 daily vehicles (up 29.9% from 1982), the Grand Street Bridge 11,400 (up 24.0%), the Pulaski Bridge 30,800 (up 32.9%). The only decline was on the Greenpoint Avenue Bridge, where daily traffic was 19.9% less in 1986 than in 1982 (14,300 vs. 17,900).
- Between 1986 and 1997, daily volume crossing Newtown Creek increased just 15.0% during the eleven-year period, to 258,600 in 1997 from 224,800 in 1986. Growth was concentrated at the Greenpoint Avenue and Kosciuszko Bridges. On the Greenpoint Avenue Bridge, daily volume increased by 10,600 vehicles, to 24,900 in 1997 from

14,300 in 1986, a gain of 73.9%. Daily traffic on the Kosciuszko Bridge increased by 20,900 vehicles, to 189,200 in 1997 from 168,300 in 1986, a gain of 12.4%. On the Grand Street Bridge, daily volume increased 12.8%, to 12,900 from 11,400. Volume on the Pulaski Bridge increased 2.6%, to 31,600 daily vehicles in 1997 from 30,800 in 1986.

- During the 44 years from 1963 to 2007, daily traffic crossing Newtown Creek increased 64.2%, to 263,300 from 160,400. Volumes increased on all four facilities: Kosciuszko Bridge up 82.5% to 186,500 from 102,200; Greenpoint Avenue Bridge up 53.3% to 27,000 from 17,600; Pulaski Bridge up 30.3% to 37,200 from 28,600; Grand Street Bridge up 4.7% to 12,600 from 12,000.