

2002 NEW YORK CITY SCREENLINE TRAFFIC FLOW REPORT

INTRODUCTION

The 2002 *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 Subregional Transportation Planning Program and the federal Intermodal Surface Transportation Efficiency Act of 1991. 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 2002 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 1993-2001. The statistical analysis presented in the report was performed by staff of NYCDOT during the 2002-2003 and 2003-2004 program years.

The 47 screenline monitoring locations in New York City are designated by a roadway functional classification. Functional classification is the method by which streets and highways are grouped into classes, or systems, according to the character of service provided by each roadway.

The five functional systems are defined as:

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

2001-2002 Impacts of 9/11

- Traffic volumes entering Manhattan from New Jersey were heavily impacted by the events of 9/11/2001, and by restrictions on traffic entering Manhattan south of 60th Street during the ensuing months. The most significant impacts were on facilities south of Canal Street.
- In the fall of 2001, Holland Tunnel traffic was 57.1% below its year-earlier level, and Lincoln Tunnel traffic was down 18%.
- Traffic using the George Washington Bridge did not undergo a major decline following the events of 9/11. The fall 2001 volume was just 3% less than during fall 2000.
- 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. The following additional restrictions had a major impact on Manhattan-New Jersey motor travel:
 - 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 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).
- 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. In addition, 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 November 29, 2001, the round-the-clock ban on single-occupant Manhattan-bound cars at the Holland Tunnel was reduced, to between 6-10am 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 April 6, 2002, the round-the-clock ban on Manhattan-bound trucks was discontinued at the Holland Tunnel. The 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 Lincoln Tunnel.

2002 Daily Traffic

- Nearly 2,276,000 daily motor vehicles crossed the 32 New York City border screenline monitoring locations in 2002, 3.9% more than the 2001 daily volume of 2,190,000.
- Since the first survey in 1963, the highest volumes have been at the Queens-Nassau border. In 2002, some 944,000 daily vehicles were counted at the fifteen Queens-Nassau monitoring locations, 41.5% of the total traffic recorded at the City boundaries. The eleven Bronx-Westchester locations yielded 27.2% of the total (619,900), the three Manhattan-New Jersey river crossings 23.4% (532,800), and the three Staten Island-New Jersey bridges 7.9% (179,100). The latter six facilities are operated by the Port Authority of New York and New Jersey (PANYNJ).
- Morning hourly inbound volume peaked between 7-8 am, when 78,600 vehicles were recorded entering the City limits, 7.2% more than the 73,300 counted in 2001.
- Between 6-10 am, 283,900 vehicles were recorded entering the City, 7.0% more than the 265,400 recorded in 2001.
- During the 4-5 pm evening peak hour, 80,000 vehicles were recorded leaving the City, 4.7% more than the 2001 peak volume of 76,400.
- Between 3-7 pm, 314,900 vehicles were recorded leaving the City, an increase of 4.5% from the 2001 level of 301,200.
- 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 8 pm.

Recent Trends

- Traffic growth at the City boundaries had been moderate since 1986, with monitored daily volume rising 16.7% to 2,275,900 in 2002 from 1,951,000 in 1986. This represents an average annual growth rate of 1.0%.
- The largest percentage increase occurred on the three Staten Island-New Jersey bridges, where 2002 traffic was 29.4% higher than the 1986 level: 179,100 daily vehicles vs. 138,400, an average annual growth rate of 1.6%.
- The largest numerical increase occurred at the eleven Bronx-Westchester monitoring sites, where 2002 traffic rose by 136,700 daily vehicles (+28.3%, or 1.6% annually), to 619,900 in 2002 from 483,200 in 1986.
- Volume at the fifteen monitored Queens-Nassau locations rose 11.9%, to 944,000 daily vehicles in 2002 from 843,500 in 1986, an average annual growth rate of 0.7%.
- On the three Hudson River crossings between Manhattan and New Jersey, daily traffic increased 9.7%, to 532,800 in 2002 from 485,800 in 1986, an average annual growth rate of 0.6%.

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 1963 to 2002, daily two-way traffic at the 29 City border locations monitored throughout the period more than doubled, to 2,230,500 in 2002 from 1,109,200 in 1963.
- Staten Island-New Jersey traffic expanded by 554%, to 179,100 daily vehicles in 2002 from 27,400 in 1963, largely as a result of the opening of the Verrazano-Narrows Bridge in 1964.
- Manhattan-New Jersey volume climbed 101% to 532,800 in 2002 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 39-year period from 1963 to 2002, continuously monitored daily traffic increased 126% between The Bronx and Westchester (to 609,300 from 269,700), and 66% between Queens and Nassau (to 909,200 from 546,600).

2001 vs. 2002 Screenline Traffic Volume Trends Both Directions

Page 1 of 2

BRONX-WESTCHESTER	Highway Functional Classification	2001	2002	Percent Change
Boston Road	Principal Arterial	26,087	25,293	- 3.0 %
Broadway	Principal Arterial	16,295	15,994	- 1.8 %
Bronx River Parkway	Principal Arterial	89,493	94,978	6.1 %
Henry Hudson Parkway	Principal Arterial	95,327	98,002	2.8 %
Hutchinson River Parkway	Principal Arterial	88,651	93,936	6.0 %
Major Deegan Expressway	Interstate	105,708	109,477	3.6 %
Major Deegan Svce Roads	Principal Arterial	11,116	9,356	-15.8 %
New England Thruway	Interstate	127,645	126,511	- 0.9 %
Riverdale Avenue	Principal Arterial	11,959	10,830	- 9.4 %
Van Cortlandt Park East	Minor Arterial	10,360	10,617	2.5 %
Webster Avenue	Local	10,841	11,547	6.5 %
White plains Road	Principal Arterial	13,184	13,397	1.6 %
Total Bronx-Westchester Screenline		606,666	619,938	2.2 %

QUEENS-NASSAU

Beach Channel Drive	Minor Arterial	24,660	25,610	3.9 %
Central Avenue	Minor Arterial	12,924	14,406	11.5 %
Grand Central Parkway	Principal Arterial	170,804	167,425	- 2.0 %
Grand Central Parkway Svce Road	Minor Arterial	10,061	11,442	13.7 %
Hempstead Avenue	Principal Arterial	44,650	43,418	- 2.8 %
Hillside Avenue	Principal Arterial	27,575	27,328	- 0.9 %
Jamaica Avenue	Principal Arterial	28,206	30,193	7.0 %
Laurelton Parkway	Principal Arterial	171,445	162,292	- 5.3 %
Linden Boulevard	Principal Arterial	26,701	27,812	4.2 %
Long Island Expressway	Interstate	164,317	170,688	3.9 %
Long Island Exp Svce Roads	Principal Arterial	18,481	19,924	7.8 %
Merrick Boulevard	Minor Arterial	19,401	19,479	0.4 %
Northern Boulevard	Principal Arterial	45,805	44,186	- 3.5 %
Rockaway Boulevard	Principal Arterial	72,027	69,963	- 2.9 %
Seagirt Boulevard	Principal Arterial	15,939	20,392	27.9 %
Sunrise Highway	Principal Arterial	68,618	62,842	- 8.4 %
Union Turnpike	Principal Arterial	25,113	26,606	5.9 %

Total Queens-Nassau Screenline		946,727	944,006	- 0.3 %
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2001 vs. 2002 Screenline Traffic Volume Trends Both Directions

Page 2 of 2

NEW YORK - NEW JERSEY	Highway Functional Classification	2001	2002	Percent Change
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 %
Bayonne Bridge	Principal Arterial	23,631	21,327	- 9.7 %
Goethals Bridge	Interstate	78,196	81,384	4.1 %
Outerbridge Crossing	Principal Arterial	75,424	76,429	1.3 %
Total New York - New Jersey Screenline		636,195	711,979	11.9 %

BROOKLYN - QUEENS

Grand Street Bridge	Principal Arterial	13,895	13,088	- 5.8 %
Greenpoint Avenue Bridge	Principal Arterial	26,766	26,306	- 1.7 %
Kosciuszko Bridge	Interstate	196,565	184,379	- 6.2 %
Pulaski Bridge	Principal Arterial	39,062	38,348	- 1.8 %
Atlantic Avenue	Principal Arterial	27,895	28,936	3.7 %
Cooper Avenue	Minor Arterial	9,517	9,274	- 2.6 %
Cornelia Street	Local	1,936	2,032	5.0 %
Decatur Street	Collector	2,082	2,237	7.4 %
DeKalb Avenue	Minor Arterial	4,910	5,892	20.0 %
Greene Avenue	Minor Arterial	1,962	2,078	5.9 %
Jackie Robinson Parkway	Principal Arterial	72,680	74,720	2.8 %
Linden Boulevard	Principal Arterial	52,290	53,137	1.6 %
Linden Street	Collector	2,544	2,609	2.6 %
Shore Parkway	Principal Arterial	151,918	140,163	- 7.7 %
Sutter Avenue	Minor Arterial	8,112	8,349	2.9 %
Total Brooklyn - Queens Screenline		612,134	591,548	- 3.4 %

**New York City Screenline
Historical Comparisons
Average Daily Traffic Volumes**

To New York City

	<u>1963</u>	<u>1973</u>	<u>1982</u>	<u>1986</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Bronx-Westchester	131,910	179,678	206,402	244,083	258,711	262,045	269,207	276,672	285,235	287,874	297,196	298,464	308,307	314,460
Queens-Nassau	272,360	334,940	373,479	417,005	448,046	450,332	448,742	445,915	452,167	457,372	473,858	472,861	473,363	468,813
N.J.-Manhattan	N/A	196,532	215,979	240,921	234,479	235,840	239,529	246,107	250,864	257,725	263,502	265,463	222,389	254,895
N.J.-Staten Island	N/A	40,517	53,336	69,218	75,601	77,266	77,173	78,703	81,449	83,209	86,553	87,705	94,413	90,510
Totals	N/A	751,667	849,196	971,227	1,016,837	1,025,483	1,034,651	1,047,397	1,069,715	1,086,180	1,121,109	1,124,493	1,098,472	1,128,678

From New York City

	<u>1963</u>	<u>1973</u>	<u>1982</u>	<u>1986</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Bronx-Westchester	137,740	182,036	207,348	239,169	247,480	253,808	262,734	271,300	269,448	277,872	286,819	292,558	298,359	305,478
Queens-Nassau	274,190	335,762	339,667	426,533	444,272	446,843	444,001	450,229	454,964	462,031	473,185	467,286	473,364	475,193
N.J.-Manhattan	N/A	200,671	217,765	244,830	238,590	237,959	242,569	247,087	253,924	264,787	285,850	283,002	236,555	277,944
N.J.-Staten Island*	N/A	40,517	53,336	69,218	65,174	66,609	66,484	67,862	70,129	73,577	80,337	76,963	82,838	88,630
Totals	N/A	758,986	818,116	979,750	995,516	1,005,219	1,015,788	1,036,478	1,048,465	1,078,267	1,126,191	1,119,809	1,091,116	1,147,245

Both Directions

	<u>1963</u>	<u>1973</u>	<u>1982</u>	<u>1986</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Bronx-Westchester	269,650	361,714	413,750	483,252	506,191	515,853	531,941	547,972	554,683	565,746	584,015	591,022	606,666	619,938
Queens-Nassau	546,550	670,702	713,146	843,538	892,318	897,175	892,743	896,144	907,131	919,403	947,043	940,147	946,727	944,006
N.J.-Manhattan	265,603	397,203	433,744	485,751	473,069	473,799	482,098	493,194	504,788	522,512	549,352	548,465	458,944	532,839
N.J.-Staten Island	27,398	81,034	106,672	138,436	140,775	143,875	143,657	146,565	151,578	156,786	166,890	164,668	177,251	179,140
Totals	1,109,201	1,510,653	1,667,312	1,950,977	2,012,353	2,030,702	2,050,439	2,083,875	2,118,180	2,164,447	2,247,300	2,244,302	2,189,588	2,275,923

* Actual 24 hour westbound volumes from Staten Island to New Jersey not available for 1973, 1982, and 1986; estimated to be the same as eastbound volumes to Staten Island obtained from toll records.

2002 Screenline Volumes New York City

	<i>Bronx-Westchester</i>		<i>Queens-Nassau</i>		<i>Manhattan</i>		<i>Staten Island</i>		<i>NYC Totals</i>	
	<i>To Bronx</i>	<i>To W'chstr</i>	<i>To Qns.</i>	<i>To Nas.</i>	<i>To Manh.</i>	<i>To N.J.</i>	<i>To S.I.</i>	<i>To N.J.</i>	<i>To N.Y.C.</i>	<i>From N.Y.C.</i>
Mid-1am	4,101	5,375	5,451	7,175	3,586	6,233	1,247	966	14,385	19,749
1-2am	2,578	3,238	3,048	4,116	2,318	3,784	796	615	8,740	11,753
2-3am	1,961	2,231	2,303	2,900	1,912	2,671	678	480	6,854	8,282
3-4am	2,087	1,970	2,706	2,479	2,078	2,406	713	555	7,584	7,410
4-5am	3,718	2,328	5,296	3,272	3,324	3,290	1,182	706	13,520	9,596
5-6am	8,611	4,464	15,471	7,197	10,164	5,959	3,253	1,626	37,499	19,246
6-7am	17,419	10,264	28,447	17,619	18,648	10,841	5,349	3,850	69,863	42,574
7-8am	23,483	17,118	31,422	27,999	18,630	13,947	5,062	6,742	78,597	65,806
8-9am	21,337	19,870	28,552	31,096	16,762	13,881	4,854	7,307	71,505	72,154
9-10am	17,471	16,990	26,033	26,078	15,871	11,484	4,530	5,949	63,905	60,501
10-11am	15,116	14,180	23,047	22,602	14,203	10,346	4,012	5,272	56,378	52,400
11-Noon	14,859	13,970	22,085	22,851	12,107	10,366	3,781	5,008	52,832	52,195
Noon-1	14,974	14,355	23,443	24,247	11,104	10,958	3,960	4,757	53,481	54,317
1-2pm	15,107	15,111	23,831	25,405	10,900	12,567	4,239	4,591	54,077	57,674
2-3pm	16,076	17,540	25,825	29,368	11,793	15,520	4,859	5,002	58,553	67,430
3-4pm	18,348	20,846	27,240	32,653	13,151	18,698	5,599	5,723	64,338	77,920
4-5pm	19,792	21,334	29,244	32,244	14,184	20,579	6,529	5,846	69,749	80,003
5-6pm	21,166	22,038	30,838	31,823	14,581	20,396	7,547	5,544	74,132	79,801
6-7pm	20,052	20,569	28,190	32,092	14,478	19,627	6,411	4,915	69,131	77,203
7-8pm	16,804	17,455	23,380	27,583	12,671	16,966	4,816	4,057	57,671	66,061
8-9pm	12,820	13,930	19,842	20,825	9,632	14,174	3,611	3,151	45,905	52,080
9-10pm	11,161	11,621	18,146	17,018	8,602	12,376	3,088	2,564	40,997	43,579
10-11pm	9,028	10,339	14,895	14,913	7,907	11,370	2,474	1,925	34,304	38,547
11-Mid	6,391	8,342	10,078	11,638	6,289	9,505	1,920	1,479	24,678	30,964
24 hr Total	314,460	305,478	468,813	475,193	254,895	277,944	90,510	88,630	1,128,678	1,147,245
6-10am	79,710	64,242	114,454	102,792	69,911	50,153	19,795	23,848	283,870	241,035
10am-1pm	44,949	42,505	68,575	69,700	37,414	31,670	11,753	15,037	162,691	158,912
1-3pm	31,183	32,651	49,656	54,773	22,693	28,087	9,098	9,593	112,630	125,104
3-7pm	79,358	84,787	115,512	128,812	56,394	79,300	26,086	22,028	277,350	314,927
6am-7pm	235,200	224,185	348,197	356,077	186,412	189,210	66,732	70,506	836,541	839,978

BRONX - WESTCHESTER SCREENLINE

SUMMARY

2002 Daily Traffic

- On a typical 2002 weekday, 619,900 vehicles crossed the eleven Bronx-Westchester screenline monitoring locations, 2.2% more than the 606,700 daily vehicles recorded in 2001.
- Some 85.9% of the recorded vehicles (532,300 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 126,500 daily vehicles, is the most-traveled Bronx-Westchester highway, carrying 20.4% of the total traffic on the monitored thoroughfares. The Major Deegan Expressway (including service roads) is second with 118,800 daily vehicles, 19.2% of the total. The Henry Hudson Parkway serves 98,000 daily vehicles (15.8%), the Bronx River Parkway 95,000 (15.3%), and the Hutchinson River Parkway 93,900 (15.2%).
- Boston Road is the busiest surface arterial monitored, averaging 25,300 vehicles per day, 4.1% of the total.
- Some 23,500 vehicles were recorded entering The Bronx from Westchester during the 7-8 am morning peak hour. The Henry Hudson Parkway carried 4,900 of those peak hour southbound vehicles, with another 4,500 on the Major Deegan Expressway and its service road, and 4,400 on the Bronx River parkway.
- During the 6-10 am inbound rush period, 79,700 vehicles were recorded entering The Bronx. Some 15,800 of those vehicles were using the Henry Hudson Parkway, with another 15,700 on the southbound Major Deegan facility.
- A total of 22,000 vehicles were counted crossing the screenline from The Bronx into Westchester during the 5-6 pm evening peak hour. Nearly 4,800 of those vehicles used the Major Deegan Expressway and its service road.
- During the 3-7 pm evening rush period, 85,800 vehicles were recorded leaving The Bronx. The Major Deegan facility accommodated 17,900 of those northbound vehicles.
- Reverse traffic was heavy during the 3-7 pm evening period, with an inbound volume of 79,400, compared to the outbound total of 85,800. During this period, the New England Thruway actually carried more inbound than outbound traffic (16,200 vs. 13,600), consistent with recent screenline counts.
- Reverse traffic was less intense during the 6-10 am morning period: 79,700 inbound vs. 64,200 outbound. New England Thruway traffic was heavier in the reverse direction: 14,700 outbound vs. 11,500 inbound.

Recent Trends

- Traffic growth at the Bronx-Westchester screenline has been moderate since 1986; nevertheless, it has outpaced growth at all other City border screenlines. Monitored daily volume rose 28.3% to 619,900 in 2002 from 483,300 in 1986. This represents an average annual growth rate of 1.6%.

- The largest increases since 1986 have occurred on the New England Thruway, the Henry Hudson Parkway, and the Hutchinson River Parkway, with average annual growth rates of 2.0%, 3.9%, and 3.5%, respectively. Volume on the New England Thruway was 36% higher in 2002 than in 1986 (126,500 daily vehicles vs. 92,900). Daily volume on the Henry Hudson Parkway was up 84%, to 98,000 in 2002 from 53,300 in 1986. Concurrently, daily volume on the Hutchinson River Parkway rose 73% (to 93,900 from 54,300).
- The only significant decline since 1986 was on the Major Deegan facility (down 5% to 118,800 from 124,900).

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).
- During the 39 years from 1963 to 2002, total daily traffic on the ten facilities monitored throughout the period more than doubled, to 619,900 from 269,700.
- Virtually all growth in Bronx-Westchester traffic since 1963 has occurred on the five limited access highways crossing the screenline. Of the 339,700 additional daily vehicles on the ten continuously-monitored facilities, 318,600 (94% of the total increase) are on the limited access highways. The fastest growth occurred on the Hutchinson River Parkway, where daily volume soared 482%, to 93,900 daily vehicles from 16,200. Henry Hudson Parkway volume more than tripled, to 98,000 from 29,000. New England Thruway volume climbed 126%, to 126,500 from 56,100. Bronx River Parkway volume doubled (to 95,000 from 44,100), while volume on the Major Deegan Expressway was up 74% (to 118,800 from 68,300).
- Boston Road exhibited the largest change of any arterial facility since 1963, with daily volume more than doubling, to 25,300 from 11,000. Volume on White Plains Road increased 46% to 13,400 daily vehicles from 9,200.

**Bronx-Westchester Screenline
Historical Comparisons
Average Daily Traffic Volumes**

To Bronx

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Boston Rd	5,080	11,026	9,737	10,514	12,140	11,609	11,068	11,429	12,868	12,443	13,258	11,514	13,262	12,997
Broadway	6,570	7,169	4,465	7,679	8,017	8,074	8,114	8,113	8,020	8,331	8,096	8,292	8,143	7,989
Bronx River Pky	23,060	28,100	34,908	40,561	39,855	40,684	41,902	43,106	42,330	41,526	44,719	45,296	46,681	49,382
Henry Hudson Pky	16,170	18,300	19,728	29,720	34,445	36,721	39,857	41,537	44,136	40,811	46,359	47,922	51,091	52,378
Hutchinson River Pky	7,110	13,690	23,515	26,737	32,980	34,226	35,461	40,124	40,584	40,878	41,242	41,359	44,624	46,446
Major Deegan Exp *	28,780	45,520	46,396	59,902	59,934	55,397	54,819	52,995	54,548	55,106	54,438	53,403	54,052	56,811
New England Thruway	29,460	40,770	51,683	47,288	50,172	53,462	55,084	56,690	59,817	65,314	65,302	67,655	66,091	64,042
Riverdale Ave	5,130	5,523	4,789	5,878	6,044	5,615	5,794	5,961	6,191	5,994	5,904	5,539	5,816	5,643
Van Cortlandt Pk E	N/A	N/A	N/A	4,806	4,721	4,554	4,770	4,569	4,686	4,974	5,623	5,015	5,399	5,816
Webster Ave	5,950	3,650	5,119	5,447	6,393	5,943	6,300	6,289	6,343	6,318	6,093	6,378	6,605	6,736
White Plains Rd	4,600	5,930	6,062	5,551	4,010	5,760	6,038	5,859	5,712	6,179	6,162	6,091	6,543	6,220
Totals	131,910	179,678	206,402	244,083	258,711	262,045	269,207	276,672	285,235	287,874	297,196	298,464	308,307	314,460

To Westchester

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Boston Rd	5,900	11,787	13,073	10,057	10,424	10,366	10,299	12,030	12,227	11,913	11,386	11,627	12,825	12,296
Broadway	9,130	8,562	7,845	7,905	8,578	8,739	8,122	8,409	8,227	8,182	8,297	8,045	8,152	8,005
Bronx River Pky	21,060	26,111	30,935	38,633	35,678	36,559	37,672	38,773	37,772	38,693	40,645	41,174	42,812	45,596
Henry Hudson Pky	12,840	17,090	22,048	23,543	28,644	30,548	37,396	37,332	38,360	37,743	40,962	42,520	44,236	45,624
Hutchinson River Pky	9,040	15,400	24,748	27,550	33,450	35,807	38,148	42,564	42,444	41,910	43,371	44,356	44,027	47,490
Major Deegan Exp *	39,500	45,400	51,892	64,970	65,325	63,181	59,176	57,953	54,584	59,612	58,887	60,781	62,772	62,022
New England Thruway	26,610	41,850	46,771	45,574	44,789	47,810	50,441	53,059	55,179	58,906	62,468	63,289	61,554	62,469
Riverdale Ave	4,850	5,198	5,032	5,893	5,877	5,636	5,751	5,851	5,731	5,656	5,014	5,235	6,143	5,187
Van Cortlandt Pk E	N/A	N/A	N/A	4,433	4,261	4,234	4,321	4,430	4,543	4,497	5,010	4,885	4,961	4,801
Webster Ave	4,200	4,478	2,719	4,363	4,088	4,281	4,112	4,154	3,977	4,272	4,181	3,866	4,236	4,811
White Plains Rd	4,610	6,160	2,285	6,248	6,366	6,647	7,296	6,745	6,404	6,488	6,598	6,780	6,641	7,177
Totals	137,740	182,036	207,348	239,169	247,480	253,808	262,734	271,300	269,448	277,872	286,819	292,558	298,359	305,478

* Includes service roads

**Bronx-Westchester Screenline
Historical Comparisons
Average Daily Traffic Volumes (continued)**

Both Directions

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Boston Rd	10,980	22,813	22,810	20,571	22,564	21,975	21,367	23,459	25,095	24,356	24,644	23,141	26,087	25,293
Broadway	15,700	15,731	12,310	15,584	16,595	16,813	16,236	16,522	16,247	16,513	16,393	16,337	16,295	15,994
Bronx River Pky	44,120	54,211	65,843	79,194	75,533	77,243	79,574	81,879	80,102	80,219	85,364	86,470	89,493	94,978
Henry Hudson Pky	29,010	35,390	41,776	53,263	63,089	67,269	77,253	78,869	82,496	78,554	87,321	90,442	95,327	98,002
Hutchinson River Pky	16,150	29,090	48,263	54,287	66,430	70,033	73,609	82,688	83,028	82,788	84,613	85,715	88,651	93,936
Major Deegan Exp *	68,280	90,920	98,288	124,872	125,259	118,578	113,995	110,948	109,132	114,718	113,325	114,184	116,824	118,833
New England Thruway	56,070	82,620	98,454	92,862	94,961	101,272	105,525	109,749	114,996	124,220	127,770	130,944	127,645	126,511
Riverdale Ave	9,980	10,721	9,821	11,771	11,921	11,251	11,545	11,812	11,922	11,650	10,918	10,774	11,959	10,830
Van Cortlandt Pk E	N/A	N/A	N/A	9,239	8,982	8,788	9,091	8,999	9,229	9,471	10,633	9,900	10,360	10,617
Webster Ave	10,150	8,128	7,838	9,810	10,481	10,224	10,412	10,443	10,320	10,590	10,274	10,244	10,841	11,547
White Plains Rd	9,210	12,090	8,347	11,799	10,376	12,407	13,334	12,604	12,116	12,667	12,760	12,871	13,184	13,397
Totals	269,650	361,714	413,750	483,252	506,191	515,853	531,941	547,972	554,683	565,746	584,015	591,022	606,666	619,938

* Includes service roads

2002 Screenline Volumes Bronx - Westchester

	Boston Rd		Broadway		Bronx River Parkway		Henry Hudson Parkway		Hutchinson River Parkway		Major Deegan Expressway		Major Deegan (Service Rd)	
	S/B*	N/B	S/B*	N/B	S/B*	N/B	S/B*	N/B	S/B*	N/B	S/B*	N/B	S/B*	N/B
Mid-1am	105	99	112	165	579	572	442	739	477	657	411	1,084	74	150
1-2am	86	61	78	114	266	292	206	385	232	292	321	685	44	105
2-3am	53	50	61	68	180	175	129	224	132	184	365	469	26	56
3-4am	79	63	55	48	188	159	131	155	129	137	601	379	21	33
4-5am	86	66	69	53	353	244	272	173	354	210	1,525	494	18	25
5-6am	189	149	134	82	1,059	632	985	422	1,093	791	3,587	868	30	31
6-7am	476	406	357	220	3,105	1,732	3,352	1,327	2,706	2,434	4,528	1,838	94	67
7-8am	832	647	610	323	4,431	3,110	4,885	2,440	3,452	3,411	4,279	2,916	207	168
8-9am	815	742	619	385	3,520	3,255	4,085	2,633	3,340	3,137	3,375	3,249	285	264
9-10am	682	708	462	380	2,762	2,060	3,482	1,939	2,697	2,490	2,696	2,747	270	289
10-11am	689	736	409	365	2,267	1,766	2,754	1,716	2,298	2,257	2,400	2,531	210	275
11-Noon	797	813	387	347	2,099	1,761	2,512	1,825	2,136	2,133	2,475	2,507	198	260
Noon-1	902	830	394	399	2,086	1,902	2,384	1,993	2,135	2,124	2,439	2,578	188	279
1-2pm	817	804	386	403	2,126	2,117	2,233	2,165	2,207	2,422	2,631	2,736	211	274
2-3pm	797	948	433	421	2,363	2,956	2,455	2,766	2,528	2,910	2,686	3,008	204	303
3-4pm	914	970	489	528	2,869	3,879	2,976	3,351	2,904	3,234	2,920	3,842	199	347
4-5pm	875	884	501	544	3,352	3,761	3,312	3,452	3,064	3,081	3,077	4,039	193	442
5-6pm	952	881	504	608	3,580	3,883	3,817	3,803	3,102	2,855	3,009	4,260	212	500
6-7pm	867	746	470	589	3,136	3,229	3,668	3,610	2,880	2,956	2,448	4,005	212	491
7-8pm	693	547	394	513	2,508	2,434	2,649	3,000	2,528	2,757	2,063	3,270	182	417
8-9pm	463	407	337	461	2,018	1,846	1,887	2,152	1,963	2,161	1,944	2,831	174	334
9-10pm	367	338	271	393	1,869	1,505	1,657	1,939	1,738	1,974	1,614	2,261	121	266
10-11pm	256	247	249	317	1,545	1,364	1,270	1,895	1,438	1,635	1,165	2,060	120	214
11-Mid	205	154	208	279	1,121	962	835	1,520	913	1,248	667	1,594	92	181
24 hr Total	12,997	12,296	7,989	8,005	49,382	45,596	52,378	45,624	46,446	47,490	53,226	56,251	3,585	5,771
6-10am	2,805	2,503	2,048	1,308	13,818	10,157	15,804	8,339	12,195	11,472	14,878	10,750	856	788
10am-1pm	2,388	2,379	1,190	1,111	6,452	5,429	7,650	5,534	6,569	6,514	7,314	7,616	596	814
1-3pm	1,614	1,752	819	824	4,489	5,073	4,688	4,931	4,735	5,332	5,317	5,744	415	577
3-7pm	3,608	3,481	1,964	2,269	12,937	14,752	13,773	14,216	11,950	12,126	11,454	16,146	816	1,780
6am-7pm	10,415	10,115	6,021	5,512	37,696	35,411	41,915	33,020	35,449	35,444	38,963	40,256	2,683	3,959

* To Bronx

2002 Screenline Volumes Bronx - Westchester (cont'd)

	New England Thruway		Riverdale Ave		Van Cortlandt Park East		Webster Ave		White Plains Rd		Totals	
	S/B*	N/B	S/B*	N/B	S/B*	N/B	S/B*	N/B	S/B*	N/B	To Bronx	To Westchester
Mid-1am	1,590	1,573	43	58	85	77	69	57	114	144	4,101	5,375
1-2am	1,163	1,100	17	36	52	52	42	31	71	85	2,578	3,238
2-3am	860	844	16	18	42	37	31	20	66	86	1,961	2,231
3-4am	763	874	10	14	29	27	31	22	50	59	2,087	1,970
4-5am	860	930	25	20	33	27	51	19	72	67	3,718	2,328
5-6am	1,198	1,250	93	48	51	44	102	37	90	110	8,611	4,464
6-7am	1,880	1,677	259	132	145	98	329	120	188	213	17,419	10,264
7-8am	3,054	2,982	498	269	298	190	621	292	316	370	23,483	17,118
8-9am	3,459	4,866	497	316	409	278	599	332	334	413	21,337	19,870
9-10am	3,099	5,199	343	285	326	248	356	241	296	404	17,471	16,990
10-11am	2,948	3,511	283	244	258	219	300	223	300	337	15,116	14,180
11-Noon	3,052	3,204	317	265	256	235	320	263	310	357	14,859	13,970
Noon-1	3,185	3,048	316	302	286	249	331	267	328	384	14,974	14,355
1-2pm	3,200	2,953	310	309	298	267	355	268	333	393	15,107	15,111
2-3pm	3,173	2,948	359	305	337	278	418	277	323	420	16,076	17,540
3-4pm	3,500	3,177	381	374	388	327	420	352	388	465	18,348	20,846
4-5pm	3,762	3,518	399	403	423	366	430	379	404	465	19,792	21,334
5-6pm	4,176	3,478	408	401	450	404	489	432	467	533	21,166	22,038
6-7pm	4,779	3,379	300	357	459	395	403	351	430	461	20,052	20,569
7-8pm	4,509	3,270	232	308	377	321	309	249	360	369	16,804	17,455
8-9pm	3,041	2,774	195	253	285	230	238	210	275	271	12,820	13,930
9-10pm	2,670	2,137	136	170	236	181	196	159	286	298	11,161	11,621
10-11pm	2,302	1,922	121	159	169	144	171	133	222	249	9,028	10,339
11-Mid	1,819	1,855	85	141	124	107	125	77	197	224	6,391	8,342
24 hr Total	64,042	62,469	5,643	5,187	5,816	4,801	6,736	4,811	6,220	7,177	314,460	305,478
6-10am	11,492	14,724	1,597	1,002	1,178	814	1,905	985	1,134	1,400	79,710	64,242
10am-1pm	9,185	9,763	916	811	800	703	951	753	938	1,078	44,949	42,505
1-3pm	6,373	5,901	669	614	635	545	773	545	656	813	31,183	32,651
3-7pm	16,217	13,552	1,488	1,535	1,720	1,492	1,742	1,514	1,689	1,924	79,358	84,787
6am-7pm	43,267	43,940	4,670	3,962	4,333	3,554	5,371	3,797	4,417	5,215	235,200	224,185

* To Bronx

QUEENS - NASSAU SCREENLINE

SUMMARY

2002 Daily Traffic

- A total of 944,000 motor vehicles crossed the fifteen Queens-Nassau screenline monitoring locations on typical 2002 weekday, 0.3% fewer than the 946,800 daily vehicles recorded in 2001.
- The three limited access highways that cross the screenline accommodated more than half (56.3%) of the recorded vehicles (531,800 per day).
- As has been the case continuously since the first screenline traffic survey in 1963, the Long Island Expressway (including service roads) is the highest volume Queens-Nassau facility, with a total two-way volume of 190,600 daily vehicles, 20.2% of the total daily traffic on the monitored thoroughfares. The Grand Central Parkway (including service road) is second with 178,900 daily vehicles (18.9% of the total), followed by 162,300 on the Laurelton Parkway (17.2%).
- Rockaway Boulevard and Sunrise Highway are the busiest surface arterials, with average daily volumes of 70,000 and 62,800 vehicles, respectively.
- Other high volume principal arterials are Northern Boulevard and Hempstead Avenue, serving 44,200 and 43,400 daily vehicles, respectively.
- Over 31,000 vehicles were recorded entering Queens from Nassau during the 7-8 am morning peak hour. The Long Island Expressway (including service road) was the route for 6,100 of those inbound peak hour vehicles, with the Grand Central Parkway and its service road accommodating an additional 5,800, and the Laurelton Parkway serving another 5,100.
- During the 6-10 am inbound rush period, 114,500 Queens-bound vehicles were recorded. The Long Island Expressway and its service road carried 22,700 of those vehicles. Another 22,600 were on the Grand Central Parkway and its service road, and 20,200 were on the Laurelton Parkway.
- Almost 33,000 vehicles were recorded departing Queens for Nassau during the 3-4 pm evening peak hour. The Long Island Expressway and its service road accommodated 5,800 of those peak hour outbound vehicles. Another 5,700 used the Grand Central Parkway and its service road, with the Laurelton Parkway serving an additional 5,600.
- During the 3-7 pm evening rush period, 128,800 vehicles were recorded leaving Queens. The Long Island Expressway (including service road) accommodated 22,800 of those vehicles. The Laurelton Parkway also served 22,800. Another 21,400 used the Grand Central Parkway (and service road).
- 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.

Recent Trends

- Traffic growth between Queens and Nassau has been moderate since 1986. Monitored daily volume rose 11.9% to 944,000 in 2002 from 843,500 in 1986. This represents an average annual growth rate of 0.7%.
- The largest volume increase since 1986 occurred on the Grand Central Parkway and its service road (growth of 34,900 daily vehicles, or 1.4% annually, to 178,900 from 144,000). This was followed by the Laurelton Parkway (growth of 13,900 daily vehicles, or 0.6% annually, to 162,300 from 148,400), and Rockaway Boulevard (growth of 13,200 daily vehicles, or 1.3% annually, to 70,000 from 56,700).
- The largest percentage increases occurred on Seagirt Boulevard (up 64.6%, or 3.2% annually, to 20,400 daily vehicles from 12,400), the Grand Central Parkway and its service road (up 24.2%, or 1.4% annually, to 178,900 from 144,000), and Rockaway Boulevard (up 23.3%, or 1.3% annually, to 70,000 from 56,700).

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 increase occurred on Laurelton Parkway, where daily traffic rose 23.2% to 121,700 from 98,800. Traffic on Northern Boulevard 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).
- During the 39 years from 1963 to 2002, daily traffic on the thirteen Queens-Nassau facilities monitored throughout the period increased 66.4% to 909,200 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 362,700 additional daily vehicles on the thirteen continuously-monitored facilities, 250,900 (69.2% of the total increase) are on the three limited access routes. The Grand Central Parkway alone absorbed over one-third the total increase, its daily volume more than tripling to 178,900 in 2002 from 51,700 in 1963. On the Laurelton Parkway, volume nearly

doubled (to 162,300 from 85,400). Daily traffic on the Long Island Expressway rose 32.6% (to 190,600 from 143,800).

- Surface arterials undergoing the most significant volume changes since 1963 are Rockaway Boulevard, where volume rose 91.9%, to 70,000 daily vehicles from 36,500, Northern Boulevard (up 51.7% to 44,200 from 29,100), Linden Boulevard (up 94.1% to 27,800 from 14,300), Hempstead Avenue (up 22.6% to 43,400 from 35,400), and Jamaica Avenue (up 97.3% to 30,200 from 15,300).

**Queens-Nassau Screenline
Historical Comparisons
Average Daily Traffic Volumes**

To Queens

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Beach Channel Dr	10,610	11,954	12,411	12,510	11,817	11,609	11,980	11,830	12,317	12,220	12,794	13,845	13,128	13,403
Central Ave	N/A	N/A	N/A	7,396	8,367	7,848	8,189	8,421	8,181	8,780	8,095	8,647	8,014	9,231
Grand Central Pky *	25,280	47,495	61,614	71,775	85,261	82,431	79,189	76,571	77,853	78,916	82,978	87,617	91,225	89,054
Hempstead Ave	18,720	19,167	22,230	19,671	21,008	21,512	21,103	21,294	21,568	21,561	27,530	24,487	22,474	19,797
Hillside Ave	12,230	11,728	9,799	11,485	12,333	13,149	12,635	12,967	13,087	13,836	16,828	14,070	14,049	13,735
Jamaica Ave	7,370	11,473	13,984	14,081	14,090	13,775	13,339	13,950	13,149	13,822	14,769	14,921	14,504	15,324
Laurelton Pky	42,980	48,873	67,940	72,147	64,216	69,082	68,967	68,838	75,601	77,315	76,246	76,654	82,194	77,076
Linden Blvd	6,840	10,470	11,863	12,767	18,190	19,846	19,517	12,870	12,431	12,961	13,717	12,782	11,565	12,485
Long Island Exp *	70,340	85,294	83,656	90,553	101,193	101,972	100,335	101,602	100,402	100,310	96,711	97,412	90,205	97,818
Merrick Blvd	7,880	8,140	10,631	9,708	8,803	9,633	9,694	9,478	9,255	9,517	9,563	9,434	9,833	9,559
Northern Blvd	14,450	17,659	20,288	20,232	21,275	21,375	21,011	22,350	21,962	21,149	22,897	22,912	24,221	22,943
Rockaway Blvd	18,470	22,448	21,300	26,676	28,200	30,587	31,508	31,914	31,392	33,930	35,957	36,447	36,893	33,865
Seagirt Blvd	N/A	N/A	N/A	6,161	8,025	8,412	8,687	8,426	8,767	8,410	7,656	8,765	8,044	10,341
Sunrise Hwy	28,730	31,403	28,592	30,256	32,839	26,643	30,314	32,806	33,980	32,638	35,872	36,606	34,519	30,922
Union Tpke	8,460	8,836	9,171	11,587	12,429	12,458	12,274	12,598	12,222	12,007	12,245	8,262	12,495	13,260
Totals	272,360	334,940	373,479	417,005	448,046	450,332	448,742	445,915	452,167	457,372	473,858	472,861	473,363	468,813

To Nassau

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Beach Channel Dr	9,050	11,472	14,759	13,165	11,107	11,198	11,923	12,037	12,642	12,022	11,929	11,740	11,532	12,207
Central Ave	N/A	N/A	N/A	7,124	5,424	4,959	5,022	5,452	4,905	5,215	4,711	5,119	4,910	5,175
Grand Central Pky *	26,440	57,341	48,424	72,191	89,073	80,438	79,481	82,086	79,934	84,576	85,888	85,579	89,640	89,813
Hempstead Ave	16,680	16,293	13,555	18,035	19,155	21,008	20,722	19,453	20,328	20,815	22,359	22,400	22,176	23,621
Hillside Ave	11,270	10,297	10,625	11,419	13,089	14,398	13,247	12,860	13,324	13,077	15,482	13,901	13,526	13,593
Jamaica Ave	7,930	11,326	13,345	13,377	13,293	12,744	12,971	13,170	13,229	13,391	13,495	13,821	13,702	14,869
Laurelton Pky	42,460	49,924	53,734	76,261	73,044	76,773	75,841	74,897	79,808	82,005	84,544	82,489	89,251	85,216
Linden Blvd	7,490	8,260	7,697	10,283	10,718	10,660	11,626	15,038	15,443	15,660	15,797	15,679	15,136	15,327
Long Island Exp *	73,410	86,858	83,902	98,443	96,937	97,860	98,271	99,342	101,200	100,938	99,919	93,967	92,593	92,794
Merrick Blvd	7,760	8,080	7,296	9,206	9,339	9,866	10,205	9,871	9,933	9,852	9,595	9,482	9,568	9,920
Northern Blvd	14,680	15,585	21,745	20,741	20,477	21,524	20,619	19,876	19,987	19,854	20,747	22,049	21,584	21,243
Rockaway Blvd	17,990	21,473	25,214	30,059	32,317	33,958	35,009	34,237	32,226	32,193	34,598	37,683	35,134	36,098
Seagirt Blvd	N/A	N/A	N/A	6,230	8,124	7,899	8,093	8,261	7,727	8,112	8,452	8,806	7,895	10,051
Sunrise Hwy	30,740	31,301	28,805	29,145	32,406	32,821	30,458	33,147	34,178	34,158	34,796	34,389	34,099	31,920
Union Tpke	8,290	7,552	10,566	10,854	9,769	10,737	10,513	10,502	10,100	10,163	10,873	10,182	12,618	13,346
Totals	274,190	335,762	339,667	426,533	444,272	446,843	444,001	450,229	454,964	462,031	473,185	467,286	473,364	475,193

* Includes service roads

**Queens-Nassau Screenline
Historical Comparisons
Average Daily Traffic Volumes (continued)**

Both Directions

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Beach Channel Dr	19,660	23,426	27,170	25,675	22,924	22,807	23,903	23,867	24,959	24,242	24,723	25,585	24,660	25,610
Central Ave	N/A	N/A	N/A	14,520	13,791	12,807	13,211	13,873	13,086	13,995	12,806	13,766	12,924	14,406
Grand Central Pky *	51,720	104,836	110,038	143,966	174,334	162,869	158,670	158,657	157,787	163,492	168,866	173,196	180,865	178,867
Hempstead Ave	35,400	35,460	35,785	37,706	40,163	42,520	41,825	40,747	41,896	42,376	49,889	46,887	44,650	43,418
Hillside Ave	23,500	22,025	20,424	22,904	25,422	27,547	25,882	25,827	26,411	26,913	32,310	27,971	27,575	27,328
Jamaica Ave	15,300	22,799	27,329	27,458	27,383	26,519	26,310	27,120	26,378	27,213	28,264	28,742	28,206	30,193
Laurelton Pky	85,440	98,797	121,674	148,408	137,260	145,855	144,808	143,735	155,409	159,320	160,790	159,143	171,445	162,292
Linden Blvd	14,330	18,730	19,560	23,050	28,908	30,506	31,143	27,908	27,874	28,621	29,514	28,461	26,701	27,812
Long Island Exp *	143,750	172,152	167,558	188,996	198,130	199,832	198,606	200,944	201,602	201,248	196,630	191,379	182,798	190,612
Merrick Blvd	15,640	16,220	17,927	18,914	18,142	19,499	19,899	19,349	19,188	19,369	19,158	18,916	19,401	19,479
Northern Blvd	29,130	33,244	42,033	40,973	41,752	42,899	41,630	42,226	41,949	41,003	43,644	44,961	45,805	44,186
Rockaway Blvd	36,460	43,921	46,514	56,735	60,517	64,545	66,517	66,151	63,618	66,123	70,555	74,130	72,027	69,963
Seagirt Blvd	N/A	N/A	N/A	12,391	16,149	16,311	16,780	16,687	16,494	16,522	16,108	17,571	15,939	20,392
Sunrise Hwy	59,470	62,704	57,397	59,401	65,245	59,464	60,772	65,953	68,158	66,796	70,668	70,995	68,618	62,842
Union Tpke	16,750	16,388	19,737	22,441	22,198	23,195	22,787	23,100	22,322	22,170	23,118	18,444	25,113	26,606
Totals	546,550	670,702	713,146	843,538	892,318	897,175	892,743	896,144	907,131	919,403	947,043	940,147	946,727	944,006

2002 Screenline Volumes Queens - Nassau

	<i>Beach Channel Drive</i>		<i>Central Ave</i>		<i>Grand Central Parkway</i>				<i>Hempstead Ave</i>		<i>Hillside Ave</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>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>
Mid-1am	258	125	125	47	747	1,155	15	12	302	412	108	107
1-2am	131	90	55	28	355	604	9	5	169	216	56	72
2-3am	78	66	32	15	242	379	4	4	127	149	36	34
3-4am	56	62	32	19	290	307	4	3	132	106	32	36
4-5am	68	121	34	23	887	419	4	10	185	150	58	35
5-6am	170	274	93	83	3,421	1,308	13	22	450	340	196	99
6-7am	525	599	308	222	6,092	4,024	53	151	1,132	744	661	300
7-8am	826	863	540	337	5,664	5,970	141	552	1,488	1,277	1,036	809
8-9am	748	735	623	311	5,085	5,992	165	638	1,273	1,590	858	1,150
9-10am	612	629	534	286	5,197	5,095	206	448	1,007	1,127	666	850
10-11am	540	579	417	240	4,469	4,035	220	330	988	1,091	643	661
11-Noon	563	649	420	263	3,915	4,160	271	301	931	1,038	688	650
Noon-1	627	666	438	329	3,982	4,424	303	339	951	1,087	722	744
1-2pm	677	651	504	321	4,065	4,893	312	350	973	1,144	776	737
2-3pm	742	766	565	357	4,730	5,716	330	361	971	1,414	774	787
3-4pm	776	903	567	382	5,144	5,071	393	663	1,047	1,632	814	1,052
4-5pm	909	814	625	336	5,416	4,551	484	725	1,153	1,665	955	1,174
5-6pm	1,006	764	691	351	5,306	4,059	600	737	1,194	1,784	1,223	1,149
6-7pm	942	685	611	313	5,040	4,918	412	663	1,190	1,694	964	1,032
7-8pm	862	606	534	275	3,870	4,912	254	263	1,080	1,438	765	761
8-9pm	734	503	496	192	3,220	3,634	192	102	947	1,107	634	542
9-10pm	669	415	409	158	3,079	2,770	125	60	867	937	506	380
10-11pm	494	357	345	166	2,582	2,563	80	50	721	828	353	261
11-Mid	390	285	233	121	1,626	2,042	40	23	519	651	211	171
24 hr Total	13,403	12,207	9,231	5,175	84,424	83,001	4,630	6,812	19,797	23,621	13,735	13,593
6-10am	2,711	2,826	2,005	1,156	22,038	21,081	565	1,789	4,900	4,738	3,221	3,109
10am-1pm	1,730	1,894	1,275	832	12,366	12,619	794	970	2,870	3,216	2,053	2,055
1-3pm	1,419	1,417	1,069	678	8,795	10,609	642	711	1,944	2,558	1,550	1,524
3-7pm	3,633	3,166	2,494	1,382	20,906	18,599	1,889	2,788	4,584	6,775	3,956	4,407
6am-7pm	9,493	9,303	6,843	4,048	64,105	62,908	3,890	6,258	14,298	17,287	10,780	11,095

* To Queens

2002 Screenline Volumes Queens - Nassau (cont'd)

	Jamaica Ave		Laurelton Parkway		Linden Blvd		Long Island Expressway				Merrick Blvd	
	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>
Mid-1am	140	129	976	1,796	195	234	1,381	1,790	10	49	78	97
1-2am	62	63	557	965	101	116	951	1,213	5	37	36	49
2-3am	45	48	439	626	74	73	805	992	14	29	28	30
3-4am	55	48	582	441	64	70	1,059	985	8	4	28	22
4-5am	100	56	1,320	562	106	84	1,713	1,295	5	7	52	36
5-6am	271	150	4,152	1,347	226	251	4,075	2,110	20	37	156	90
6-7am	797	488	5,894	3,441	566	578	5,602	3,803	706	193	512	233
7-8am	1,038	957	5,125	4,769	895	926	4,926	4,872	1,129	463	719	438
8-9am	1,009	1,269	4,634	4,638	851	1,054	4,595	5,096	641	525	678	644
9-10am	779	917	4,574	3,997	660	784	4,857	4,393	267	454	502	566
10-11am	731	800	3,639	3,408	546	669	4,173	4,260	618	347	506	473
11-Noon	637	811	3,316	3,406	575	695	3,686	4,024	850	372	523	528
Noon-1	856	858	3,421	3,780	566	712	3,927	3,892	795	356	519	666
1-2pm	842	845	3,583	4,318	563	761	4,011	3,947	575	379	574	606
2-3pm	918	977	4,181	5,303	650	1,010	4,200	4,343	646	431	584	664
3-4pm	955	1,124	4,405	5,648	709	1,102	4,739	4,782	411	1,015	588	669
4-5pm	1,154	1,149	4,446	5,583	754	1,014	5,118	4,336	536	1,464	612	778
5-6pm	1,383	1,132	4,199	5,705	869	1,074	4,945	3,993	1,299	1,479	635	806
6-7pm	1,075	926	3,847	5,890	823	1,021	4,825	4,501	1,099	1,218	595	781
7-8pm	740	733	3,385	5,278	692	837	4,761	4,757	205	470	482	596
8-9pm	629	519	3,069	4,229	621	732	3,753	3,997	149	127	384	429
9-10pm	526	377	2,896	3,817	573	596	3,706	3,641	126	103	350	317
10-11pm	363	296	2,624	3,454	473	547	3,500	3,313	44	102	244	248
11-Mid	219	197	1,812	2,815	333	387	2,316	2,729	36	69	174	154
24 hr Total	15,324	14,869	77,076	85,216	12,485	15,327	87,624	83,064	10,194	9,730	9,559	9,920
6-10am	3,623	3,631	20,227	16,845	2,972	3,342	19,980	18,164	2,743	1,635	2,411	1,881
10am-1pm	2,224	2,469	10,376	10,594	1,687	2,076	11,786	12,176	2,263	1,075	1,548	1,667
1-3pm	1,760	1,822	7,764	9,621	1,213	1,771	8,211	8,290	1,221	810	1,158	1,270
3-7pm	4,567	4,331	16,897	22,826	3,155	4,211	19,627	17,612	3,345	5,176	2,430	3,034
6am-7pm	12,174	12,253	55,264	59,886	9,027	11,400	59,604	56,242	9,572	8,696	7,547	7,852

* To Queens

2002 Screenline Volumes Queens - Nassau (cont'd)

	Northern Blvd		Rockaway Blvd		Seagirt Blvd		Sunrise Hwy		Union Tpke		Totals	
	<i>* W/B</i>	<i>E/B</i>	<i>* N/B</i>	<i>S/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	<i>* W/B</i>	<i>E/B</i>	To Queens	To Nassau
Mid-1am	148	139	442	703	151	79	318	256	57	45	5,451	7,175
1-2am	71	76	248	380	56	38	157	140	29	24	3,048	4,116
2-3am	53	57	153	233	43	32	114	125	16	8	2,303	2,900
3-4am	37	42	152	181	29	28	132	111	14	14	2,706	2,479
4-5am	84	49	292	211	39	57	331	126	18	31	5,296	3,272
5-6am	322	160	772	394	107	152	954	321	73	59	15,471	7,197
6-7am	1,072	470	1,896	1,061	427	386	1,710	747	494	179	28,447	17,619
7-8am	1,598	1,365	2,371	1,745	999	630	2,004	1,298	923	728	31,422	27,999
8-9am	1,536	1,588	2,296	2,123	972	672	1,904	1,846	684	1,225	28,552	31,096
9-10am	1,473	1,528	1,918	1,928	569	471	1,591	1,764	621	841	26,033	26,078
10-11am	1,254	1,213	1,740	1,702	436	453	1,510	1,680	617	661	23,047	22,602
11-Noon	1,305	1,134	1,772	1,794	405	466	1,553	1,814	675	746	22,085	22,851
Noon-1	1,376	1,224	1,859	1,842	515	509	1,704	1,944	882	875	23,443	24,247
1-2pm	1,366	1,259	1,895	1,873	483	556	1,725	1,906	907	859	23,831	25,405
2-3pm	1,392	1,291	1,960	2,107	574	758	1,754	2,143	854	940	25,825	29,368
3-4pm	1,449	1,557	2,053	2,360	605	982	1,728	2,592	857	1,119	27,240	32,653
4-5pm	1,541	1,563	2,002	2,435	655	884	1,762	2,625	1,122	1,148	29,244	32,244
5-6pm	1,466	1,576	2,104	2,555	678	829	1,899	2,605	1,341	1,225	30,838	31,823
6-7pm	1,473	1,568	1,818	2,531	650	623	1,743	2,584	1,083	1,144	28,190	32,092
7-8pm	1,275	1,203	1,604	2,258	528	450	1,560	2,080	783	666	23,380	27,583
8-9pm	978	812	1,481	1,860	444	322	1,581	1,341	530	377	19,842	20,825
9-10pm	794	591	1,209	1,485	391	266	1,561	892	359	213	18,146	17,018
10-11pm	562	480	997	1,290	329	231	971	580	213	147	14,895	14,913
11-Mid	318	298	831	1,047	256	177	656	400	108	72	10,078	11,638
24 hr Total	22,943	21,243	33,865	36,098	10,341	10,051	30,922	31,920	13,260	13,346	468,813	475,193
6-10am	5,679	4,951	8,481	6,857	2,967	2,159	7,209	5,655	2,722	2,973	114,454	102,792
10am-1pm	3,935	3,571	5,371	5,338	1,356	1,428	4,767	5,438	2,174	2,282	68,575	69,700
1-3pm	2,758	2,550	3,855	3,980	1,057	1,314	3,479	4,049	1,761	1,799	49,656	54,773
3-7pm	5,929	6,264	7,977	9,881	2,588	3,318	7,132	10,406	4,403	4,636	115,512	128,812
6am-7pm	18,301	17,336	25,684	26,056	7,968	8,219	22,587	25,548	11,060	11,690	348,197	356,077

NEW YORK - NEW JERSEY SCREENLINE

SUMMARY

2001-2002 Impacts of 9/11

- Traffic volumes through the Holland and Lincoln Tunnels were heavily impacted by the events of 9/11/2001, and by restrictions on traffic entering Manhattan south of 63rd Street during the ensuing months.
- As a result, Holland Tunnel traffic was down 57% in fall 2001 from year earlier levels, and Lincoln Tunnel traffic was down 18%.
- Traffic using the George Washington Bridge did not undergo a major decline following the events of 9/11. Its fall 2001 volume was just 3% less than during fall 2000.
- 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 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).
- In mid-October, 2001, 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 November 29, 2001, the round-the-clock ban on single-occupant Manhattan-bound cars at the Holland Tunnel was reduced, to between 6-10am 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).
- As of April 6, 2002, the round-the-clock ban on Manhattan-bound trucks was discontinued at the Holland Tunnel. The 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 Lincoln Tunnel.

2002 Daily Traffic

- On a fall 2002 weekday, 712,000 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), 11.9% more than the depressed level of 636,200 recorded in fall of 2001 following the events of 9/11.

- Manhattan-New Jersey traffic increased 16.1% (to 532,800 daily vehicles in 2002 from 458,900 in 2001), while daily volume between Staten Island and New Jersey was up 1.1% (to 179,100 from 177,300).
- Three-fourths of daily New York City-New Jersey traffic (532,800 vehicles) used the three Manhattan-New Jersey crossings, with the remainder using the three Staten Island-New Jersey bridges.
- The George Washington Bridge, with a total two-way volume of 310,800 daily vehicles in 2002, continues to be the highest volume crossing by a wide margin. In fall 2002, this facility carried 44% of total New York City-New Jersey traffic and 58% 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 129,500 daily vehicles in 2002; the Holland Tunnel, 92,600.
- The Goethals Bridge was the busiest Staten Island-New Jersey facility, with an average daily volume of 81,400 vehicles, up 4.1% from 78,200 in 2001. Traffic on the Outerbridge Crossing rose 1.3%, to 76,400 daily vehicles in 2002 from 75,400 in 2001. The Bayonne Bridge accommodated 21,300 daily vehicles, a 9.7% decrease from the 23,600 daily vehicles recorded in 2001.
- Approximately 18,600 vehicles entered Manhattan from New Jersey during the 6-7 am morning peak hour. This was 25% more than the 15,000 peak hour entries in fall 2001. The George Washington Bridge was used by 11,600 (62%) of those Manhattan-bound peak hour vehicles.
- During the 6-10 am inbound rush period, Manhattan vehicle entries from New Jersey amounted to 69,900, 23% more than the 56,900 recorded in fall 2001. The George Washington Bridge was the route for 60% of these 6-10am entries (42,100 vehicles).
- Some 20,600 vehicles departed Manhattan for New Jersey during the 4-5 pm evening peak hour, with the George Washington Bridge accommodating 12,100 (59%) of those departing vehicles.
- During the 3-7 pm evening rush period, 79,300 vehicles crossed the Hudson River from Manhattan to New Jersey. The George Washington Bridge carried 58% of that departing traffic (45,666 vehicles).
- Total 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, as reflected at the Bayonne and Goethals Bridges. A separate pattern occurs at the Outerbridge Crossing where the heavier volumes are Staten Island-bound in the morning, and volumes are similar in both directions in the evening.
- Between 6-10 am, 23,800 vehicles crossed from Staten Island to New Jersey. During the same period, 19,800 vehicles entered Staten Island.
- Between 3-7 pm, traffic entering Staten Island from New Jersey amounted to 26,100 vehicles, while traffic bound for New Jersey totaled 22,000.

Recent Trends

- Daily traffic between Manhattan and New Jersey increased at a moderate pace during the past sixteen years, rising 9.7% to 532,800 in 2002 from 485,800 in 1986, an average annual growth rate of 0.6%. The fastest growth rate was at the Holland Tunnel, where daily traffic rose 19.7%, or 1.1% annually (to 92,600 in 2002 from 77,300 in 1986). The greatest volume increase occurred on the George Washington Bridge, where daily traffic rose to 310,800 in 2002 from 286,400 in 1986 (24,400 additional daily vehicles); this represents a rise of 8.5%, or 0.5% annually. Lincoln Tunnel traffic rose 6.1%, or 0.4% annually (to 129,500 in 2002 from 122,100 in 1986).
- Concurrently, daily volume on the three Staten Island-New Jersey bridges rose 29.4% to 179,100 in 2002 from 138,400 in 1986, equivalent to an average annual growth rate of 1.6%. Daily traffic on the Outerbridge Crossing increased 32.0%, or 1.8% annually (to 76,400 in 2002 from 57,900 in 1986). Traffic using the Goethals Bridge was up 25.9%, or 1.5% annually (to 81,400 in 2002 from 64,600 in 1986). Bayonne Bridge traffic was up 34.1%, or 1.8% annually (to 21,300 in 2002 from 15,900 in 1986).

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.
- During the 39 years from 1963 to 2002, daily traffic between Manhattan and New Jersey doubled, to 532,800 from 265,600. George Washington Bridge traffic climbed 143.8%, to 310,800 from 127,500. Volume increased 63.2% at the Lincoln Tunnel (to 129,500 from 79,300), and 57.4% at the Holland Tunnel (to 92,600 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.
- During the 39 years from 1963 to 2002, daily traffic between Staten Island and New Jersey soared 554%, to 179,100 from just 27,400. Outerbridge Crossing traffic skyrocketed more than tenfold, to 76,400 from 7,100. Volume on the Goethals Bridge jumped 552%, to 81,400 from 12,500. Bayonne Bridge traffic climbed 173%, to 21,300 from 7,800.

New York-New Jersey Screenline Historical Comparisons Average Daily Traffic Volumes

To New York City

	<u>1963</u>	<u>1973</u>	<u>1982</u>	<u>1986</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
G. Washington Bridge	N.A.	114,286	122,932	143,199	132,527	132,086	135,219	140,018	143,487	149,093	151,685	153,461	155,233	150,758
Holland Tunnel	N.A.	32,521	37,009	35,513	44,461	45,482	45,484	46,688	47,692	47,985	49,658	49,486	12,548	45,722
Lincoln Tunnel	N.A.	49,725	56,038	62,209	57,491	58,272	58,826	59,401	59,685	60,647	62,159	62,516	54,608	58,415
Manhattan Totals	N.A.	196,532	215,979	240,921	234,479	235,840	239,529	246,107	250,864	257,725	263,502	265,463	222,389	254,895
Bayonne Bridge	N.A.	6,229	6,811	7,953	8,147	8,283	8,472	8,384	9,268	9,628	9,709	10,309	14,098	11,684
Goethals Bridge	N.A.	28,425	24,155	32,317	32,325	33,416	33,726	34,024	34,884	35,547	35,900	37,919	39,315	40,419
Outerbridge Crossing	N.A.	5,863	22,370	28,948	35,129	35,567	34,975	36,295	37,297	38,034	40,944	39,477	41,000	38,407
Staten Island Totals	N.A.	40,517	53,336	69,218	75,601	77,266	77,173	78,703	81,449	83,209	86,553	87,705	94,413	90,510
Grand Totals	N.A.	237,049	269,315	310,139	310,080	313,106	316,702	324,810	332,313	340,934	350,055	353,168	316,802	345,405

To New Jersey

	<u>1963</u>	<u>1973</u>	<u>1982</u>	<u>1986</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
G. Washington Bridge	N.A.	118,400	126,362	143,199	128,205	127,777	130,810	135,451	138,806	148,095	165,955	164,157	154,077	160,013
Holland Tunnel	N.A.	32,210	36,988	41,787	48,224	49,155	50,826	50,110	53,294	52,887	53,362	51,651	30,829	46,835
Lincoln Tunnel	N.A.	50,061	54,415	59,844	62,161	61,027	60,933	61,526	61,824	63,805	66,533	67,194	51,649	71,096
Manhattan Totals	N.A.	200,671	217,765	244,830	238,590	237,959	242,569	247,087	253,924	264,787	285,850	283,002	236,555	277,944
Bayonne Bridge *	N.A.	6,229	6,811	7,953	5,832	5,929	6,064	6,005	6,635	7,218	7,894	8,184	9,533	9,643
Goethals Bridge *	N.A.	28,425	24,155	32,317	28,099	29,048	29,314	29,577	30,323	31,529	34,963	34,872	38,881	40,965
Outerbridge Crossing *	N.A.	5,863	22,370	28,948	31,243	31,632	31,106	32,280	33,171	34,830	37,480	33,907	34,424	38,022
Staten Island Totals'	N.A.	40,517	53,336	69,218	65,174	66,609	66,484	67,862	70,129	73,577	80,337	76,963	82,838	88,630
Grand Totals	N.A.	241,188	271,101	314,048	303,764	304,568	309,053	314,949	324,053	338,364	366,187	359,965	319,393	366,574

* Actual 24 hour westbound volumes from Staten Island to New Jersey not available for 1973, 1982, and 1986; estimated to be the same as eastbound volumes to Staten Island obtained from toll records.

**New York-New Jersey Screenline
Historical Comparisons
Average Daily Traffic Volumes (continued)**

Both Directions

	<u>1963</u>	<u>1973</u>	<u>1982</u>	<u>1986</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
G. Washington Bridge	127,452	232,686	249,294	286,398	260,732	259,863	266,029	275,469	282,293	297,188	317,640	317,618	309,310	310,771
Holland Tunnel	58,814	64,731	73,997	77,300	92,685	94,637	96,310	96,798	100,986	100,872	103,020	101,137	43,377	92,557
Lincoln Tunnel	79,337	99,786	110,453	122,053	119,652	119,299	119,759	120,927	121,509	124,452	128,692	129,710	106,257	129,511
Manhattan Totals	265,603	397,203	433,744	485,751	473,069	473,799	482,098	493,194	504,788	522,512	549,352	548,465	458,944	532,839
Bayonne Bridge*	7,806	12,458	13,622	15,906	13,979	14,212	14,536	14,389	15,903	16,846	17,603	18,493	23,631	21,327
Goethals Bridge*	12,478	56,850	48,310	64,634	60,424	62,464	63,040	63,601	65,207	67,076	70,863	72,791	78,196	81,384
Outerbridge Crossing*	7,114	11,726	44,740	57,896	66,372	67,199	66,081	68,575	70,468	72,864	78,424	73,384	75,424	76,429
Staten Island Totals	27,398	81,034	106,672	138,436	140,775	143,875	143,657	146,565	151,578	156,786	166,890	164,668	177,251	179,140
Grand Totals	293,001	478,237	540,416	624,187	613,844	617,674	625,755	639,759	656,366	679,298	716,242	713,133	636,195	711,979

* Actual 24 hour westbound volumes from Staten Island to New Jersey not available for 1973, 1982, and 1986; estimated to be the same as eastbound volumes to Staten Island obtained from toll records.

2002 Screenline Volumes New York - New Jersey

George Washington

	Bridge		Holland Tunnel		Lincoln Tunnel		Manhattan Totals	
	* E/B	W/B	* E/B	W/B	* E/B	W/B	To Manhattan	To N.J.
Mid-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-Noon	6,867	6,248	2,109	1,558	3,131	2,560	12,107	10,366
Noon-1	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-Mid	3,176	4,466	1,485	1,921	1,628	3,118	6,289	9,505
24 hr Total	150,758	160,013	45,722	46,835	58,415	71,096	254,895	277,944
6-10am	42,127	32,027	9,548	8,746	18,236	9,380	69,911	50,153
10am-1pm	21,162	19,157	6,751	4,712	9,501	7,801	37,414	31,670
1-3pm	13,268	16,527	4,089	4,110	5,336	7,450	22,693	28,087
3-7pm	36,011	45,666	10,837	12,337	9,546	21,297	56,394	79,300
6am-7pm	112,568	113,377	31,225	29,905	42,619	45,928	186,412	189,210

* To Manhattan

2002 Screenline Volumes New York - New Jersey (cont'd)

	Bayonne Bridge		Goethals Bridge		Outerbridge Crossing		Staten Island Totals		Grand Totals	
	* S/B	N/B	* E/B	W/B	* E/B	W/B	To Staten Is.	To N.J.	To N.Y.	To N.J.
Mid-1am	174	75	781	446	292	445	1,247	966	4,833	7,199
1-2am	103	53	501	281	192	281	796	615	3,114	4,399
2-3am	84	50	421	246	173	184	678	480	2,590	3,151
3-4am	78	58	417	280	218	217	713	555	2,791	2,961
4-5am	109	72	647	385	426	249	1,182	706	4,506	3,996
5-6am	233	258	1,235	858	1,785	510	3,253	1,626	13,417	7,585
6-7am	435	584	2,015	2,007	2,899	1,259	5,349	3,850	23,997	14,691
7-8am	511	1,129	1,853	3,173	2,698	2,440	5,062	6,742	23,692	20,689
8-9am	533	1,189	1,909	3,300	2,412	2,818	4,854	7,307	21,616	21,188
9-10am	470	745	1,890	2,887	2,170	2,317	4,530	5,949	20,401	17,433
10-11am	409	521	1,789	2,525	1,814	2,226	4,012	5,272	18,215	15,618
11-Noon	403	444	1,695	2,456	1,683	2,108	3,781	5,008	15,888	15,374
Noon-1	441	456	1,780	2,279	1,739	2,022	3,960	4,757	15,064	15,715
1-2pm	466	453	1,918	2,211	1,855	1,927	4,239	4,591	15,139	17,158
2-3pm	645	474	2,180	2,340	2,034	2,188	4,859	5,002	16,652	20,522
3-4pm	892	515	2,492	2,502	2,215	2,706	5,599	5,723	18,750	24,421
4-5pm	1,141	550	2,824	2,504	2,564	2,792	6,529	5,846	20,713	26,425
5-6pm	1,460	491	3,161	2,303	2,926	2,750	7,547	5,544	22,128	25,940
6-7pm	1,155	417	2,841	2,115	2,415	2,383	6,411	4,915	20,889	24,542
7-8pm	677	315	2,233	1,775	1,906	1,967	4,816	4,057	17,487	21,023
8-9pm	393	266	1,694	1,412	1,524	1,473	3,611	3,151	13,243	17,325
9-10pm	336	220	1,564	1,129	1,188	1,215	3,088	2,564	11,690	14,940
10-11pm	289	185	1,431	857	754	883	2,474	1,925	10,381	13,295
11-Mid	247	123	1,148	694	525	662	1,920	1,479	8,209	10,984
24 hr Total	11,684	9,643	40,419	40,965	38,407	38,022	90,510	88,630	345,405	366,574
6-10am	1,949	3,647	7,667	11,367	10,179	8,834	19,795	23,848	89,706	74,001
10am-1pm	1,253	1,421	5,264	7,260	5,236	6,356	11,753	15,037	49,167	46,707
1-3pm	1,111	927	4,098	4,551	3,889	4,115	9,098	9,593	31,791	37,680
3-7pm	4,648	1,973	11,318	9,424	10,120	10,631	26,086	22,028	82,480	101,328
6am-7pm	8,961	7,968	28,347	32,602	29,424	29,936	66,732	70,506	253,144	259,716

* To Staten Island

BROOKLYN - QUEENS SCREENLINE

SUMMARY

2002 Daily Traffic

- On a typical 2002 weekday, 591,500 vehicles crossed the fifteen monitored Brooklyn-Queens screenline locations, 3.4% fewer than the 2001 count of 612,100. 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 (67.5%) of the vehicles (399,300 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 44.3% (262,100 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 184,400 vehicles, 31.2% of all traffic on the monitored thoroughfares and 70.3% of Newtown Creek crossings. Shore Parkway was second with 140,200 vehicles per day, 23.7% of the total recorded screenline traffic.
- Shore Parkway, Jackie Robinson Parkway, Linden Boulevard, Pulaski Bridge, Atlantic Avenue, and Greenpoint Avenue Bridge were the busiest of the principal arterials surveyed, with average daily volumes of 140,200, 74,700, 53,100, 38,300, 28,900, and 26,300 vehicles, respectively.
- A total of 20,000 vehicles were recorded entering Brooklyn from Queens during the 7-8 am morning peak hour. The Kosciuszko Bridge and Shore Parkway accommodated 5,500 and 4,500 of those vehicles, respectively.
- Morning traffic to Queens also peaked between 7-8 am, at 17,600 vehicles, including 5,300 on the Kosciuszko Bridge and 4,400 on Shore Parkway.
- During the 6-10 am rush period, 72,400 vehicles were recorded entering Brooklyn, with the Kosciuszko Bridge and Shore Parkway carrying 21,600 and 16,500, respectively. Simultaneously, 64,900 vehicles entered Queens, including 19,700 on the Kosciuszko Bridge and 16,400 on Shore Parkway.
- Evening traffic entering Queens from Brooklyn peaked between 4-5 pm, when 19,700 vehicles were recorded. The Kosciuszko Bridge was the route of 5,400 of those vehicles, while another 4,400 used Shore Parkway.
- Evening traffic entering Brooklyn from Queens also peaked between 4-5 pm, at 18,100 vehicles. The Kosciuszko Bridge was used by 5,100 of those vehicles, while another 4,100 were on Shore Parkway.
- During the 3-7 pm evening rush period, 75,700 vehicles were recorded entering Queens, while 69,300 were counted in the opposite direction. The Kosciuszko Bridge carried 21,000 to Queens and 19,700 to Brooklyn while Shore Parkway carried 16,900 to Queens and 16,300 to Brooklyn.

Recent Trends

- As previously indicated, the four bridges over Newtown Creek were the only Brooklyn-Queens screenline locations monitored prior to 1993. Daily traffic on these bridges rose 16.6% to 262,100 in 2002 from 224,800 in 1986. This represents an average annual growth rate of 1.0% during this sixteen year period.
- During the past sixteen years, volume growth crossing Newtown Creek has been concentrated at the Kosciuszko and Greenpoint Avenue Bridges. Daily traffic on the Kosciuszko Bridge rose by 16,100 vehicles, to 184,400 in 2002 from 168,300 in 1986, an increase of 9.5%, or 0.6% annually. Volume on the Greenpoint Avenue Bridge rose 83.5%, or 3.9% annually, to 26,300 daily vehicles in 2002 from 14,300 in 1986. Volume on the Grand Street Bridge rose 14.7%, or 0.9% annually, to 13,100 daily vehicles from 11,400. Daily volume on the Pulaski Bridge rose 24.7%, or 1.4% annually, to 38,300 from 30,800).

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).
- During the 39 years from 1963 to 2002, daily traffic crossing Newtown Creek increased 63.4%, to 262,100 from 160,400. Volumes increased on all four facilities: Kosciuszko Bridge up 80.4% to 184,400 from 102,200; Grand Street Bridge up 8.9% to 13,100 from 12,000; Greenpoint Avenue Bridge up 49.2% to 26,300 from 17,600; Pulaski Bridge up 34.3% to 38,300 from 28,600.

Brooklyn-Queens Screenline Historical Comparisons Average Daily Traffic Volumes

To Brooklyn

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Grand Street Bridge	N/A	N/A	5,216	6,414	7,018	7,212	7,600	6,916	7,078	7,831	7,862	7,747	7,729	7,447
Greenpoint Ave Bridge	N/A	11,336	8,048	7,276	13,304	13,526	13,737	13,368	12,660	12,863	12,351	12,741	12,993	12,375
Kosciuszko Bridge	N/A	43,118	63,426	81,363	78,371	81,000	81,356	79,729	89,222	92,765	97,690	101,852	97,242	90,607
Pulaski Bridge	N/A	13,617	9,906	15,447	13,003	13,182	14,436	14,926	15,737	16,076	15,724	17,993	19,292	18,667
Newtown Creek Totals	N/A	N/A	86,596	110,500	111,696	114,920	117,129	114,939	124,697	129,535	133,627	140,333	137,256	129,096
Atlantic Ave	N/A	N/A	N/A	N/A	13,940	13,394	14,016	12,767	13,951	14,231	15,071	14,850	14,182	14,687
Cooper St	N/A	N/A	N/A	N/A	4,558	5,010	4,929	4,841	5,220	5,460	5,611	5,942	5,756	5,741
Cornelia St	N/A	N/A	N/A	N/A	<i>One-Way to Queens</i>									
Decatur St	N/A	N/A	N/A	N/A	<i>One-Way to Queens</i>									
DeKalb Ave	N/A	N/A	N/A	N/A	3,163	3,010	3,166	2,879	3,234	2,283	2,515	2,746	2,563	3,428
Greene Ave	N/A	N/A	N/A	N/A	<i>One-Way to Queens</i>									
Jackie Robinson Pky	N/A	N/A	N/A	N/A	24,460	27,163	27,323	29,318	30,169	31,808	33,198	34,441	35,760	37,175
Linden Blvd	N/A	N/A	N/A	N/A	22,724	23,305	23,248	24,324	26,472	24,758	27,165	26,299	27,130	27,698
Linden St	N/A	N/A	N/A	N/A	<i>One-Way to Queens</i>									
Shore Pky	N/A	N/A	N/A	N/A	65,341	71,124	71,538	72,633	73,618	74,085	73,484	76,366	75,478	69,587
Sutter Ave	N/A	N/A	N/A	N/A	3,178	3,130	3,158	3,010	3,695	3,638	3,670	3,776	3,821	3,851
Other Totals	N/A	N/A	N/A	N/A	137,364	146,136	147,378	149,772	156,359	156,263	160,714	164,420	164,690	162,167
Grand Totals	N/A	N/A	N/A	N/A	249,060	261,056	264,507	264,711	281,056	285,798	294,341	304,753	301,946	291,263

To Queens

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Grand Street Bridge	N/A	N/A	3,987	4,999	5,430	5,963	5,650	5,466	5,797	7,497	6,528	7,761	6,166	5,641
Greenpoint Ave Bridge	N/A	15,462	9,850	7,062	12,397	12,803	13,199	13,160	12,277	12,741	14,262	13,402	13,773	13,931
Kosciuszko Bridge	N/A	55,926	66,127	86,951	88,221	85,354	87,283	90,775	99,988	102,427	97,094	99,020	99,323	93,772
Pulaski Bridge	N/A	16,855	13,228	15,304	12,276	12,617	14,044	15,412	15,826	16,124	15,251	19,428	19,770	19,681
Newtown Creek Totals	N/A	N/A	93,192	114,316	118,324	116,737	120,176	124,813	133,888	138,789	133,135	139,611	139,032	133,025
Atlantic Ave	N/A	N/A	N/A	N/A	13,545	15,026	15,005	14,166	14,425	14,315	14,728	14,264	13,713	14,249
Cooper St	N/A	N/A	N/A	N/A	5,199	5,431	5,649	6,132	3,886	3,598	3,702	3,663	3,761	3,533
Cornelia St	N/A	N/A	N/A	N/A	1,552	1,425	1,529	1,443	1,522	1,454	1,787	1,905	1,936	2,032
Decatur St	N/A	N/A	N/A	N/A	1,921	2,163	2,112	2,306	2,220	2,242	2,099	2,113	2,082	2,237
DeKalb Ave	N/A	N/A	N/A	N/A	2,117	2,381	2,297	2,311	2,481	2,316	2,588	2,372	2,347	2,464
Greene Ave	N/A	N/A	N/A	N/A	1,762	1,711	1,810	1,787	1,872	2,223	1,922	1,947	1,962	2,078
Jackie Robinson Pky	N/A	N/A	N/A	N/A	27,872	31,458	33,751	31,483	31,615	32,020	33,420	36,932	36,920	37,545
Linden Blvd	N/A	N/A	N/A	N/A	21,717	23,408	25,704	26,562	27,160	23,924	26,630	25,901	25,160	25,439
Linden St	N/A	N/A	N/A	N/A	1,063	2,315	2,360	2,552	2,400	2,420	2,439	2,477	2,544	2,609
Shore Pky	N/A	N/A	N/A	N/A	70,365	69,679	68,627	72,369	73,776	73,754	73,969	73,588	76,440	70,576
Sutter Ave	N/A	N/A	N/A	N/A	4,297	3,846	3,827	3,729	3,750	3,871	4,022	4,096	4,291	4,498
Other Totals	N/A	N/A	N/A	N/A	151,410	158,843	162,671	164,840	165,107	162,137	167,306	169,258	171,156	167,260
Grand Totals	N/A	N/A	N/A	N/A	269,734	275,580	282,847	289,653	298,995	300,926	300,441	308,869	310,188	300,285

**Brooklyn-Queens Screenline
Historical Comparisons
Average Daily Traffic Volumes**

Both Directions

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Grand Street Bridge	12,020	11,723	9,203	11,413	12,448	13,175	13,250	12,382	12,875	15,328	14,390	15,508	13,895	13,088
Greenpoint Ave Bridge	17,630	26,798	17,898	14,338	25,701	26,329	26,936	26,528	24,937	25,604	26,613	26,143	26,766	26,306
Kosciuszko Bridge	102,190	99,044	129,553	168,314	166,592	166,354	168,639	170,504	189,210	195,192	194,784	200,872	196,565	184,379
Pulaski Bridge	28,560	30,472	23,134	30,751	25,279	25,799	28,480	30,338	31,563	32,200	30,975	37,421	39,062	38,348
Newtown Creek Totals	160,400	168,037	179,788	224,816	230,020	231,657	237,305	239,752	258,585	268,324	266,762	279,944	276,288	262,121
Atlantic Ave	N/A	N/A	N/A	N/A	27,485	28,420	29,021	26,933	28,376	28,546	29,799	29,114	27,895	28,936
Cooper St	N/A	N/A	N/A	N/A	9,757	10,441	10,578	10,973	9,106	9,058	9,313	9,605	9,517	9,274
Cornelia St	N/A	N/A	N/A	N/A	1,552	1,425	1,529	1,443	1,522	1,454	1,787	1,905	1,936	2,032
Decatur St	N/A	N/A	N/A	N/A	1,921	2,163	2,112	2,306	2,220	2,242	2,099	2,113	2,082	2,237
DeKalb Ave	N/A	N/A	N/A	N/A	5,280	5,391	5,463	5,190	5,715	4,599	5,103	5,118	4,910	5,892
Greene Ave	N/A	N/A	N/A	N/A	1,762	1,711	1,810	1,787	1,872	2,223	1,922	1,947	1,962	2,078
Jackie Robinson Pky	N/A	N/A	N/A	N/A	52,332	58,621	61,074	60,801	61,784	63,828	66,618	71,373	72,680	74,720
Linden Blvd	N/A	N/A	N/A	N/A	44,441	46,713	48,952	50,886	53,632	48,682	53,795	52,200	52,290	53,137
Linden St	N/A	N/A	N/A	N/A	1,063	2,315	2,360	2,552	2,400	2,420	2,439	2,477	2,544	2,609
Shore Pky	N/A	N/A	N/A	N/A	135,706	140,803	140,165	145,002	147,394	147,839	147,453	149,954	151,918	140,163
Sutter Ave	N/A	N/A	N/A	N/A	7,475	6,976	6,985	6,739	7,445	7,509	7,692	7,872	8,112	8,349
Other Totals	N/A	N/A	N/A	N/A	288,774	304,979	310,049	314,612	321,466	318,400	328,020	333,678	335,846	329,427
Grand Totals	N/A	N/A	N/A	N/A	518,794	536,636	547,354	554,364	580,051	586,724	594,782	613,622	612,134	591,548

2002 Screenline Volumes Brooklyn - Queens

	Grand Street Bridge		Greenpoint Ave Bridge		Kosciuszko Bridge		Pulaski Bridge		Newtown Creek Totals	
	W/B*	E/B	W/B*	E/B	W/B*	E/B	S/B*	N/B	To Brooklyn	To Queens
Mid-1am	88	50	152	155	1,591	2,379	385	304	2,216	2,888
1-2am	61	43	91	94	1,055	1,573	238	182	1,445	1,892
2-3am	57	42	75	87	871	1,144	173	159	1,176	1,432
3-4am	63	56	97	77	985	1,083	168	164	1,313	1,380
4-5am	99	60	127	146	1,566	1,578	200	249	1,992	2,033
5-6am	207	168	303	345	3,612	2,914	385	706	4,507	4,133
6-7am	415	322	735	741	5,549	4,711	677	1,429	7,376	7,203
7-8am	555	293	1,015	900	5,495	5,331	920	1,636	7,985	8,160
8-9am	579	293	977	898	5,344	5,189	989	1,549	7,889	7,929
9-10am	471	291	840	702	5,243	4,437	881	1,072	7,435	6,502
10-11am	468	262	621	679	4,714	4,341	897	1,030	6,700	6,312
11-Noon	507	320	650	766	4,576	4,030	884	1,056	6,617	6,172
Noon-1	538	356	633	857	4,379	4,491	985	1,061	6,535	6,765
1-2pm	574	386	621	937	4,564	4,705	1,019	1,147	6,778	7,175
2-3pm	476	402	680	879	4,672	5,008	1,126	1,178	6,954	7,467
3-4pm	436	379	763	1,008	5,070	5,289	1,451	1,179	7,720	7,855
4-5pm	477	451	888	1,017	5,086	5,386	1,684	1,151	8,135	8,005
5-6pm	401	487	814	1,050	4,901	5,184	1,586	1,065	7,702	7,786
6-7pm	263	355	638	768	4,690	5,180	1,102	852	6,693	7,155
7-8pm	191	226	557	592	4,245	5,047	790	705	5,783	6,570
8-9pm	145	127	369	449	3,640	4,609	642	488	4,796	5,673
9-10pm	119	97	329	308	3,328	3,787	538	442	4,314	4,634
10-11pm	145	85	220	261	2,941	3,435	483	465	3,789	4,246
11-Mid	112	90	180	215	2,490	2,941	464	412	3,246	3,658
24 hr Total	7,447	5,641	12,375	13,931	90,607	93,772	18,667	19,681	129,096	133,025
6-10am	2,020	1,199	3,567	3,241	21,631	19,668	3,467	5,686	30,685	29,794
10am-1pm	1,513	938	1,904	2,302	13,669	12,862	2,766	3,147	19,852	19,249
1-3pm	1,050	788	1,301	1,816	9,236	9,713	2,145	2,325	13,732	14,642
3-7pm	1,577	1,672	3,103	3,843	19,747	21,039	5,823	4,247	30,250	30,801
6am-7pm	6,160	4,597	9,875	11,202	64,283	63,282	14,201	15,405	94,519	94,486

* To Brooklyn

2002 Screenline Volumes Brooklyn - Queens (cont'd)

	Atlantic Ave		Cooper St		Cornelia St	Decatur St	DeKalb Ave		Greene Ave	Jackie Robinson Parkway	
	W/B*	E/B	S/B*	N/B	N/B	N/B	S/B*	N/B	N/B	W/B*	E/B
Mid-1am	196	228	55	40	31	32	34	28	28	652	638
1-2am	125	136	36	25	19	24	32	19	16	302	330
2-3am	85	104	27	24	11	16	27	15	14	179	222
3-4am	87	86	18	13	7	12	19	9	12	155	205
4-5am	120	92	27	20	10	11	25	18	9	271	327
5-6am	292	168	68	47	17	23	69	43	23	746	884
6-7am	622	334	164	148	51	61	179	102	61	2,221	2,169
7-8am	1,002	572	510	181	76	91	323	155	117	2,952	2,254
8-9am	910	659	570	187	131	132	316	180	106	2,979	2,032
9-10am	759	615	313	142	88	104	199	119	81	2,238	1,696
10-11am	665	642	268	144	89	100	152	109	83	1,633	1,428
11-Noon	719	713	258	144	107	99	156	113	124	1,507	1,492
Noon-1	801	754	280	165	117	125	160	114	94	1,438	1,672
1-2pm	785	794	308	184	122	125	138	125	107	1,467	1,846
2-3pm	800	818	341	206	120	132	136	149	99	1,890	2,296
3-4pm	874	1,014	363	321	148	169	170	180	122	2,230	2,569
4-5pm	929	1,223	422	302	152	180	223	176	139	2,451	2,692
5-6pm	972	1,355	385	283	157	177	223	191	176	2,532	2,711
6-7pm	943	1,186	319	269	150	160	219	167	177	2,323	2,348
7-8pm	845	850	287	193	121	142	205	137	173	1,875	2,106
8-9pm	699	626	239	173	113	103	144	111	124	1,478	1,679
9-10pm	563	522	192	122	84	89	117	85	87	1,346	1,449
10-11pm	510	446	180	113	67	85	86	77	60	1,255	1,391
11-Mid	384	312	111	87	44	45	76	42	46	1,055	1,109
24 hr Total	14,687	14,249	5,741	3,533	2,032	2,237	3,428	2,464	2,078	37,175	37,545
6-10am	3,293	2,180	1,557	658	346	388	1,017	556	365	10,390	8,151
10am-1pm	2,185	2,109	806	453	313	324	468	336	301	4,578	4,592
1-3pm	1,585	1,612	649	390	242	257	274	274	206	3,357	4,142
3-7pm	3,718	4,778	1,489	1,175	607	686	835	714	614	9,536	10,320
6am-7pm	10,781	10,679	4,501	2,676	1,508	1,655	2,594	1,880	1,486	27,861	27,205

* To Brooklyn

2002 Screenline Volumes Brooklyn - Queens (cont'd)

	<i>Linden Blvd</i>		<i>Linden St</i>	<i>Shore Parkway</i>		<i>Sutter Ave</i>		<i>Other Totals</i>		<i>Grand Totals</i>	
	<i>W/B*</i>	<i>E/B</i>	<i>N/B</i>	<i>W/B*</i>	<i>E/B</i>	<i>W/B*</i>	<i>E/B</i>	<i>To Brooklyn</i>	<i>To Queens</i>	<i>To Brooklyn</i>	<i>To Queens</i>
Mid-1am	470	538	40	1,503	1,542	62	68	2,972	3,213	5,188	6,101
1-2am	259	291	27	810	951	26	30	1,590	1,868	3,035	3,760
2-3am	191	247	17	476	516	14	31	999	1,217	2,175	2,649
3-4am	208	247	17	350	419	19	17	856	1,044	2,169	2,424
4-5am	333	309	16	526	597	35	30	1,337	1,439	3,329	3,472
5-6am	728	546	28	1,555	1,414	68	74	3,526	3,267	8,033	7,400
6-7am	1,718	1,002	61	3,611	3,411	211	171	8,726	7,571	16,102	14,774
7-8am	2,398	1,209	102	4,454	4,416	330	254	11,969	9,427	19,954	17,587
8-9am	2,405	1,306	134	4,341	4,513	312	269	11,833	9,649	19,722	17,578
9-10am	1,397	1,180	129	4,073	4,100	185	216	9,164	8,470	16,599	14,972
10-11am	1,374	1,169	121	3,481	3,551	136	181	7,709	7,617	14,409	13,929
11-Noon	1,262	1,218	154	3,311	3,376	167	186	7,380	7,726	13,997	13,898
Noon-1	1,296	1,339	157	3,304	3,396	152	229	7,431	8,162	13,966	14,927
1-2pm	1,311	1,393	161	3,257	3,572	169	246	7,435	8,675	14,213	15,850
2-3pm	1,434	1,541	161	3,506	3,925	206	317	8,313	9,764	15,267	17,231
3-4pm	1,543	1,786	192	3,848	4,116	273	331	9,301	10,948	17,021	18,803
4-5pm	1,580	1,874	178	4,086	4,384	254	404	9,945	11,704	18,080	19,709
5-6pm	1,608	1,795	203	4,258	4,384	276	394	10,254	11,826	17,956	19,612
6-7pm	1,406	1,558	177	4,077	3,970	239	300	9,526	10,462	16,219	17,617
7-8pm	1,280	1,283	173	3,730	3,735	201	214	8,423	9,127	14,206	15,697
8-9pm	1,046	1,160	117	3,340	3,650	161	181	7,107	8,037	11,903	13,710
9-10pm	836	881	112	3,024	2,639	139	141	6,217	6,211	10,531	10,845
10-11pm	856	850	80	2,385	2,174	122	118	5,394	5,461	9,183	9,707
11-Mid	759	717	52	2,281	1,825	94	96	4,760	4,375	8,006	8,033
24 hr Total	27,698	25,439	2,609	69,587	70,576	3,851	4,498	162,167	167,260	291,263	300,285
6-10am	7,918	4,697	426	16,479	16,440	1,038	910	41,692	35,117	72,377	64,911
10am-1pm	3,932	3,726	432	10,096	10,323	455	596	22,520	23,505	42,372	42,754
1-3pm	2,745	2,934	322	6,763	7,497	375	563	15,748	18,439	29,480	33,081
3-7pm	6,137	7,013	750	16,269	16,854	1,042	1,429	39,026	44,940	69,276	75,741
6am-7pm	20,732	18,370	1,930	49,607	51,114	2,910	3,498	118,986	122,001	213,505	216,487

* To Brooklyn