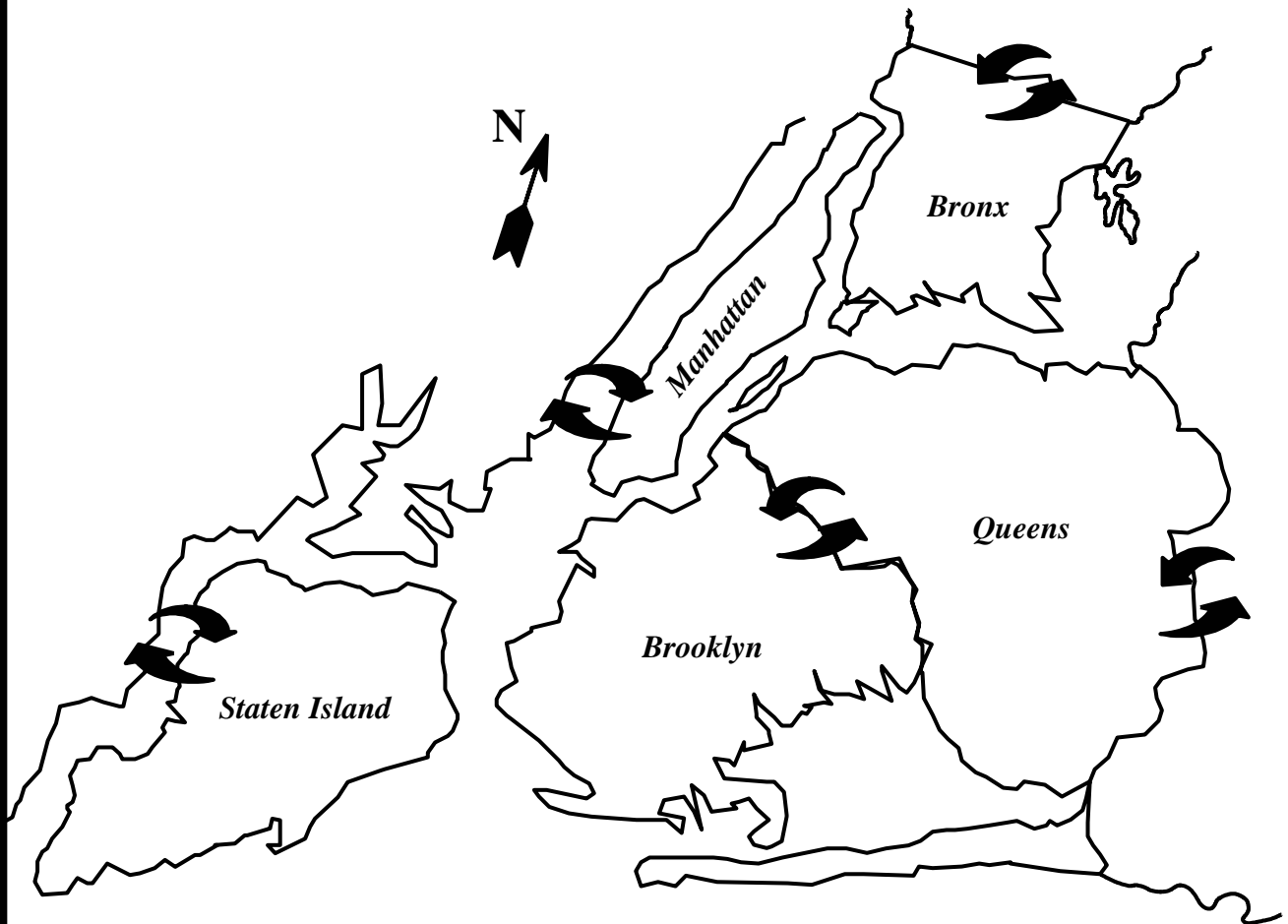


New York City Screenline Traffic Flow 2003



The City of New York
Michael R. Bloomberg, Mayor



New York City Department of Transportation
Iris Weinshall, Commissioner

A member of the New York Metropolitan Transportation Council

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New York City Screenline Traffic Flow 2003

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INTRODUCTION

The 2003 *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 Transportation Equity Act of the 21st Century (TEA-21). 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 2003 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 1993-2002. The statistical analysis presented in the report was performed by staff of NYCDOT during the 2003-2004 and 2004-2005 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

2003 Daily Traffic

- More than 2,310,000 daily motor vehicles crossed the 32 New York City border screenline monitoring locations in 2003, 1.5% more than the 2002 daily volume of 2,276,000.
- Since the first survey in 1963, the highest volumes have been at the Queens-Nassau border. In 2003, some 968,700 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 26.8% of the total (619,400), the three Manhattan-New Jersey river crossings 23.7% (547,400), and the three Staten Island-New Jersey bridges 7.6% (174,600). 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 77,700 vehicles were recorded entering the City limits. Between 6-10 am, a total of 280,700 vehicles were recorded entering the City from Nassau and Westchester Counties, and New Jersey.
- During the 4-5 pm evening peak hour, 78,800 vehicles were recorded leaving the City. Between 3-7 pm, 306,800 vehicles were recorded leaving 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 (1993-2003)

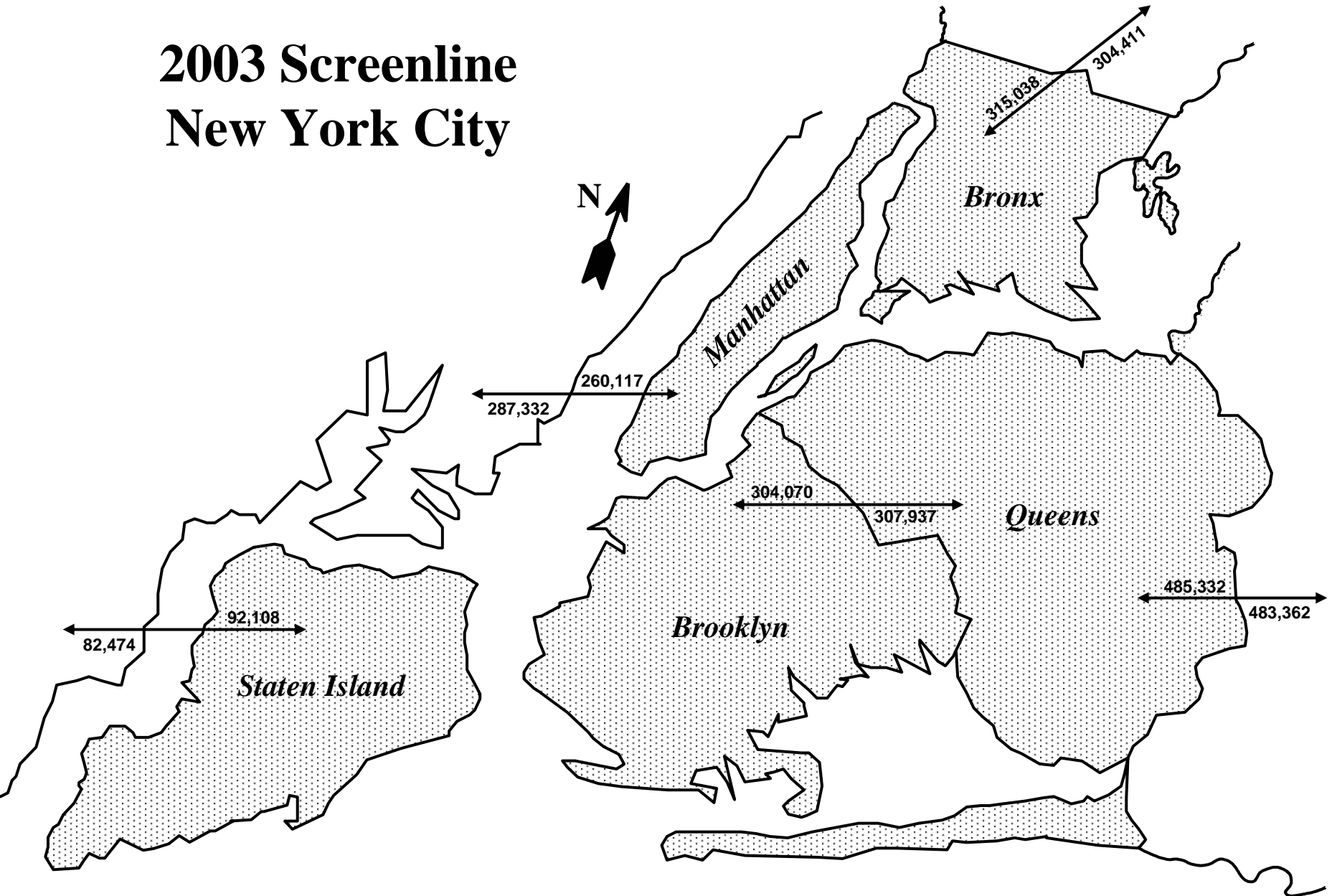
- Total monitored traffic volume at the City boundaries increased 14.8% during this ten-year period, to 2,310,200 in 2003 from 2,012,400 in 1993. This represents an average annual growth rate of 1.4%.
- The largest percentage increase occurred on the three Staten Island-New Jersey bridges, where traffic volume was 24.0% higher in 2003 than in 1993: 174,600 daily vehicles vs. 140,800, an average annual growth rate of 2.2%.
- The largest numerical increase occurred at the eleven Bronx-Westchester monitoring sites, where traffic rose by 113,200 daily vehicles (+22.4%, or 2.0% annually), to 619,400 in 2003 from 506,200 in 1993.
- Volume at the fifteen monitored Queens-Nassau locations rose 8.6%, to 968,700 daily vehicles in 2003 from 892,300 in 1993, an average annual growth rate of 0.8%.
- On the three Hudson River crossings between Manhattan and New Jersey, daily traffic increased 15.7%, to 547,400 in 2003 from 473,100 in 1993, an average annual growth rate of 1.5%.

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 1993, monitored traffic at the New York City boundaries increased modestly, rising by just 3.1% during that seven-year period, to 2,012,400 in 1993 from 1,951,000 in 1986. The largest volume and percentage increase was at the Queens-Nassau screenline, where daily volume was up 5.8%, to 892,300 in 1993 from 843,500 in 1986. During the same period, Bronx-Westchester traffic increased 4.7%, to 506,200 from 483,300. Staten Island-New Jersey daily volume rose 1.7%, to 140,800 from 138,400. Traffic between Manhattan and New Jersey decreased 2.6%, to 473,100 from 485,800.
- From 1963 to 2003, daily two-way traffic at the 29 City border locations monitored throughout the period more than doubled, to 2,262,400 in 2003 from 1,109,200 in 1963.
- Staten Island-New Jersey traffic expanded by 537%, to 174,600 daily vehicles in 2003 from 27,400 in 1963, largely as a result of the opening of the Verrazano-Narrows Bridge in 1964.
- Manhattan-New Jersey volume climbed 106%, to 547,400 in 2003 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 40-year period from 1963 to 2003, continuously monitored daily traffic increased 126% between The Bronx and Westchester (to 609,000 from 269,700), and 70% between Queens and Nassau (to 931,400 from 546,600).

2003 Screenline New York City



2002 vs. 2003
Screenline Traffic Volume Trends
Both Directions

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BRONX-WESTCHESTER	Highway Functional Classification	2002	2003	Percent Change
Boston Road	Principal Arterial	25,293	27,037	6.9 %
Broadway	Principal Arterial	15,994	16,470	3.0 %
Bronx River Parkway	Principal Arterial	94,978	90,969	- 4.2 %
Henry Hudson Parkway	Principal Arterial	98,002	98,734	0.7 %
Hutchinson River Parkway	Principal Arterial	93,936	89,548	- 4.7 %
Major Deegan Expressway	Interstate	109,477	113,113	3.3 %
Major Deegan Svce Roads	Principal Arterial	9,356	10,602	13.3 %
New England Thruway	Interstate	126,511	127,557	0.8 %
Riverdale Avenue	Principal Arterial	10,830	10,954	1.1 %
Van Cortlandt Park East	Minor Arterial	10,617	10,499	- 1.1 %
Webster Avenue	Local	11,547	11,434	- 1.0 %
White plains Road	Principal Arterial	13,397	12,532	- 6.5 %
Total Bronx-Westchester Screenline		619,938	619,449	- 0.1 %

QUEENS-NASSAU

Beach Channel Drive	Minor Arterial	25,610	26,328	2.8 %
Central Avenue	Minor Arterial	14,406	14,419	0.1 %
Grand Central Parkway	Principal Arterial	167,425	177,744	6.2 %
Grand Central Parkway Svce Road	Minor Arterial	11,442	9,474	-17.2 %
Hempstead Avenue	Principal Arterial	43,418	51,332	18.2 %
Hillside Avenue	Principal Arterial	27,328	25,004	- 8.5 %
Jamaica Avenue	Principal Arterial	30,193	29,765	- 1.4 %
Laurelton Parkway	Principal Arterial	162,292	159,012	- 2.0 %
Linden Boulevard	Principal Arterial	27,812	29,432	5.8 %
Long Island Expressway	Interstate	170,688	170,119	- 0.3 %
Long Island Exp Svce Roads	Principal Arterial	19,924	20,515	3.0 %
Merrick Boulevard	Minor Arterial	19,479	20,590	5.7 %
Northern Boulevard	Principal Arterial	44,186	45,665	3.3 %
Rockaway Boulevard	Principal Arterial	69,963	72,562	3.7 %
Seagirt Boulevard	Principal Arterial	20,392	22,897	12.3 %
Sunrise Highway	Principal Arterial	62,842	67,665	7.7 %
Union Turnpike	Principal Arterial	26,606	26,171	- 1.6 %
Total Queens-Nassau Screenline		944,006	968,694	2.6 %

2002 vs. 2003 Screenline Traffic Volume Trends Both Directions

Page 2 of 2

NEW YORK - NEW JERSEY	Highway Functional Classification	2002	2003	Percent Change
George Washington Bridge	Interstate	310,771	319,029	2.7 %
Holland Tunnel	Interstate	92,557	101,097	9.2 %
Lincoln Tunnel	Principal Arterial	129,511	127,323	- 1.7 %
Bayonne Bridge	Principal Arterial	21,327	20,208	- 5.2 %
Goethals Bridge	Interstate	81,384	75,724	- 7.0 %
Outerbridge Crossing	Principal Arterial	76,429	78,650	2.9 %
Total New York - New Jersey Screenline		711,979	722,031	1.4 %

BROOKLYN - QUEENS

Grand Street Bridge	Principal Arterial	13,088	14,139	8.0 %
Greenpoint Avenue Bridge	Principal Arterial	26,306	28,755	9.3 %
Kosciuszko Bridge	Interstate	184,379	194,497	5.5 %
Pulaski Bridge	Principal Arterial	38,348	38,346	- 0.0 %
Atlantic Avenue	Principal Arterial	28,936	28,486	- 1.6 %
Cooper Avenue	Minor Arterial	9,274	9,141	- 1.4 %
Cornelia Street	Local	2,032	1,908	- 6.1 %
Decatur Street	Collector	2,237	2,342	4.7 %
DeKalb Avenue	Minor Arterial	5,892	6,110	3.7 %
Greene Avenue	Minor Arterial	2,078	2,363	13.7 %
Jackie Robinson Parkway	Principal Arterial	74,720	73,706	- 1.4 %
Linden Boulevard	Principal Arterial	53,137	51,110	- 3.8 %
Linden Street	Collector	2,609	2,270	-13.0 %
Shore Parkway	Principal Arterial	140,163	150,040	7.0 %
Sutter Avenue	Minor Arterial	8,349	8,794	5.3 %
Total Brooklyn - Queens Screenline		591,548	612,007	3.5 %

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

Entering New York City

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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

Entering New York City

	2001	2002	2003
Bronx-Westchester	308,307	314,460	315,038
Queens-Nassau	473,363	468,813	485,332
N.J. - Manhattan	222,389	254,895	260,117
N.J. - Staten Island	94,413	90,510	92,108
Totals	1,098,472	1,128,678	1,152,595

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

Leaving New York City

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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

Leaving New York City

	2001	2002	2003
Bronx-Westchester	298,359	305,478	304,411
Queens-Nassau	473,364	475,193	483,362
N.J. - Manhattan	236,555	277,944	287,332
N.J. - Staten Island	82,838	88,630	82,474
Totals	1,091,116	1,147,245	1,157,579

* 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 City Screenline
Historical Comparisons
Average Daily Traffic Volumes (continued)**

Both Directions

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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

Both Directions

	2001	2002	2003
Bronx-Westchester	606,666	619,938	619,449
Queens-Nassau	946,727	944,006	968,694
N.J. - Manhattan	458,944	532,839	547,449
N.J. - Staten Island	177,251	179,140	174,582
Totals	2,189,588	2,275,923	2,310,174

* 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.

2003 Screenline Volumes New York City

	<i>Bronx-Westchester</i>		<i>Queens-Nassau</i>		<i>New York-New Jersey</i>				<i>NYC Totals</i>	
	<i>To Bronx</i>	<i>To W'chstr</i>	<i>To Qns.</i>	<i>To Nas.</i>	<i>Manhattan</i>	<i>Staten Island</i>		<i>To N.Y.C.</i>	<i>From N.Y.C.</i>	
					<i>To Manh.</i>	<i>To N.J.</i>	<i>To S.I.</i>	<i>To N.J.</i>		
Mid-1am	3,800	4,201	5,784	7,412	3,636	7,078	1,307	939	14,527	19,630
1-2am	2,233	2,741	3,117	4,071	2,374	4,476	882	574	8,606	11,862
2-3am	1,901	2,183	2,450	2,887	1,943	3,085	736	475	7,030	8,630
3-4am	1,889	2,333	2,861	2,599	2,108	2,737	763	520	7,621	8,189
4-5am	3,413	3,310	5,843	3,690	3,430	3,291	1,273	747	13,959	11,038
5-6am	8,237	6,718	16,339	6,927	10,336	5,993	3,436	1,786	38,348	21,424
6-7am	18,777	13,862	28,705	18,685	19,018	10,858	5,086	3,885	71,586	47,290
7-8am	23,963	19,002	30,730	28,522	18,421	14,203	4,613	6,226	77,727	67,953
8-9am	20,391	18,552	27,116	31,852	16,873	14,126	4,451	6,509	68,831	71,039
9-10am	16,688	14,616	25,157	27,872	16,302	13,812	4,434	5,058	62,581	61,358
10-11am	15,336	13,460	23,194	23,122	14,406	12,148	4,024	4,650	56,960	53,380
11-Noon	14,882	13,893	22,615	22,983	12,444	12,603	3,901	4,546	53,842	54,025
Noon-1	15,143	14,513	23,198	24,764	11,487	12,328	4,035	4,277	53,863	55,882
1-2pm	15,022	15,193	23,825	26,078	11,369	13,205	4,442	4,334	54,658	58,810
2-3pm	16,674	17,855	25,842	29,472	12,177	15,652	5,052	4,482	59,745	67,461
3-4pm	18,899	21,021	27,877	32,590	13,619	17,466	5,654	5,305	66,049	76,382
4-5pm	20,631	21,240	31,542	32,678	14,415	19,329	6,537	5,539	73,125	78,786
5-6pm	21,828	21,604	32,728	32,302	14,336	17,870	7,640	5,475	76,532	77,251
6-7pm	20,067	19,762	30,196	31,732	14,584	18,119	6,649	4,744	71,496	74,357
7-8pm	15,959	16,305	25,975	28,019	13,130	17,728	5,036	3,675	60,100	65,727
8-9pm	12,606	12,929	22,281	21,427	10,294	15,674	3,955	2,797	49,136	52,827
9-10pm	11,036	11,318	20,500	17,626	9,146	12,954	3,392	2,634	44,074	44,532
10-11pm	9,133	10,626	16,502	14,368	8,033	12,020	2,734	1,925	36,402	38,939
11-Mid	6,530	7,174	10,955	11,684	6,236	10,577	2,076	1,372	25,797	30,807
24 hr Total	315,038	304,411	485,332	483,362	260,117	287,332	92,108	82,474	1,152,595	1,157,579
6-10am	79,819	66,032	111,708	106,931	70,614	52,999	18,584	21,678	280,725	247,640
10am-1pm	45,361	41,866	69,007	70,869	38,337	37,079	11,960	13,473	164,665	163,287
1-3pm	31,696	33,048	49,667	55,550	23,546	28,857	9,494	8,816	114,403	126,271
3-7pm	81,425	83,627	122,343	129,302	56,954	72,784	26,480	21,063	287,202	306,776
6am-7pm	238,301	224,573	352,725	362,652	189,451	191,719	66,518	65,030	846,995	843,974

BRONX - WESTCHESTER SCREENLINE

SUMMARY

2003 Daily Traffic

- On a typical 2003 weekday, 619,400 vehicles crossed the eleven Bronx-Westchester screenline monitoring locations, 0.1% fewer than the 619,900 daily vehicles recorded in 2002.
- Some 85.6% of the recorded vehicles (530,500 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 127,600 daily vehicles, is the most-traveled Bronx-Westchester highway, carrying 20.6% of the total traffic on the monitored thoroughfares. The Major Deegan Expressway (including service roads) is second with 123,700 daily vehicles, 20.0% of the total. The Henry Hudson Parkway serves 98,700 daily vehicles (15.9%), the Bronx River Parkway 91,000 (14.7%), and the Hutchinson River Parkway 89,500 (14.5%).
- Boston Road is the busiest surface arterial monitored, averaging 27,000 vehicles per day, 4.4% of the total.
- Some 24,000 vehicles were recorded entering The Bronx from Westchester during the 7-8 am morning peak hour. The Major Deegan Expressway and its service road carried 5,100 of those peak hour southbound vehicles, with another 4,800 on the Henry Hudson Parkway, and 4,500 on the Bronx River Parkway.
- During the 6-10 am inbound rush period, 79,800 vehicles were recorded entering The Bronx. Some 17,000 of those vehicles were using the Major Deegan Expressway and its service road, with another 15,700 on the Henry Hudson 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 4,800 of those vehicles used the Major Deegan Expressway and its service road.
- During the 3-7 pm evening rush period, 83,600 vehicles were recorded leaving The Bronx. The Major Deegan Expressway and its service road accommodated 18,200 of those northbound vehicles.
- Reverse traffic was heavy during the 3-7 pm evening period, with an inbound volume of 81,400, compared to the outbound total of 83,600. During this period, the New England Thruway actually carried more inbound than outbound traffic (17,400 vs. 12,000), consistent with recent screenline counts.
- Reverse traffic was less intense during the 6-10 am morning period: 79,800 inbound vs. 66,000 outbound. New England Thruway traffic was heavier in the reverse direction: 16,500 outbound vs. 12,100 inbound.

10-Year Trends (1993-2003)

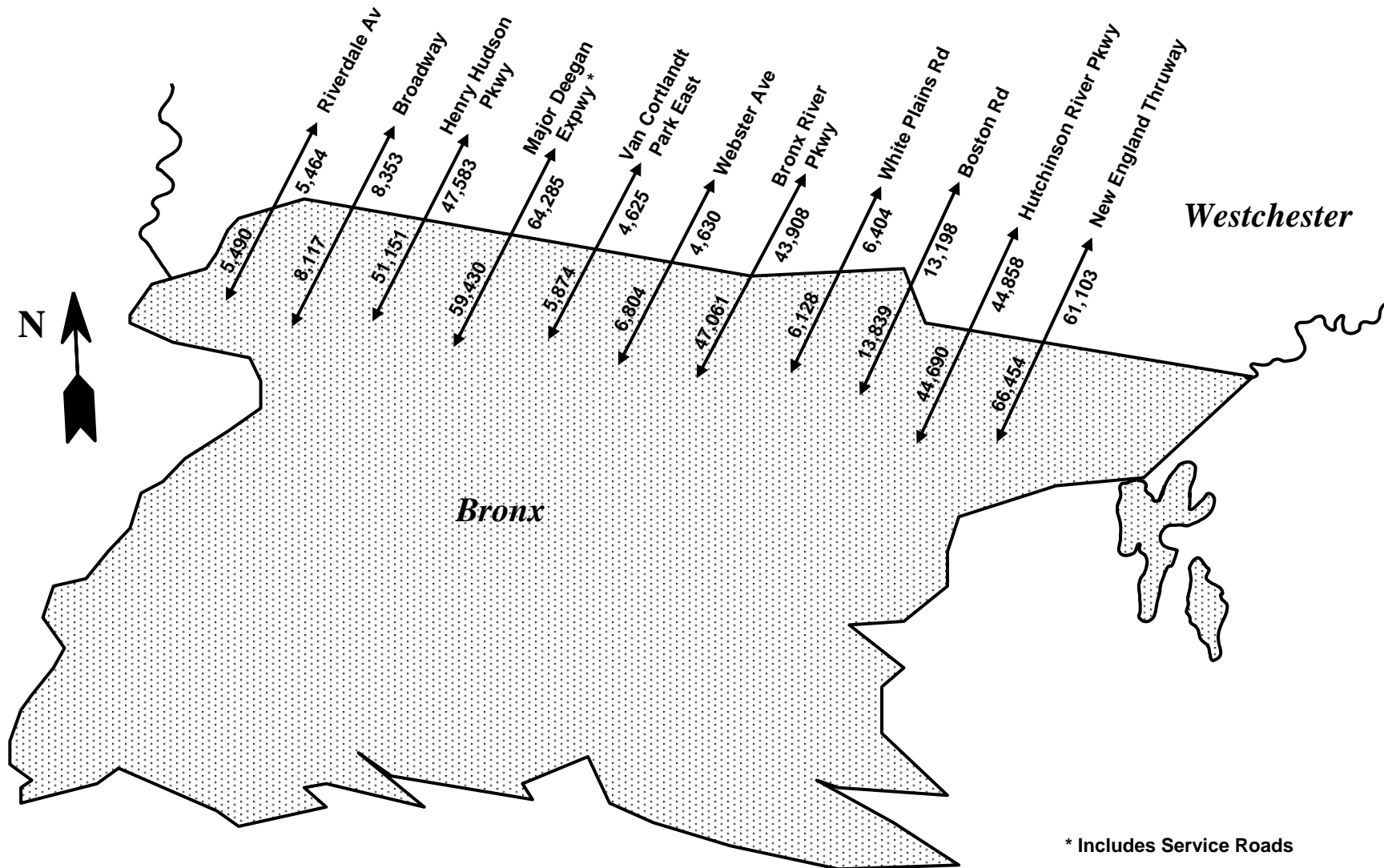
- Bronx-Westchester screenline traffic increased 22.4% during this ten-year period, to 619,400 daily vehicles in 2003, from 506,200 in 1993. This represents an average annual growth rate of 2.0%.
- The largest increases since 1993 occurred on the Henry Hudson Parkway, the New England Thruway, and the Hutchinson River Parkway, with average annual growth rates of 4.6%, 3.0%, and 3.0%, respectively. Volume on the Henry Hudson Parkway was 56.5% higher in 2003 than in 1993 (98,700 daily vehicles vs. 63,100). Daily volume on the New England Thruway was up 34.3%, to 127,600 in 2003 from 95,000 in 1993. Concurrently, daily volume on the Hutchinson River Parkway rose 34.8% (to 89,500 from 66,400).
- The only significant declines occurred on the Major Deegan Expressway and its service roads (down 1.2%, to 123,700 daily vehicles in 2003 from 125,300 in 1993), and on Riverdale Avenue (down 8.1%, to 11,000 daily vehicles from 11,900).

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).
- From 1986 to 1993, growth was moderate, as Bronx-Westchester screenline traffic volume increased 4.7% during that seven-year period, to 506,200 from 483,300 (including Van Cortlandt Park East, where traffic was counted for the first time in 1986). The largest increases occurred on the Hutchinson River Parkway (up 22.4%, to 66,400 daily vehicles from 54,300), and on the Henry Hudson Parkway (up 18.4%, to 63,100 from 53,300).
- During the 40 years from 1963 to 2003, total daily traffic on the ten facilities monitored throughout the period more than doubled, to 609,000 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 339,300 additional daily vehicles on the ten continuously-monitored facilities, 316,900 (93% of the total increase) are on the limited access highways. The fastest growth occurred on the Hutchinson River Parkway, where daily volume soared 455%, to 89,500 daily vehicles from 16,200. Henry Hudson Parkway volume more than tripled, to 98,700 from 29,000. New England Thruway volume climbed 128%, to 127,600 from 56,100. Bronx River Parkway volume doubled (to 91,000 from 44,100), while volume on the Major Deegan Expressway and its service roads was up 81% (to 123,700 from 68,300).
- Boston Road exhibited the largest change of any arterial facility since 1963, with daily volume more than rising 146%, to 27,000 from 11,000. Volume on White Plains Road increased 36% to 12,500 daily vehicles from 9,200.

2003 Screenline Daily Volumes Bronx-Westchester



* Includes Service Roads

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

To Bronx

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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

To Bronx

	2001	2002	2003
Boston Rd	13,262	12,997	13,839
Broadway	8,143	7,989	8,117
Bronx River Pky	46,681	49,382	47,061
Henry Hudson Pky	51,091	52,378	51,151
Hutchinson River Pky	44,624	46,446	44,690
Major Deegan Exp *	54,052	56,811	59,430
New England Thruway	66,091	64,042	66,454
Riverdale Ave	5,816	5,643	5,490
Van Cortlandt Pk E	5,399	5,816	5,874
Webster Ave	6,605	6,736	6,804
White Plains Rd	6,543	6,220	6,128
Totals	308,307	314,460	315,038

* Includes service roads

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

To Westchester

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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

To Westchester

	2001	2002	2003
Boston Rd	12,825	12,296	13,198
Broadway	8,152	8,005	8,353
Bronx River Pky	42,812	45,596	43,908
Henry Hudson Pky	44,236	45,624	47,583
Hutchinson River Pky	44,027	47,490	44,858
Major Deegan Exp *	62,772	62,022	64,285
New England Thruway	61,554	62,469	61,103
Riverdale Ave	6,143	5,187	5,464
Van Cortlandt Pk E	4,961	4,801	4,625
Webster Ave	4,236	4,811	4,630
White Plains Rd	6,641	7,177	6,404
Totals	298,359	305,478	304,411

* 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
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
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
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
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
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
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
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
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
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
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
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
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

Both Directions

	2001	2002	2003
Boston Rd	26,087	25,293	27,037
Broadway	16,295	15,994	16,470
Bronx River Pky	89,493	94,978	90,969
Henry Hudson Pky	95,327	98,002	98,734
Hutchinson River Pky	88,651	93,936	89,548
Major Deegan Exp *	116,824	118,833	123,715
New England Thruway	127,645	126,511	127,557
Riverdale Ave	11,959	10,830	10,954
Van Cortlandt Pk E	10,360	10,617	10,499
Webster Ave	10,841	11,547	11,434
White Plains Rd	13,184	13,397	12,532
Totals	606,666	619,938	619,449

* Includes service roads

2003 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	144	116	146	183	505	528	402	748	390	559	636	856	42	104
1-2am	73	80	87	111	215	283	194	385	201	244	358	556	27	60
2-3am	47	59	77	79	159	195	138	216	122	157	301	395	20	46
3-4am	63	60	52	64	184	195	135	172	112	137	355	417	18	30
4-5am	98	83	80	68	348	274	277	189	349	205	705	536	31	32
5-6am	196	163	109	81	1,110	699	1,036	442	1,131	778	2,179	1,193	92	90
6-7am	457	409	302	206	3,233	1,898	3,581	1,418	2,605	2,046	4,225	2,284	227	210
7-8am	772	633	514	366	4,475	2,975	4,795	2,634	3,196	2,956	4,743	3,135	336	280
8-9am	740	751	547	381	3,273	3,047	3,999	2,917	3,062	2,991	3,930	3,095	266	321
9-10am	584	748	396	416	2,608	1,838	3,325	1,936	2,568	2,462	3,065	2,732	216	312
10-11am	849	764	366	418	2,161	1,609	2,665	1,730	2,105	2,151	2,553	2,484	231	273
11-Noon	876	848	388	373	1,972	1,759	2,435	1,904	2,057	2,072	2,366	2,648	198	308
Noon-1	1,008	975	415	394	1,993	1,841	2,461	2,069	2,056	2,083	2,432	2,828	219	304
1-2pm	950	917	441	463	2,007	2,108	2,347	2,258	2,121	2,211	2,459	2,874	198	318
2-3pm	890	987	449	452	2,312	2,842	2,642	2,737	2,550	2,902	2,745	3,301	213	406
3-4pm	949	1,028	484	548	2,809	3,812	3,066	3,556	3,090	3,191	2,760	4,033	238	478
4-5pm	925	939	503	631	3,196	3,764	3,242	3,544	3,246	2,988	3,172	3,895	236	552
5-6pm	957	912	487	692	3,449	3,747	3,440	3,834	3,109	2,879	3,461	4,262	246	565
6-7pm	902	748	527	643	2,905	3,022	3,184	3,840	2,879	2,764	3,458	3,935	271	527
7-8pm	786	618	457	480	2,222	2,264	2,722	3,268	2,423	2,556	2,608	3,235	213	391
8-9pm	556	473	400	420	1,987	1,720	1,723	2,260	1,802	2,056	2,125	2,598	147	315
9-10pm	446	389	342	388	1,656	1,402	1,459	1,979	1,534	1,788	1,943	2,414	128	248
10-11pm	311	296	292	276	1,328	1,191	1,155	2,180	1,219	1,571	1,631	2,490	115	221
11-Mid	260	202	256	220	954	895	728	1,367	763	1,111	1,213	1,494	79	204
24 hr Total	13,839	13,198	8,117	8,353	47,061	43,908	51,151	47,583	44,690	44,858	55,423	57,690	4,007	6,595
6-10am	2,553	2,541	1,759	1,369	13,589	9,758	15,700	8,905	11,431	10,455	15,963	11,246	1,045	1,123
10am-1pm	2,733	2,587	1,169	1,185	6,126	5,209	7,561	5,703	6,218	6,306	7,351	7,960	648	885
1-3pm	1,840	1,904	890	915	4,319	4,950	4,989	4,995	4,671	5,113	5,204	6,175	411	724
3-7pm	3,733	3,627	2,001	2,514	12,359	14,345	12,932	14,774	12,324	11,822	12,851	16,125	991	2,122
6am-7pm	10,859	10,659	5,819	5,983	36,393	34,262	41,182	34,377	34,644	33,696	41,369	41,506	3,095	4,854

* To Bronx

2003 Screenline Volumes Bronx - Westchester (cont'd)

	New England Thruway		Riverdale Ave		Van Cortlandt Park East		Webster Ave		White Plains Rd		Totals	
	<i>S/B*</i>	<i>N/B</i>	<i>S/B*</i>	<i>N/B</i>	<i>S/B*</i>	<i>N/B</i>	<i>S/B*</i>	<i>N/B</i>	<i>S/B*</i>	<i>N/B</i>	To Bronx	To Westchester
Mid-1am	1,248	809	42	69	74	54	64	41	107	134	3,800	4,201
1-2am	909	848	19	34	53	33	38	23	59	84	2,233	2,741
2-3am	922	892	14	24	34	36	22	26	45	58	1,901	2,183
3-4am	854	1,144	15	18	23	28	28	14	50	54	1,889	2,333
4-5am	1,360	1,798	20	19	34	29	46	17	65	60	3,413	3,310
5-6am	2,025	3,027	88	48	69	57	123	47	79	93	8,237	6,718
6-7am	3,120	4,759	284	151	213	141	364	134	166	206	18,777	13,862
7-8am	3,335	4,815	494	292	327	257	675	290	301	369	23,963	19,002
8-9am	2,926	3,760	479	372	309	262	511	272	349	383	20,391	18,552
9-10am	2,742	3,134	311	293	263	201	344	224	266	320	16,688	14,616
10-11am	3,284	3,054	253	257	278	210	321	188	270	322	15,336	13,460
11-Noon	3,406	2,932	296	272	275	231	295	222	318	324	14,882	13,893
Noon-1	3,307	2,901	320	314	296	249	304	230	332	325	15,143	14,513
1-2pm	3,210	2,864	299	327	308	264	362	243	320	346	15,022	15,193
2-3pm	3,472	2,985	344	328	321	270	425	267	311	378	16,674	17,855
3-4pm	3,863	2,984	437	373	351	314	457	343	395	361	18,899	21,021
4-5pm	4,334	3,237	404	426	417	389	494	417	462	458	20,631	21,240
5-6pm	4,869	2,988	369	404	458	415	486	455	497	451	21,828	21,604
6-7pm	4,378	2,750	275	392	464	369	395	365	429	407	20,067	19,762
7-8pm	3,200	2,311	228	314	387	278	324	246	389	344	15,959	16,305
8-9pm	2,839	2,146	172	250	326	209	248	198	281	284	12,606	12,929
9-10pm	2,655	1,975	129	200	296	133	184	146	264	256	11,036	11,318
10-11pm	2,405	1,791	118	159	181	113	173	120	205	218	9,133	10,626
11-Mid	1,791	1,199	80	128	117	83	121	102	168	169	6,530	7,174
24 hr Total	66,454	61,103	5,490	5,464	5,874	4,625	6,804	4,630	6,128	6,404	315,038	304,411
6-10am	12,123	16,468	1,568	1,108	1,112	861	1,894	920	1,082	1,278	79,819	66,032
10am-1pm	9,997	8,887	869	843	849	690	920	640	920	971	45,361	41,866
1-3pm	6,682	5,849	643	655	629	534	787	510	631	724	31,696	33,048
3-7pm	17,444	11,959	1,485	1,595	1,690	1,487	1,832	1,580	1,783	1,677	81,425	83,627
6am-7pm	46,246	43,163	4,565	4,201	4,280	3,572	5,433	3,650	4,416	4,650	238,301	224,573

* To Bronx

QUEENS - NASSAU SCREENLINE

SUMMARY

2003 Daily Traffic

- A total of 968,700 motor vehicles crossed the fifteen Queens-Nassau screenline monitoring locations on typical 2003 weekday, 2.6% more than the 944,000 daily vehicles recorded in 2002.
- The three limited access highways that cross the screenline accommodated more than half (55.4%) of the recorded vehicles (536,900 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, 19.7% of the total daily traffic on the monitored thoroughfares. The Grand Central Parkway (including service road) is second with 187,200 daily vehicles (19.3% of the total), followed by 159,000 on the Laurelton Parkway (16.4%).
- Rockaway Boulevard and Sunrise Highway are the busiest surface arterials, with average daily volumes of 72,600 and 67,700 vehicles, respectively.
- Other high volume principal arterials are Hempstead Avenue and Northern Boulevard, serving 51,300 and 45,700 daily vehicles, respectively.
- Nearly 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 6,000 of those inbound peak hour vehicles, with the Grand Central Parkway and its service road accommodating an additional 5,700, and the Laurelton Parkway serving another 4,800.
- During the 6-10 am inbound rush period, 111,700 Queens-bound vehicles were recorded. The Grand Central Parkway and its service road carried 22,500 of those vehicles. Another 20,900 were on the Long Island Expressway and its service road, and 18,900 were on the Laurelton Parkway.
- Almost 33,000 vehicles were recorded departing Queens for Nassau during the 4-5 pm evening peak hour. The Long Island Expressway and its service road accommodated 6,600 of those peak hour outbound vehicles. Another 5,900 used the Laurelton Parkway, with the Grand Central Parkway and its service road serving an additional 4,400.
- During the 3-7 pm evening rush period, 129,300 vehicles were recorded leaving Queens. The Long Island Expressway (including service road) accommodated 25,000 of those vehicles. The Laurelton Parkway served 23,500. Another 18,700 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.

10-Year Trends (1993-2003)

- Traffic growth between Queens and Nassau has been moderate since 1993. Monitored daily volume rose 8.6% to 968,700 in 2003 from 892,300 in 1993. This represents an average annual growth rate of 0.8%.
- The largest volume increase since 1993 occurred on the Laurelton Parkway (growth of 21,700 daily vehicles, or 1.5% annually, to 159,000 from 137,300). This was followed by the Grand Central Parkway and its service road (growth of 12,900 daily vehicles, or 0.7% annually, to 187,200 from 174,300), Rockaway Boulevard (growth of 12,100 daily vehicles, or 1.8% annually, to 72,600 from 60,500), and Hempstead Avenue (growth of 11,100 daily vehicles, or 2.5% annually, to 51,300 from 40,200).
- The largest percentage increases occurred on Seagirt Boulevard (up 41.8%, or 3.6% annually, to 22,900 daily vehicles from 16,100), Hempstead Avenue (up 27.8%, or 2.5% annually, to 51,300 from 40,200), and Rockaway Boulevard (up 19.9%, or 1.8% annually, to 72,600 from 60,500).
- The only significant decline occurred on the Long Island Expressway and its service roads, where daily traffic decreased 3.8%, or 0.4% annually, to 190,600 in 2003 from 198,100 in 1993.

Historical Comparisons

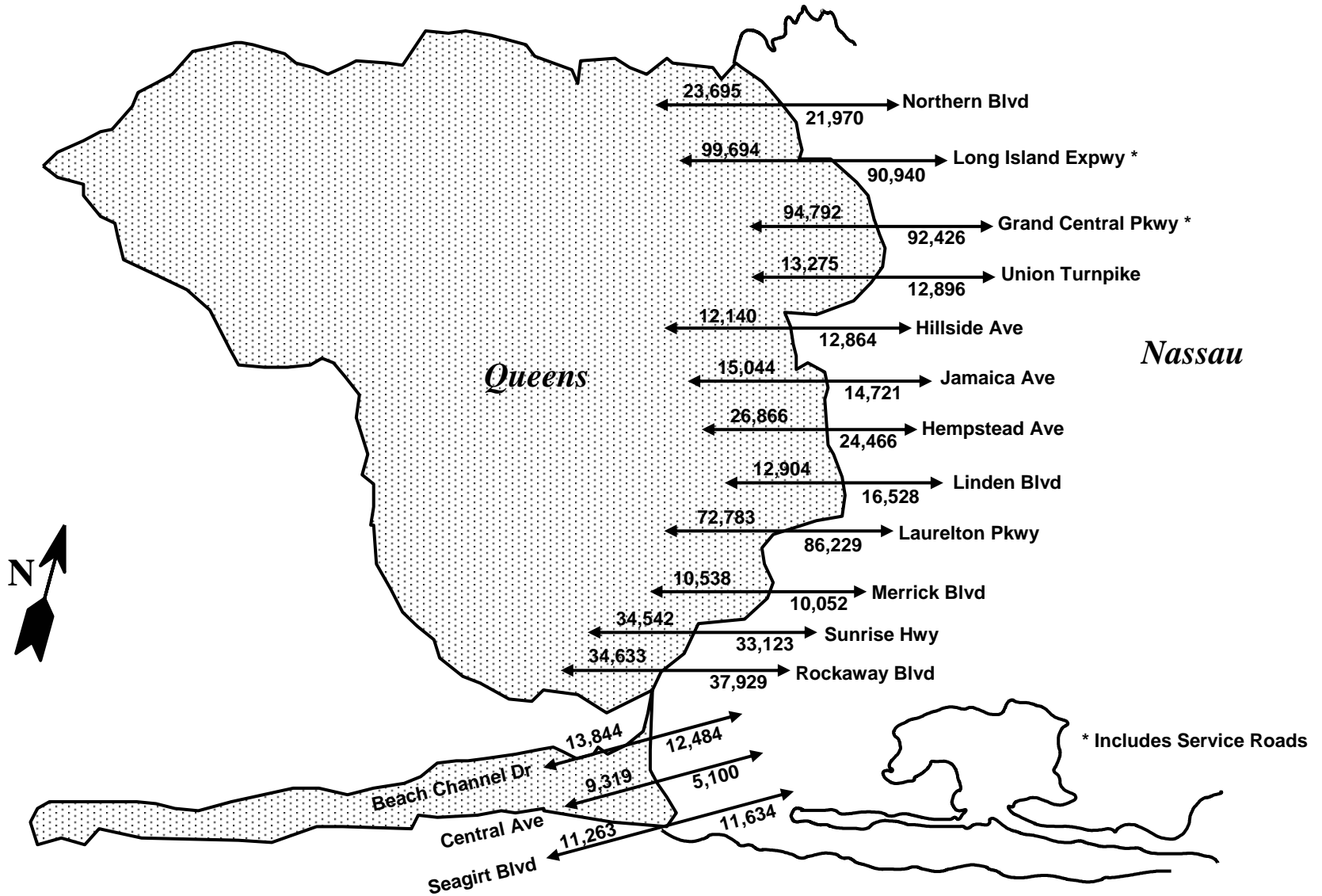
- In 1963, the first year that Queens-Nassau screenline data were analyzed, average daily two-way total volume on the thirteen roadways studied was 546,600 (volumes on Central Avenue and Seagirt Boulevard were not collected prior to 1986). The highest volume facilities were the Long Island Expressway 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).
- From 1986 to 1993, growth was moderate, as Queens-Nassau screenline volume increased 5.8% during that seven-year period, to 892,300 daily vehicles from 843,500. The largest volume increase occurred on the Grand Central Parkway and its service road (up 21.1%, to 174,300 daily vehicles from 144,000). The largest percentage

increases occurred on Seagirt Boulevard (up 30.3%, to 16,100 daily vehicles from 12,400), and Linden Boulevard (up 25.4%, to 28,900 from 23,100). The biggest decline was on the Laurelton Parkway (down 7.5%, to 137,300 from 148,400).

- During the 40 years from 1963 to 2003, daily traffic on the thirteen Queens-Nassau facilities monitored throughout the period increased 70.4% to 931,400 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 384,800 additional daily vehicles on the thirteen continuously-monitored facilities, 256,000 (66.5% of the total increase) are on the three limited access routes. The Grand Central Parkway alone absorbed over one-third the total screenline traffic increase, its daily volume more than tripling to 187,200 in 2003 from 51,700 in 1963. On the Laurelton Parkway, volume nearly doubled (to 159,000 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 99.0%, to 72,600 daily vehicles from 36,500, Northern Boulevard (up 56.8% to 45,700 from 29,100), Linden Boulevard (up 105.4% to 29,400 from 14,300), Hempstead Avenue (up 45.0% to 51,300 from 35,400), and Jamaica Avenue (up 94.5% to 29,800 from 15,300).

2003 Screenline Daily Volumes

Queens-Nassau



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

To Queens

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

To Queens

	2001	2002	2003
Beach Channel Dr	13,128	13,403	13,844
Central Ave	8,014	9,231	9,319
Grand Central Pky *	91,225	89,054	94,792
Hempstead Ave	22,474	19,797	26,866
Hillside Ave	14,049	13,735	12,140
Jamaica Ave	14,504	15,324	15,044
Laurelton Pky	82,194	77,076	72,783
Linden Blvd	11,565	12,485	12,904
Long Island Exp *	90,205	97,818	99,694
Merrick Blvd	9,833	9,559	10,538
Northern Blvd	24,221	22,943	23,695
Rockaway Blvd	36,893	33,865	34,633
Seagirt Blvd	8,044	10,341	11,263
Sunrise Hwy	34,519	30,922	34,542
Union Tpke	12,495	13,260	13,275
Totals	473,363	468,813	485,332

* Includes service roads

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

To Nassau

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

To Nassau

	2001	2002	2003
Beach Channel Dr	11,532	12,207	12,484
Central Ave	4,910	5,175	5,100
Grand Central Pky *	89,640	89,813	92,426
Hempstead Ave	22,176	23,621	24,466
Hillside Ave	13,526	13,593	12,864
Jamaica Ave	13,702	14,869	14,721
Laurelton Pky	89,251	85,216	86,229
Linden Blvd	15,136	15,327	16,528
Long Island Exp *	92,593	92,794	90,940
Merrick Blvd	9,568	9,920	10,052
Northern Blvd	21,584	21,243	21,970
Rockaway Blvd	35,134	36,098	37,929
Seagirt Blvd	7,895	10,051	11,634
Sunrise Hwy	34,099	31,920	33,123
Union Tpke	12,618	13,346	12,896
Totals	473,364	475,193	483,362

* 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

Both Directions

	2001	2002	2003
Beach Channel Dr	24,660	25,610	26,328
Central Ave	12,924	14,406	14,419
Grand Central Pky *	180,865	178,867	187,218
Hempstead Ave	44,650	43,418	51,332
Hillside Ave	27,575	27,328	25,004
Jamaica Ave	28,206	30,193	29,765
Laurelton Pky	171,445	162,292	159,012
Linden Blvd	26,701	27,812	29,432
Long Island Exp *	182,798	190,612	190,634
Merrick Blvd	19,401	19,479	20,590
Northern Blvd	45,805	44,186	45,665
Rockaway Blvd	72,027	69,963	72,562
Seagirt Blvd	15,939	20,392	22,897
Sunrise Hwy	68,618	62,842	67,665
Union Tpke	25,113	26,606	26,171
Totals	946,727	944,006	968,694

* Includes service roads

2003 Screenline Volumes Queens - Nassau

	Beach Channel Drive		Grand Central Parkway				Hempstead Ave		Hillside Ave			
	* S/B	N/B	* W/B	E/B	* W/B	E/B	* W/B	E/B	* W/B	E/B		
Mid-1am	273	163	132	49	1,214	1,677	20	17	386	436	116	132
1-2am	147	98	67	20	538	861	9	6	188	226	54	67
2-3am	91	60	41	15	410	567	7	6	147	146	36	43
3-4am	65	62	27	17	522	404	6	5	151	101	36	31
4-5am	70	127	32	25	1,417	616	6	9	269	176	51	43
5-6am	187	293	105	80	4,112	1,635	14	29	842	378	175	112
6-7am	538	611	322	202	5,986	4,533	58	101	1,722	750	481	314
7-8am	855	885	483	329	5,587	5,980	113	378	2,018	1,308	584	704
8-9am	755	793	608	326	5,035	6,038	150	638	1,699	1,556	564	966
9-10am	656	644	481	273	5,368	5,875	183	407	1,327	1,120	517	734
10-11am	542	645	418	285	4,882	4,805	204	303	1,260	1,012	546	665
11-Noon	596	623	387	288	4,012	4,303	248	313	1,253	1,121	605	678
Noon-1	655	637	460	292	4,073	4,668	290	337	1,291	1,241	706	750
1-2pm	675	674	498	300	4,113	5,278	294	349	1,353	1,243	708	751
2-3pm	731	752	546	370	4,712	5,633	319	443	1,445	1,453	726	837
3-4pm	823	932	566	370	4,860	4,673	392	462	1,403	1,693	743	957
4-5pm	943	830	686	323	5,524	4,049	522	372	1,458	1,731	970	1,005
5-6pm	1,030	767	761	357	5,182	3,956	583	292	1,590	1,736	1,176	1,054
6-7pm	997	702	652	305	5,068	4,730	360	210	1,554	1,772	936	884
7-8pm	862	606	581	273	4,476	4,905	247	153	1,432	1,525	730	757
8-9pm	729	484	460	195	3,549	3,664	171	88	1,266	1,169	570	510
9-10pm	678	437	424	155	4,053	2,994	118	52	1,141	1,000	493	367
10-11pm	547	351	342	139	3,419	2,848	75	51	969	876	399	287
11-Mid	399	308	240	112	2,252	2,688	39	25	702	697	218	216
24 hr Total	13,844	12,484	9,319	5,100	90,364	87,380	4,428	5,046	26,866	24,466	12,140	12,864
6-10am	2,804	2,933	1,894	1,130	21,976	22,426	504	1,524	6,766	4,734	2,146	2,718
10am-1pm	1,793	1,905	1,265	865	12,967	13,776	742	953	3,804	3,374	1,857	2,093
1-3pm	1,406	1,426	1,044	670	8,825	10,911	613	792	2,798	2,696	1,434	1,588
3-7pm	3,793	3,231	2,665	1,355	20,634	17,408	1,857	1,336	6,005	6,932	3,825	3,900
6am-7pm	9,796	9,495	6,868	4,020	64,402	64,521	3,716	4,605	19,373	17,736	9,262	10,299

* To Queens

2003 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	152	138	1,023	1,854	229	276	1,015	1,068	52	97	91	137
1-2am	65	71	490	949	116	154	774	779	26	39	45	66
2-3am	56	52	403	594	88	102	709	739	18	32	35	36
3-4am	39	48	550	453	71	70	933	951	11	11	25	28
4-5am	101	63	1,290	572	104	93	1,590	1,331	13	39	54	35
5-6am	258	164	4,127	1,310	229	286	3,495	1,050	50	204	207	85
6-7am	702	475	5,911	3,716	611	616	5,006	3,501	789	171	558	218
7-8am	757	958	4,758	3,940	838	892	4,551	5,792	1,451	471	750	475
8-9am	796	1,152	4,078	4,764	693	1,080	4,095	5,844	564	737	672	638
9-10am	767	905	4,115	4,153	600	806	4,099	5,491	313	390	572	493
10-11am	716	752	3,372	3,482	566	744	4,049	3,949	338	250	547	518
11-Noon	757	817	2,934	3,542	576	733	4,466	3,651	199	256	570	512
Noon-1	798	935	2,910	3,728	589	827	4,074	3,844	188	358	605	570
1-2pm	894	900	2,929	4,228	614	856	4,266	3,807	193	363	627	563
2-3pm	943	986	3,299	5,370	686	1,045	4,759	3,957	215	394	606	657
3-4pm	977	1,017	3,622	5,778	746	1,154	5,491	5,468	435	861	673	749
4-5pm	1,204	1,084	3,862	5,886	795	1,064	6,287	5,455	975	1,123	689	804
5-6pm	1,360	1,092	4,275	5,958	908	1,110	5,597	5,124	1,319	1,070	737	849
6-7pm	1,091	898	3,917	5,849	870	1,132	5,304	5,336	1,562	571	612	792
7-8pm	756	729	3,659	5,348	753	959	4,285	4,870	1,389	225	545	581
8-9pm	642	519	3,219	4,389	663	796	3,725	4,030	1,362	102	449	438
9-10pm	556	413	3,196	3,922	659	677	3,839	3,442	176	70	400	334
10-11pm	409	320	2,813	3,437	520	606	3,278	1,931	188	147	294	301
11-Mid	248	233	2,031	3,007	380	450	2,062	960	119	589	175	173
24 hr Total	15,044	14,721	72,783	86,229	12,904	16,528	87,749	82,370	11,945	8,570	10,538	10,052
6-10am	3,022	3,490	18,862	16,573	2,742	3,394	17,751	20,628	3,117	1,769	2,552	1,824
10am-1pm	2,271	2,504	9,216	10,752	1,731	2,304	12,589	11,444	725	864	1,722	1,600
1-3pm	1,837	1,886	6,228	9,598	1,300	1,901	9,025	7,764	408	757	1,233	1,220
3-7pm	4,632	4,091	15,676	23,471	3,319	4,460	22,679	21,383	4,291	3,625	2,711	3,194
6am-7pm	11,762	11,971	49,982	60,394	9,092	12,059	62,044	61,219	8,541	7,015	8,218	7,838

* To Queens

2003 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>	<i>To Queens</i>	<i>To Nassau</i>
Mid-1am	157	165	391	697	167	113	283	338	83	55	5,784	7,412
1-2am	85	92	246	360	82	56	146	192	39	35	3,117	4,071
2-3am	58	52	172	249	49	37	112	139	18	18	2,450	2,887
3-4am	46	40	203	211	26	27	124	123	26	17	2,861	2,599
4-5am	92	61	384	242	34	52	301	173	35	33	5,843	3,690
5-6am	341	204	1,044	464	145	189	924	369	84	75	16,339	6,927
6-7am	1,234	591	2,136	1,295	550	436	1,592	902	509	253	28,705	18,685
7-8am	1,731	1,567	2,557	1,895	1,179	780	1,578	1,449	940	719	30,730	28,522
8-9am	1,525	1,349	2,336	2,125	944	771	1,958	1,983	644	1,092	27,116	31,852
9-10am	1,440	1,448	1,788	1,882	622	541	1,760	1,830	549	880	25,157	27,872
10-11am	1,234	1,272	1,698	1,689	472	504	1,742	1,528	608	719	23,194	23,122
11-Noon	1,284	1,249	1,742	1,794	450	549	1,801	1,787	735	767	22,615	22,983
Noon-1	1,375	1,285	1,807	1,939	491	560	1,970	1,942	916	851	23,198	24,764
1-2pm	1,349	1,330	1,871	2,011	524	591	2,043	1,949	874	885	23,825	26,078
2-3pm	1,370	1,383	1,957	2,273	613	888	2,046	2,124	869	907	25,842	29,472
3-4pm	1,416	1,342	2,094	2,511	655	1,133	2,092	2,490	889	1,000	27,877	32,590
4-5pm	1,513	1,716	2,045	2,587	690	1,048	2,298	2,584	1,081	1,017	31,542	32,678
5-6pm	1,529	1,683	2,133	2,627	784	956	2,390	2,562	1,374	1,109	32,728	32,302
6-7pm	1,532	1,648	1,847	2,733	709	719	2,148	2,510	1,037	941	30,196	31,732
7-8pm	1,365	1,200	1,633	2,509	563	507	1,963	2,230	736	642	25,975	28,019
8-9pm	1,076	847	1,517	1,829	500	376	1,885	1,599	498	392	22,281	21,427
9-10pm	917	662	1,217	1,551	430	285	1,824	1,032	379	233	20,500	17,626
10-11pm	666	534	1,031	1,357	341	284	997	749	214	150	16,502	14,368
11-Mid	360	250	784	1,099	243	232	565	539	138	106	10,955	11,684
24 hr Total	23,695	21,970	34,633	37,929	11,263	11,634	34,542	33,123	13,275	12,896	485,332	483,362
6-10am	5,930	4,955	8,817	7,197	3,295	2,528	6,888	6,164	2,642	2,944	111,708	106,931
10am-1pm	3,893	3,806	5,247	5,422	1,413	1,613	5,513	5,257	2,259	2,337	69,007	70,869
1-3pm	2,719	2,713	3,828	4,284	1,137	1,479	4,089	4,073	1,743	1,792	49,667	55,550
3-7pm	5,990	6,389	8,119	10,458	2,838	3,856	8,928	10,146	4,381	4,067	122,343	129,302
6am-7pm	18,532	17,863	26,011	27,361	8,683	9,476	25,418	25,640	11,025	11,140	352,725	362,652

* To Queens

NEW YORK - NEW JERSEY SCREENLINE

SUMMARY

2003 Daily Traffic

- On a fall 2003 weekday, 722,000 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), 1.4% more than the 712,000 recorded in fall of 2002.
- Manhattan-New Jersey traffic increased 2.7% (to 547,400 daily vehicles in 2003 from 532,800 in 2002), while daily volume between Staten Island and New Jersey decreased 2.5% (to 174,600 from 179,100).
- Three-fourths of daily New York City-New Jersey traffic (547,400 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 319,000 daily vehicles in 2003, continues to be the highest volume crossing by a wide margin. In fall 2003, 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 127,300 daily vehicles in 2003; the Holland Tunnel, 101,100.
- The Outerbridge Crossing was the busiest Staten Island-New Jersey facility, with an average daily volume of 78,700 vehicles, up 2.9% from 76,400 in 2002. Traffic on the Goethals Bridge decreased 7.0%, to 75,700 daily vehicles in 2003 from 81,400 in 2002. The Bayonne Bridge accommodated 20,200 daily vehicles, a 5.2% decrease from the 21,300 daily vehicles recorded in 2002.
- Just over 19,000 vehicles entered Manhattan from New Jersey during the 6-7 am morning peak hour. The George Washington Bridge was used by 11,000 (58%) of those Manhattan-bound peak hour vehicles.
- During the 6-10 am inbound rush period, Manhattan vehicle entries from New Jersey amounted to 70,600. The George Washington Bridge was the route for 57% of these 6-10 am entries (40,300 vehicles).
- Some 19,300 vehicles departed Manhattan for New Jersey during the 4-5 pm evening peak hour, with the George Washington Bridge accommodating 11,000 (57%) of those departing vehicles.
- During the 3-7 pm evening rush period, 72,800 vehicles crossed the Hudson River from Manhattan to New Jersey. The George Washington Bridge carried 58% of that departing traffic (42,300 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, 21,700 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 26,500 vehicles, while traffic bound for New Jersey totaled 21,100.

10-Year Trends (1993-2003)

- Daily traffic between Manhattan and New Jersey increased 15.7% during this ten-year period, to 547,400 in 2003 from 473,100 in 1993, an average annual growth rate of 1.5%. The fastest growth rate was at the George Washington Bridge, where daily traffic rose 22.4%, or 2.0% annually (to 319,000 in 2003 from 260,700 in 1993). Traffic using the Holland Tunnel increased 9.1%, or 0.9% annually, to 101,100 daily vehicles in 2003 from 92,700 in 1993. Daily volume through the Lincoln Tunnel rose 6.4%, or 0.6% annually (to 127,300 in 2003 from 119,700 in 1993).
- Concurrently, daily volume on the three Staten Island-New Jersey bridges rose 24.0%, to 174,600 in 2003 from 140,800 in 1993, equivalent to an average annual growth rate of 2.2%. Daily traffic on the Outerbridge Crossing increased 18.5%, or 1.7% annually (to 78,700 in 2003 from 66,400 in 1993). Traffic using the Goethals Bridge was up 25.3%, or 2.3% annually (to 75,700 in 2003 from 60,400 in 1993). Bayonne Bridge traffic was up 44.6%, or 3.8% annually (to 20,200 in 2003 from 14,000 in 1993).

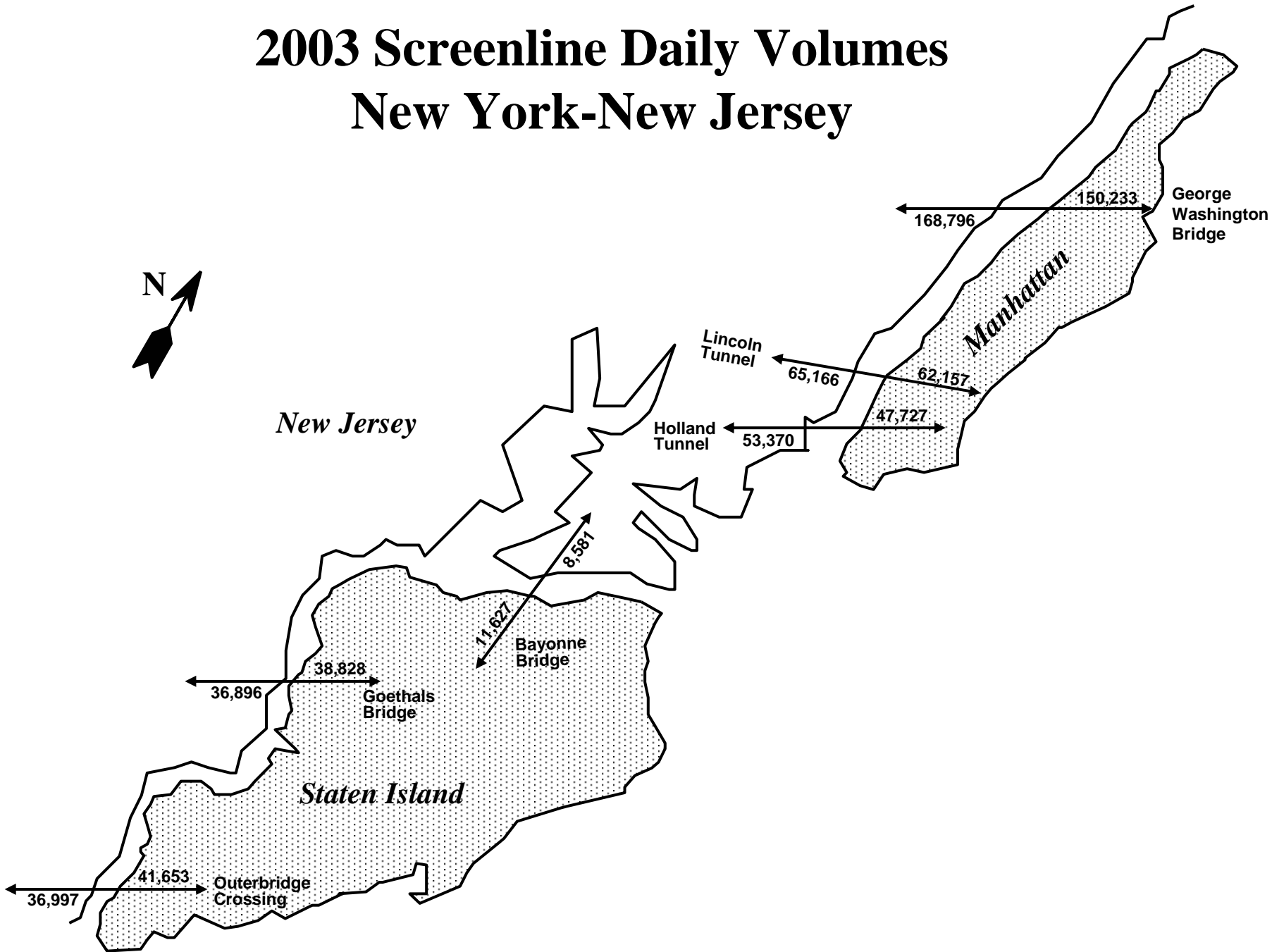
Historical Comparisons

- 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 seven years from 1986 to 1993, Manhattan-New Jersey traffic decreased 2.6%, to 473,100 daily vehicles from 485,800. Volume was down 9.0% on the George

Washington Bridge, to 260,700 daily vehicles from 286,400 (decrease of 25,700 daily vehicles), and down 2.0% at the Lincoln Tunnel (to 119,700 daily vehicles from 122,100). Those declines more than offset a 19.9% increase at the Holland Tunnel, to 92,700 daily vehicles from 77,300.

- During the 40 years from 1963 to 2003, daily traffic between Manhattan and New Jersey doubled, to 547,400 from 265,600. George Washington Bridge traffic climbed 150%, to 319,000 from 127,500. Volume increased 61% at the Lincoln Tunnel (to 127,300 from 79,300), and 72% at the Holland Tunnel (to 101,100 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 1993, Staten Island-New Jersey traffic increased just 1.7% over the seven-year period. A 14.6% increase on the Outerbridge Crossing (to 66,400 daily vehicles from 57,900), more than offset decreases on the Bayonne Bridge (down 12.1% to 14,000 from 15,900) and the Goethals Bridge (down 6.5% to 60,400 from 64,600).
- During the 40 years from 1963 to 2003, daily traffic between Staten Island and New Jersey soared 537%, to 174,600 from just 27,400. Outerbridge Crossing traffic skyrocketed more than tenfold, to 78,700 from 7,100. Volume on the Goethals Bridge jumped 507%, to 75,700 from 12,500. Bayonne Bridge traffic climbed 159%, to 20,200 from 7,800.

2003 Screenline Daily Volumes New York-New Jersey



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

To New York

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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

To New York

	2001	2002	2003
G Washington Bridge	155,233	150,758	150,233
Holland Tunnel	12,548	45,722	47,727
Lincoln Tunnel	54,608	58,415	62,157
Manhattan Totals	222,389	254,895	260,117
Bayonne Bridge*	14,098	11,684	11,627
Goethals Bridge*	39,315	40,419	38,828
Outerbridge Crossing*	41,000	38,407	41,653
Staten Island Totals	94,413	90,510	92,108
Grand Totals	316,802	345,405	352,225

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

To New Jersey

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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

To New Jersey

	2001	2002	2003
G Washington Bridge	154,077	160,013	168,796
Holland Tunnel	30,829	46,835	53,370
Lincoln Tunnel	51,649	71,096	65,166
Manhattan Totals	236,555	277,944	287,332
Bayonne Bridge*	9,533	9,643	8,581
Goethals Bridge*	38,881	40,965	36,896
Outerbridge Crossing*	34,424	38,022	36,997
Staten Island Totals	82,838	88,630	82,474
Grand Totals	319,393	366,574	369,806

* 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

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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

Both Directions

	2001	2002	2003
G Washington Bridge	309,310	310,771	319,029
Holland Tunnel	43,377	92,557	101,097
Lincoln Tunnel	106,257	129,511	127,323
Manhattan Totals	458,944	532,839	547,449
Bayonne Bridge*	23,631	21,327	20,208
Goethals Bridge*	78,196	81,384	75,724
Outerbridge Crossing*	75,424	76,429	78,650
Staten Island Totals	177,251	179,140	174,582
Grand Totals	636,195	711,979	722,031

* 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.

2003 Screenline Volumes New York - New Jersey

	George Washington Bridge		Holland Tunnel		Lincoln Tunnel		Manhattan Totals	
	<i>* E/B</i>	<i>W/B</i>	<i>* E/B</i>	<i>W/B</i>	<i>* E/B</i>	<i>W/B</i>	To Manhattan	To N.J.
Mid-1am	1,874	3,955	760	1,410	1,002	1,713	3,636	7,078
1-2am	1,277	2,408	513	1,090	584	978	2,374	4,476
2-3am	1,129	1,788	383	728	431	569	1,943	3,085
3-4am	1,274	1,657	382	597	452	483	2,108	2,737
4-5am	2,035	2,001	616	699	779	591	3,430	3,291
5-6am	5,581	3,750	2,324	1,249	2,431	994	10,336	5,993
6-7am	10,958	6,981	2,833	2,207	5,227	1,670	19,018	10,858
7-8am	10,703	9,023	2,871	2,931	4,847	2,249	18,421	14,203
8-9am	9,582	8,937	2,631	2,750	4,660	2,439	16,873	14,126
9-10am	9,040	9,420	2,582	2,141	4,680	2,251	16,302	13,812
10-11am	7,828	7,677	2,728	2,290	3,850	2,181	14,406	12,148
11-Noon	6,866	8,101	2,327	2,149	3,251	2,353	12,444	12,603
Noon-1	6,544	7,300	2,116	2,238	2,827	2,790	11,487	12,328
1-2pm	6,540	7,316	2,103	2,545	2,726	3,344	11,369	13,205
2-3pm	7,055	8,373	2,279	2,972	2,843	4,307	12,177	15,652
3-4pm	8,041	9,979	2,530	3,029	3,048	4,458	13,619	17,466
4-5pm	8,963	11,046	2,769	3,188	2,683	5,095	14,415	19,329
5-6pm	9,527	10,633	2,747	3,185	2,062	4,052	14,336	17,870
6-7pm	9,404	10,681	2,781	3,093	2,399	4,345	14,584	18,119
7-8pm	7,711	9,721	2,639	3,164	2,780	4,843	13,130	17,728
8-9pm	5,782	9,162	2,153	2,761	2,359	3,751	10,294	15,674
9-10pm	5,055	7,080	1,922	2,579	2,169	3,295	9,146	12,954
10-11pm	4,319	6,406	1,524	2,380	2,190	3,234	8,033	12,020
11-Mid	3,145	5,401	1,214	1,995	1,877	3,181	6,236	10,577
24 hr Total	150,233	168,796	47,727	53,370	62,157	65,166	260,117	287,332
6-10am	40,283	34,361	10,917	10,029	19,414	8,609	70,614	52,999
10am-1pm	21,238	23,078	7,171	6,677	9,928	7,324	38,337	37,079
1-3pm	13,595	15,689	4,382	5,517	5,569	7,651	23,546	28,857
3-7pm	35,935	42,339	10,827	12,495	10,192	17,950	56,954	72,784
6am-7pm	111,051	115,467	33,297	34,718	45,103	41,534	189,451	191,719

* To Manhattan

2003 Screenline Volumes New York - New Jersey (cont'd)

	Bayonne Bridge		Goethals Bridge		Outerbridge Crossing		Staten Island Totals		Grand Totals	
	<i>* S/B</i>	<i>N/B</i>	<i>* E/B</i>	<i>W/B</i>	<i>* E/B</i>	<i>W/B</i>	<i>To Staten Is.</i>	<i>To N.J.</i>	<i>To N.Y.</i>	<i>To N.J.</i>
Mid-1am	190	76	627	377	490	486	1,307	939	4,943	8,017
1-2am	111	46	430	247	341	281	882	574	3,256	5,050
2-3am	85	46	350	202	301	227	736	475	2,679	3,560
3-4am	75	47	336	255	352	218	763	520	2,871	3,257
4-5am	104	65	488	410	681	272	1,273	747	4,703	4,038
5-6am	247	266	1,156	1,026	2,033	494	3,436	1,786	13,772	7,779
6-7am	435	691	1,853	1,838	2,798	1,356	5,086	3,885	24,104	14,743
7-8am	487	1,165	1,578	2,761	2,548	2,300	4,613	6,226	23,034	20,429
8-9am	507	1,035	1,669	2,928	2,275	2,546	4,451	6,509	21,324	20,635
9-10am	485	573	1,748	2,411	2,201	2,074	4,434	5,058	20,736	18,870
10-11am	400	411	1,726	2,303	1,898	1,936	4,024	4,650	18,430	16,798
11-Noon	424	387	1,696	2,227	1,781	1,932	3,901	4,546	16,345	17,149
Noon-1	444	353	1,764	2,067	1,827	1,857	4,035	4,277	15,522	16,605
1-2pm	506	378	1,947	2,160	1,989	1,796	4,442	4,334	15,811	17,539
2-3pm	636	365	2,244	1,908	2,172	2,209	5,052	4,482	17,229	20,134
3-4pm	859	431	2,456	2,305	2,339	2,569	5,654	5,305	19,273	22,771
4-5pm	1,092	511	2,751	2,161	2,694	2,867	6,537	5,539	20,952	24,868
5-6pm	1,395	437	3,171	2,434	3,074	2,604	7,640	5,475	21,976	23,345
6-7pm	1,140	343	2,906	1,936	2,603	2,465	6,649	4,744	21,233	22,863
7-8pm	667	261	2,329	1,499	2,040	1,915	5,036	3,675	18,166	21,403
8-9pm	431	194	1,828	1,157	1,696	1,446	3,955	2,797	14,249	18,471
9-10pm	340	213	1,561	967	1,491	1,454	3,392	2,634	12,538	15,588
10-11pm	299	162	1,251	788	1,184	975	2,734	1,925	10,767	13,945
11-Mid	268	125	963	529	845	718	2,076	1,372	8,312	11,949
24 hr Total	11,627	8,581	38,828	36,896	41,653	36,997	92,108	82,474	352,225	369,806
6-10am	1,914	3,464	6,848	9,938	9,822	8,276	18,584	21,678	89,198	74,677
10am-1pm	1,268	1,151	5,186	6,597	5,506	5,725	11,960	13,473	50,297	50,552
1-3pm	1,142	743	4,191	4,068	4,161	4,005	9,494	8,816	33,040	37,673
3-7pm	4,486	1,722	11,284	8,836	10,710	10,505	26,480	21,063	83,434	93,847
6am-7pm	8,810	7,080	27,509	29,439	30,199	28,511	66,518	65,030	255,969	256,749

* To Staten Island

BROOKLYN - QUEENS SCREENLINE

SUMMARY

2003 Daily Traffic

- On a typical 2003 weekday, 612,000 vehicles crossed the fifteen monitored Brooklyn-Queens screenline locations, 3.5% more than the 2002 count of 591,500. 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 (68.3%) of the vehicles (418,200 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 45.1% (275,700 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 194,500 vehicles, 31.8% of all traffic on the monitored thoroughfares and 70.5% of Newtown Creek crossings. Shore Parkway was second with 150,000 vehicles per day, 24.5% 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 150,000, 73,700, 51,100, 38,300, 28,800, and 28,500 vehicles, respectively.
- A total of 20,600 vehicles were recorded entering Brooklyn from Queens during the 7-8 am morning peak hour. The Kosciuszko Bridge and Shore Parkway accommodated 5,900 and 4,900 of those vehicles, respectively.
- Morning traffic to Queens also peaked between 7-8 am, at 17,700 vehicles, including 5,200 on the Kosciuszko Bridge and 4,400 on Shore Parkway.
- During the 6-10 am rush period, 75,700 vehicles were recorded entering Brooklyn, with the Kosciuszko Bridge and Shore Parkway carrying 22,400 and 18,300, respectively. Simultaneously, 65,900 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 20,000 vehicles were recorded. The Kosciuszko Bridge was the route of 5,400 of those vehicles, while another 5,100 used Shore Parkway.
- Evening traffic entering Brooklyn from Queens also peaked between 4-5 pm, at 18,900 vehicles. The Kosciuszko Bridge was used by 5,100 of those vehicles, while another 4,600 were on Shore Parkway.
- During the 3-7 pm evening rush period, 77,000 vehicles were recorded entering Queens, while 72,200 were counted in the opposite direction. The Kosciuszko Bridge carried

21,300 to Queens and 20,000 to Brooklyn, while Shore Parkway carried 19,700 to Queens and 18,300 to Brooklyn.

10 Year Trends (1993-2003)

- Traffic between Brooklyn and Queens grew 18.0% during this ten-year period, to 612,000 daily vehicles in 2003 from 518,800 in 1993. This represents an average annual growth rate of 1.7%.
- The largest volume increase since 1993 occurred on the Kosciuszko Bridge over Newtown Creek (growth of 27,900 daily vehicles, or 1.6% annually, to 194,500 from 166,600). This was followed by the Jackie Robinson Parkway (growth of 21,400 daily vehicles, or 3.5% annually, to 73,700 from 52,300), Shore Parkway (growth of 14,300 daily vehicles, or 1.0% annually, to 150,000 from 135,700), and the Pulaski Bridge over Newtown Creek (growth of 13,000 daily vehicles, or 4.3% annually, to 38,300 from 25,300).
- The largest percentage increases occurred on Linden Street (up 113.5%, or 7.9% annually, to 2,270 daily vehicles from 1,063), the Pulaski Bridge over Newtown Creek (up 51.7%, or 4.3% annually, to 38,300 from 25,300), the Jackie Robinson Parkway (up 40.8%, or 3.5% annually, to 73,700 from 52,300), and Greene Avenue (up 34.1%, or 3.0% annually, to 2,400 from 1,800).
- The only decrease occurred on Cooper Street, where daily traffic decreased 6.3%, or 0.7% annually, to 9,100 in 2003 from 9,800 in 1993.

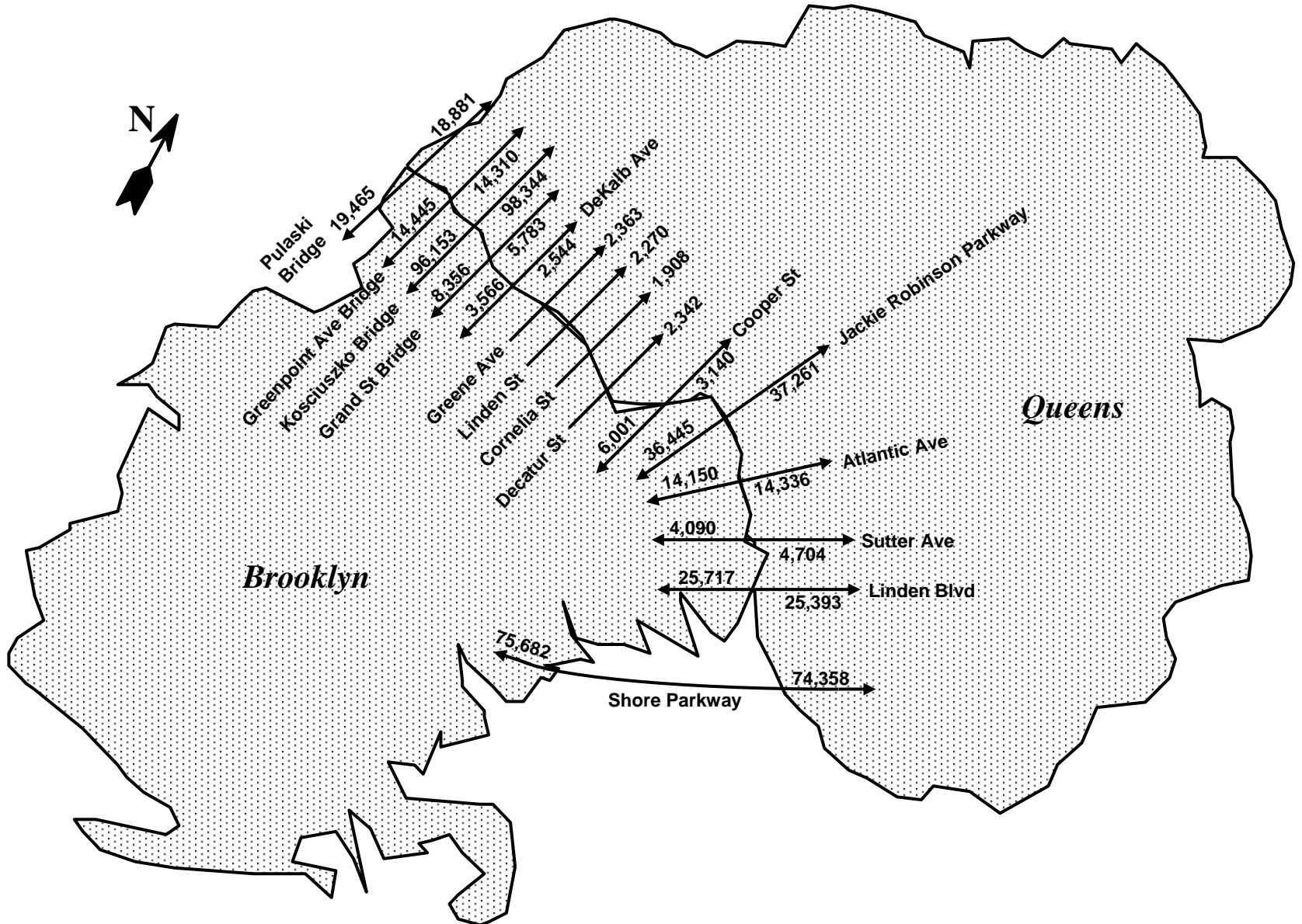
Historical Comparisons

- 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 1993, daily volume crossing Newtown Creek increased just 2.3% during the seven-year period, to 230,000 in 1993 from 224,800 in 1986. The growth was concentrated at the Greenpoint Avenue Bridge, where daily volume increased 79.3%, to 25,700 in 1993 from 14,300 in 1986. Daily traffic on the Kosciuszko Bridge decreased by 1,700 vehicles, to 166,600 in 1993 from 168,300 in 1986, a decrease of 1.0%. Volume on the Pulaski Bridge decreased 17.8%, to 25,300 daily vehicles in 1993 from 30,800 in 1986.
- During the 40 years from 1963 to 2003, daily traffic crossing Newtown Creek increased 71.9%, to 275,700 from 160,400. Volumes increased on all four facilities: Kosciuszko Bridge up 90.3% to 194,500 from 102,200; Grand Street Bridge up 17.6% to 14,100 from 12,000; Greenpoint Avenue Bridge up 63.1% to 28,800 from 17,600; Pulaski Bridge up 34.3% to 38,300 from 28,600.

2003 Screenline Daily Volumes

Brooklyn-Queens



Brooklyn-Queens Screenline Historical Comparisons Average Daily Traffic Volumes

To Brooklyn

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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
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
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

To Brooklyn

	2001	2002	2003
Grand Street Bridge	7,729	7,447	8,356
Greenpoint Ave Bridge	12,993	12,375	14,445
Kosciuszko Bridge	97,242	90,607	96,153
Pulaski Bridge	19,292	18,667	19,465
Newtown Creek Totals	137,256	129,096	138,419
Atlantic Ave	14,182	14,687	14,150
Cooper St	5,756	5,741	6,001
Cornelia St	<i>One-Way to Queens</i>		
Decatur St	<i>One-Way to Queens</i>		
DeKalb Ave	2,563	3,428	3,566
Greene Ave	<i>One-Way to Queens</i>		
Jackie Robinson Pky	35,760	37,175	36,445
Linden Blvd	27,130	27,698	25,717
Linden St	<i>One-Way to Queens</i>		
Shore Pky	75,478	69,587	75,682
Sutter Ave	3,821	3,851	4,090
Other Totals	164,690	162,167	165,651
Grand Totals	301,946	291,263	304,070

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

To Queens

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

To Queens

	2001	2002	2003
Grand Street Bridge	6,166	5,641	5,783
Greenpoint Ave Bridge	13,773	13,931	14,310
Kosciuszko Bridge	99,323	93,772	98,344
Pulaski Bridge	19,770	19,681	18,881
Newtown Creek Totals	139,032	133,025	137,318
Atlantic Ave	13,713	14,249	14,336
Cooper St	3,761	3,533	3,140
Cornelia St	1,936	2,032	1,908
Decatur St	2,082	2,237	2,342
DeKalb Ave	2,347	2,464	2,544
Greene Ave	1,962	2,078	2,363
Jackie Robinson Pky	36,920	37,545	37,261
Linden Blvd	25,160	25,439	25,393
Linden St	2,544	2,609	2,270
Shore Pky	76,440	70,576	74,358
Sutter Ave	4,291	4,498	4,704
Other Totals	171,156	167,260	170,619
Grand Totals	310,188	300,285	307,937

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

Both Directions

	1963	1973	1982	1986	1993	1994	1995	1996	1997	1998	1999	2000
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

Both Directions

	2001	2002	2003
Grand Street Bridge	13,895	13,088	14,139
Greenpoint Ave Bridge	26,766	26,306	28,755
Kosciuszko Bridge	196,565	184,379	194,497
Pulaski Bridge	39,062	38,348	38,346
Newtown Creek Totals	276,288	262,121	275,737
Atlantic Ave	27,895	28,936	28,486
Cooper St	9,517	9,274	9,141
Cornelia St	1,936	2,032	1,908
Decatur St	2,082	2,237	2,342
DeKalb Ave	4,910	5,892	6,110
Greene Ave	1,962	2,078	2,363
Jackie Robinson Pky	72,680	74,720	73,706
Linden Blvd	52,290	53,137	51,110
Linden St	2,544	2,609	2,270
Shore Pky	151,918	140,163	150,040
Sutter Ave	8,112	8,349	8,794
Other Totals	335,846	329,427	336,270
Grand Totals	612,134	591,548	612,007

2003 Screenline Volumes Brooklyn - Queens

	Grand Street Bridge		Greenpoint Ave Bridge		Kosciuszko Bridge		Pulaski Bridge		Newtown Creek Totals	
	<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>S/B*</i>	<i>N/B</i>	<i>To Brooklyn</i>	<i>To Queens</i>
Mid-1am	75	61	111	154	1,698	2,599	338	200	2,222	3,014
1-2am	79	62	84	111	1,203	1,665	196	154	1,562	1,992
2-3am	54	59	75	85	954	1,302	157	132	1,240	1,578
3-4am	84	77	85	94	1,057	1,204	169	143	1,395	1,518
4-5am	105	88	125	132	1,788	1,710	164	230	2,182	2,160
5-6am	221	175	456	344	4,132	3,025	367	654	5,176	4,198
6-7am	567	371	994	756	6,041	4,883	719	1,477	8,321	7,487
7-8am	756	322	1,187	961	5,906	5,165	1,070	1,757	8,919	8,205
8-9am	645	289	1,134	926	5,472	5,165	1,194	1,645	8,445	8,025
9-10am	681	301	1,038	690	5,025	4,526	1,018	1,186	7,762	6,703
10-11am	524	281	824	660	5,187	4,679	938	974	7,473	6,594
11-Noon	478	282	717	712	4,915	4,738	945	973	7,055	6,705
Noon-1	493	341	669	743	4,748	4,781	1,058	964	6,968	6,829
1-2pm	415	364	699	814	4,684	4,923	906	959	6,704	7,060
2-3pm	484	367	773	902	5,085	5,286	1,306	1,045	7,648	7,600
3-4pm	580	403	1,085	1,086	5,282	5,286	1,525	1,095	8,472	7,870
4-5pm	544	495	1,221	1,117	5,148	5,404	1,750	1,104	8,663	8,120
5-6pm	498	482	982	1,138	4,926	5,316	1,637	1,023	8,043	7,959
6-7pm	334	376	666	883	4,666	5,341	1,140	883	6,806	7,483
7-8pm	252	199	495	659	4,509	5,281	813	652	6,069	6,791
8-9pm	146	111	340	472	3,801	4,697	634	475	4,921	5,755
9-10pm	142	101	292	356	3,730	4,358	546	400	4,710	5,215
10-11pm	106	98	212	289	3,472	3,723	430	401	4,220	4,511
11-Mid	93	78	181	226	2,724	3,287	445	355	3,443	3,946
24 hr Total	8,356	5,783	14,445	14,310	96,153	98,344	19,465	18,881	138,419	137,318
6-10am	2,649	1,283	4,353	3,333	22,444	19,739	4,001	6,065	33,447	30,420
10am-1pm	1,495	904	2,210	2,115	14,850	14,198	2,941	2,911	21,496	20,128
1-3pm	899	731	1,472	1,716	9,769	10,209	2,212	2,004	14,352	14,660
3-7pm	1,956	1,756	3,954	4,224	20,022	21,347	6,052	4,105	31,984	31,432
6am-7pm	6,999	4,674	11,989	11,388	67,085	65,493	15,206	15,085	101,279	96,640

* To Brooklyn

2003 Screenline Volumes Brooklyn - Queens (cont'd)

	Atlantic Ave		Cooper St		Cornelia St	Decatur St	DeKalb Ave		Greene Ave	Jackie Robinson Parkway	
	<i>W/B*</i>	<i>E/B</i>	<i>S/B*</i>	<i>N/B</i>	<i>N/B</i>	<i>N/B</i>	<i>S/B*</i>	<i>N/B</i>	<i>N/B</i>	<i>W/B*</i>	<i>E/B</i>
Mid-1am	192	231	72	40	32	40	37	25	42	635	707
1-2am	123	140	40	22	22	21	29	15	33	323	406
2-3am	87	100	25	21	13	16	24	10	19	193	258
3-4am	89	90	36	11	10	13	21	13	14	144	250
4-5am	110	97	28	22	11	15	32	16	8	291	339
5-6am	248	168	80	35	15	34	75	40	16	783	830
6-7am	608	401	275	119	33	69	183	108	76	2,334	2,117
7-8am	1,017	648	583	136	73	110	344	151	158	3,020	2,475
8-9am	903	763	555	179	119	120	315	159	153	2,826	2,220
9-10am	726	648	339	140	85	98	204	118	139	2,312	1,885
10-11am	674	651	245	102	83	106	147	103	125	1,674	1,641
11-Noon	713	672	282	152	85	126	160	121	111	1,506	1,650
Noon-1	768	711	269	150	106	134	170	134	98	1,498	1,730
1-2pm	745	781	281	172	109	134	154	144	127	1,614	2,073
2-3pm	831	811	333	200	119	140	172	158	107	1,876	2,353
3-4pm	825	973	349	275	130	166	193	198	137	2,122	2,162
4-5pm	832	1,130	433	316	133	179	227	209	119	2,418	2,413
5-6pm	961	1,288	410	202	139	225	242	213	152	2,384	2,411
6-7pm	877	1,050	342	295	141	172	214	178	161	2,096	2,313
7-8pm	771	894	285	161	121	116	195	143	142	1,707	1,931
8-9pm	692	697	244	141	100	106	146	104	165	1,386	1,529
9-10pm	563	563	211	101	86	83	121	75	99	1,179	1,259
10-11pm	464	486	165	93	80	70	92	67	71	1,073	1,216
11-Mid	331	343	119	55	63	49	69	42	91	1,051	1,093
24 hr Total	14,150	14,336	6,001	3,140	1,908	2,342	3,566	2,544	2,363	36,445	37,261
6-10am	3,254	2,460	1,752	574	310	397	1,046	536	526	10,492	8,697
10am-1pm	2,155	2,034	796	404	274	366	477	358	334	4,678	5,021
1-3pm	1,576	1,592	614	372	228	274	326	302	234	3,490	4,426
3-7pm	3,495	4,441	1,534	1,088	543	742	876	798	569	9,020	9,299
6am-7pm	10,480	10,527	4,696	2,438	1,355	1,779	2,725	1,994	1,663	27,680	27,443

* To Brooklyn

2003 Screenline Volumes Brooklyn - Queens (cont'd)

	Linden Blvd		Linden St	Shore Parkway		Sutter Ave		Other Totals		Grand Totals	
	<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>
Mid-1am	639	1,019	26	1,120	1,028	48	100	2,743	3,290	4,965	6,304
1-2am	363	512	15	631	601	26	49	1,535	1,836	3,097	3,828
2-3am	252	289	12	389	390	28	46	998	1,174	2,238	2,752
3-4am	236	257	12	328	411	18	19	872	1,100	2,267	2,618
4-5am	295	302	12	658	615	31	25	1,445	1,462	3,627	3,622
5-6am	710	460	29	2,241	1,916	78	60	4,215	3,603	9,391	7,801
6-7am	1,409	895	66	4,434	3,833	226	113	9,469	7,830	17,790	15,317
7-8am	1,466	1,098	112	4,933	4,364	352	209	11,715	9,534	20,634	17,739
8-9am	1,777	1,178	124	4,486	4,371	325	218	11,187	9,604	19,632	17,629
9-10am	1,647	1,177	114	4,415	3,860	209	214	9,852	8,478	17,614	15,181
10-11am	1,380	1,138	123	3,889	3,702	153	223	8,162	7,997	15,635	14,591
11-Noon	1,215	1,186	140	3,459	3,398	162	205	7,497	7,846	14,552	14,551
Noon-1	1,253	1,327	122	3,456	3,690	167	271	7,581	8,473	14,549	15,302
1-2pm	1,128	1,372	132	3,573	3,884	187	285	7,682	9,213	14,386	16,273
2-3pm	1,353	1,489	141	4,135	4,527	233	257	8,933	10,302	16,581	17,902
3-4pm	1,437	1,569	178	4,304	5,264	291	323	9,521	11,375	17,993	19,245
4-5pm	1,464	1,693	166	4,607	5,120	270	387	10,251	11,865	18,914	19,985
5-6pm	1,516	1,670	159	4,763	4,892	279	383	10,555	11,734	18,598	19,693
6-7pm	1,430	1,386	150	4,639	4,411	269	354	9,867	10,611	16,673	18,094
7-8pm	1,203	1,274	140	4,082	4,068	220	245	8,463	9,235	14,532	16,026
8-9pm	1,036	1,175	105	3,378	3,674	172	226	7,054	8,022	11,975	13,777
9-10pm	896	1,071	78	3,073	3,287	134	189	6,177	6,891	10,887	12,106
10-11pm	890	970	64	2,727	2,066	127	177	5,538	5,360	9,758	9,871
11-Mid	722	886	50	1,962	986	85	126	4,339	3,784	7,782	7,730
24 hr Total	25,717	25,393	2,270	75,682	74,358	4,090	4,704	165,651	170,619	304,070	307,937
6-10am	6,299	4,348	416	18,268	16,428	1,112	754	42,223	35,446	75,670	65,866
10am-1pm	3,848	3,651	385	10,804	10,790	482	699	23,240	24,316	44,736	44,444
1-3pm	2,481	2,861	273	7,708	8,411	420	542	16,615	19,515	30,967	34,175
3-7pm	5,847	6,318	653	18,313	19,687	1,109	1,447	40,194	45,585	72,178	77,017
6am-7pm	18,475	17,178	1,727	55,093	55,316	3,123	3,442	122,272	124,862	223,551	221,502

* To Brooklyn