

# 2014 Manhattan River Crossings



Bill de Blasio  
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Polly Trottenberg  
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A member of the New York Metropolitan Transportation Council

# 2014 Manhattan River Crossings

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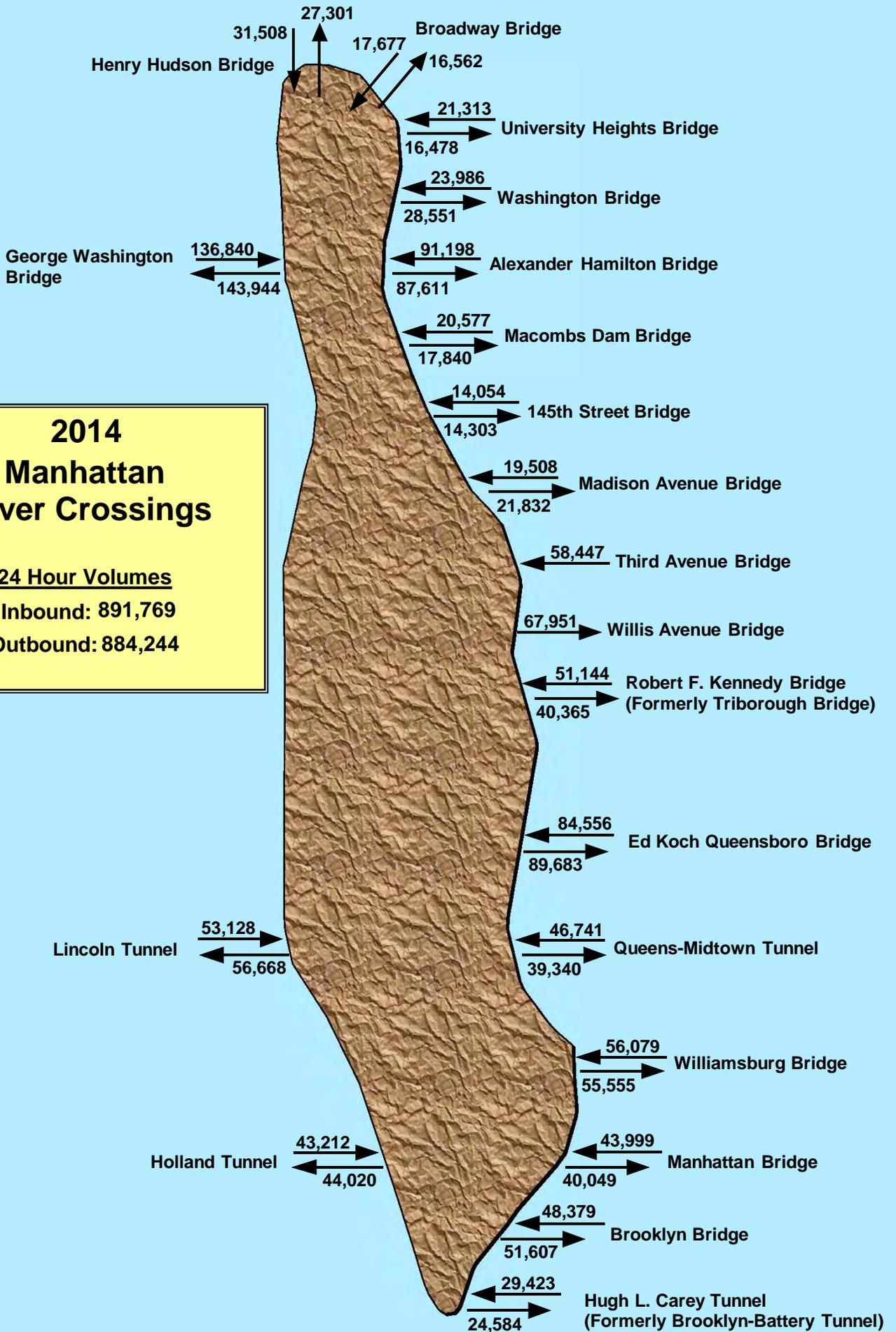
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# 2014 Manhattan River Crossings

24 Hour Volumes  
 Inbound: 891,769  
 Outbound: 884,244



**1,776,013**

daily vehicles used the 20  
Manhattan River Crossings  
in 2014 (total of both  
directions).

**Decrease of 1.7%**

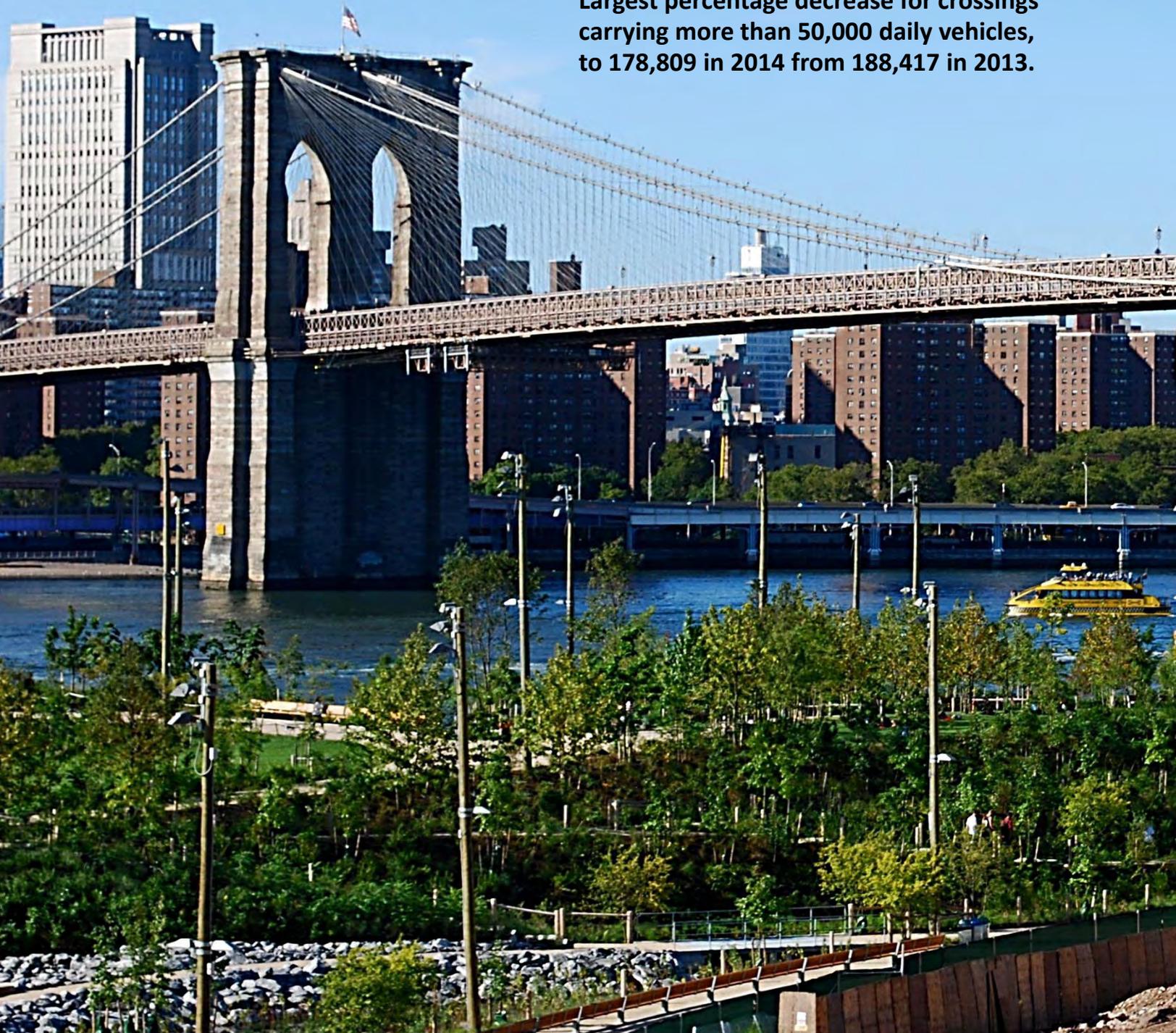
from the 1,807,484 daily  
vehicles recorded in 2013  
(31,471 fewer daily vehicles).

**4.2% Increase**  
**Willis Avenue Bridge (Harlem  
River)**

Largest percentage increase for crossings  
carrying more than 50,000 daily vehicles,  
to 67,951 in 2014 from 65,216 in 2013.

**5.1% Decrease**  
**Alexander Hamilton Bridge  
(Harlem River)**

Largest percentage decrease for crossings  
carrying more than 50,000 daily vehicles,  
to 178,809 in 2014 from 188,417 in 2013.



## **George Washington Bridge (Hudson River)**

280,784 vehicles per day, the most heavily utilized Manhattan river crossing.

## **Alexander Hamilton Bridge (Harlem River)**

178,809 vehicles per day, the most heavily utilized Harlem River crossing.

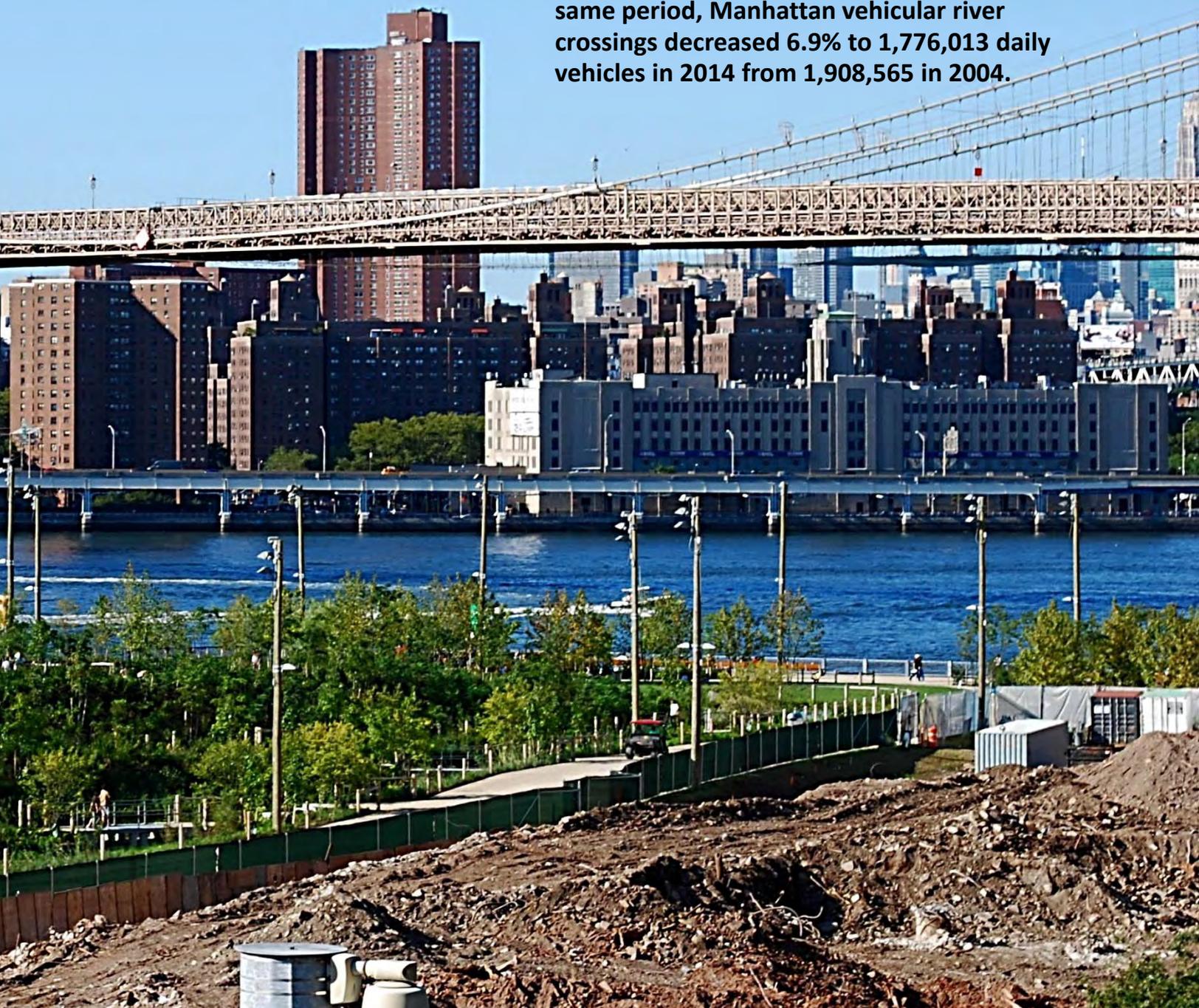
## **Ed Koch Queensboro Bridge (East River)**

174,239 vehicles per day, the most heavily utilized East River crossing.

## **Annual Citywide Subway Ridership**

2.6% increase to 1,751,287,621 annual riders in 2014 from 1,707,555,714 in 2013.

During the past ten years, subway ridership increased 22.8% to 1,751,287,621 annual riders in 2014 from 1,426,000,000 in 2004. During the same period, Manhattan vehicular river crossings decreased 6.9% to 1,776,013 daily vehicles in 2014 from 1,908,565 in 2004.





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# Introduction



**Willis Avenue Bridge over the Harlem River  
Between Manhattan and Bronx**



## INTRODUCTION

The 2014 *Manhattan River Crossings* report is an annual publication prepared by the New York City Department of Transportation (NYCDOT), and funded by the Unified Planning Work Program (UPWP) under the Planning Program of the Moving Ahead for Progress (MAP-21) Act.

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

The average hourly volumes by direction for 2014 are presented in histograms for each facility. The total vehicular flow to and from Manhattan has been summarized similarly with hourly histograms, and a graph of vehicle accumulation in Manhattan. The analysis presented in the report was performed by Subregional Transportation Planning Program staff of NYCDOT during the 2014-2015 and 2015-2016 program years.

NYCDOT extends its appreciation to the Port Authority of New York and New Jersey (PANYNJ), the Metropolitan Transportation Authority Bridges and Tunnels (MTABT), the New York City Department of City Planning (NYCDCP), and the New York Metropolitan Transportation Council (NYMTC) for their assistance in the data collection process.

Note: NYCDOT uses the averages of vehicular volumes from selected representative weekdays. Publications from other sources may be based on alternative computation methodologies for some facilities, most notably the tolled bridges and tunnels, possibly yielding different results for those facilities.

The Harlem River and East River Bridges, as well as the MTABT and PANYNJ facilities, have been classified under a highway functional classification system. Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service each roadway provides.

The five functional classifications are defined as follows:

1. Interstate - connects population centers across state lines.
2. Principal Arterial - serves major centers of activity of an urban area and carries a high proportion of the total urban area travel on a minimum of mileage.
3. Minor Arterial - interconnects with and augments urban principal arterials; provides service for trips of moderate length at a somewhat lower level of travel mobility than principal arterials; distributes travel to geographic areas smaller than those identified with the higher system.
4. Collector Street - provides both land access service and traffic circulation within residential neighborhoods, and commercial and industrial areas. Differs from the arterial systems in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from arterials to the ultimate destination.

Conversely, collector streets also collect traffic from local streets in residential neighborhoods and channel it into the arterial system.

5. Local Street - comprises all facilities not on one of the higher systems. Serves primarily to provide direct access to abutting land and access to the higher order systems. Offers the lowest level of mobility and usually contains no bus or truck routes.

# Summary ~ 2014 Daily Traffic



**Madison Avenue Bridge over the Harlem River  
Between Manhattan and Bronx**



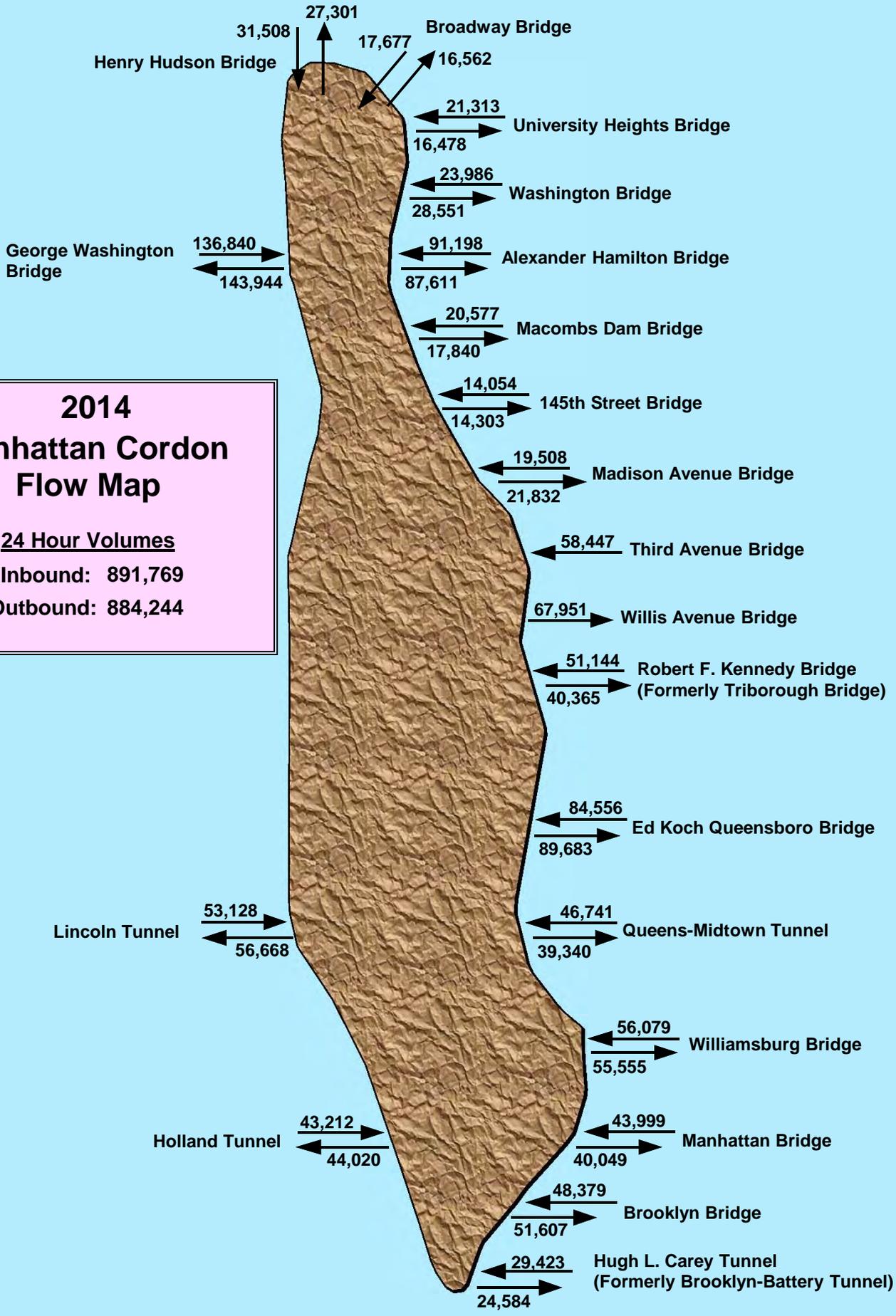
## SUMMARY

- Daily Manhattan river crossings decreased 1.7%, to 1,776,013 daily vehicles in fall 2014 from 1,807,484 in fall 2013, a decrease of 31,471 daily vehicles.
- The busiest river crossings are the following.
  - For the 53<sup>rd</sup> consecutive year, the George Washington Bridge carried more traffic than any other Manhattan river crossing. A two-way total of 280,784 daily vehicles used this bridge in fall 2014, which was 1.1% more than the average daily volume of 277,645 in fall 2013.
  - The Alexander Hamilton Bridge was second busiest, serving 178,809 daily vehicles in fall 2014, which was 5.1% less than its fall 2013 daily volume of 188,417.
  - The Ed Koch Queensboro Bridge was third busiest with its fall 2014 daily volume of 174,239 daily vehicles, an increase of 1.6% from the 171,556 recorded in fall 2013.
- The average automobile entering Manhattan during the morning peak period carried 1.34 persons including the driver. A total of 78.3% of peak period automobiles were occupied only by the driver.
- The peak accumulation of motor vehicles in Manhattan on an average weekday occurred at about 1 pm when an estimated 366,225 vehicles were either moving or parked on the island. This includes vehicles operating only within Manhattan as well as those entering via the river crossings.
- Annual subway ridership citywide increased 2.6% to 1.751 billion in 2014 from 1.708 billion in 2013. This was the highest level of subway ridership since 1949.
- According to census data, 39% of automobile work trips to Manhattan originated in the other four boroughs, 51% came from outside the city, and the remaining 10% originated within Manhattan.
- Origin and Destination (O & D) surveys conducted by PANYNJ in 2006 at its trans-Hudson crossings show that 44% of automobiles entering Manhattan from New Jersey each day have final destinations outside Manhattan. These figures indicate that nearly 100,000 autos entering Manhattan from New Jersey in 2014 each day were simply passing through.
- Similar surveys conducted in 2009 showed that some 70% of trucks entering from New Jersey had final destinations outside Manhattan at that time. However, the Holland Tunnel was closed to all Manhattan-bound trucks during that time. It was reopened to Manhattan-bound 2-axle and 3-axle single unit trucks as of January 3, 2010. Therefore the applicability of the 2009 surveys is uncertain under the present operating conditions since diversion would have been occurring during those 2009 surveys.
- PANYNJ reports show that 66% of morning peak period (7-10 am) automobiles entering from New Jersey have final destinations in Manhattan.



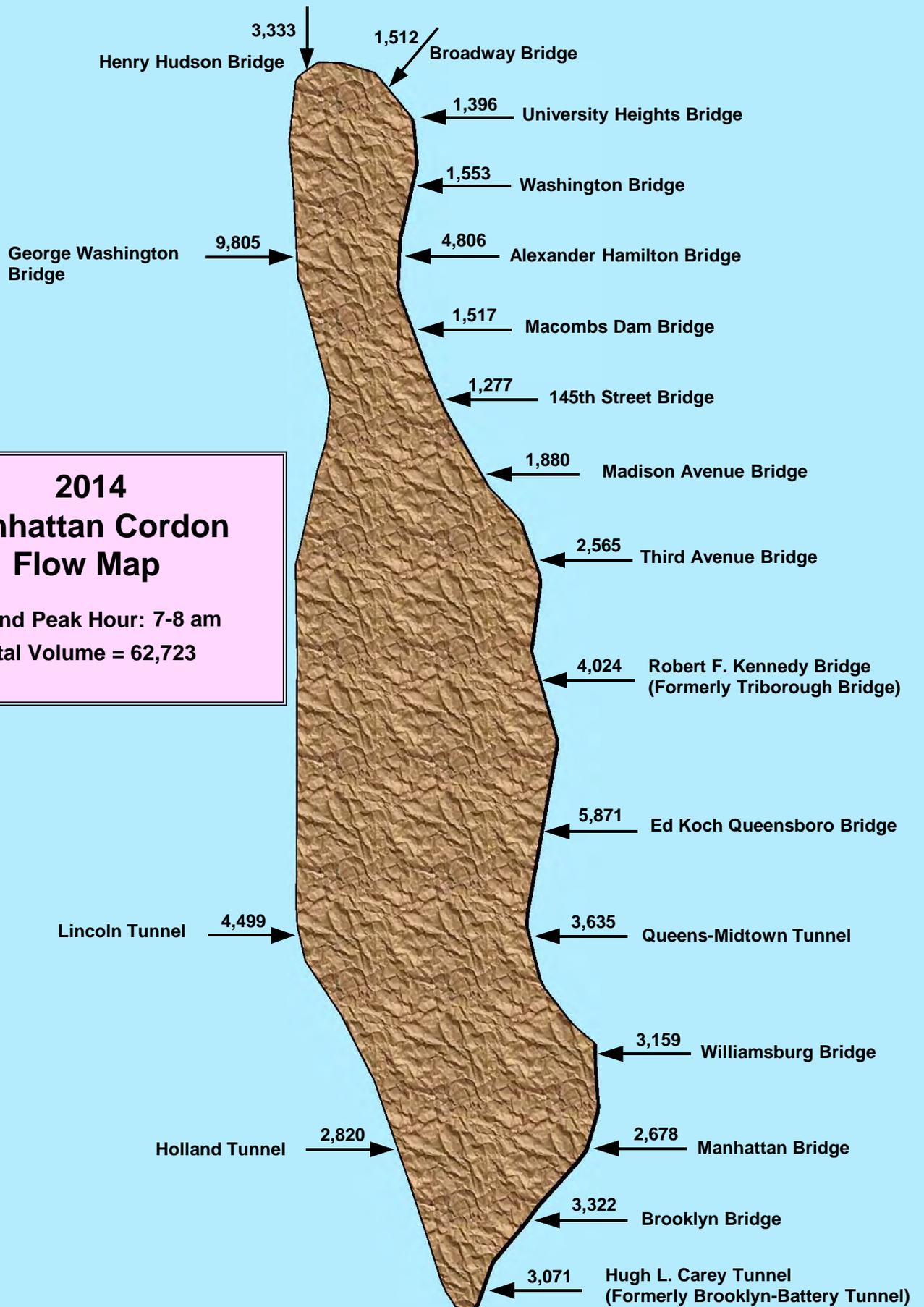
**2014  
Manhattan Cordon  
Flow Map**

24 Hour Volumes  
 Inbound: 891,769  
 Outbound: 884,244

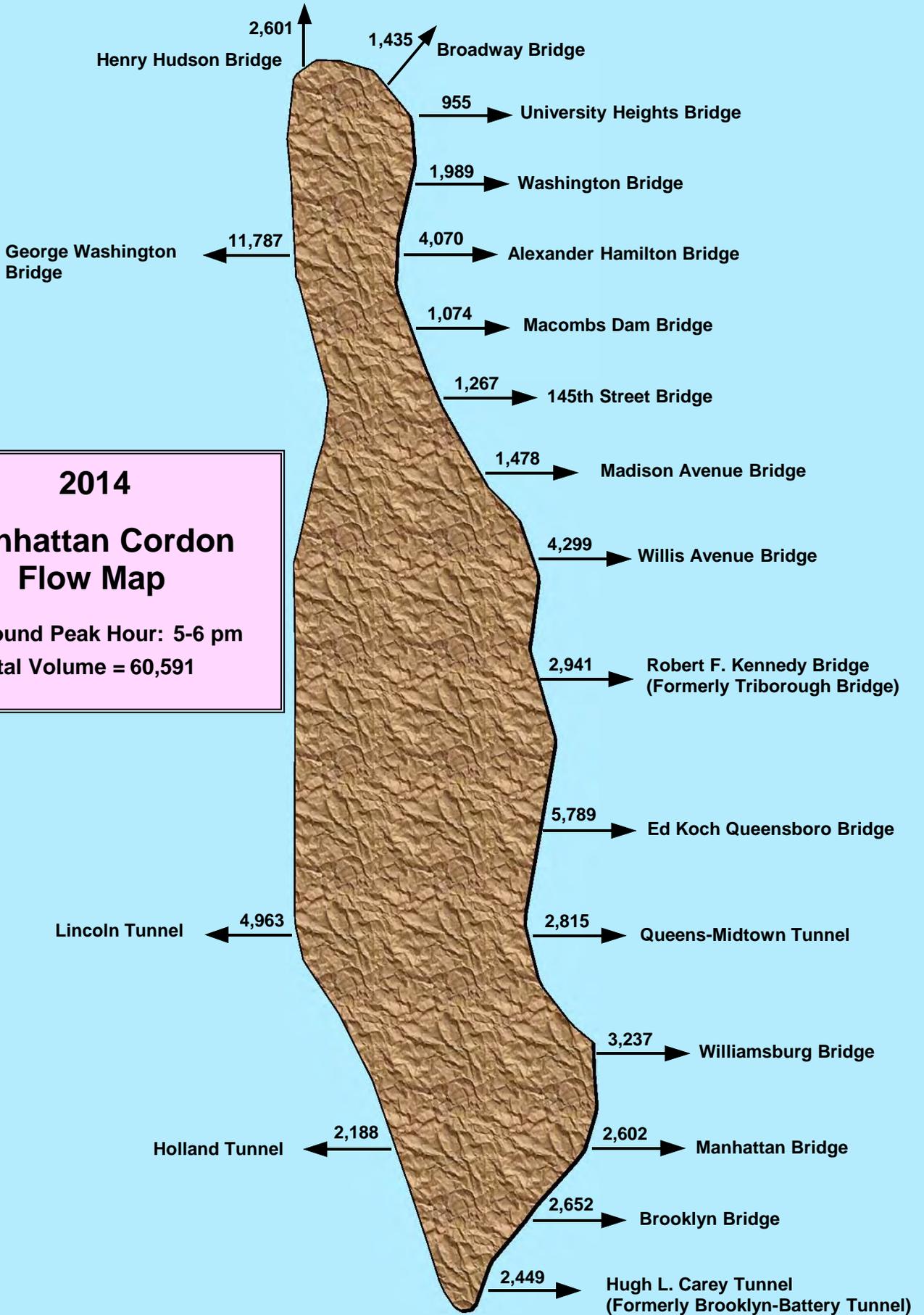


# 2014 Manhattan Cordon Flow Map

Inbound Peak Hour: 7-8 am  
Total Volume = 62,723



**2014**  
**Manhattan Cordon**  
**Flow Map**  
 Outbound Peak Hour: 5-6 pm  
 Total Volume = 60,591



**Manhattan Crossings  
2014 Average Daily Traffic Volumes  
To and From Manhattan**

<b><i>EAST RIVER BRIDGES</i></b>	<b>To Manhattan</b>	<b>From Manhattan</b>	<b>2-way Total</b>
Brooklyn Bridge	48,379	51,607	99,986
Ed Koch Queensboro Bridge *	84,556	89,683	174,239
Manhattan Bridge	43,999	40,049	84,048
Williamsburg Bridge	56,079	55,555	111,634
<b>Total East River</b>	<b>233,013</b>	<b>236,894</b>	<b>469,907</b>

***HARLEM RIVER BRIDGES***

Alexander Hamilton Bridge	91,198	87,611	178,809
Broadway Bridge	17,677	16,562	34,239
Macombs Dam Bridge	20,577	17,840	38,417
Madison Avenue Bridge	19,508	21,832	41,340
Third Avenue Bridge	58,447	-----	58,447
University Heights Bridge	21,313	16,478	37,791
Washington Bridge	23,986	28,551	52,537
Willis Avenue Bridge	-----	67,951	67,951
145th Street Bridge	14,054	14,303	28,357
<b>Total Harlem River</b>	<b>266,760</b>	<b>271,128</b>	<b>537,888</b>

***MTABT FACILITIES***

Henry Hudson Bridge	31,508	27,301	58,809
Hugh L. Carey Tunnel **	29,423	24,584	54,007
Queens-Midtown Tunnel	46,741	39,340	86,081
Robert F. Kennedy Bridge ***	51,144	40,365	91,509
<b>Total MTABT</b>	<b>158,816</b>	<b>131,590</b>	<b>290,406</b>

***PANYNJ FACILITIES***

George Washington Bridge	136,840	143,944	280,784
Holland Tunnel	43,212	44,020	87,232
Lincoln Tunnel	53,128	56,668	109,796
<b>Total PANYNJ</b>	<b>233,180</b>	<b>244,632</b>	<b>477,812</b>

<b>GRAND TOTAL</b>	<b>891,769</b>	<b>884,244</b>	<b>1,776,013</b>
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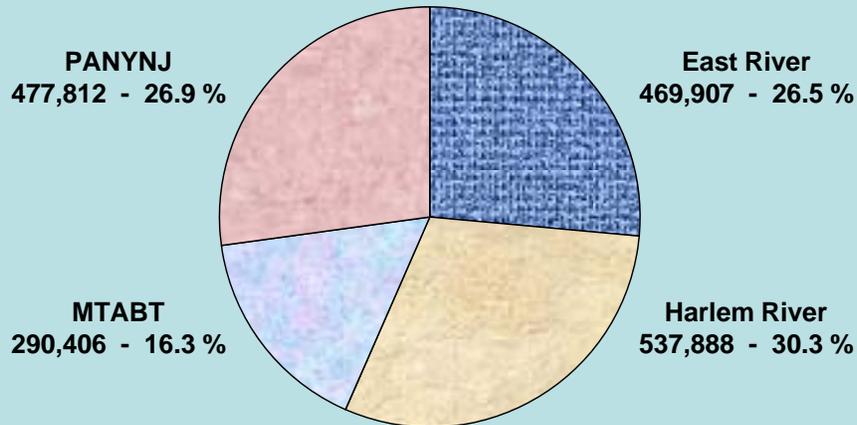
\* Queensboro Bridge renamed April 11, 2011.

\*\* Formerly Brooklyn-Battery Tunnel, renamed October 22, 2012.

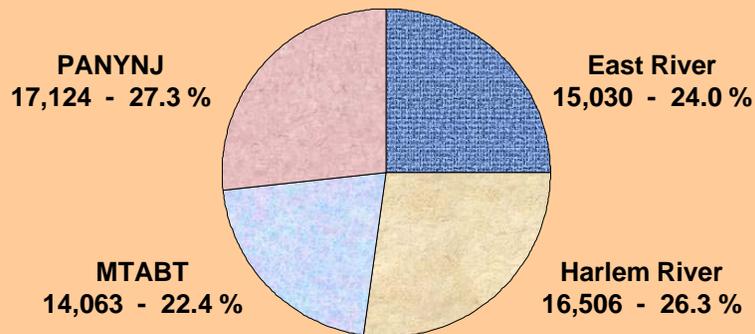
\*\*\* Formerly Triborough Bridge, renamed November 19, 2008.

# 2014 Manhattan Crossings Vehicle Volumes

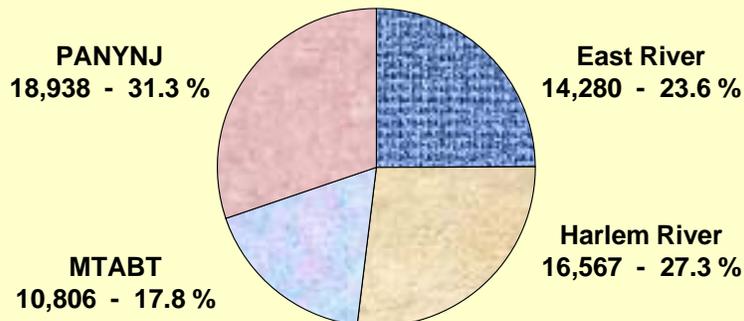
## 24-Hour Volumes – Both Directions



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



## P.M. Peak Hour Volumes – Outbound 5-6 pm



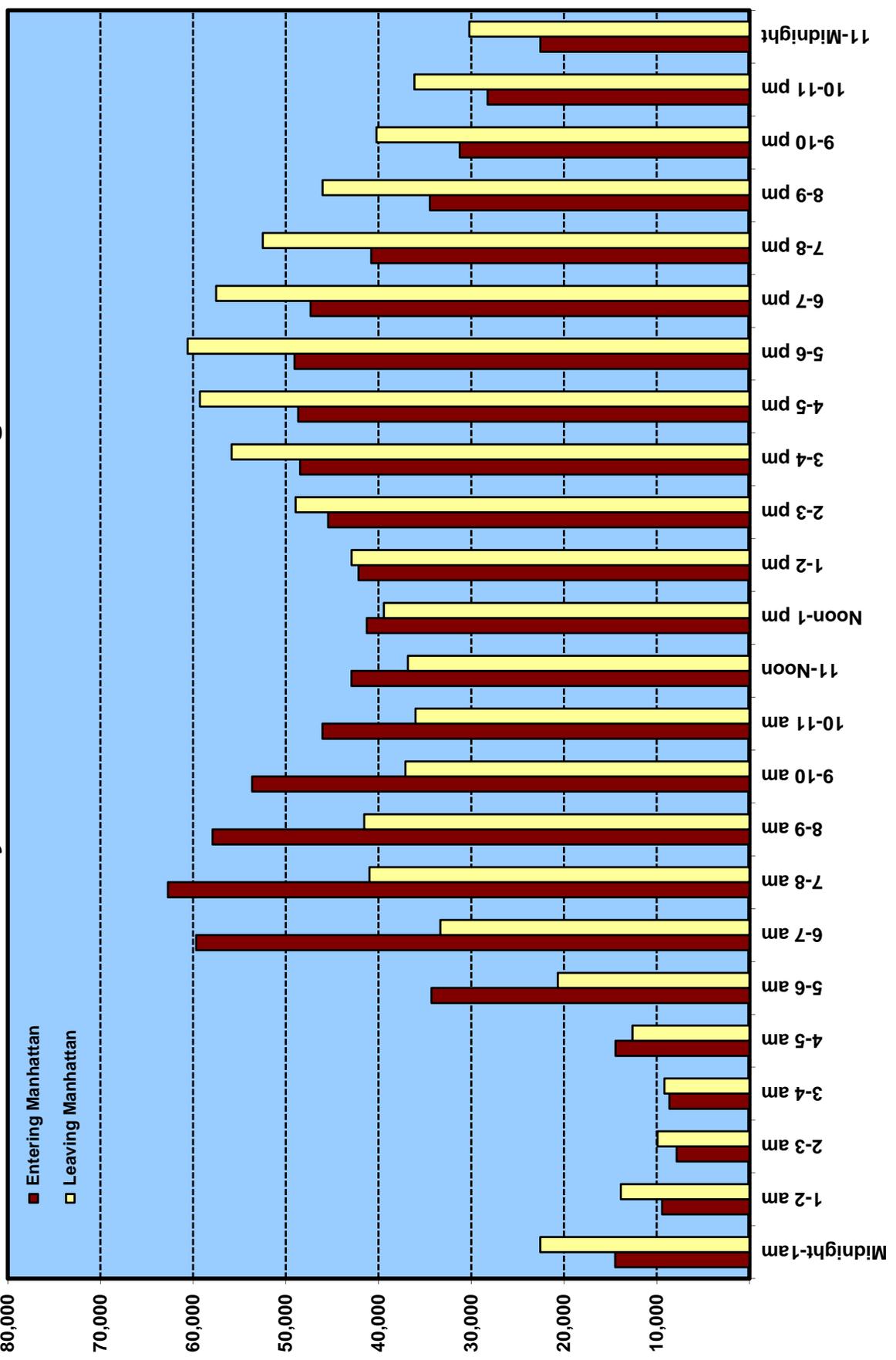
# Total Manhattan Crossings 2014 Average Hourly Traffic Volumes To and From Manhattan (All Facilities)

	Entering Manhattan	Leaving Manhattan	2-Way Total
12-1am	14,486	22,556	37,042
1-2am	9,427	13,873	23,300
2-3am	7,848	9,921	17,769
3-4am	8,636	9,171	17,807
4-5am	14,446	12,618	27,064
5-6am	34,296	20,663	54,959
6-7am	59,675	33,343	93,018
7-8am	62,723 **	40,976	103,699
8-9am	57,903	41,551	99,454
9-10am	53,643	37,105	90,748
10-11am	46,056	36,015	82,071
11-12am	42,920	36,841	79,761
12-1pm	41,277	39,424	80,701
1-2pm	42,155	42,914	85,069
2-3pm	45,437	48,951	94,388
3-4pm	48,465	55,854	104,319
4-5pm	48,677	59,260	107,937
5-6pm	49,064	60,591 **	109,655
6-7pm	47,331	57,522	104,853
7-8pm	40,800	52,491	93,291
8-9pm	34,471	46,041	80,512
9-10pm	31,242	40,222	71,464
10-11pm	28,245	36,130	64,375
11-12pm	22,546	30,211	52,757
24 hrs	891,769	884,244	1,776,013
7-10am	174,269	119,632	293,901
10am-1pm	130,253	112,280	242,533
1-4pm	136,057	147,719	283,776
4-7pm	145,072	177,373	322,445
7am-7pm	585,651	557,004	1,142,655

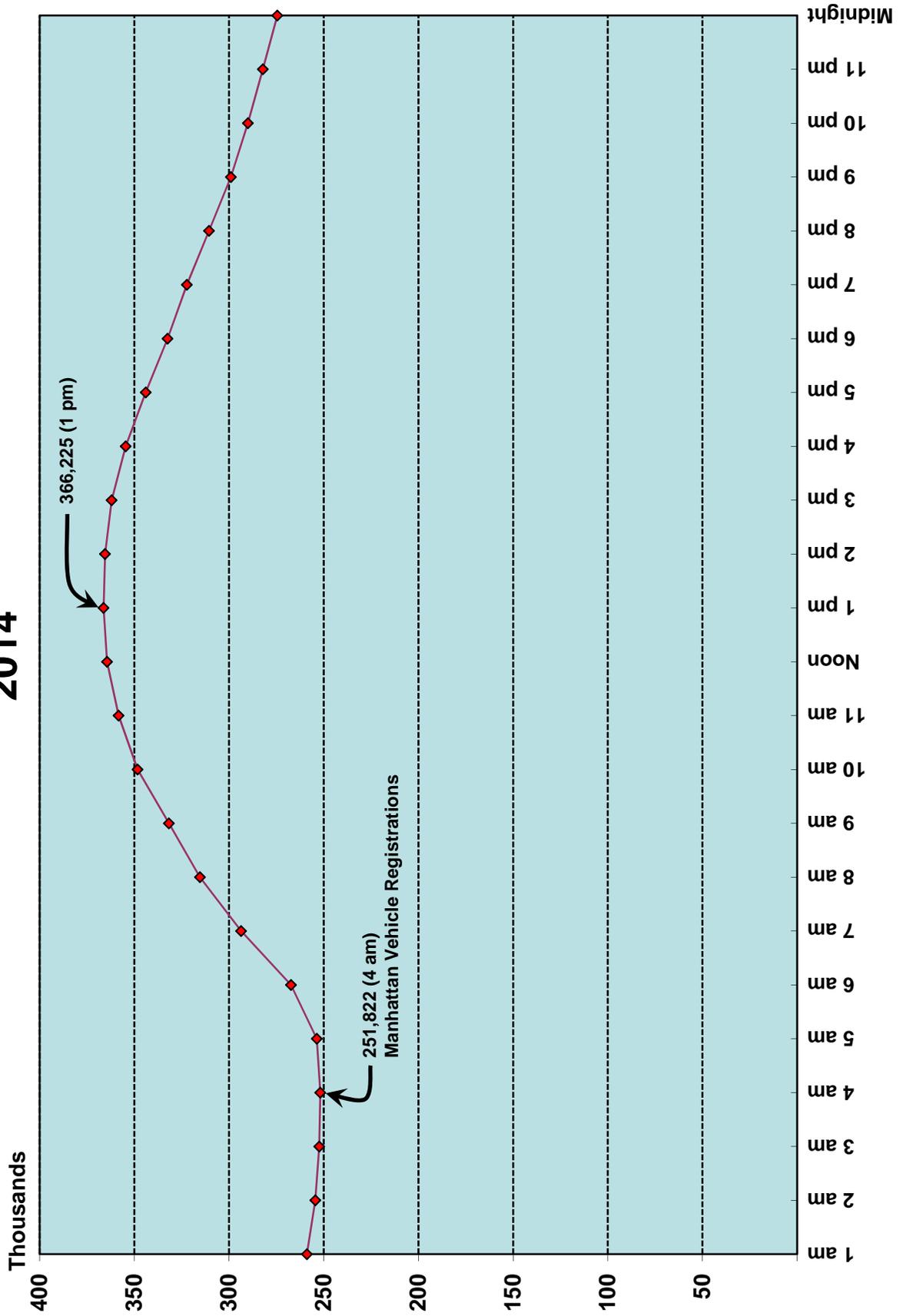
\*\* Peak Volumes

# Hourly Vehicle Volumes

## Total Hourly Manhattan River Crossings ~ 2014



# Manhattan Vehicular Accumulation 2014



# Trip Characteristics



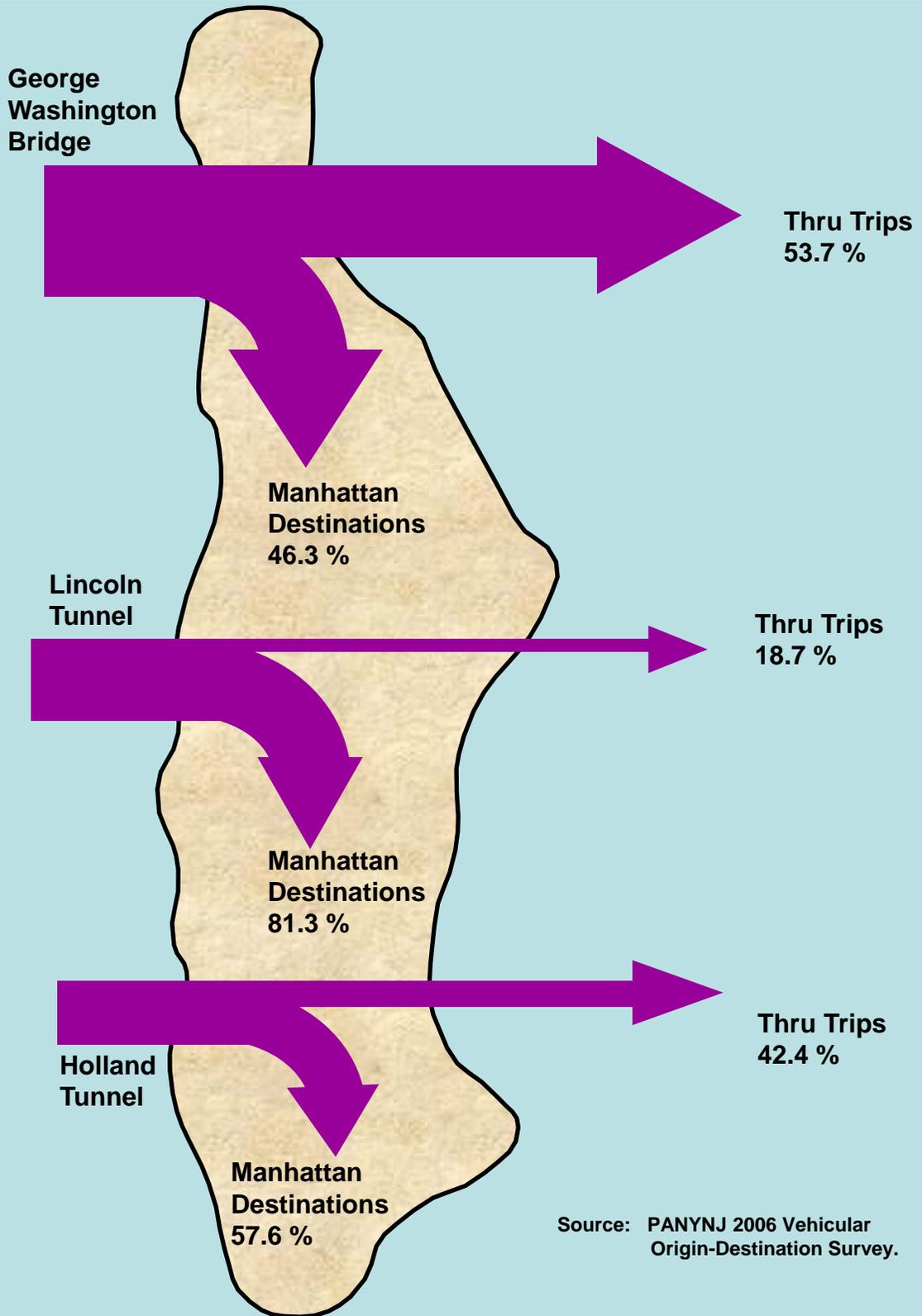
**3<sup>rd</sup> Avenue Bridge  
over the Harlem River  
between Manhattan & Bronx**

## Origins and Travel Modes of Manhattan Commuters

State & County of Residence	Total Manhattan Workers	2		3		4+		Rail				Taxi	Other
		Drove Alone	Person Carpool	Person Carpool	Person Carpool	Bus	Rapid Transit	Railroad	Ferry	Bicycle	Walk		
NY ~ Bronx	191,715	22,815	4,245	970	530	21,335	133,375	5,425	65	270	1,375	1,080	230
NY ~ Brooklyn	387,960	25,155	5,295	1,835	930	19,635	322,275	6,500	155	2,405	2,045	800	930
NY ~ Manhattan	656,595	23,435	5,365	1,155	1,255	67,875	333,275	7,990	30	8,070	173,830	31,035	3,280
NY ~ Queens	378,360	39,800	8,980	1,735	1,285	29,305	274,565	18,710	105	360	1,385	965	1,165
NY ~ Staten Is.	56,695	10,280	1,550	425	395	31,580	4,845	830	6,360	105	185	20	120
<b>Subtotal NYC Origins</b>	<b>1,671,325</b>	<b>121,485</b>	<b>25,435</b>	<b>6,120</b>	<b>4,395</b>	<b>169,730</b>	<b>1,068,335</b>	<b>39,455</b>	<b>6,715</b>	<b>11,210</b>	<b>178,820</b>	<b>33,900</b>	<b>5,725</b>
NY ~ Nassau	95,554	18,550	3,635	550	255	2,755	9,860	59,205	60	4	305	120	255
NY ~ Westchester	83,745	17,620	3,510	515	200	3,325	7,810	49,645	140	0	300	285	395
NY ~ Suffolk	41,135	9,990	1,975	525	60	1,070	2,420	24,100	115	35	365	310	170
NY ~ Rockland	15,815	7,430	1,455	225	115	4,365	260	1,790	100	45	0	0	30
NY ~ Orange	11,595	4,955	800	190	180	2,180	445	2,780	0	0	40	25	0
NY ~ 52 Remaining Counties	16,298	5,022	1,183	89	49	753	1,801	6,367	15	98	678	60	183
<b>New York State Totals</b>	<b>1,935,467</b>	<b>185,052</b>	<b>37,993</b>	<b>8,214</b>	<b>5,254</b>	<b>184,178</b>	<b>1,090,931</b>	<b>183,342</b>	<b>7,145</b>	<b>11,392</b>	<b>180,508</b>	<b>34,700</b>	<b>6,758</b>
NJ ~ Hudson	70,020	5,930	1,295	390	235	22,155	32,840	2,540	4,000	70	310	45	210
NJ ~ Bergen	65,495	18,855	5,055	1,075	600	30,310	1,980	6,445	880	0	130	25	140
NJ ~ Essex	33,030	5,165	1,015	380	155	8,435	3,270	14,090	50	0	85	20	365
NJ ~ Middlesex	28,130	3,800	655	80	50	9,295	1,075	12,990	50	0	50	15	70
NJ ~ Monmouth	24,809	4,080	1,245	305	360	9,070	940	6,305	2,280	35	130	4	55
NJ ~ Union	17,380	3,650	715	170	160	3,295	1,730	6,840	15	0	60	0	745
NJ ~ Morris	13,064	4,200	330	95	29	2,930	525	4,760	30	0	30	0	135
NJ ~ 14 Remaining Counties	36,397	8,734	1,930	165	270	11,550	1,469	11,470	135	40	275	79	280
<b>New Jersey Totals</b>	<b>288,325</b>	<b>54,414</b>	<b>12,240</b>	<b>2,660</b>	<b>1,859</b>	<b>97,040</b>	<b>43,829</b>	<b>65,440</b>	<b>7,440</b>	<b>145</b>	<b>1,070</b>	<b>188</b>	<b>2,000</b>
CT ~ Fairfield	27,965	4,095	725	15	20	740	1,725	20,365	0	0	80	20	180
CT ~ 7 Remaining Counties	5,813	1,955	314	80	30	320	585	2,240	20	0	124	75	70
<b>Connecticut Totals</b>	<b>33,778</b>	<b>6,050</b>	<b>1,039</b>	<b>95</b>	<b>50</b>	<b>1,060</b>	<b>2,310</b>	<b>22,605</b>	<b>20</b>	<b>0</b>	<b>204</b>	<b>95</b>	<b>250</b>
<b>Pennsylvania Totals</b>	<b>14,886</b>	<b>3,739</b>	<b>744</b>	<b>240</b>	<b>395</b>	<b>4,993</b>	<b>1,333</b>	<b>2,965</b>	<b>0</b>	<b>0</b>	<b>269</b>	<b>0</b>	<b>208</b>
<b>GRAND TOTALS</b>	<b>2,272,456</b>	<b>249,255</b>	<b>52,016</b>	<b>11,209</b>	<b>7,558</b>	<b>287,271</b>	<b>1,138,403</b>	<b>274,352</b>	<b>14,605</b>	<b>11,537</b>	<b>182,051</b>	<b>34,983</b>	<b>9,216</b>

Data Source: American Association of State Highway and Transportation Officials (AASHTO) Census Transportation Planning Products (CTTP).  
AASHTO county to county flow tables based on 2006-2008 American Community Survey (ACS) data collected by the U.S. Census Bureau.

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



Source: PANYNJ 2006 Vehicular Origin-Destination Survey.

## DESTINATIONS OF HUDSON RIVER CROSSINGS EASTBOUND AUTO TRAFFIC

### TOTAL OF HOLLAND TUNNEL, LINCOLN TUNNEL AND GEORGE WASHINGTON BRIDGE

<b>Eastbound Auto Destinations</b>	<b>6-7 am</b>	<b>7-10 am</b>	<b>4-7 pm</b>	<b>5 am - 11 pm</b>
Manhattan				
Manhattan CBD	42.4 %	46.2 %	24.4 %	34.5 %
Upper Manhattan	23.8 %	20.1 %	21.3 %	21.7 %
<b>Manhattan Total</b>	<b>66.2 %</b>	<b>66.3 %</b>	<b>45.7 %</b>	<b>56.2 %</b>
Bronx	12.2 %	9.6 %	10.1 %	10.8 %
Brooklyn	7.8 %	7.1 %	10.6 %	9.0 %
Queens	4.6 %	7.3 %	17.3 %	10.9 %
Westchester	4.3 %	3.2 %	7.7 %	4.7 %
Long Island	3.5 %	3.7 %	7.4 %	5.5 %
Other	1.4 %	2.8 %	1.2 %	2.9 %
<b>Thru Trip Total</b>	<b>33.8 %</b>	<b>33.7 %</b>	<b>54.3 %</b>	<b>43.8 %</b>
<b>GRAND TOTAL</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>

Source: Weekday data from the PANYNJ 2006 Vehicular Origin-Destination Survey.

## DESTINATIONS OF GEORGE WASHINGTON BRIDGE EASTBOUND AUTO TRAFFIC

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Manhattan CBD	25.5 %	26.8 %	12.3 %	18.4 %
Upper Manhattan	31.5 %	28.9 %	26.1 %	27.9 %
<b>Manhattan Total</b>	<b>57.0 %</b>	<b>55.7 %</b>	<b>38.4 %</b>	<b>46.3 %</b>
Bronx	19.5 %	16.6 %	14.5 %	17.3 %
Brooklyn	4.3 %	3.9 %	6.6 %	5.4 %
Queens	5.3 %	9.3 %	15.6 %	11.3 %
Westchester	6.9 %	4.5 %	12.3 %	7.3 %
Long Island	5.3 %	5.5 %	11.0 %	7.8 %
Other	1.7 %	4.5 %	1.6 %	4.6 %
<b>Thru Trip Total</b>	<b>43.0 %</b>	<b>44.3 %</b>	<b>61.6 %</b>	<b>53.7 %</b>
<b>GRAND TOTAL</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>

Source: Weekday data from the PANYNJ 2006 Vehicular Origin-Destination Survey.

## DESTINATIONS OF HOLLAND TUNNEL EASTBOUND AUTO TRAFFIC

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Manhattan CBD	60.6 %	62.7 %	40.3 %	49.0 %
Upper Manhattan	11.4 %	5.8 %	12.2 %	8.6 %
<b>Manhattan Total</b>	<b>72.0 %</b>	<b>68.5 %</b>	<b>52.5 %</b>	<b>57.6 %</b>
Bronx	2.1 %	0.6 %	3.2 %	2.2 %
Brooklyn	19.3 %	20.4 %	24.9 %	23.0 %
Queens	3.9 %	4.9 %	16.9 %	12.4 %
Westchester	0.6 %	3.3 %	0.0 %	2.0 %
Long Island	0.5 %	2.3 %	1.8 %	2.4 %
Other	1.6 %	0.0 %	0.7 %	0.4 %
<b>Thru Trip Total</b>	<b>28.0 %</b>	<b>31.5 %</b>	<b>47.5 %</b>	<b>42.4 %</b>
<b>GRAND TOTAL</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>

Source: Weekday data from the PANYNJ 2006 Vehicular Origin-Destination Survey.

## DESTINATIONS OF LINCOLN TUNNEL EASTBOUND AUTO TRAFFIC

Eastbound Auto Destinations	6-7 am	7-10 am	4-7 pm	5 am - 11 pm
Manhattan				
Manhattan CBD	76.7 %	78.6 %	51.6 %	64.0 %
Upper Manhattan	12.1 %	10.3 %	15.0 %	17.3 %
<b>Manhattan Total</b>	<b>88.8 %</b>	<b>88.9 %</b>	<b>66.6 %</b>	<b>81.3 %</b>
Bronx	0.0 %	0.2 %	2.7 %	1.2 %
Brooklyn	7.8 %	5.1 %	3.9 %	6.0 %
Queens	2.9 %	4.5 %	25.8 %	8.6 %
Westchester	0.0 %	0.1 %	0.0 %	0.3 %
Long Island	0.5 %	0.5 %	1.0 %	2.0 %
Other	0.0 %	0.7 %	0.0 %	0.6 %
<b>Thru Trip Total</b>	<b>11.2 %</b>	<b>11.1 %</b>	<b>33.4 %</b>	<b>18.7 %</b>
<b>GRAND TOTAL</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>100.0 %</b>

Source: Weekday data from the PANYNJ 2006 Vehicular Origin-Destination Survey.

## VEHICLE OCCUPANCY -- INBOUND TO MANHATTAN

### *Average Number of Persons per Auto*

	Peak Hour Persons Auto	7-10am Percent Autos with Driver Only
Brooklyn-Battery Tunnel	1.31	72.7 %
Brooklyn Bridge	1.22	80.5 %
Manhattan Bridge	1.25	80.1 %
Williamsburg Bridge	1.17	84.6 %
Holland Tunnel	1.22	65.7 %
<b>5 Lower Manhattan Crossings</b>	<b>1.24</b>	<b>76.3 %</b>
Queens-Midtown Tunnel	1.24	77.7 %
Ed Koch Queensboro Bridge	1.44	66.6 %
Lincoln Tunnel	1.41	73.1 %
<b>3 Midtown Manhattan Crossings</b>	<b>1.37</b>	<b>72.7 %</b>
Robert F. Kennedy Bridge	1.18	83.3 %
Alexander Hamilton Bridge	1.16	86.0 %
Broadway Bridge	1.19	84.7 %
Macombs Dam Bridge	1.32	72.4 %
Madison Avenue Bridge	1.28	77.1 %
Third Avenue Bridge	1.22	80.6 %
University Heights Bridge	1.23	82.9 %
Washington Bridge	1.38	73.0 %
145th Street Bridge	1.32	73.8 %
Henry Hudson Bridge	1.20	88.5 %
George Washington Bridge	1.74	79.6 %
<b>11 Upper Manhattan Crossings</b>	<b>1.39</b>	<b>81.4 %</b>
<b>All 19 Inbound Manhattan Crossings</b>	<b>1.34</b>	<b>78.3 %</b>

Sources:

1. Port Authority of New York & New Jersey: 2013 Passengers per Vehicle surveys at the George Washington Bridge, Holland Tunnel, and Lincoln Tunnel.
2. New York City Department of Transportation: Fall 2005 Vehicle Occupancy surveys at all other bridges and tunnels.

# 2013-2014 Trends



**Brooklyn Bridge**



## 2013-2014 Trends

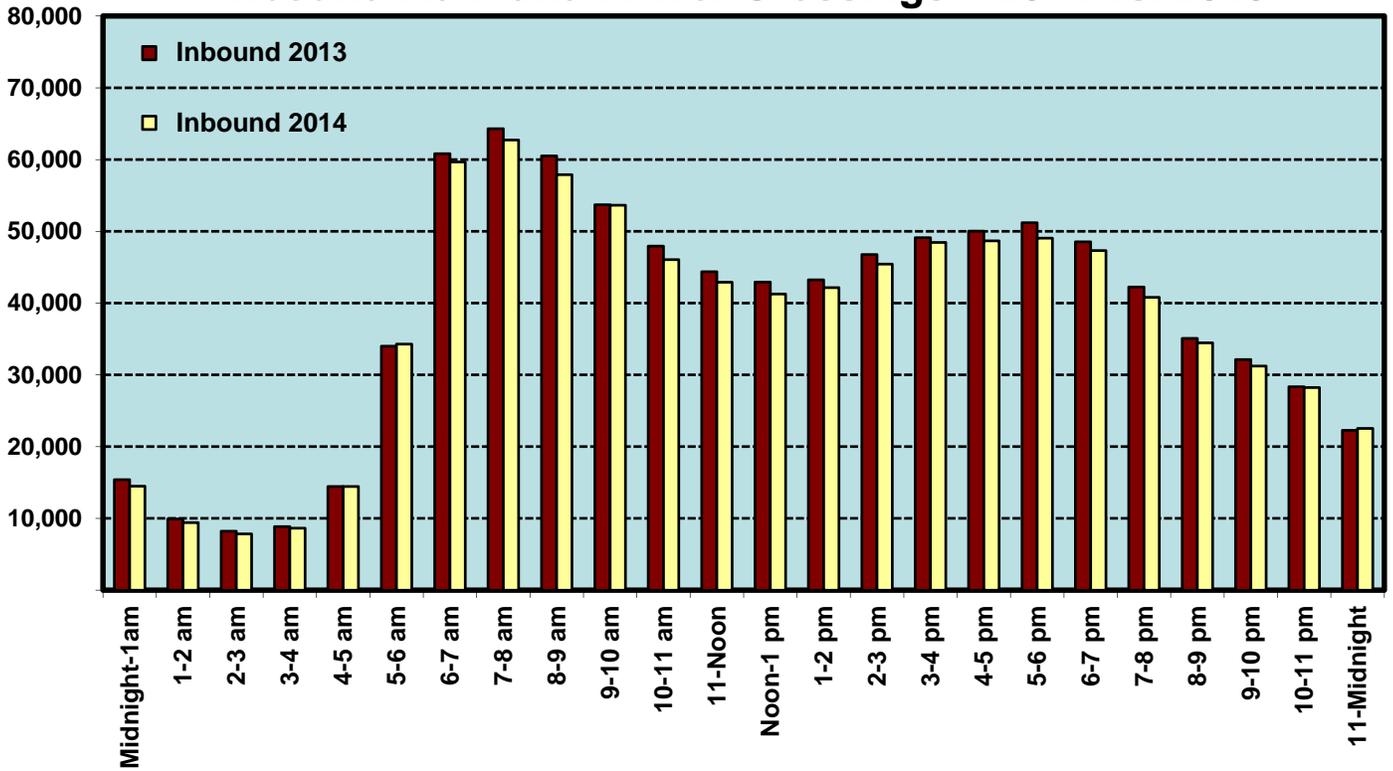
- Daily Manhattan river crossings decreased 1.7%, to 1,776,013 in fall 2014 from 1,807,484 in fall 2013 (31,471 fewer daily vehicles).
- The largest percentage decrease occurred on the Madison Avenue Bridge over the Harlem River between Manhattan and The Bronx, where daily traffic decreased 12.1%, to 41,340 vehicles in fall 2014 from 47,046 in fall 2013 (5,706 fewer daily vehicles).
- The largest numerical decrease occurred on the Alexander Hamilton Bridge over the Harlem River between Manhattan and The Bronx, where traffic decreased by 9,608 daily vehicles, to 178,809 in fall 2014 from 188,417 in fall 2013 (-5.1%).
- The largest percentage increase occurred on the Willis Avenue Bridge over the Harlem River between Manhattan and The Bronx, where daily volume increased 4.2%, to 67,951 vehicles in fall 2014 from 65,216 in fall 2013 (2,735 additional daily vehicles).
- The largest numerical increase occurred on the George Washington Bridge over the Hudson River between Manhattan and New Jersey, where daily volume increased by 3,139 daily vehicles to 280,784 in fall 2014 from 277,645 in fall 2013 (+1.1%).
- Total daily traffic on the four East River bridges combined decreased 1.5%, to 469,907 in fall 2014 from 477,147 in fall 2013 (7,240 fewer daily vehicles).
- Daily volume using the nine Harlem River bridges decreased 3.6%, to 537,888 in fall 2014 from 558,163 in fall 2013 (20,275 fewer daily vehicles).
- On the four MTABT Manhattan crossings, total daily traffic decreased 0.7% to 290,406 in fall 2014 from 292,355 in fall 2013 (1,949 fewer daily vehicles).
- Daily traffic using the three PANYNJ Manhattan crossings decreased 0.4% to 477,812 from 479,819 (2,007 fewer daily vehicles)
- Annual subway ridership citywide increased 2.6% to 1,751,287,621 in 2014 from 1,707,555,714 in 2013. This was the highest level of subway ridership since 1949.

## Manhattan Crossings Hourly Vehicular Volumes 2014 vs 2013

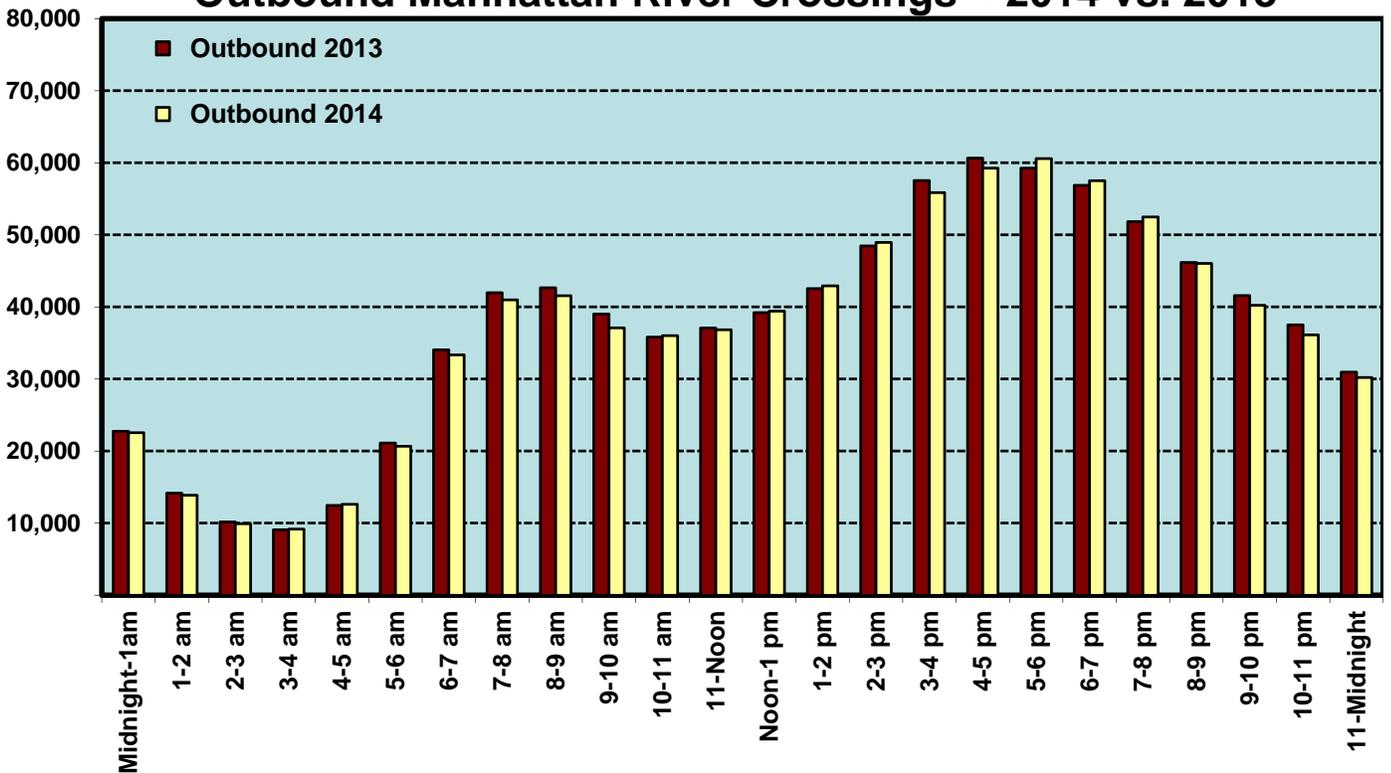
	Inbound			Outbound		
	2013	2014	Percent Change	2013	2014	Percent Change
Mid-1	15,402	14,486	- 5.9 %	22,750	22,556	- 0.9 %
1-2 am	9,920	9,427	- 5.0 %	14,168	13,873	- 2.1 %
2-3 am	8,226	7,848	- 4.6 %	10,174	9,921	- 2.5 %
3-4 am	8,876	8,636	- 2.7 %	9,075	9,171	1.1 %
4-5 am	14,461	14,446	- 0.1 %	12,467	12,618	1.2 %
5-6 am	34,011	34,296	0.8 %	21,106	20,663	- 2.1 %
6-7 am	60,834	59,675	- 1.9 %	34,048	33,343	- 2.1 %
7-8 am	64,308	62,723	- 2.5 %	41,979	40,976	- 2.4 %
8-9 am	60,511	57,903	- 4.3 %	42,650	41,551	- 2.6 %
9-10 am	53,699	53,643	- 0.1 %	39,027	37,105	- 4.9 %
10-11 a	47,953	46,056	- 4.0 %	35,825	36,015	0.5 %
11-Noon	44,374	42,920	- 3.3 %	37,071	36,841	- 0.6 %
Noon-1	42,933	41,277	- 3.9 %	39,213	39,424	0.5 %
1-2 pm	43,242	42,155	- 2.5 %	42,541	42,914	0.9 %
2-3 pm	46,762	45,437	- 2.8 %	48,457	48,951	1.0 %
3-4 pm	49,131	48,465	- 1.4 %	57,534	55,854	- 2.9 %
4-5 pm	50,029	48,677	- 2.7 %	60,652	59,260	- 2.3 %
5-6 pm	51,209	49,064	- 4.2 %	59,261	60,591	2.2 %
6-7 pm	48,546	47,331	- 2.5 %	56,880	57,522	1.1 %
7-8 pm	42,257	40,800	- 3.4 %	51,836	52,491	1.3 %
8-9 pm	35,086	34,471	- 1.8 %	46,158	46,041	- 0.3 %
9-10 pm	32,133	31,242	- 2.8 %	41,575	40,222	- 3.3 %
10-11 p	28,356	28,245	- 0.4 %	37,524	36,130	- 3.7 %
11-Mid	22,287	22,546	1.2 %	30,967	30,211	- 2.4 %
Totals	914,546	891,769	- 2.5 %	892,938	884,244	- 1.0 %
1-4am	27,022	25,911	- 4.1 %	33,417	32,965	- 1.4 %
4-7am	109,306	108,417	- 0.8 %	67,621	66,624	- 1.5 %
7-10am	178,518	174,269	- 2.4 %	123,656	119,632	- 3.3 %
10am-1pm	135,260	130,253	- 3.7 %	112,109	112,280	0.2 %
1-4pm	139,135	136,057	- 2.2 %	148,532	147,719	- 0.5 %
4-7pm	149,784	145,072	- 3.1 %	176,793	177,373	0.3 %
7-10pm	109,476	106,513	- 2.7 %	139,569	138,754	- 0.6 %
10pm-1am	66,045	65,277	- 1.2 %	91,241	88,897	- 2.6 %
7am-7pm	602,697	585,651	- 2.8 %	561,090	557,004	- 0.7 %
6-10am	239,352	233,944	- 2.3 %	157,704	152,975	- 3.0 %
3-7pm	198,915	193,537	- 2.7 %	234,327	233,227	- 0.5 %
6am-7pm	663,531	645,326	- 2.7 %	595,138	590,347	- 0.8 %

# Hourly Vehicle Volumes

## Inbound Manhattan River Crossings ~ 2014 vs. 2013



## Outbound Manhattan River Crossings ~ 2014 vs. 2013



## Weekday Manhattan Crossings 2013-2014 Traffic Volume Trends Both Directions

<b>EAST RIVER BRIDGES</b>	<b>Highway Functional Classification</b>	<b>2013</b>	<b>2014</b>	<b>Percent Change</b>
Brooklyn Bridge	Principal Arterial	102,542	99,986	- 2.5 %
Ed Koch Queensboro Bridge *	Principal Arterial	171,556	174,239	1.6 %
Manhattan Bridge	Principal Arterial	87,375	84,048	- 3.8 %
Williamsburg Bridge	Principal Arterial	115,674	111,634	- 3.5 %
<b>Total, 4 East River Bridges</b>		<b>477,147</b>	<b>469,907</b>	<b>- 1.5 %</b>
<b>HARLEM RIVER BRIDGES</b>				
Alexander Hamilton Bridge	Interstate	188,417	178,809	- 5.1 %
Broadway Bridge	Principal Arterial	35,462	34,239	- 3.4 %
Macombs Dam Bridge	Principal Arterial	38,930	38,417	- 1.3 %
Madison Avenue Bridge	Principal Arterial	47,046	41,340	- 12.1 %
Third Avenue Bridge	Principal Arterial	60,120	58,447	- 2.8 %
University Heights Bridge	Principal Arterial	40,774	37,791	- 7.3 %
Washington Bridge	Minor Arterial	54,031	52,537	- 2.8 %
Willis Avenue Bridge	Principal Arterial	65,216	67,951	4.2 %
145th Street Bridge	Minor Arterial	28,167	28,357	0.7 %
<b>Total, 9 Harlem River Bridges</b>		<b>558,163</b>	<b>537,888</b>	<b>- 3.6 %</b>
<b>MTABT Manhattan Facilities</b>				
Henry Hudson Bridge	Principal Arterial	59,087	58,809	- 0.5 %
Hugh L. Carey Tunnel **	Interstate	55,145	54,007	- 2.1 %
Queens-Midtown Tunnel	Interstate	86,737	86,081	- 0.8 %
R.F.K. Memorial Bridge Manhattan Plaza ***	Principal Arterial	91,386	91,509	0.1 %
<b>Total, 4 MTABT Manhattan Crossings</b>		<b>292,355</b>	<b>290,406</b>	<b>- 0.7 %</b>
<b>PANYNJ Manhattan Facilities</b>				
George Washington Bridge	Interstate	277,645	280,784	1.1 %
Holland Tunnel	Interstate	90,012	87,232	- 3.1 %
Lincoln Tunnel	Principal Arterial	112,162	109,796	- 2.1 %
<b>Total, 3 PANYNJ Manhattan - New Jersey Crossings</b>		<b>479,819</b>	<b>477,812</b>	<b>- 0.4 %</b>
<b>GRAND TOTALS</b>		<b>1,807,484</b>	<b>1,776,013</b>	<b>- 1.7 %</b>

\* Queensboro Bridge renamed April 11, 2011.

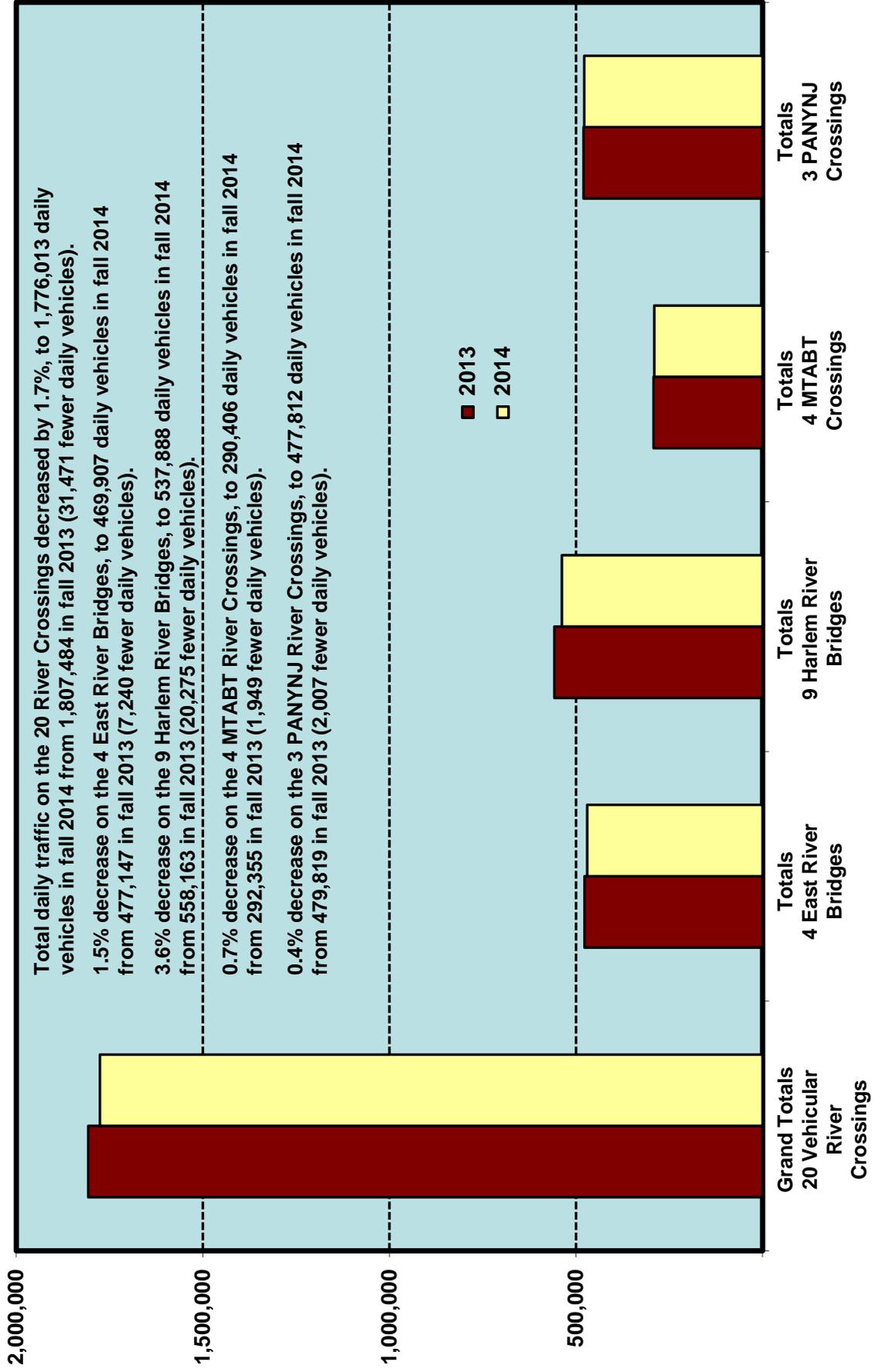
\*\* Formerly Brooklyn-Battery Tunnel, renamed October 22, 2012.

\*\*\* Formerly Triborough Bridge, renamed November 19, 2008.

# Manhattan River Crossings Daily Volumes

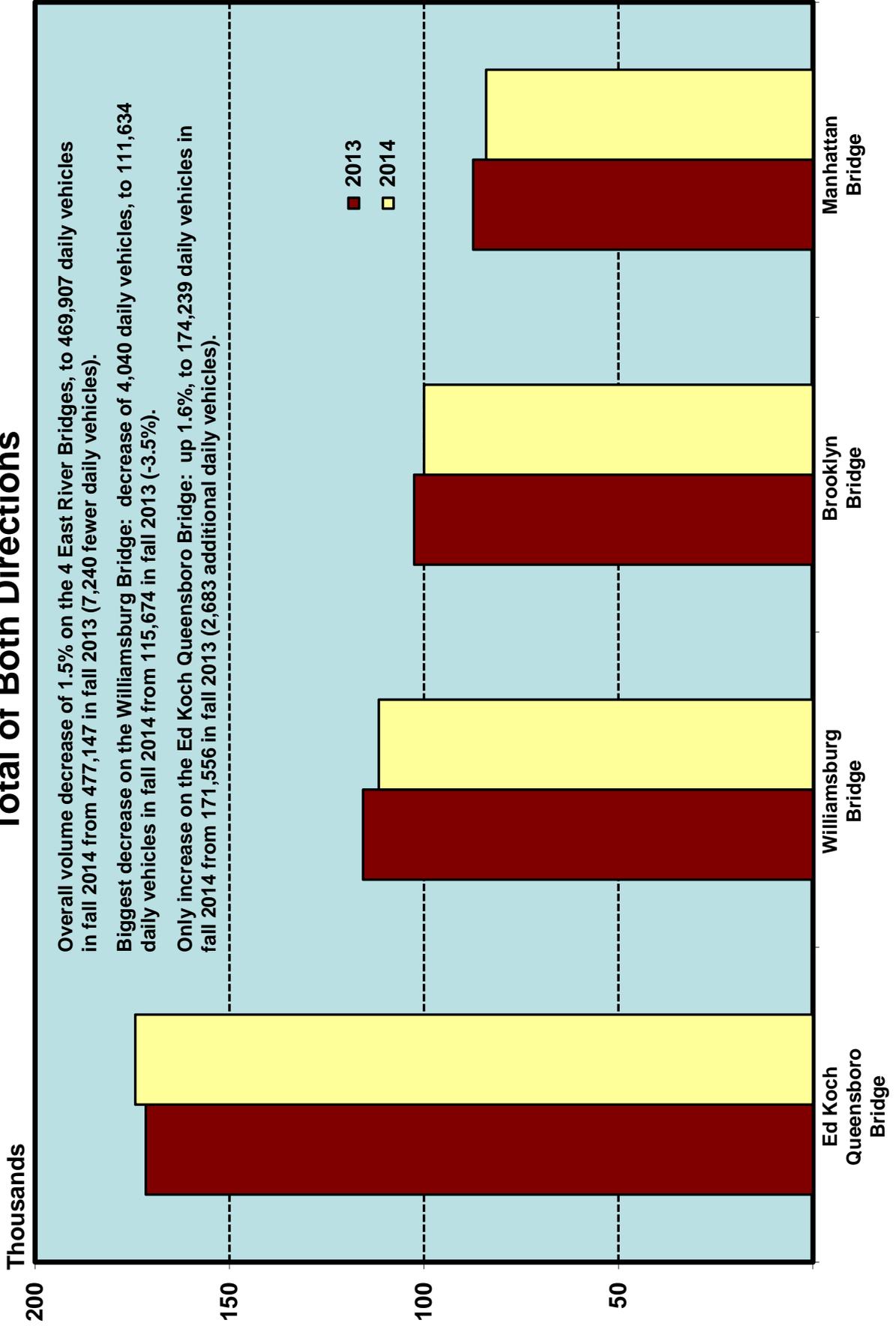
## 2014 vs. 2013

### Total of Both Directions



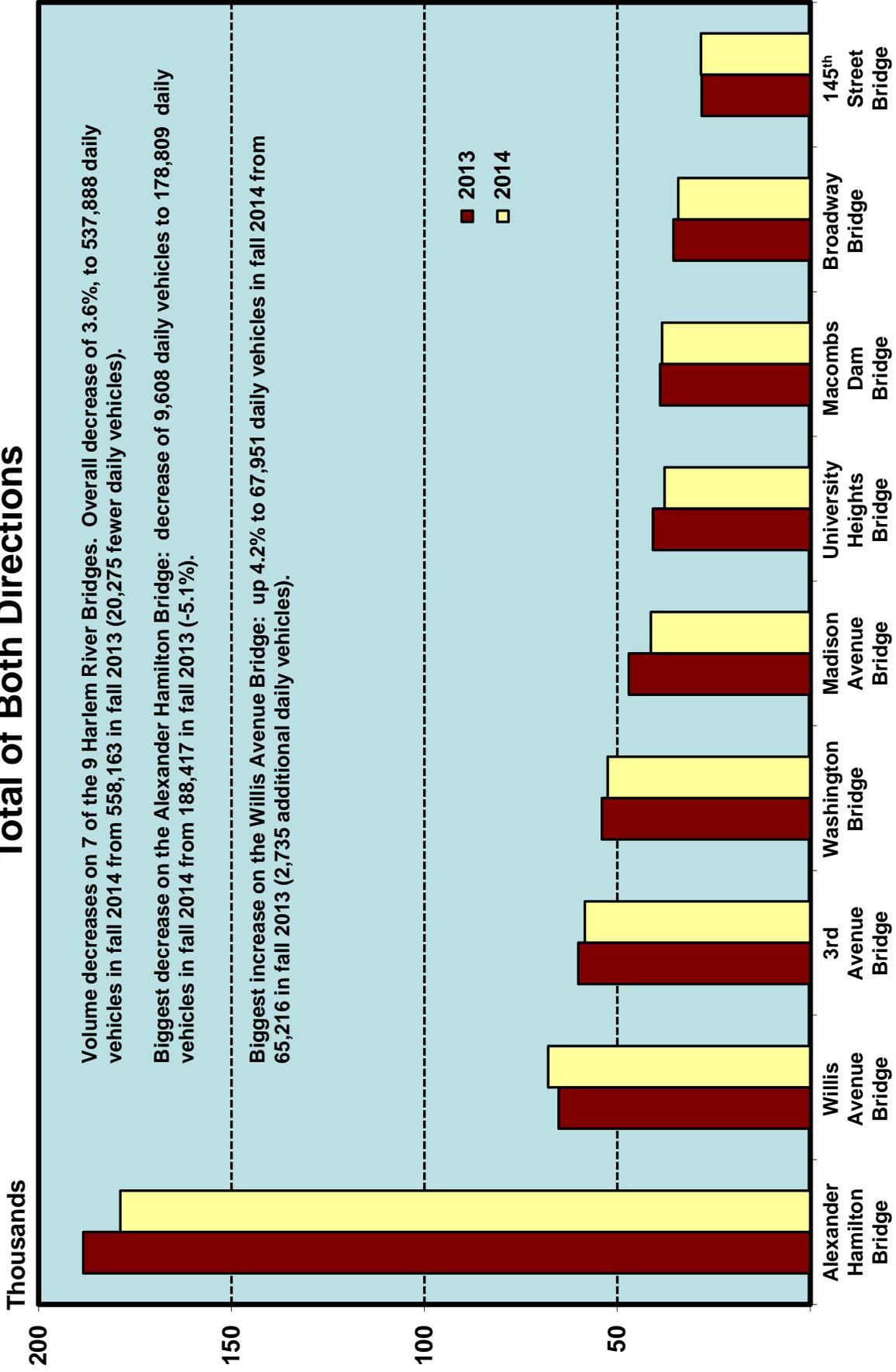
# East River Bridges Daily Volumes 2014 vs. 2013

## Total of Both Directions



# Harlem River Bridges Daily Volumes 2014 vs. 2013

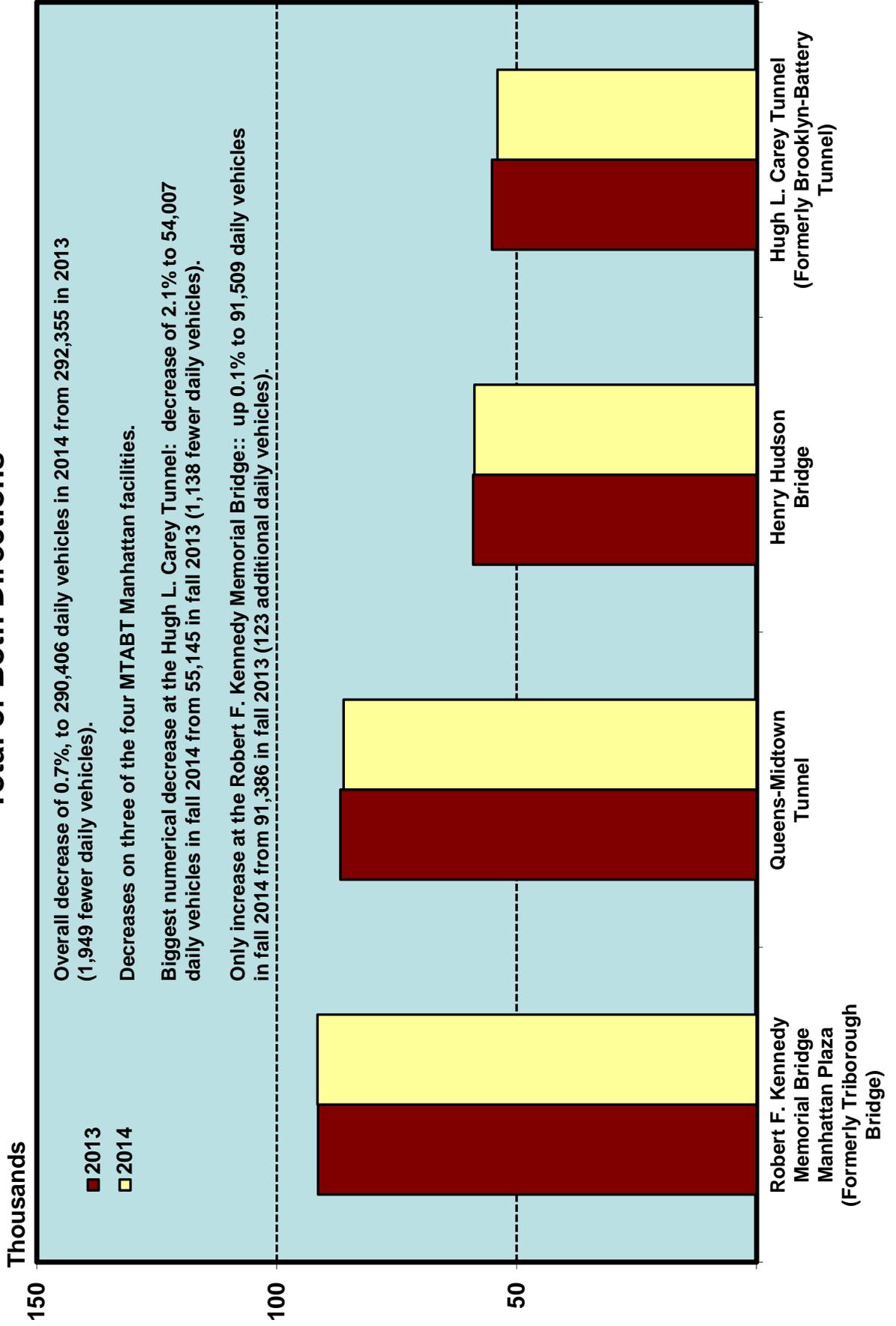
## Total of Both Directions



# Metropolitan Transportation Authority Bridges & Tunnels (MTABT) Manhattan Facilities Daily Volumes

2014 vs. 2013

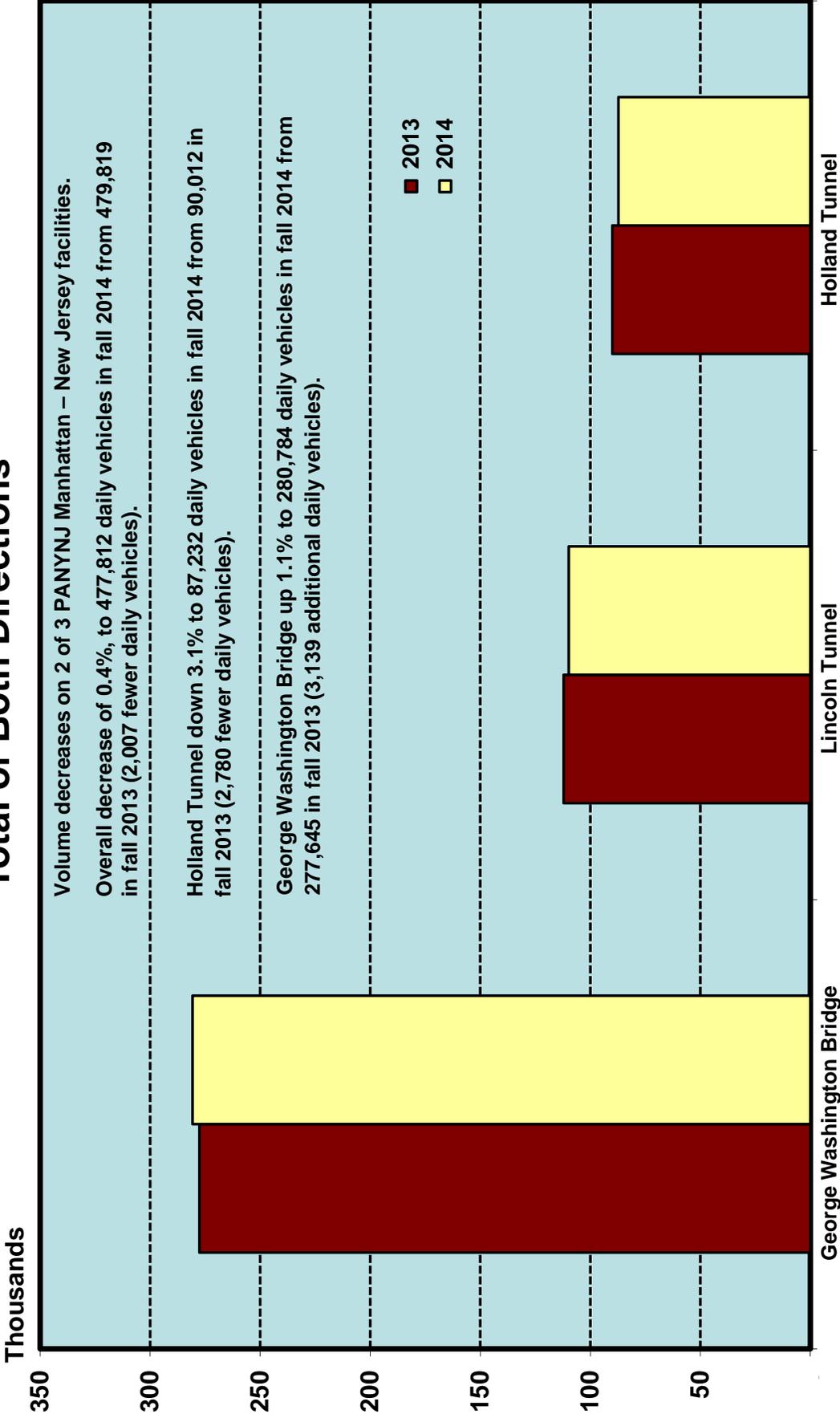
## Total of Both Directions



# Port Authority of New York & New Jersey (PANYNJ) Manhattan – N.J. Facilities Daily Volumes

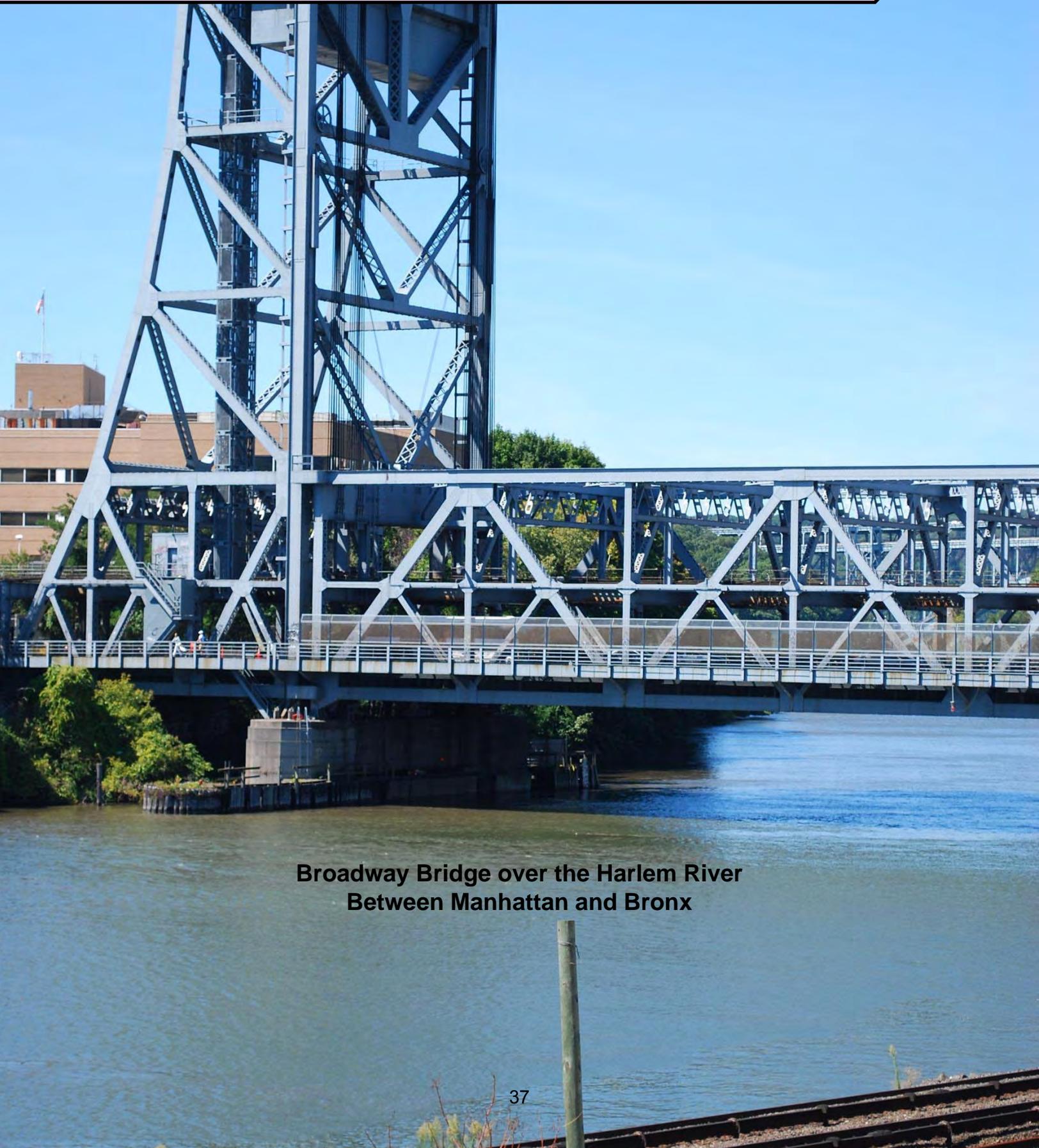
2014 vs. 2013

## Total of Both Directions





# Ten-Year Trends 2004 - 2014



**Broadway Bridge over the Harlem River  
Between Manhattan and Bronx**



## Ten-Year Trends: 2004 - 2014

- In the ten-year period from 2004 to 2014, Manhattan river crossings traffic volume decreased 6.9%, to 1,776,013 daily vehicles from 1,908,565, a decrease of 132,522 daily vehicles.
- Daily vehicle trips entering Manhattan decreased 6.7%, to 891,769 in 2014 from 955,631 in 2004 (63,862 fewer daily vehicles entering Manhattan).
  - Biggest percentage decrease in inbound trips during 10pm-1am: down 11.2% to 65,277 vehicles in 2014 from 73,494 in 2004 (8,217 fewer 10pm-1am entries).
  - Biggest numerical decrease in inbound trips during 7-10am: decrease of 17,837 vehicles, to 174,269 in 2014 from 192,106 in 2004 (-9.3%).
  - Biggest percentage and numerical increase in inbound trips during 4-7am: increase of 5,225 vehicles, to 108,417 in 2014 from 103,192 in 2004 (+5.1%).
- Daily vehicle trips leaving Manhattan decreased 7.2%, to 884,244 in 2014 from 952,934 in 2004 (68,690 fewer daily vehicles leaving Manhattan).
  - Biggest percentage decrease in outbound trips during 1-4am: down 19.1% to 32,965 vehicles in 2014 from 40,771 in 2004 (7,806 fewer trips leaving Manhattan between 1-4am).
  - Biggest numerical decrease in outbound trips during 4-7pm: decrease of 16,659 vehicles to 177,373 in 2014 from 194,032 in 2004 (-8.6%).
  - Biggest percentage and numerical increase in outbound trips during 4-7am: increase of 3,364 vehicles, to 66,624 in 2014 from 63,260 in 2004 (+5.3%).
- Vehicle trips on the 13 toll-free East and Harlem River bridges decreased 4.9%, to 1,007,795 daily vehicles in 2014 from 1,060,010 in 2004 (52,215 fewer daily vehicles).
  - Greatest percentage and numerical increase on the Third Avenue Bridge over the Harlem River: up 24.2% to 58,447 daily vehicles in 2014 from 47,053 in 2004 (11,394 additional daily vehicles). During 2004, two of the four lanes on this bridge were closed round-the-clock for reconstruction.
  - Greatest percentage and numerical decrease on the Brooklyn Bridge over the East River: down 27.3%, to 99,986 daily vehicles in 2014 from 137,563 in 2004 (37,577 fewer daily vehicles). Throughout 2014, the Brooklyn Bridge was closed to Manhattan-bound traffic between 11:00pm and 6:00am weeknights for reconstruction.
- Traffic volumes on the four MTA Bridges and Tunnels (MTABT) river crossings serving Manhattan decreased 7.0%, to 290,406 daily vehicles in 2014 from 312,159 in 2004 (21,753 fewer daily vehicles).
  - Decreases on all four MTABT Manhattan crossings.
  - Biggest volume and percentage decrease at the Henry Hudson Bridge: down 19.6% to 58,809 daily vehicles in 2014 from 73,114 in 2004 (14,305 fewer daily vehicles).
- Traffic volumes on the three trans-Hudson Port Authority of New York and New Jersey (PANYNJ) river crossings serving Manhattan decreased 10.9%, to 477,812 daily vehicles in 2014 from 536,396 in 2004 (58,584 fewer daily vehicles).
  - Decreases on all three PANYNJ trans-Hudson crossings.

- Greatest decrease on the George Washington Bridge: decrease of 34,282 daily vehicles, to 280,784 in 2014 from 315,066 in 2004 (34,282 fewer daily vehicles).
- New York City motor vehicle registrations increased 11.3% to 2,057,433 in 2014 from 1,848,570 in 2004. Manhattan registrations increased 4.8% to 251,822 from 240,388.
- Annual citywide subway ridership increased 22.8% to 1,751,287,621 passengers in 2014 from 1,426,000,000 in 2004, and is now at its highest level since 1949.

## Weekday Manhattan Crossings 10-Year Traffic Volume Trends ~ 2004-2014 Both Directions

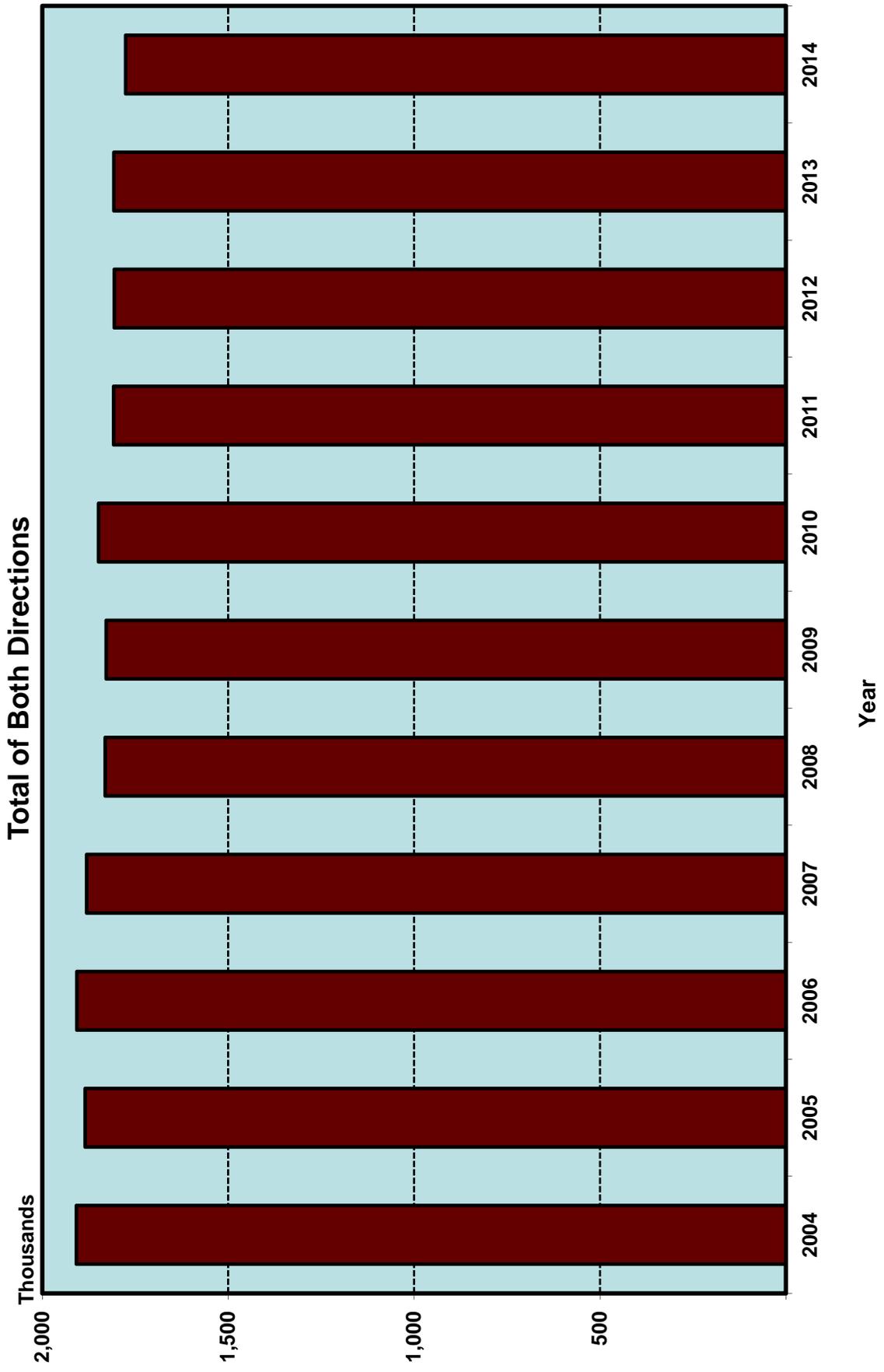
<b>EAST RIVER BRIDGES</b>	<b>Highway Functional Classification</b>	<b>2004</b>	<b>2014</b>	<b>Percent Change</b>
Brooklyn Bridge	Principal Arterial	137,563	99,986	- 27.3 %
Ed Koch Queensboro Bridge *	Principal Arterial	180,369	174,239	- 3.4 %
Manhattan Bridge	Principal Arterial	79,129	84,048	6.2 %
Williamsburg Bridge	Principal Arterial	110,528	111,634	1.0 %
<b>Total, 4 East River Bridges</b>		<b>507,589</b>	<b>469,907</b>	<b>- 7.4 %</b>
<b>HARLEM RIVER BRIDGES</b>				
Alexander Hamilton Bridge	Interstate	175,323	178,809	2.0 %
Broadway Bridge	Principal Arterial	35,190	34,239	- 2.7 %
Macombs Dam Bridge	Principal Arterial	40,558	38,417	- 5.3 %
Madison Avenue Bridge	Principal Arterial	48,723	41,340	- 15.2 %
Third Avenue Bridge	Principal Arterial	47,053	58,447	24.2 %
University Heights Bridge	Principal Arterial	47,350	37,791	- 20.2 %
Washington Bridge	Minor Arterial	57,530	52,537	- 8.7 %
Willis Avenue Bridge	Principal Arterial	74,700	67,951	- 9.0 %
145th Street Bridge	Minor Arterial	25,994	28,357	9.1 %
<b>Total, 9 Harlem River Bridges</b>		<b>552,421</b>	<b>537,888</b>	<b>- 2.6 %</b>
<b>MTABT Manhattan Facilities</b>				
Henry Hudson Bridge	Principal Arterial	73,114	58,809	- 19.6 %
Hugh L. Carey Tunnel **	Interstate	54,488	54,007	- 0.9 %
Queens-Midtown Tunnel	Interstate	86,599	86,081	- 0.6 %
R.F.K. Memorial Bridge Manhattan Plaza ***	Principal Arterial	97,958	91,509	- 6.6 %
<b>Total, 4 MTABT Manhattan Crossings</b>		<b>312,159</b>	<b>290,406</b>	<b>- 7.0 %</b>
<b>PANYNJ Manhattan Facilities</b>				
George Washington Bridge	Interstate	315,066	280,784	- 10.9 %
Holland Tunnel	Interstate	96,171	87,232	- 9.3 %
Lincoln Tunnel	Principal Arterial	125,159	109,796	- 12.3 %
<b>Total, 3 PANYNJ Manhattan - New Jersey Crossings</b>		<b>536,396</b>	<b>477,812</b>	<b>- 10.9 %</b>
<b>GRAND TOTALS</b>		<b>1,908,565</b>	<b>1,776,013</b>	<b>- 6.9 %</b>

\* Queensboro Bridge renamed April 11, 2011.

\*\* Formerly Brooklyn-Battery Tunnel, renamed October 22, 2012.

\*\*\* Formerly Triborough Bridge, renamed November 19, 2008.

# Daily Manhattan River Crossings 2004 - 2014

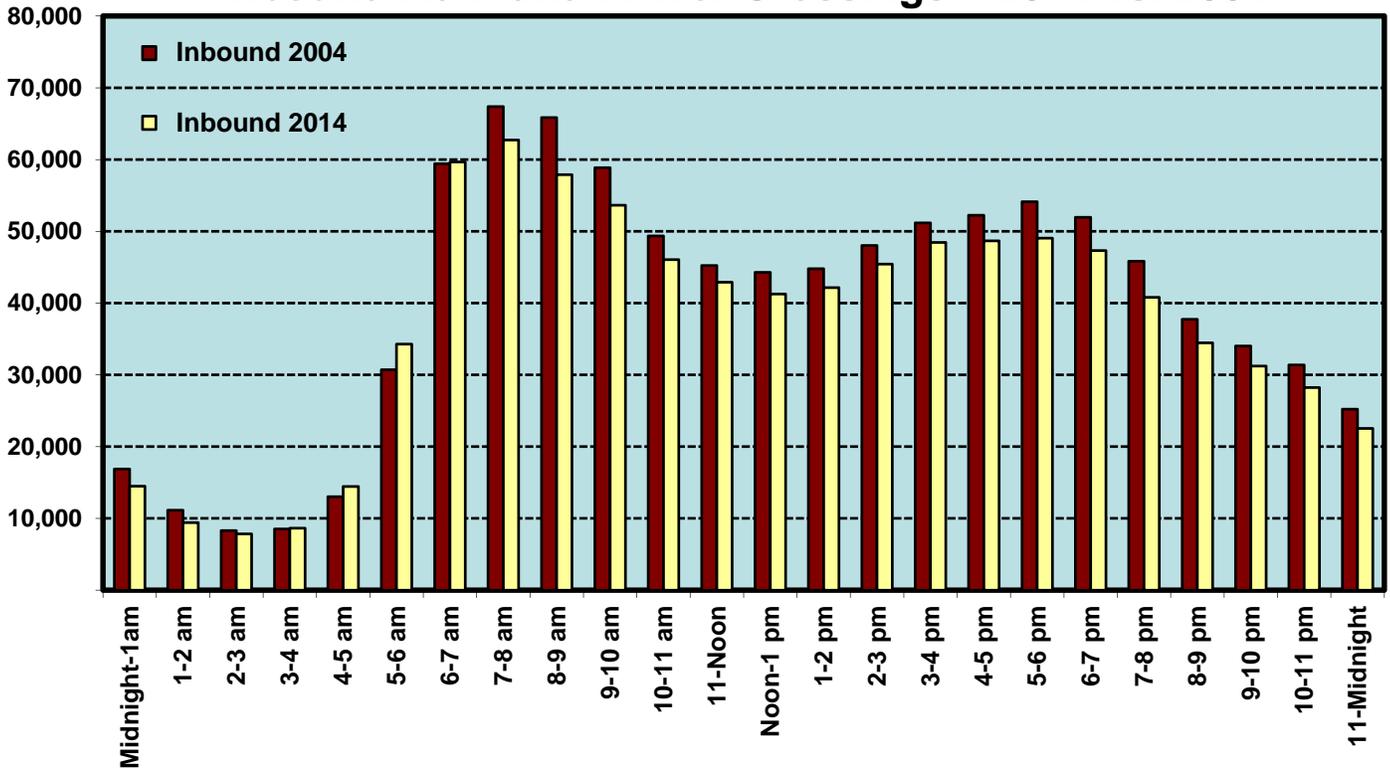


## Manhattan River Crossings Hourly Vehicular Volumes 2004 vs 2014

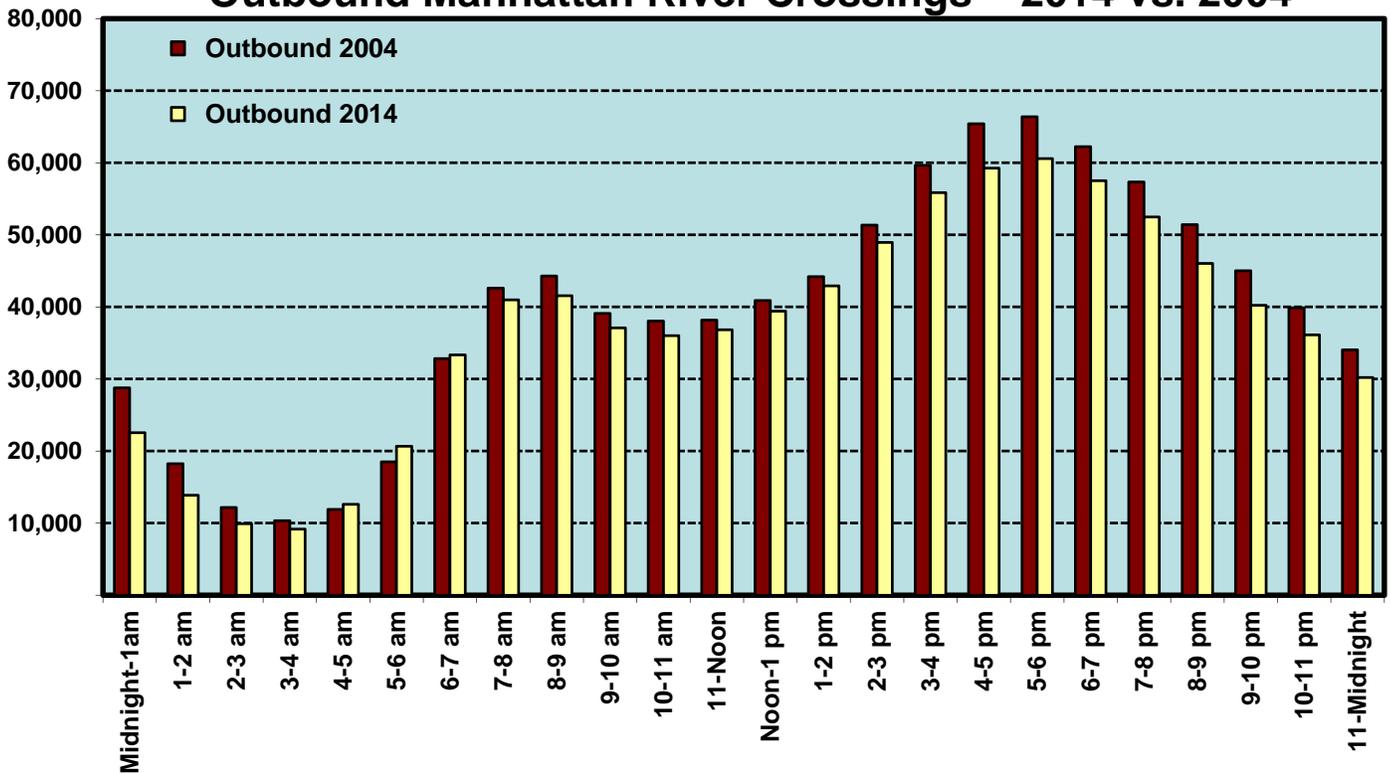
	Inbound			Outbound		
	2004	2014	Percent Change	2004	2014	Percent Change
Mid-1	16,885	14,486	-14.2 %	28,784	22,556	-21.6 %
1-2 am	11,146	9,427	-15.4 %	18,244	13,873	-24.0 %
2-3 am	8,315	7,848	- 5.6 %	12,183	9,921	-18.6 %
3-4 am	8,532	8,636	1.2 %	10,344	9,171	-11.3 %
4-5 am	13,035	14,446	10.8 %	11,915	12,618	5.9 %
5-6 am	30,733	34,296	11.6 %	18,517	20,663	11.6 %
6-7 am	59,424	59,675	0.4 %	32,828	33,343	1.6 %
7-8 am	67,376	62,723	- 6.9 %	42,621	40,976	- 3.9 %
8-9 am	65,863	57,903	-12.1 %	44,295	41,551	- 6.2 %
9-10 am	58,867	53,643	- 8.9 %	39,103	37,105	- 5.1 %
10-11 a	49,359	46,056	- 6.7 %	38,050	36,015	- 5.3 %
11-Noon	45,236	42,920	- 5.1 %	38,176	36,841	- 3.5 %
Noon-1	44,287	41,277	- 6.8 %	40,896	39,424	- 3.6 %
1-2 pm	44,793	42,155	- 5.9 %	44,212	42,914	- 2.9 %
2-3 pm	48,038	45,437	- 5.4 %	51,346	48,951	- 4.7 %
3-4 pm	51,180	48,465	- 5.3 %	59,651	55,854	- 6.4 %
4-5 pm	52,250	48,677	- 6.8 %	65,423	59,260	- 9.4 %
5-6 pm	54,130	49,064	- 9.4 %	66,377	60,591	- 8.7 %
6-7 pm	51,956	47,331	- 8.9 %	62,232	57,522	- 7.6 %
7-8 pm	45,850	40,800	-11.0 %	57,340	52,491	- 8.5 %
8-9 pm	37,748	34,471	- 8.7 %	51,421	46,041	-10.5 %
9-10 pm	34,019	31,242	- 8.2 %	45,031	40,222	-10.7 %
10-11 p	31,381	28,245	-10.0 %	39,888	36,130	- 9.4 %
11-Mid	25,228	22,546	-10.6 %	34,057	30,211	-11.3 %
Totals	955,631	891,769	- 6.7 %	952,934	884,244	- 7.2 %
1-4am	27,993	25,911	- 7.4 %	40,771	32,965	-19.1 %
4-7am	103,192	108,417	5.1 %	63,260	66,624	5.3 %
7-10am	192,106	174,269	- 9.3 %	126,019	119,632	- 5.1 %
10am-1pm	138,882	130,253	- 6.2 %	117,122	112,280	- 4.1 %
1-4pm	144,011	136,057	- 5.5 %	155,209	147,719	- 4.8 %
4-7pm	158,336	145,072	- 8.4 %	194,032	177,373	- 8.6 %
7-10pm	117,617	106,513	- 9.4 %	153,792	138,754	- 9.8 %
10pm-1am	73,494	65,277	-11.2 %	102,729	88,897	-13.5 %
7am-7pm	633,335	585,651	- 7.5 %	592,382	557,004	- 6.0 %
6-10am	251,530	233,944	- 7.0 %	158,847	152,975	- 3.7 %
3-7pm	209,516	193,537	- 7.6 %	253,683	233,227	- 8.1 %
6am-7pm	692,759	645,326	- 6.8 %	625,210	590,347	- 5.6 %

# Hourly Vehicle Volumes

## Inbound Manhattan River Crossings ~ 2014 vs. 2004

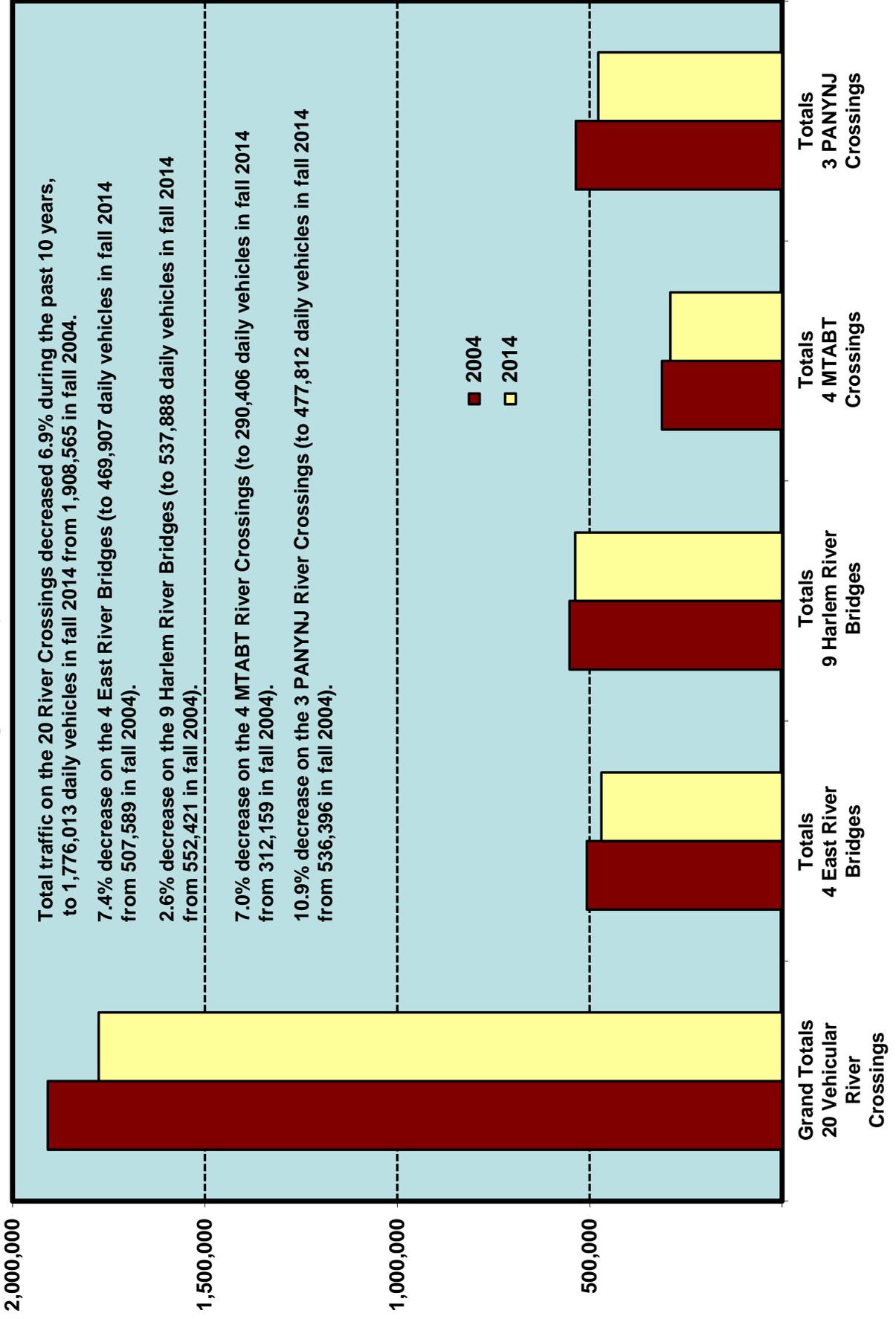


## Outbound Manhattan River Crossings ~ 2014 vs. 2004



# 10-Year Volume Changes ~ 2004 vs. 2014

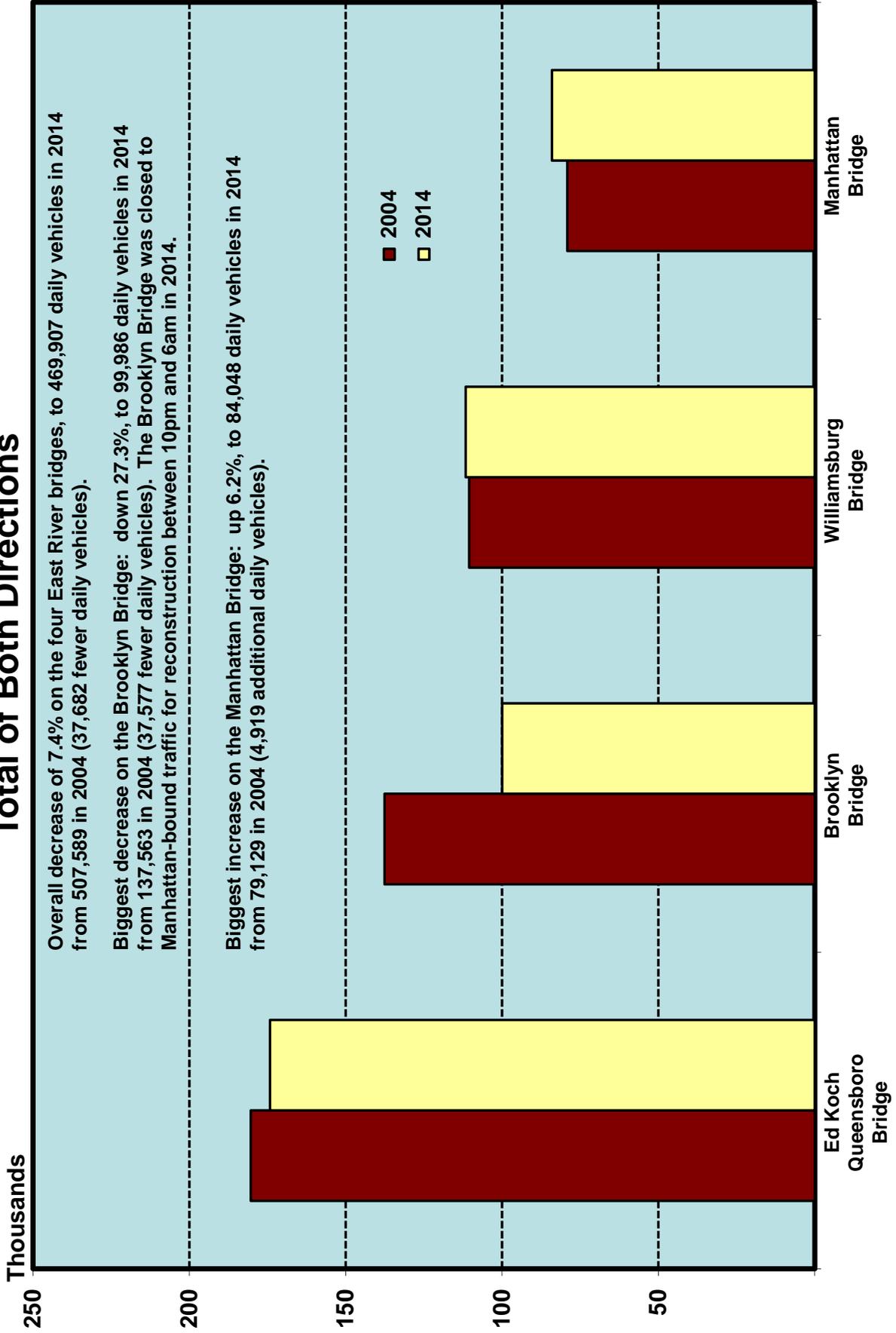
## Manhattan River Crossings Daily Volumes ~ Total of Both Directions



# 10-Year Volume Changes ~ 2004 – 2014

## East River Bridges Daily Volumes

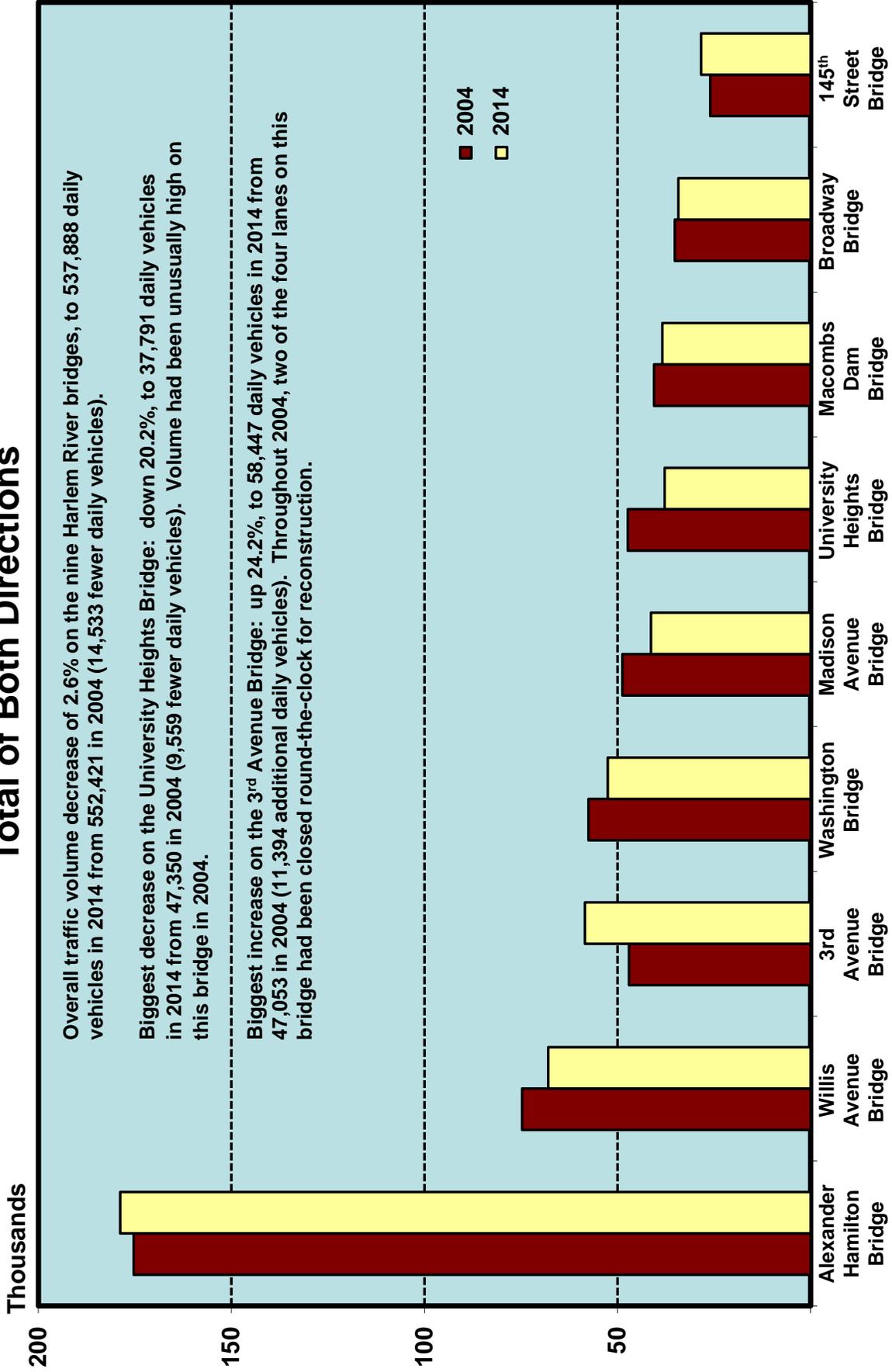
### Total of Both Directions



# 10-Year Volume Changes ~ 2004 – 2014

## Harlem River Bridges Daily Volumes

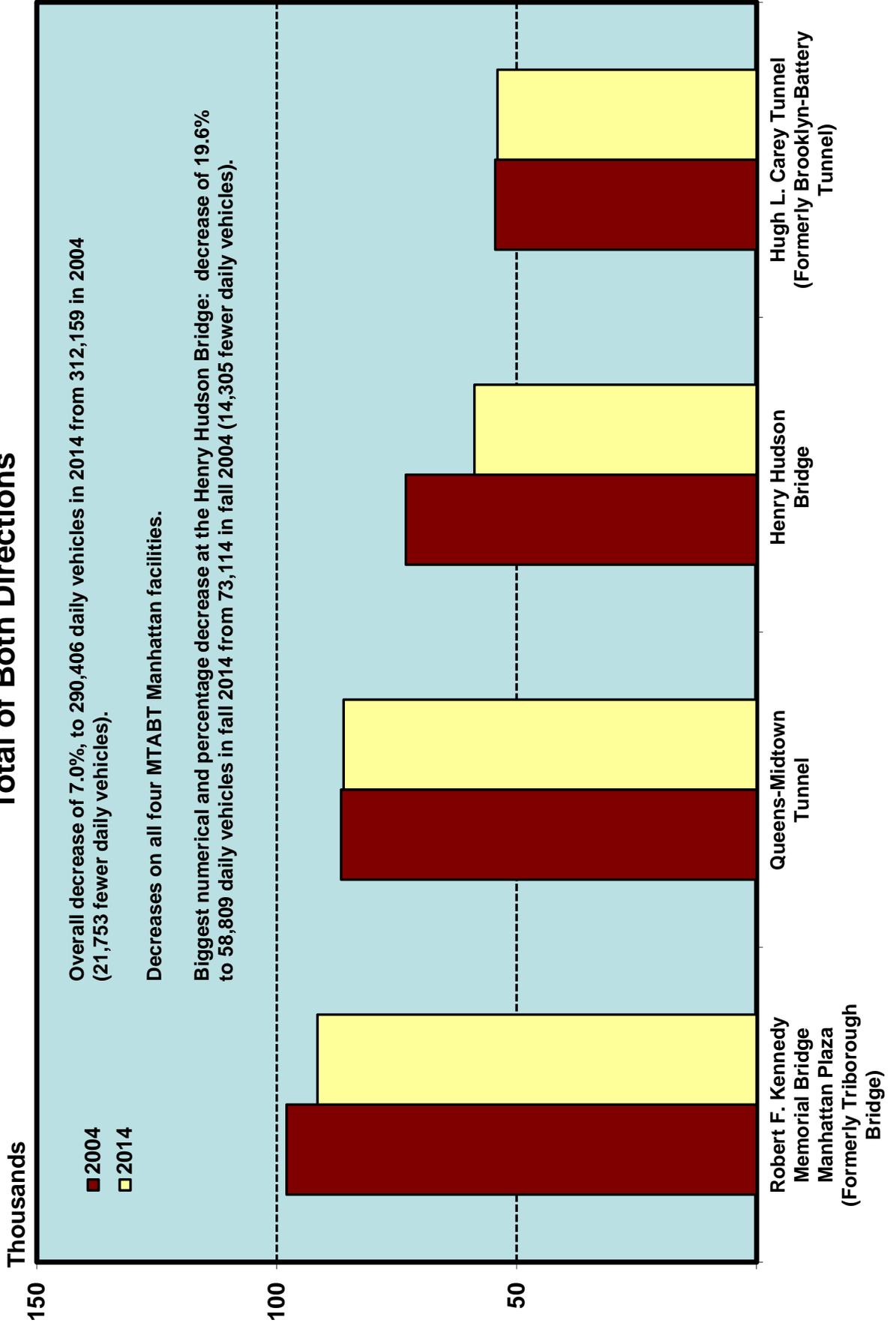
### Total of Both Directions



# 10-Year Volume Changes ~ 2004 – 2014

## Metropolitan Transportation Authority Bridges & Tunnels (MTABT) Manhattan Facilities Daily Volumes

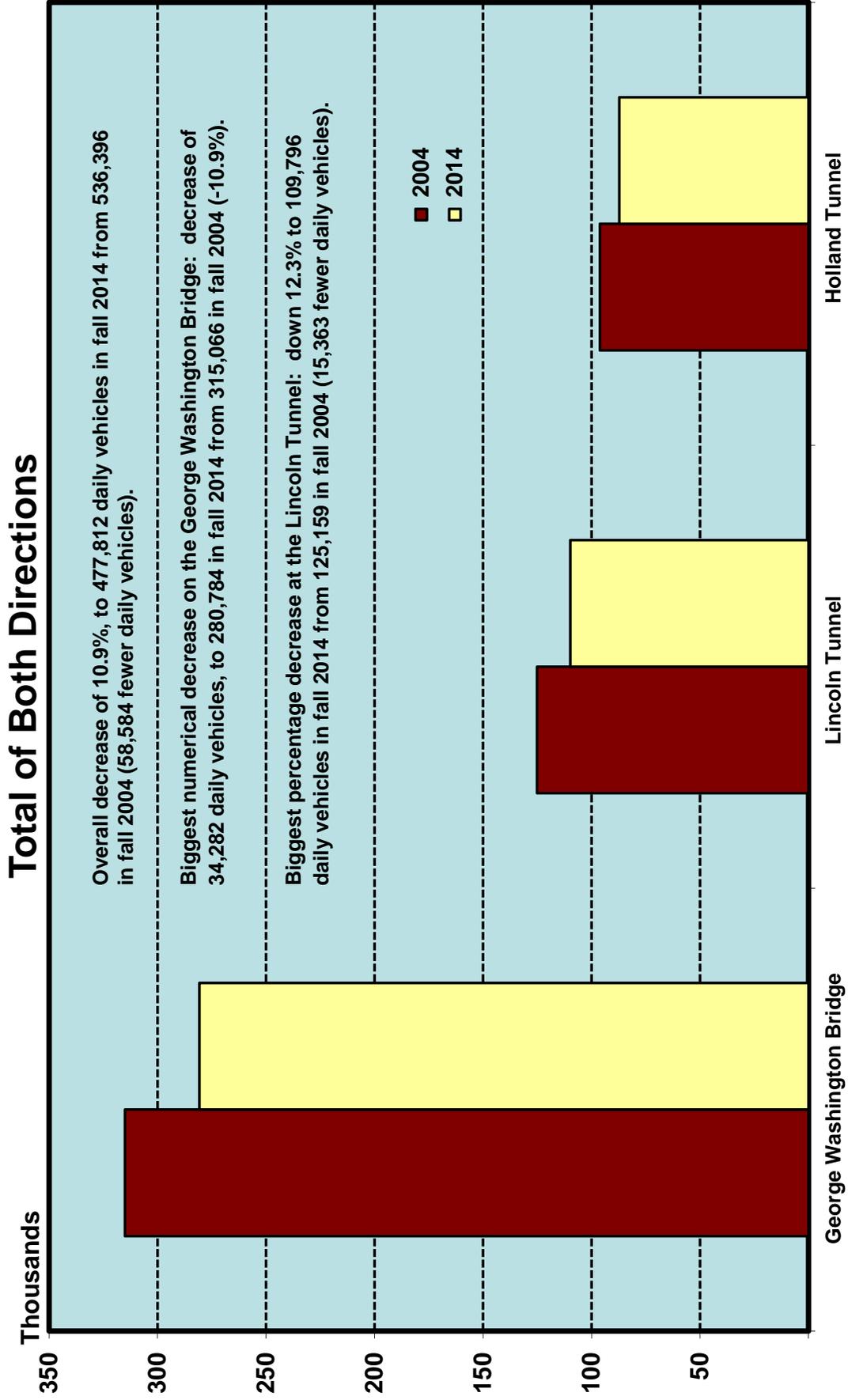
### Total of Both Directions



# 10-Year Volume Changes ~ 2004 – 2014

## Port Authority of New York & New Jersey (PANYNJ)

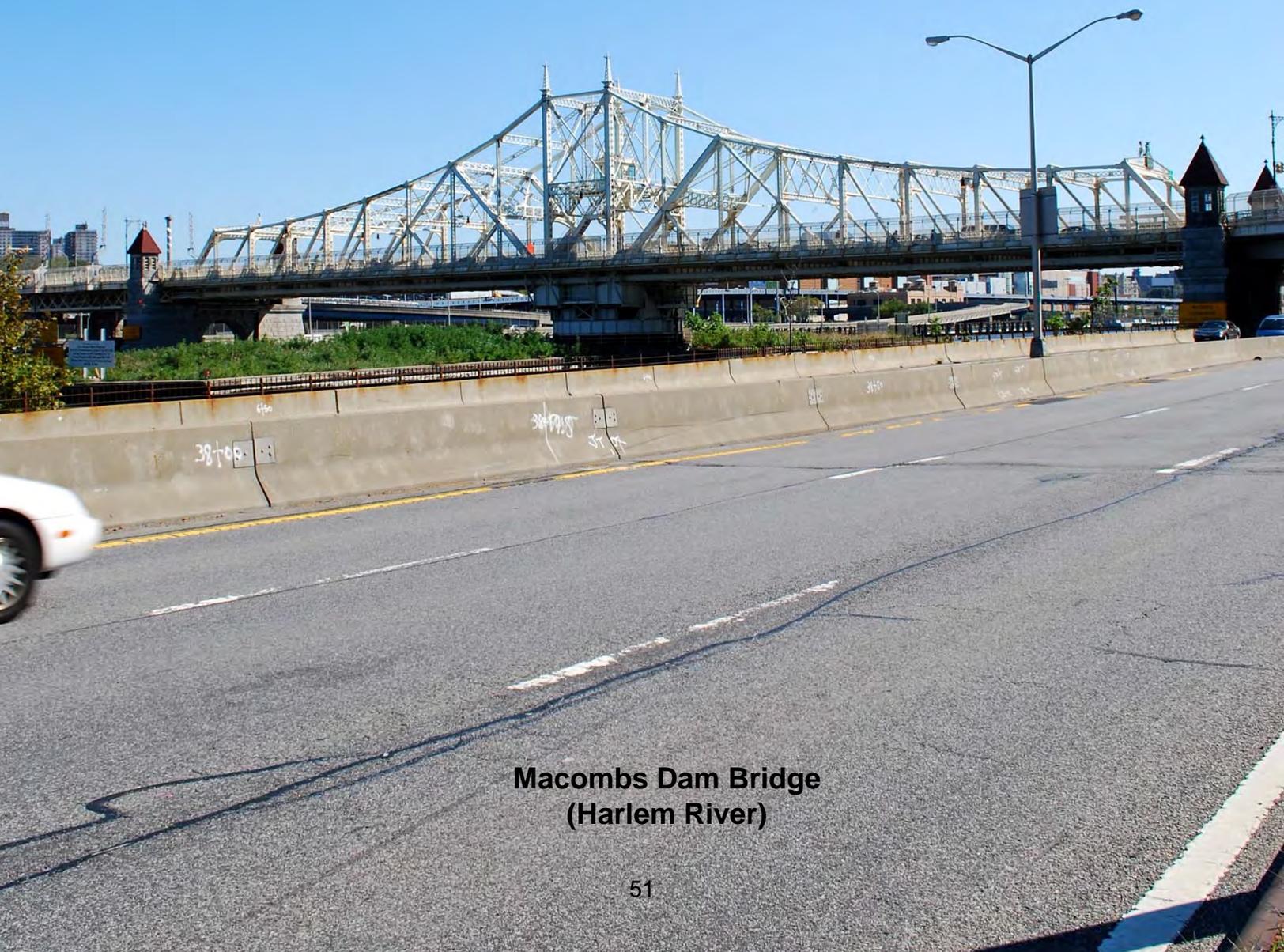
### Manhattan – N.J. Facilities Daily Volumes



# New York City Motor Vehicle Registrations 2004-2014



# Historic Trends



**Macombs Dam Bridge  
(Harlem River)**

**Total Manhattan Crossings  
Average Daily Traffic Volumes  
1948 - 2014**

<b>Year</b>	<b>East River Bridges</b>	<b>Harlem River Bridges</b>	<b>M.T.A.B.T. Facilities</b>	<b>P.A.N.Y.N.J. Facilities</b>	<b>Totals</b>
1948	254,068	207,177	92,977	115,785	670,007
1949	260,933	193,510	110,071	129,943	694,457
1950	240,227	222,671	161,856	146,653	771,407
1951	269,352	249,199	180,272	166,150	864,973
1952	261,704	222,196	194,327	181,253	859,480
1953	292,726	248,629	200,535	194,577	936,467
1954	297,903	236,056	204,616	202,394	940,969
1955	293,633	250,239	216,835	211,926	972,633
1956	297,866	266,781	231,535	213,088	1,009,270
1957	297,028	316,530	236,343	218,623	1,068,524
1958	304,470	329,747	232,413	221,494	1,088,124
1959	312,431	342,349	231,501	237,021	1,123,302
1960	322,660	345,199	230,768	239,620	1,138,247
1961	316,813	333,463	227,241	236,833	1,114,350
1962	318,170	313,230	233,010	250,646	1,115,056
1963	333,880	309,090	225,100	265,603	1,133,673
1964	341,030	407,680	236,513	285,824	1,271,047
1965	353,518	401,259	240,949	293,339	1,289,065
1966	355,745	402,487	243,107	303,981	1,305,320
1967	352,936	427,744	244,038	308,153	1,332,871
1968	357,232	362,095	247,924	320,292	1,287,543
1969	379,416	412,992	254,863	329,123	1,376,394
1970	371,743	429,690	271,063	347,838	1,420,334
1971	364,070	432,195	286,692	362,063	1,445,020
1972	390,292	422,364	252,871	378,620	1,444,147
1973	394,290	449,670	251,593	397,203	1,492,756
1974	394,631	439,112	242,846	376,547	1,453,136
1975	404,379	440,354	214,120	374,707	1,433,560
1976	398,248	429,629	217,207	381,250	1,426,334
1977	398,140	442,200	229,766	385,013	1,455,119
1978	400,146	450,758	241,125	399,512	1,491,541
1979	382,028	427,816	251,544	393,724	1,455,112
1980	392,460	446,292	255,858	404,734	1,499,344
1981	395,125	448,323	269,854	427,381	1,540,683
1982	414,984	470,785	253,499	433,744	1,573,012
1983	413,152	491,153	263,510	441,164	1,608,979
1984	428,541	496,949	262,985	453,775	1,642,250
1985	476,032	538,263	275,858	468,452	1,758,605
1986	469,711	546,896	274,693	485,751	1,777,051
1987	460,092	530,228	289,642	486,639	1,766,601
1988	460,858	520,282	293,550	490,179	1,764,869
1989	461,102	539,381	275,358	487,693	1,763,534
1990	448,713	539,563	289,066	482,243	1,759,585
1991	447,969	533,368	295,265	467,501	1,744,103
1992	443,145	537,353	300,203	476,872	1,757,573
1993	431,874	542,306	282,159	473,069	1,729,408
1994	448,263	526,044	263,351	473,799	1,711,457
1995	464,903	521,882	293,574	482,098	1,762,457
1996	463,482	530,950	281,116	493,194	1,768,742
1997	511,410	546,750	283,686	504,788	1,846,634
1998	523,690	560,062	293,990	522,512	1,900,254
1999	516,507	563,182	303,966	549,352	1,933,007
2000	514,767	578,770	313,504	548,465	1,955,506
2001	427,321	568,759	257,937	458,944	1,712,961
2002	467,080	551,831	305,300	532,839	1,857,050
2003	493,418	549,510	307,034	547,449	1,897,411
2004	507,589	552,421	312,159	536,396	1,908,565
2005	498,213	561,392	297,411	527,717	1,884,733
2006	494,576	557,043	317,751	537,748	1,907,118
2007	496,666	557,925	312,253	513,974	1,880,818
2008	477,211	539,434	305,993	508,269	1,830,907
2009	485,313	543,736	294,156	504,860	1,828,065
2010	487,301	549,574	305,297	506,546	1,848,718
2011	478,203	544,642	294,293	491,109	1,808,247
2012	480,259	547,207	296,626	482,557	1,806,649
2013	477,147	558,163	292,355	479,819	1,807,484
2014	469,907	537,888	290,406	477,812	1,776,013

## HISTORIC TRENDS

In 1948, average daily traffic to and from Manhattan was 670,007 trips per day. By 1969 that figure had more than doubled, to 1,376,394 daily trips. In 2014, it stood at 1,776,013 daily trips, up 165% over the 1948 volume.

### 1948 – 1964

- Between 1948 and 1964, daily traffic to and from Manhattan increased 89.7%, to 1,271,047 daily river crossings in 1964 from 670,007 in 1948, an increase of 601,040 daily vehicles.
- Large increases in daily traffic occurred at the following facilities.
  - George Washington Bridge (Hudson River between Manhattan and New Jersey): up 239% to 143,193 daily vehicles in 1964 from 42,306 in 1948 (100,887 additional daily vehicles). The lower level was opened in 1962.
  - Lincoln Tunnel between Manhattan and New Jersey: up 169% to 82,929 daily vehicles in 1964 from 30,856 in 1948 (52,073 additional daily vehicles).
  - Queens-Midtown Tunnel (East River between Manhattan and Queens): up 156% to 67,713 daily vehicles from 26,462 (41,251 additional daily vehicles).
  - Robert F. Kennedy Memorial Bridge Manhattan Plaza (Harlem River between Manhattan and Bronx/Queens): up 150% to 66,139 daily vehicles from 26,465 (39,674 additional daily vehicles).
  - Brooklyn Bridge (East River between Manhattan and Brooklyn): up 117% to 80,230 daily vehicles from 37,011 (43,219 additional daily vehicles).
  - Willis Avenue Bridge (Harlem River between Manhattan and Bronx): up 120% to 65,190 daily vehicles from 29,648 (35,542 additional daily vehicles).
  - Third Avenue Bridge (Harlem River between Manhattan and Bronx): up 101% to 63,250 daily vehicles from 31,403 (31,847 additional daily vehicles).
  - Williamsburg Bridge (East River between Manhattan and Brooklyn): up 71.1% to 80,650 daily vehicles from 47,139 (33,511 additional daily vehicles).
- The only significant decrease from 1948 to 1964 occurred on the Manhattan Bridge (East River between Manhattan and Brooklyn): down 31.7% to 59,250 daily vehicles in 1964 from 86,717 in 1948 (27,467 fewer daily vehicles).

### 1964 – 1974

- From 1964 to 1974, daily river crossings to and from Manhattan increased 14.3%, to 1,453,136 daily vehicles in 1974 from 1,271,047 in 1964, an increase of 182,089 daily vehicles.
- Major increases in daily traffic occurred at the following facilities.
  - George Washington Bridge between Manhattan and New Jersey: up 48.0% to 211,955 daily vehicles in 1974 from 143,193 in 1964 (68,762 additional daily vehicles).
  - Alexander Hamilton Bridge between Manhattan and Bronx: up 65.0% to 144,909 daily vehicles in 1974 from 87,840 in 1964 (57,069 additional daily vehicles).

- Robert F. Kennedy Memorial Bridge Manhattan Plaza between Manhattan and Bronx/Queens: up 25.0% to 82,676 daily vehicles from 66,139 (16,537 additional daily vehicles).
- Brooklyn Bridge between Manhattan and Brooklyn: up 24.6% to 99,959 daily vehicles from 80,230 (19,729 additional daily vehicles).
- Manhattan Bridge between Manhattan and Brooklyn: up 30.3% to 77,198 daily vehicles from 59,250 (17,948 additional daily vehicles).
- Ed Koch Queensboro Bridge between Manhattan and Queens: up 14.6% to 138,560 daily vehicles from 120,900 (17,660 additional daily vehicles).
- Lincoln Tunnel between Manhattan and New Jersey: up 20.4% to 99,827 daily vehicles from 82,929 (16,898 additional daily vehicles).
- Major decreases occurred at the following facilities.
  - Willis Avenue Bridge between Manhattan and Bronx: down 18.2% to 53,322 daily vehicles in 1974 from 65,190 in 1964 (11,868 fewer daily vehicles).
  - Henry Hudson Bridge between Manhattan and Bronx: down 24.5% to 38,331 daily vehicles from 50,768 (12,437 fewer daily vehicles).
  - 145<sup>th</sup> Street Bridge between Manhattan and Bronx: down 30.9% to 21,616 daily vehicles from 31,260 (9,644 fewer daily vehicles).

## **1974 – 1984**

- From 1974 to 1984, daily river crossings to and from Manhattan increased 13.0%, to 1,642,250 daily vehicles in 1984 from 1,453,136 in 1974, an increase of 189,114 daily vehicles.
- The largest increases in daily traffic occurred at the following facilities.
  - George Washington Bridge between Manhattan and New Jersey: up 22.1% to 258,723 daily vehicles in 1984 from 211,955 in 1974 (46,768 additional daily vehicles).
  - Lincoln Tunnel between Manhattan and New Jersey: up 23.4% to 123,233 daily vehicles from 99,827 (23,406 additional daily vehicles).
  - Alexander Hamilton Bridge (Harlem River between Manhattan and Bronx): up 13.7% to 164,734 daily vehicles from 144,909 (19,825 additional daily vehicles).
  - Williamsburg Bridge between Manhattan and Brooklyn: up 20.3% to 94,898 daily vehicles from 78,914 (15,984 additional daily vehicles).
  - Willis Avenue Bridge between Manhattan and Bronx: up 23.8% to 66,017 daily vehicles from 53,322 (12,695 additional daily vehicles).
  - Hugh L. Carey Tunnel (formerly Brooklyn-Battery Tunnel) between Manhattan and Brooklyn: up 24.5% to 58,032 daily vehicles from 46,620 (11,412 additional daily vehicles).
  - Manhattan Bridge between Manhattan and Brooklyn: up 15.4% to 89,104 daily vehicles from 77,198 (11,906 additional daily vehicles).
  - Robert F. Kennedy Memorial Bridge Manhattan Plaza between Manhattan and Bronx/Queens: up 15.2% to 95,247 daily vehicles from 82,676 (12,571 additional daily vehicles).

- The most significant decreases occurred at the following facilities.
  - Henry Hudson Bridge (Harlem River between Manhattan and Bronx): down 9.0% to 34,898 daily vehicles in 1984 from 38,331 in 1974 (3,433 fewer daily vehicles).
  - Ed Koch Queensboro Bridge between Manhattan and Queens: down 3.2% to 134,107 daily vehicles from 138,560 (4,453 fewer daily vehicles).

## **1984 – 1994**

- From 1984 to 1994, daily river crossings to and from Manhattan increased 4.2%, to 1,711,457 daily vehicles in 1994 from 1,642,250 in 1984, an increase of 69,207 daily vehicles.
- Large increases in daily traffic occurred at the following facilities.
  - Holland Tunnel between Manhattan and New Jersey: up 31.8% to 94,637 daily vehicles in 1994 from 71,819 in 1984 (22,818 additional daily vehicles).
  - Henry Hudson Bridge between Manhattan and Bronx: up 67.0% to 58,291 daily vehicles from 34,898 (23,393 additional daily vehicles).
  - Brooklyn Bridge between Manhattan and Brooklyn: up 22.1% to 134,837 daily vehicles from 110,432 (24,405 additional daily vehicles).
  - Ed Koch Queensboro Bridge between Manhattan and Queens: up 13.0% to 151,483 daily vehicles from 134,107 (17,376 additional daily vehicles).
- The most significant decreases occurred at the following facilities.
  - Manhattan Bridge between Manhattan and Brooklyn: down 12.0% to 78,418 daily vehicles in 1994 from 89,104 in 1984 (10,686 fewer daily vehicles).
  - Williamsburg Bridge between Manhattan and Brooklyn: down 12.0% to 83,525 daily vehicles in 1994 from 94,898 in 1984 (11,373 fewer daily vehicles).
  - Madison Avenue Bridge between Manhattan and Bronx: down 30.7% to 22,923 daily vehicles from 33,101 (10,178 fewer daily vehicles).
  - Robert F. Kennedy Memorial Bridge between Manhattan and Bronx/Queens: down 16.5% to 79,536 daily vehicles from 95,247 (15,711 fewer daily vehicles).

## **1994 – 2004**

- From 1994 to 2004, daily river crossings to and from Manhattan increased 11.5%, to 1,908,565 daily vehicles in 2004 from 1,711,457 in 1994, an increase of 197,108 daily vehicles.
- Large increases in daily traffic occurred at the following facilities.
  - George Washington Bridge between Manhattan and New Jersey: up 21.2% to 315,066 daily vehicles in 2004 from 259,863 in 1994 (55,203 additional daily vehicles).
  - Ed Koch Queensboro Bridge between Manhattan and Queens: up 19.1% to 180,369 daily vehicles from 151,483 (28,886 additional daily vehicles).
  - Williamsburg Bridge between Manhattan and Brooklyn: up 32.3% to 110,528 daily vehicles from 83,525 (27,003 additional daily vehicles).
  - Madison Avenue Bridge between Manhattan and Bronx: up 112.6% to 48,723 daily vehicles from 22,923 (25,800 additional daily vehicles). Major reconstruction had caused significant capacity reductions in both directions during 1994.

- Queens-Midtown Tunnel between Manhattan and Queens: up 26.4% to 86,599 daily vehicles from 68,511 (18,088 additional daily vehicles).
- Robert F. Kennedy Memorial Bridge between Manhattan and Bronx/Queens: up 23.2% to 97,958 daily vehicles from 79,536 (18,422 additional daily vehicles).
- Henry Hudson Bridge between Manhattan and Bronx: up 25.4% to 73,114 daily vehicles from 58,291 (14,823 additional daily vehicles).
- The only major decrease in daily traffic occurred at the Third Avenue Bridge between Manhattan and Bronx: down 28.8% to 47,053 daily vehicles in 2004 from 66,104 in 1994 (19,051 fewer daily vehicles). Throughout 2004, two of four lanes were closed round-the-clock for reconstruction.

## **1948 – 2014**

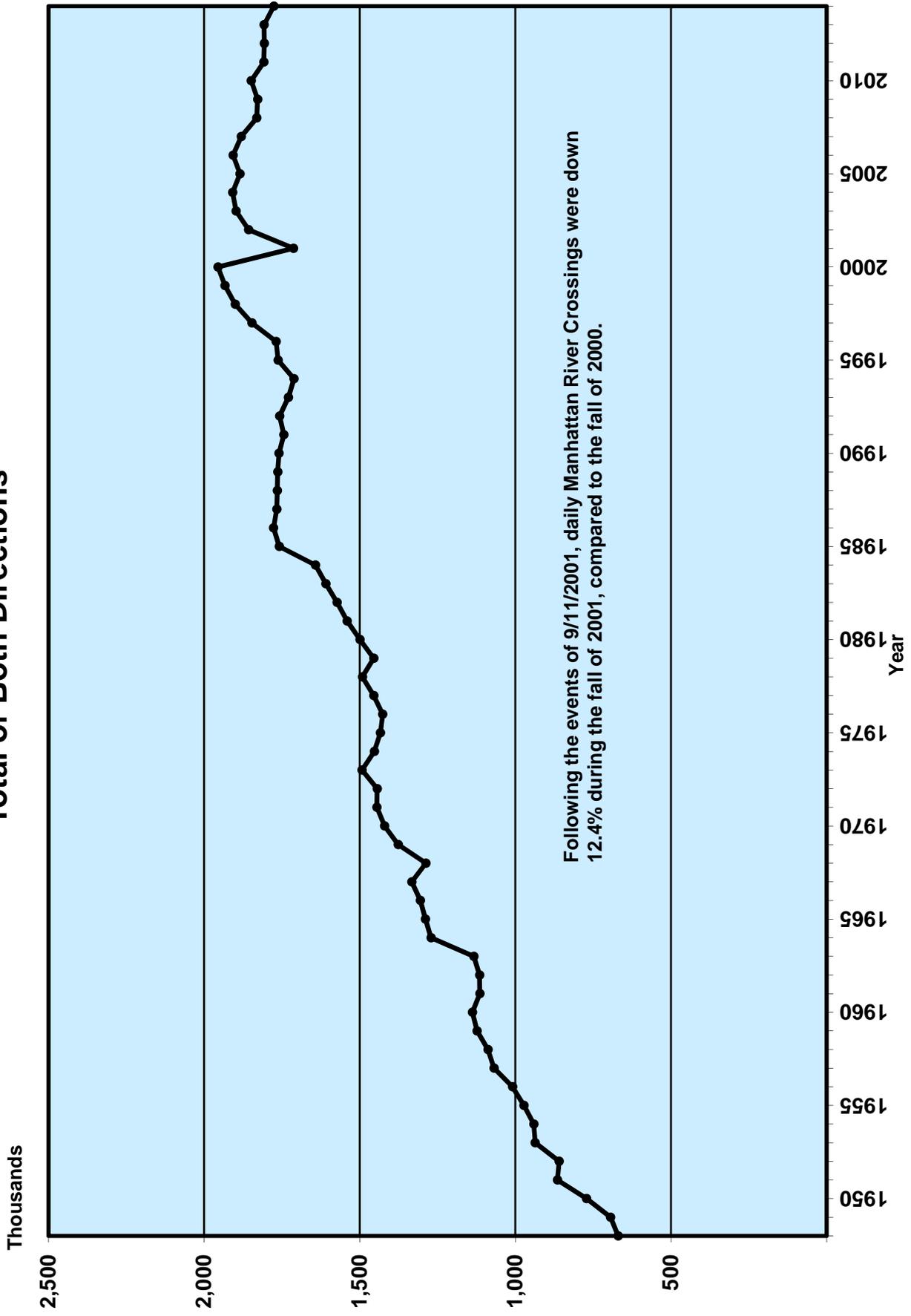
- From 1948 to 2014, Manhattan vehicular river crossings increased 165%, to 1,776,013 vehicles per day in 2014 from 670,007 in 1948 (1,106,006 additional daily motor vehicle trips).
  - Increases occurred on nineteen of the twenty Manhattan river crossings.
  - 85% increase on the four toll-free East River bridges (to 469,907 daily vehicles in 2014 from 254,068 in 1948).
  - 160% increase on the nine toll-free Harlem River bridges (to 537,888 daily vehicles from 207,177).
  - 212% increase on MTABT's four tolled crossings (to 290,406 daily vehicles from 92,977).
  - 313% increase on PANYNJ's three trans-Hudson facilities (to 477,812 daily vehicles in 2014 from 115,785 in 1948).
- Large increases in daily traffic occurred at the following individual facilities.
  - George Washington Bridge: up nearly 564% to 280,784 daily vehicles in 2014 from 42,306 in 1948.
  - Brooklyn Bridge: up 170% to 99,986 daily vehicles from 37,011.
  - Lincoln Tunnel: up 256% to 109,796 daily vehicles from 30,856.
  - Queens-Midtown Tunnel: up 225% to 86,081 daily vehicles from 26,462.
  - Robert F. Kennedy Memorial Bridge Manhattan Plaza: up 246% to 91,509 daily vehicles from 26,465.
  - Williamsburg Bridge: up 137% to 111,634 daily vehicles from 47,139.
- During the same 66-year period, annual citywide subway ridership declined by 13.8%, to 1,751 million in 2014 from 2,031 million in 1948.

## **1994 – 2014**

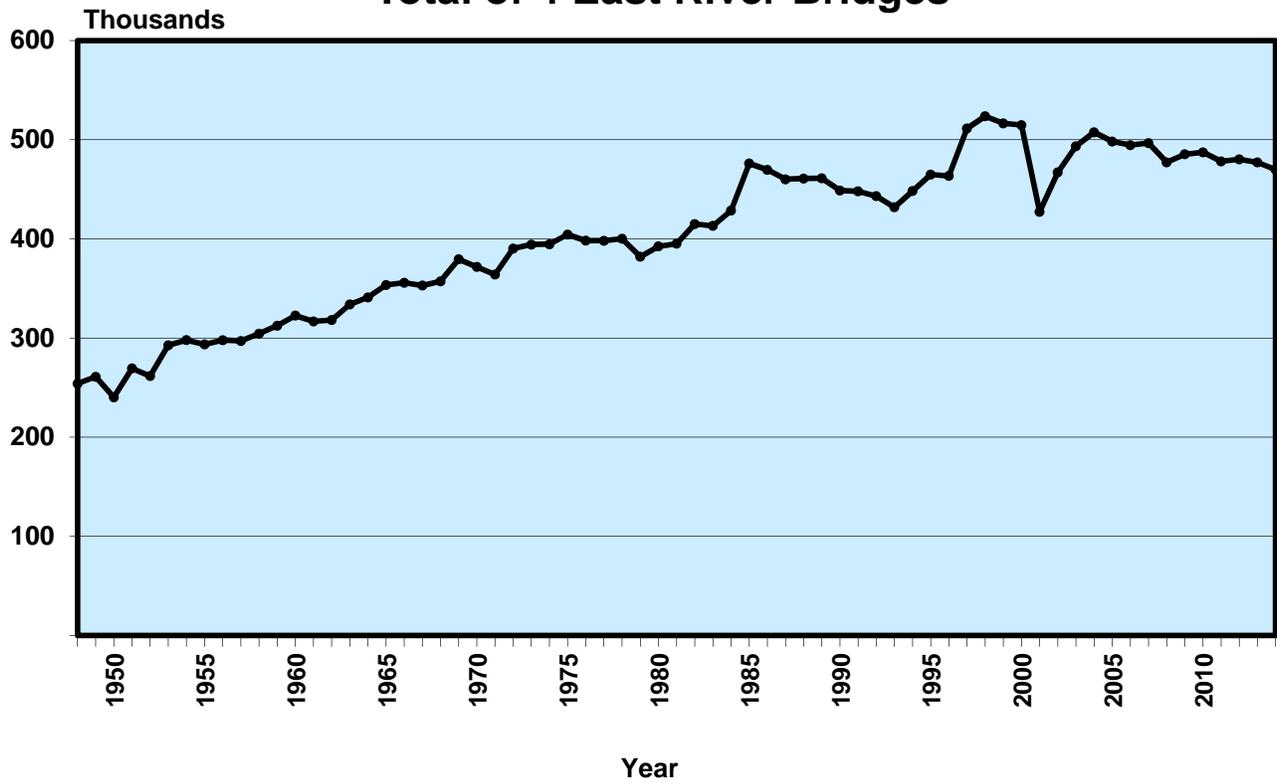
- Over the past two decades, the long term trends of rapidly increasing Manhattan vehicular river crossings and declining subway ridership, which began after the end of World War II, have changed markedly.
  - From 1948 to 1994, Manhattan River Crossings increased 155%, to 1,711,457 daily vehicles in 1994 from 670,007 in 1948. During the same period, annual subway ridership decreased 46.8%, to 1,081 million annual riders from 2,031 million.

- From 1994 to 2014, Manhattan River Crossings increased just 3.8%, to 1,776,013 daily vehicles in 2014 from 1,711,457 in 1994. Concurrently, annual subway ridership increased at the much faster rate of 62.0%, to 1,751 million annual riders in 2014 from 1,081 million in 1994.
- Subway ridership in 2014 was the highest since 1949.

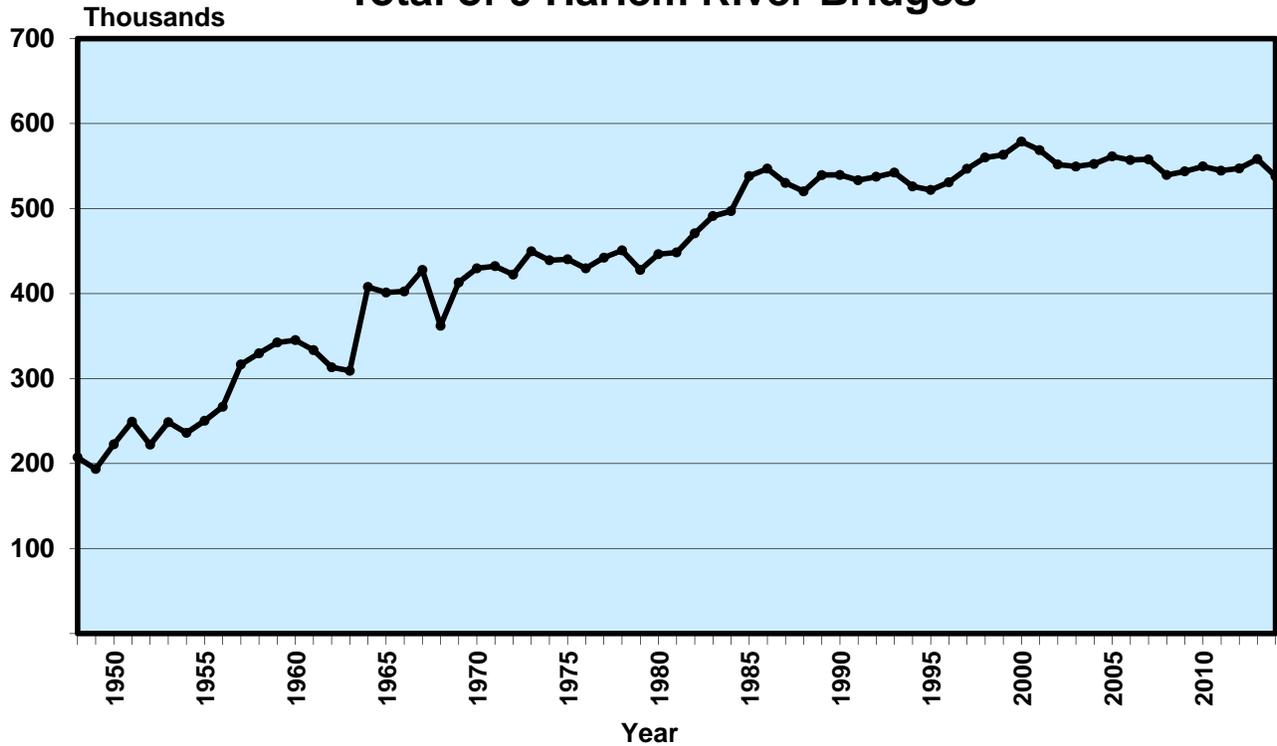
# Average Daily Manhattan River Crossings Total of Both Directions



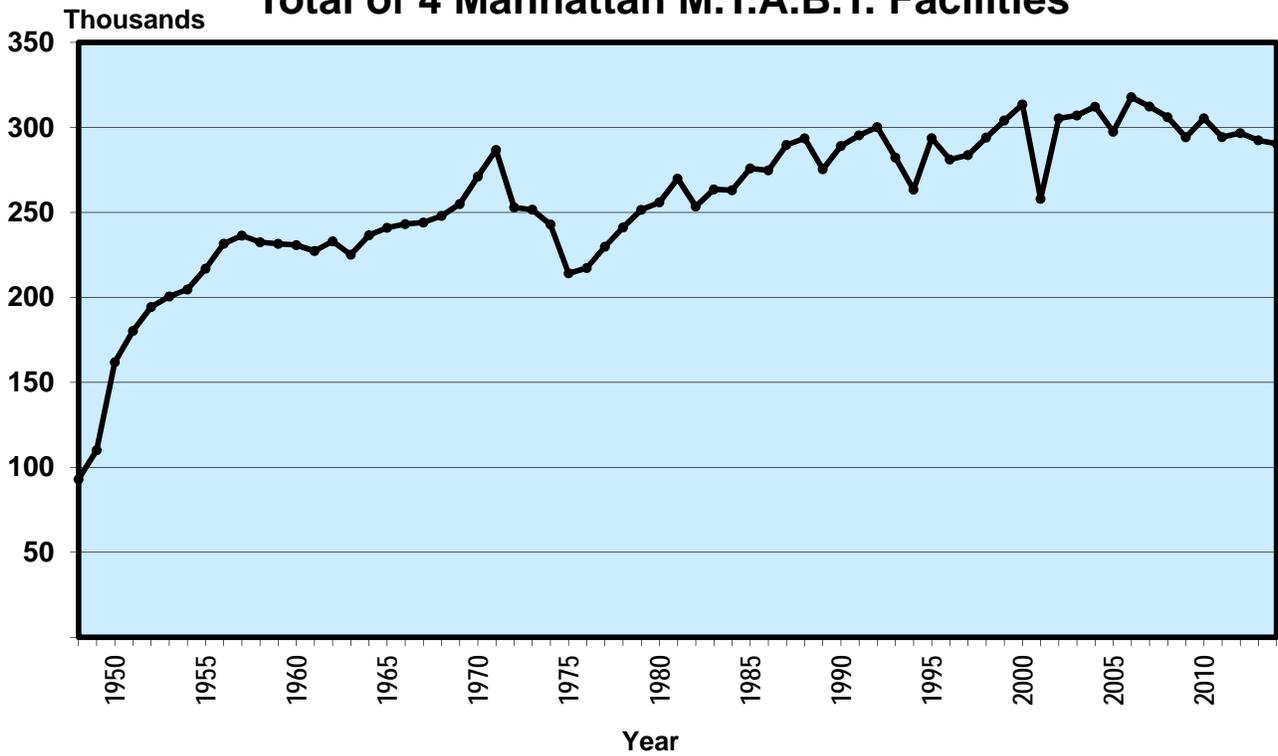
## Average Daily Traffic Volumes ~ Total of Both Directions Total of 4 East River Bridges



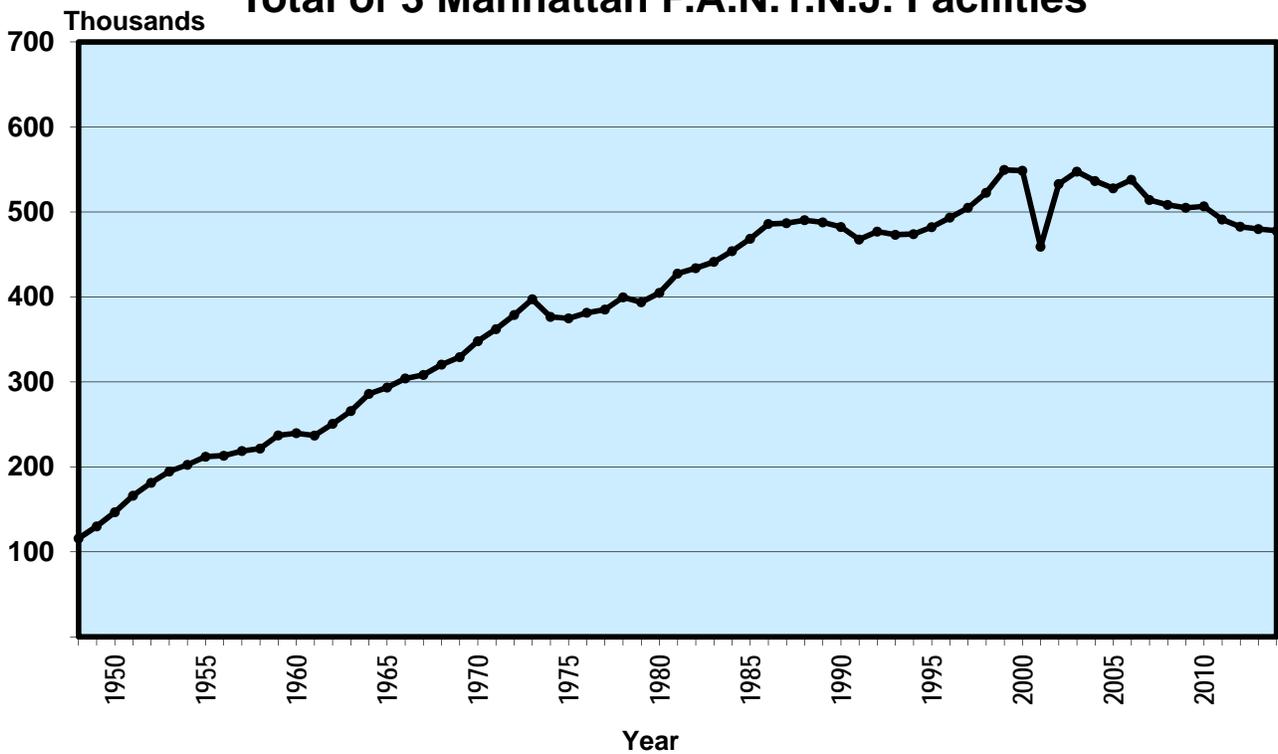
## Average Daily Traffic Volumes ~ Total of Both Directions Total of 9 Harlem River Bridges



**Average Daily Traffic Volumes ~ Total of Both Directions  
Total of 4 Manhattan M.T.A.B.T. Facilities**



**Average Daily Traffic Volumes ~ Total of Both Directions  
Total of 3 Manhattan P.A.N.Y.N.J. Facilities**



**Average Daily Manhattan River Motor Vehicle Crossings  
(Total of Both Directions)  
vs.  
Annual Subway Ridership**

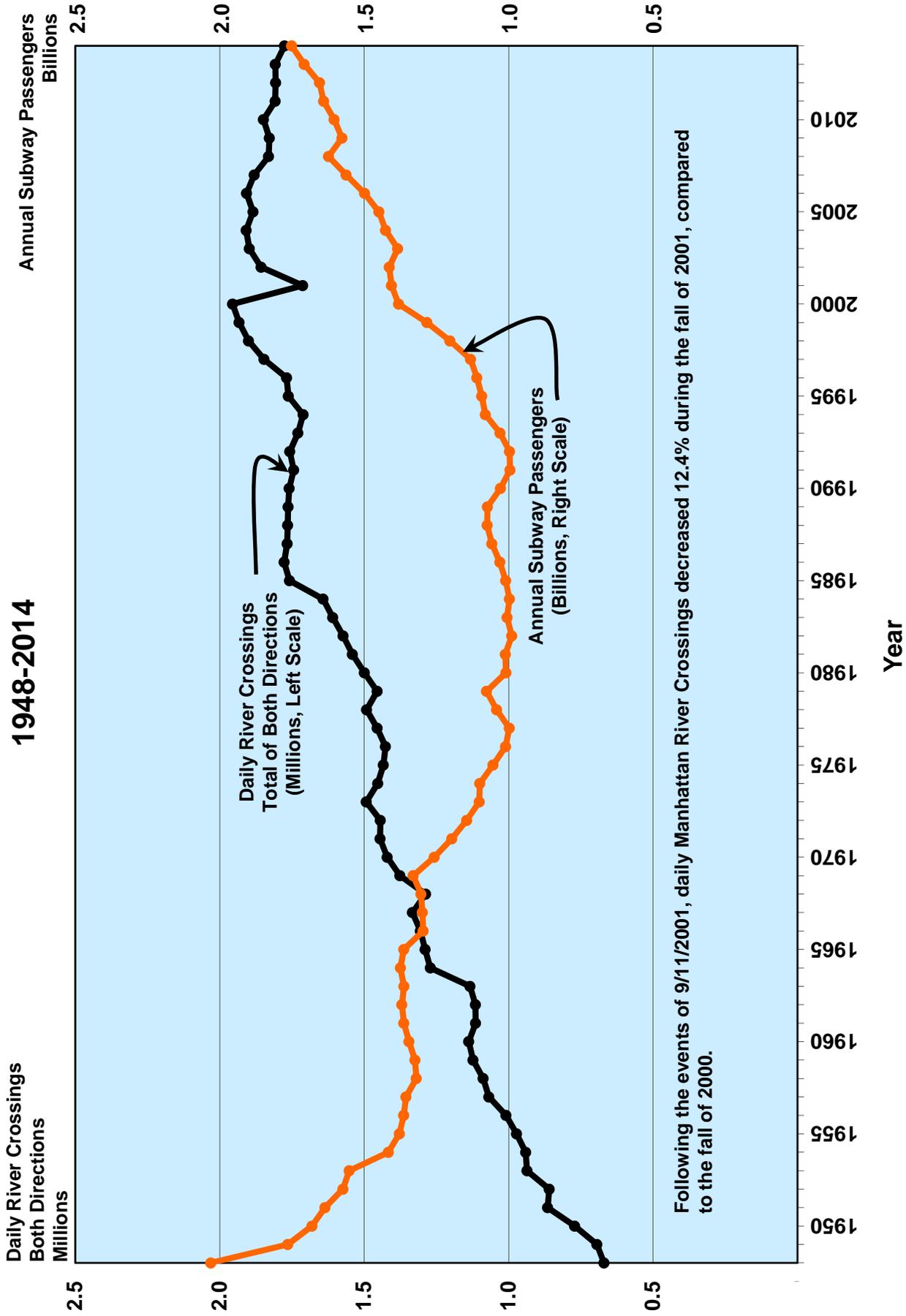
Year	Daily Manhattan River Crossings	Annual Subway Ridership	Year	Daily Manhattan River Crossings	Annual Subway Ridership
1948	670,007	2,031,142,410	1988	1,764,869	1,074,200,253
1949	694,457	1,764,469,530	1989	1,763,534	1,073,179,880
1950	771,407	1,680,843,742	1990	1,759,585	1,028,305,701
1951	864,973	1,635,728,973	1991	1,744,103	995,227,534
1952	859,480	1,573,642,697	1992	1,757,573	996,701,756
1953	936,467	1,551,796,171	1993	1,729,408	1,029,765,350
1954	940,969	1,416,371,403	1994	1,711,457	1,080,757,098
1955	972,633	1,378,149,559	1995	1,762,457	1,093,029,231
1956	1,009,270	1,363,134,171	1996	1,768,742	1,110,025,587
1957	1,068,524	1,355,383,900	1997	1,846,634	1,131,675,966
1958	1,088,124	1,319,457,461	1998	1,900,254	1,203,023,499
1959	1,123,302	1,324,054,282	1999	1,933,007	1,283,081,633
1960	1,138,247	1,344,952,725	2000	1,955,506	1,381,078,913
1961	1,114,350	1,362,736,027	2001	1,712,961	1,405,304,701
1962	1,115,056	1,369,507,594	2002	1,857,050	1,413,200,000
1963	1,133,673	1,362,251,702	2003	1,897,411	1,384,100,000
1964	1,271,047	1,374,506,950	2004	1,908,565	1,426,000,000
1965	1,289,065	1,362,884,851	2005	1,884,733	1,449,100,000
1966	1,305,320	1,295,839,328	2006	1,907,118	1,498,600,000
1967	1,332,871	1,298,484,890	2007	1,880,818	1,562,515,065
1968	1,287,543	1,303,465,841	2008	1,830,907	1,623,881,369
1969	1,376,394	1,330,383,466	2009	1,828,065	1,579,866,600
1970	1,420,334	1,257,569,124	2010	1,848,718	1,604,198,017
1971	1,445,020	1,196,875,980	2011	1,808,247	1,640,434,672
1972	1,444,147	1,145,128,739	2012	1,806,649	1,654,582,265
1973	1,492,756	1,101,597,734	2013	1,807,484	1,707,555,714
1974	1,453,136	1,099,786,500	2014	1,776,013	1,751,287,621
1975	1,433,560	1,053,932,743			
1976	1,426,334	1,010,496,909			
1977	1,455,119	997,773,441			
1978	1,491,541	1,041,628,298			
1979	1,455,112	1,076,540,944			
1980	1,499,344	1,009,332,713			
1981	1,540,683	1,011,345,460			
1982	1,573,012	989,091,943			
1983	1,608,979	1,005,343,639			
1984	1,642,250	997,025,422			
1985	1,758,605	1,010,210,607			
1986	1,777,051	1,030,385,208			
1987	1,766,601	1,058,005,483			

Percent Changes	Average Daily Crossings	Annual Subway Ridership	Period	Average Daily Crossings	Annual Subway Ridership
	+ 47.6 %	- 20.0 %	1950-1960	+ 11.1 %	+ 34.3 %
	+ 24.8 %	- 6.5 %	1960-1970	- 9.2 %	+ 26.8 %
	+ 5.6 %	- 19.7 %	1970-1980	+165.1 %	- 13.8 %
	+ 17.4 %	+ 1.9 %	1980-1990		

Source for Annual Subway Ridership: MTA

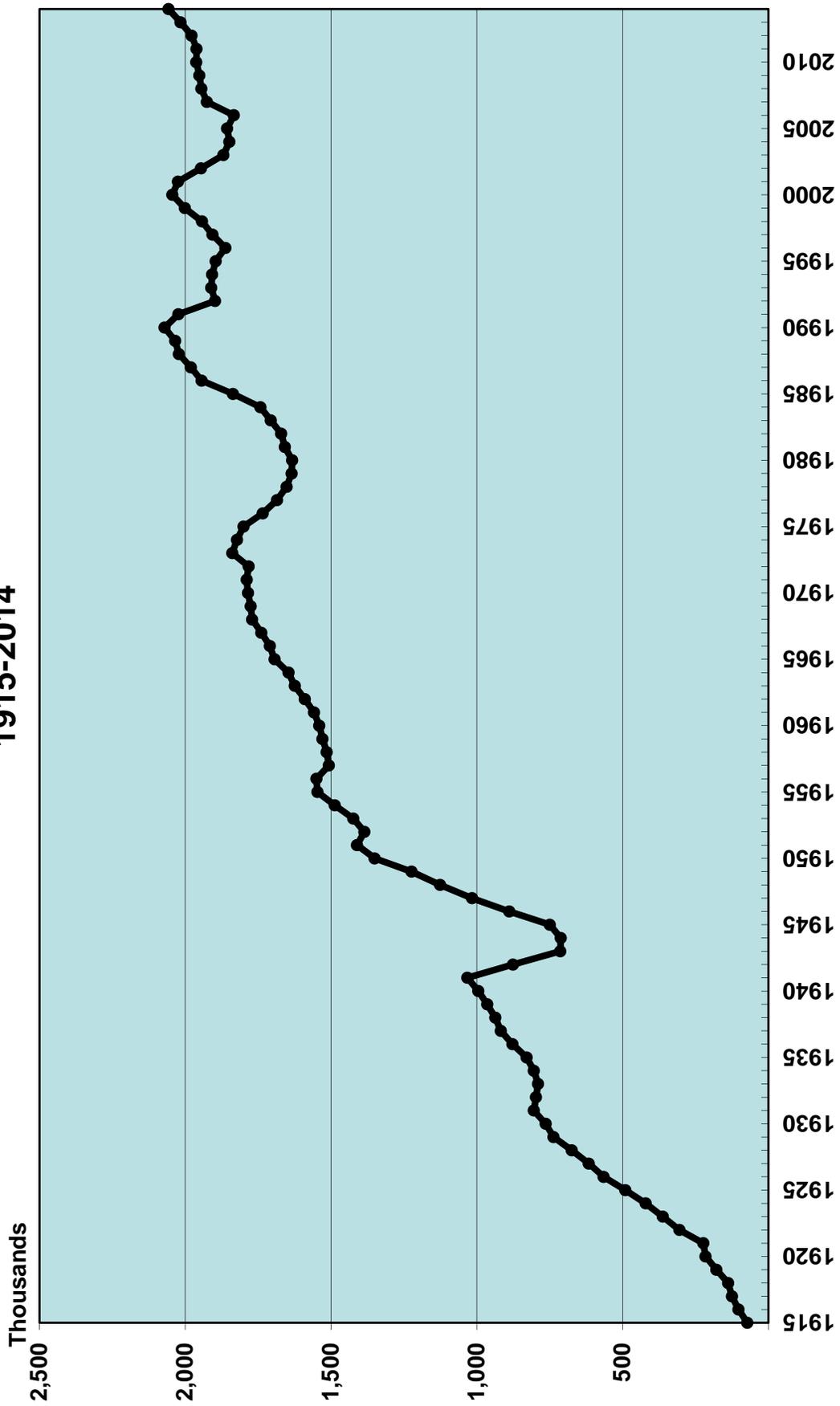
# Vehicular River Crossings vs. Subway Ridership

1948-2014



# New York City Motor Vehicle Registrations

1915-2014



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

## PAST & PRESENT PASSENGER CAR TOLL STRUCTURES

### MTA BRIDGES & TUNNELS FACILITIES *Tolls collected both directions*

	Hugh L. Carey Tunnel*	Queens Midtown Tunnel	Robert F. Kennedy Memorial Bridge**	Henry Hudson Bridge
Prior to 01/06/1972	\$ 0.35	\$ 0.25	\$ 0.25	\$ 0.10
Effective 01/06/1972	0.70	0.50	0.50	0.25
Effective 09/01/1975	0.75	0.75	0.75	0.50
Effective 05/19/1980	1.00	1.00	1.00	0.60
Effective 04/19/1982	1.25	1.25	1.25	0.90
Effective 01/03/1984	1.50	1.50	1.50	0.90
Effective 01/02/1986	1.75	1.75	1.75	1.00
Effective 02/07/1987	2.00	2.00	2.00	1.00
Effective 07/16/1989	2.50	2.50	2.50	1.25
Effective 01/31/1993	3.00	3.00	3.00	1.50
Effective 03/24/1996	3.50	3.50	3.50	1.75
Effective 05/18/2003	4.00	4.00	4.00	2.00
Effective 03/18/2005	4.50	4.50	4.50	2.25
Effective 03/16/2008	5.00	5.00	5.00	2.75
Effective 07/12/2009	5.50	5.50	5.50	3.00
Effective 12/30/2010	6.50	6.50	6.50	4.00
Effective 03/03/2013	7.50	7.50	7.50	5.00

\$ 2.17 discount with EZ Pass (\$ 2.56 on Henry Hudson Bridge).

\*Formerly Brooklyn-Battery Tunnel.

\*\*Formerly Triborough Bridge.

### PORT AUTHORITY OF NEW YORK & NEW JERSEY *Tolls collected eastbound only*

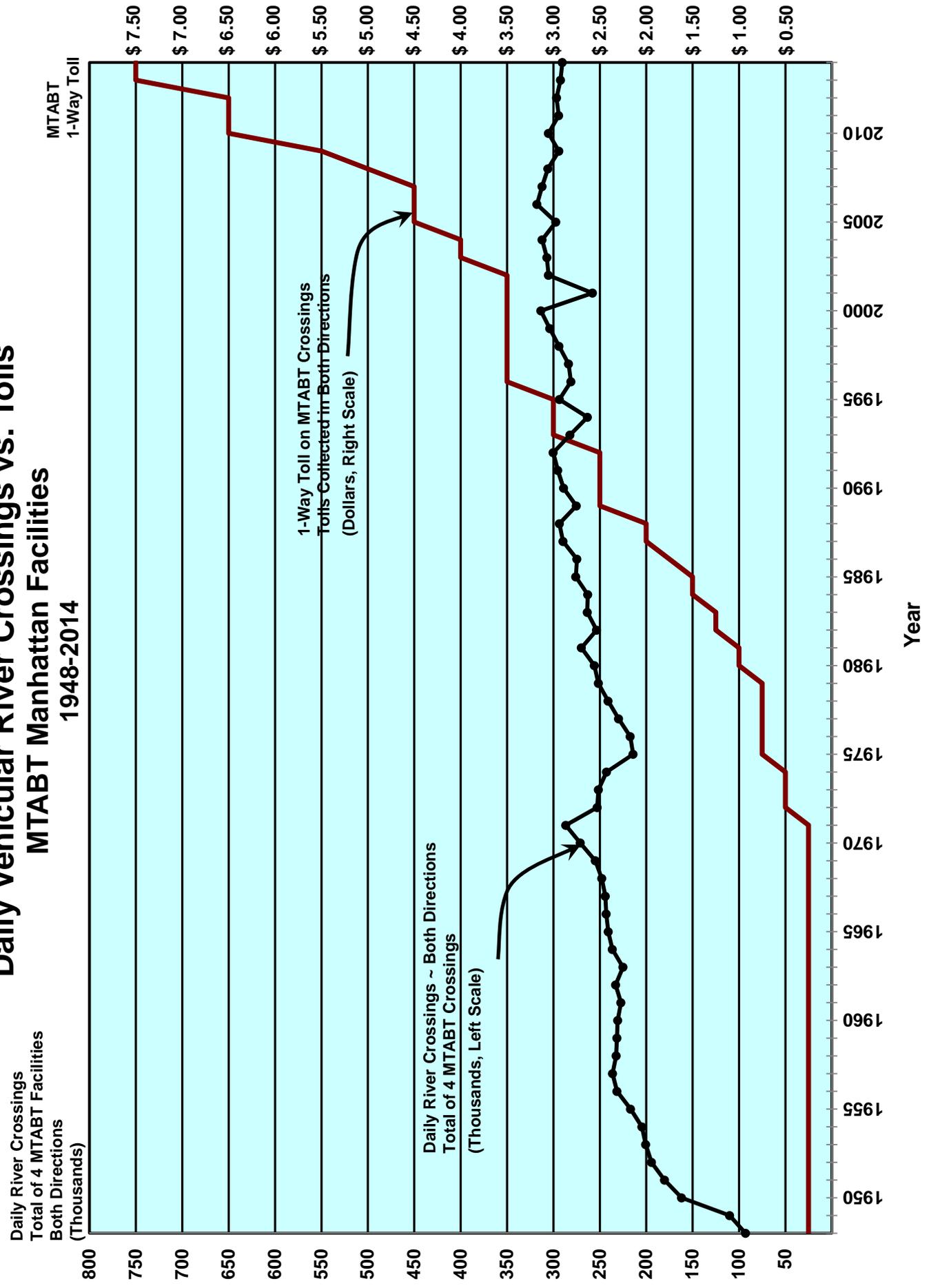
#### *George Washington Bridge, Holland Tunnel, and Lincoln Tunnel*

	Cash Toll	EZ-Pass Peak Hours	EZ-Pass Off-Peak Hours
Effective 08/12/1970	\$ 1.00		
Effective 05/05/1975	1.50		
Effective 01/01/1984	2.00		
Effective 04/12/1987	3.00		
Effective 04/07/1991	4.00		
Effective 03/25/2001	6.00	\$ 5.40	\$ 5.40
Effective 03/02/2008	8.00	8.00	6.00
Effective 09/18/2011	12.00	9.50	7.50
Effective 12/02/2012	13.00	10.25	8.25
Effective 12/01/2013	13.00	11.00	9.00
Effective 12/07/2014	14.00	11.75	9.75

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

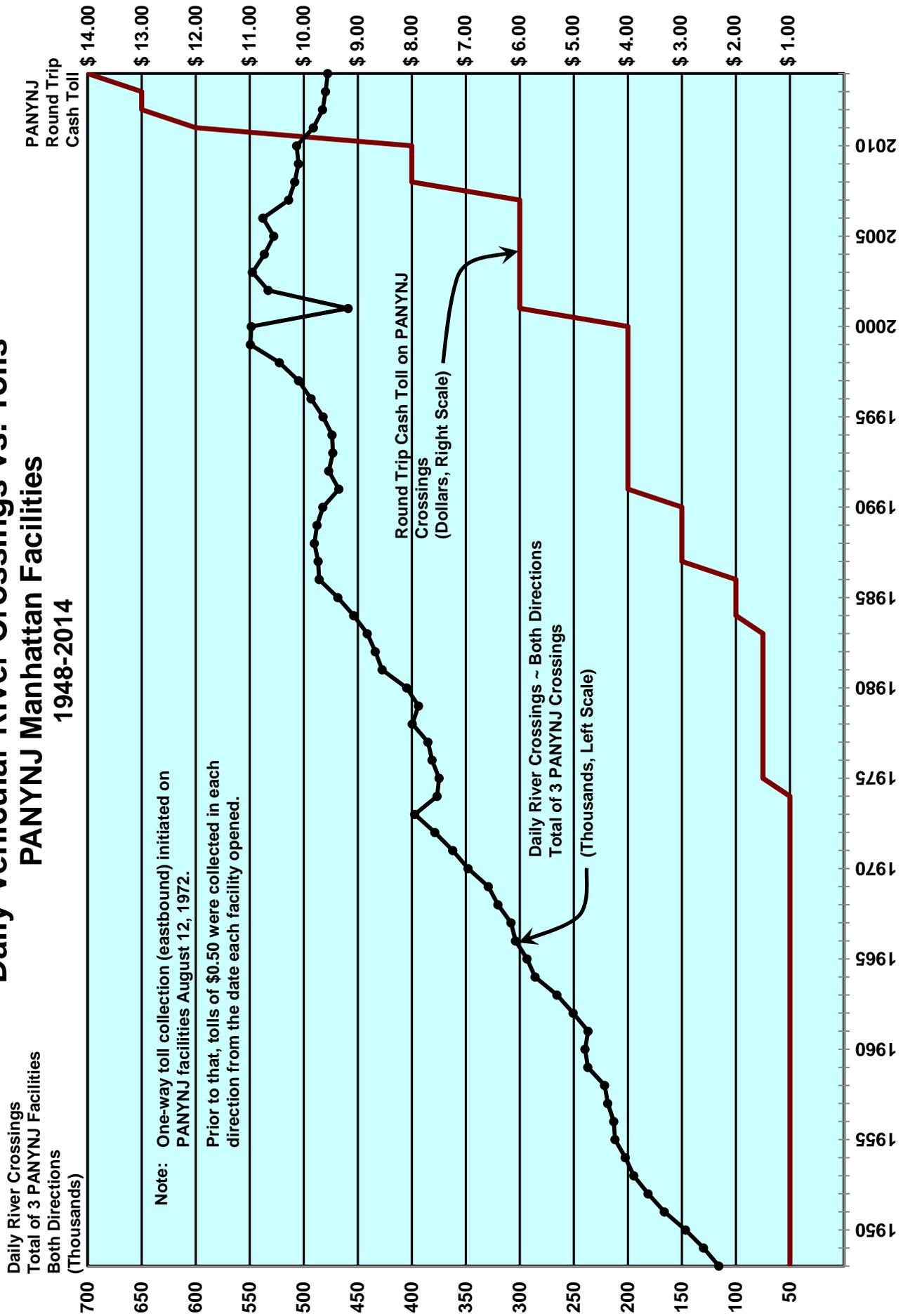
# Daily Vehicular River Crossings vs. Tolls

## MTABT Manhattan Facilities 1948-2014



# Daily Vehicular River Crossings vs. Tolls

## PANYNJ Manhattan Facilities 1948-2014



# East River Bridges



**Foreground: Manhattan Bridge**  
**Background: Brooklyn Bridge**



**East River Bridges**  
**Average Daily Traffic Volumes**  
**1948 - 2014**

<i>Year</i>	<i>Brooklyn Bridge</i>	<i>Ed Koch Queensboro Bridge</i>	<i>Manhattan Bridge</i>	<i>Williamsburg Bridge</i>	<i>Totals</i>
1948	37,011	83,201	86,717	47,139	254,068
1949	37,244	88,821	80,420	54,448	260,933
1950	13,397	84,863	84,027	57,940	240,227
1951	14,865	90,922	100,826	62,739	269,352
1952	16,907	85,748	96,476	62,573	261,704
1953	14,513	106,391	94,320	77,502	292,726
1954	42,455	101,285	77,698	76,465	297,903
1955	53,964	91,958	66,968	80,743	293,633
1956	54,981	90,786	69,656	82,443	297,866
1957	23,852	93,676	89,793	89,707	297,028
1958	43,089	100,555	82,128	78,698	304,470
1959	53,115	103,522	74,329	81,465	312,431
1960	73,486	107,536	60,481	81,157	322,660
1961	68,997	104,505	62,797	80,514	316,813
1962	78,850	105,930	51,450	81,940	318,170
1963	78,770	116,350	58,510	80,250	333,880
1964	80,230	120,900	59,250	80,650	341,030
1965	84,141	117,588	71,222	80,567	353,518
1966	89,124	122,896	63,693	80,032	355,745
1967	87,387	124,033	75,741	65,775	352,936
1968	72,475	130,777	79,906	74,074	357,232
1969	97,565	132,553	75,473	73,825	379,416
1970	100,050	126,554	72,077	73,062	371,743
1971	102,535	120,555	68,681	72,299	364,070
1972	103,815	136,455	73,803	76,219	390,292
1973	102,834	138,066	73,401	79,989	394,290
1974	99,959	138,560	77,198	78,914	394,631
1975	103,750	144,252	74,320	82,057	404,379
1976	102,590	145,130	68,057	82,471	398,248
1977	104,532	146,283	64,835	82,490	398,140
1978	104,848	138,415	74,257	82,626	400,146
1979	91,319	133,966	75,403	81,340	382,028
1980	103,954	127,929	77,914	82,663	392,460
1981	102,572	127,864	79,589	85,100	395,125
1982	110,991	136,864	87,760	79,369	414,984
1983	115,825	125,158	85,222	86,947	413,152
1984	110,432	134,107	89,104	94,898	428,541
1985	116,929	150,892	100,825	107,386	476,032
1986	126,555	158,191	77,784	107,181	469,711
1987	123,523	151,688	77,519	107,362	460,092
1988	129,153	153,841	75,221	102,643	460,858
1989	131,951	152,591	68,593	107,967	461,102
1990	129,626	140,063	69,550	109,474	448,713
1991	128,491	131,438	72,695	115,345	447,969
1992	125,643	141,078	78,117	98,307	443,145
1993	134,793	135,964	74,526	86,591	431,874
1994	134,837	151,483	78,418	83,525	448,263
1995	131,883	157,306	75,126	100,588	464,903
1996	131,872	161,965	81,075	88,570	463,482
1997	147,898	184,179	83,209	96,124	511,410
1998	144,131	192,119	78,172	109,268	523,690
1999	127,065	189,190	92,311	107,941	516,507
2000	147,767	182,940	75,684	108,376	514,767
2001	95,586	176,469	73,064	82,202	427,321
2002	121,145	176,419	66,152	103,364	467,080
2003	134,444	184,964	73,767	100,243	493,418
2004	137,563	180,369	79,129	110,528	507,589
2005	132,210	178,610	80,363	107,030	498,213
2006	126,805	186,110	74,621	107,040	494,576
2007	131,551	181,365	73,205	110,545	496,666
2008	123,781	176,306	70,341	106,783	477,211
2009	125,021	180,162	71,936	108,194	485,313
2010	123,640	177,695	74,777	111,189	487,301
2011	105,820	183,401	85,392	103,590	478,203
2012	100,288	178,188	89,087	112,696	480,259
2013	102,542	171,556	87,375	115,674	477,147
2014	99,986	174,239	84,048	111,634	469,907

# Hourly Vehicular Volumes Brooklyn Bridge - 2014

## Eastbound to Brooklyn

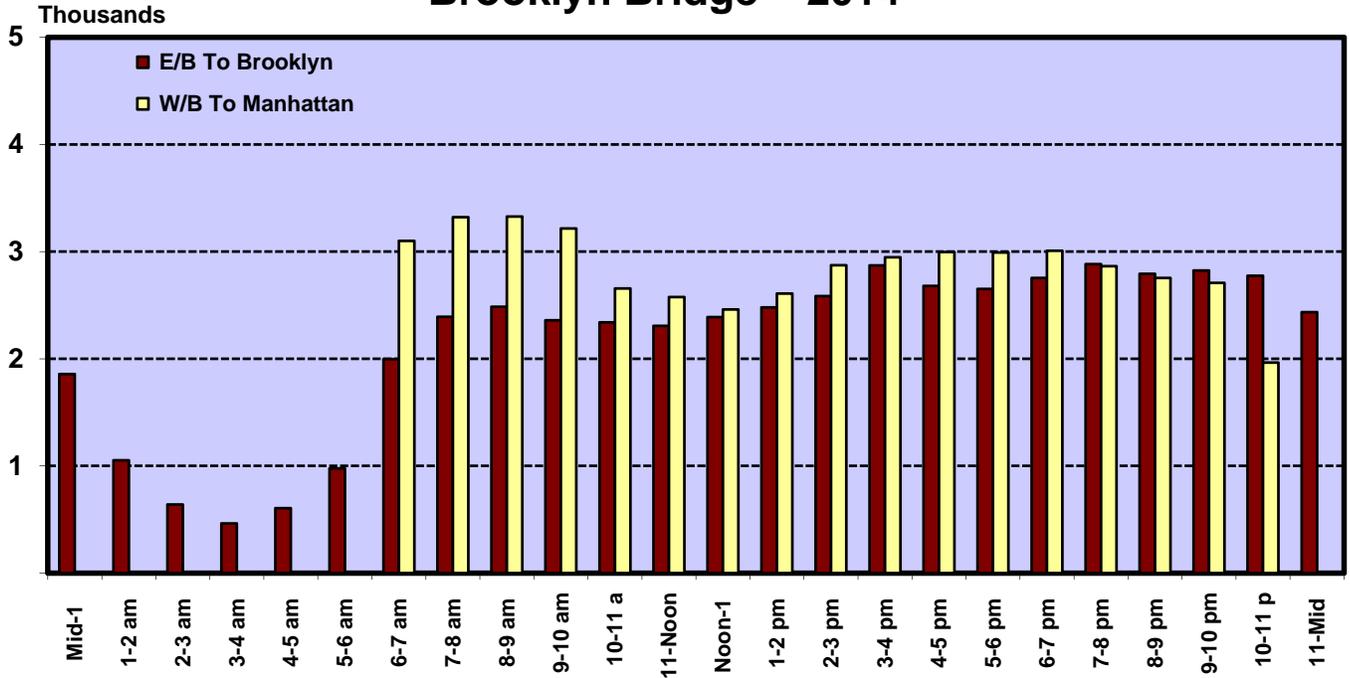
## Westbound to Manhattan

FHWA Classes	Commuter Vans				Commercial Vans				Single Unit Trucks				Total Vehicles
	Autos & Motorcycles	Large SUVs	Buses	Pickups	Autos & Motorcycles	Large SUVs	Buses	Pickups	5-7	8-13	5-7	8-13	
12-1am	1,856	1	1	1	0	0	0	0	0	0	0	0	1,858
1-2am	1,048	4	1	1	0	0	0	0	0	0	0	0	1,053
2-3am	638	3	0	0	0	0	0	0	0	0	0	0	641
3-4am	459	4	0	0	0	0	0	0	0	0	0	0	463
4-5am	597	7	2	2	0	0	0	0	0	0	0	0	606
5-6am	964	12	1	1	0	0	0	0	0	0	0	0	977
6-7am	1,959	29	9	9	1	0	0	36	71	2	0	0	3,101
7-8am	2,343	31	18	18	1	0	0	22	35	2	0	0	3,322
8-9am	2,426	39	20	20	1	0	0	26	9	3	0	0	3,327 **
9-10am	2,291	42	26	26	1	0	0	26	10	7	0	0	3,216
10-11am	2,295	28	17	17	0	0	0	21	11	6	0	0	2,656
11-12am	2,242	43	22	22	0	0	0	33	13	7	0	0	2,577
12-1pm	2,326	42	22	22	0	0	0	31	22	2	0	0	2,460
1-2pm	2,416	36	27	27	1	0	0	33	46	9	0	0	2,609
2-3pm	2,514	34	37	37	1	0	0	29	28	2	0	0	2,874
3-4pm	2,810	30	32	32	0	0	0	33	33	1	0	0	2,948
4-5pm	2,633	27	19	19	1	0	0	31	16	2	0	0	2,996
5-6pm	2,607	29	16	16	0	0	0	20	14	2	0	0	2,992
6-7pm	2,700	41	12	12	1	0	0	23	12	1	0	0	3,009
7-8pm	2,847	31	5	5	0	0	0	14	5	0	0	0	2,865
8-9pm	2,778	13	2	2	0	0	0	19	1	1	0	0	2,755
9-10pm	2,811	12	1	1	0	0	0	22	3	1	0	0	2,708
10-11pm	2,770	5	0	0	0	0	0	14	0	2	0	0	1,964
11-12pm	2,430	4	2	2	0	0	0	0	0	0	0	0	0
Totals	50,760	547	292	292	8	0	0	423	47,577	329	50	0	48,379
7-10am	7,060	112	64	64	3	0	0	74	9,725	54	12	0	9,865
10am-1pm	6,863	113	61	61	0	0	0	75	7,557	46	15	0	7,693
1-4pm	7,740	100	96	96	2	0	0	95	8,217	107	12	0	8,431
4-7pm	7,940	97	47	47	2	0	0	74	8,876	42	5	0	8,997
7am-7pm	29,603	422	268	268	7	0	0	318	34,375	249	44	0	34,986
6-10am	9,019	141	73	73	4	0	0	110	12,717	125	14	0	12,966
3-7pm	10,750	127	79	79	2	0	0	107	11,757	75	6	0	11,945
6am-7pm	31,562	451	277	277	8	0	0	354	37,367	320	46	0	38,087

Based on March 2006 Classification Survey Data.

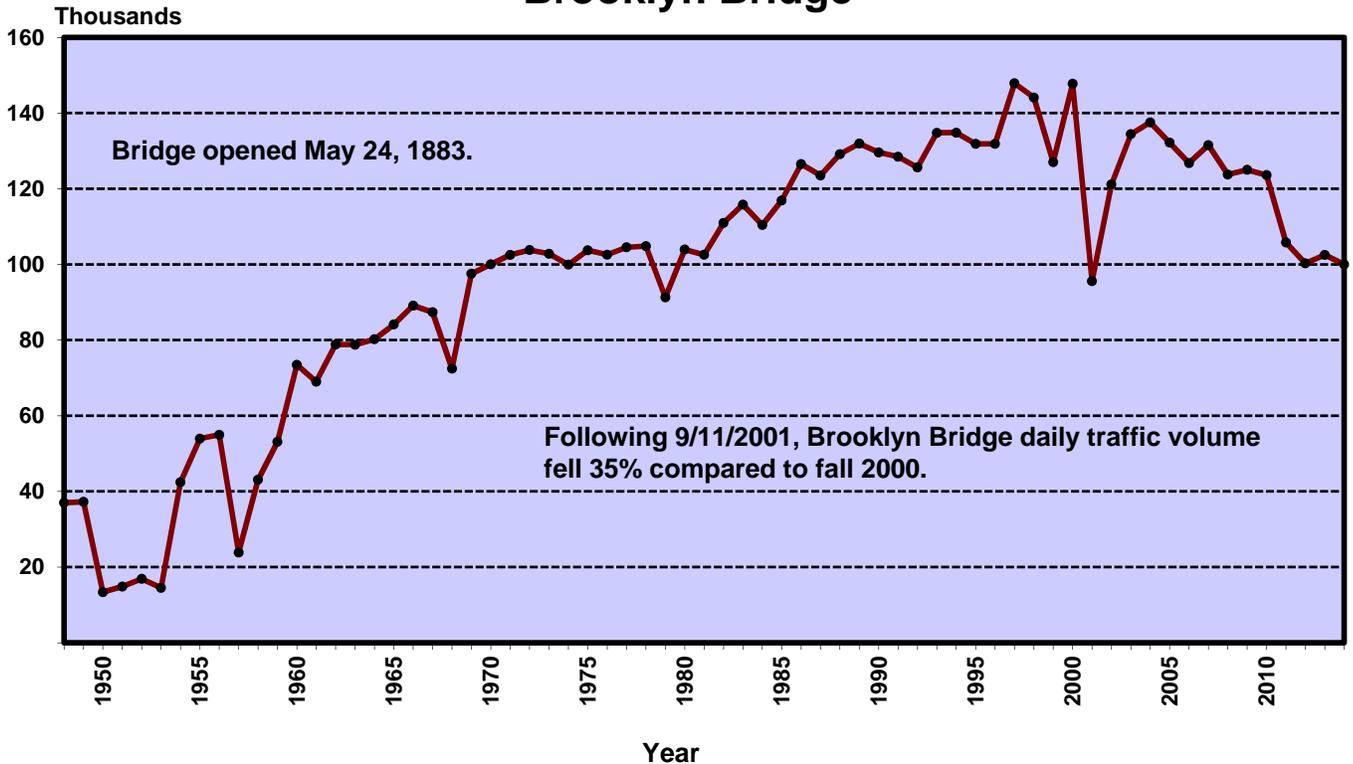
\*\* Peak Volumes

## Hourly Vehicular Volumes Brooklyn Bridge ~ 2014



**Note: Bridge closed overnight Manhattan-bound for reconstruction during 2011, 2012, 2013, & 2014.**

## Average Daily Traffic Volumes ~ Total of Both Directions Brooklyn Bridge



# Hourly Vehicular Volumes

## Ed Koch Queensboro Bridge - 2014

### Eastbound to Queens

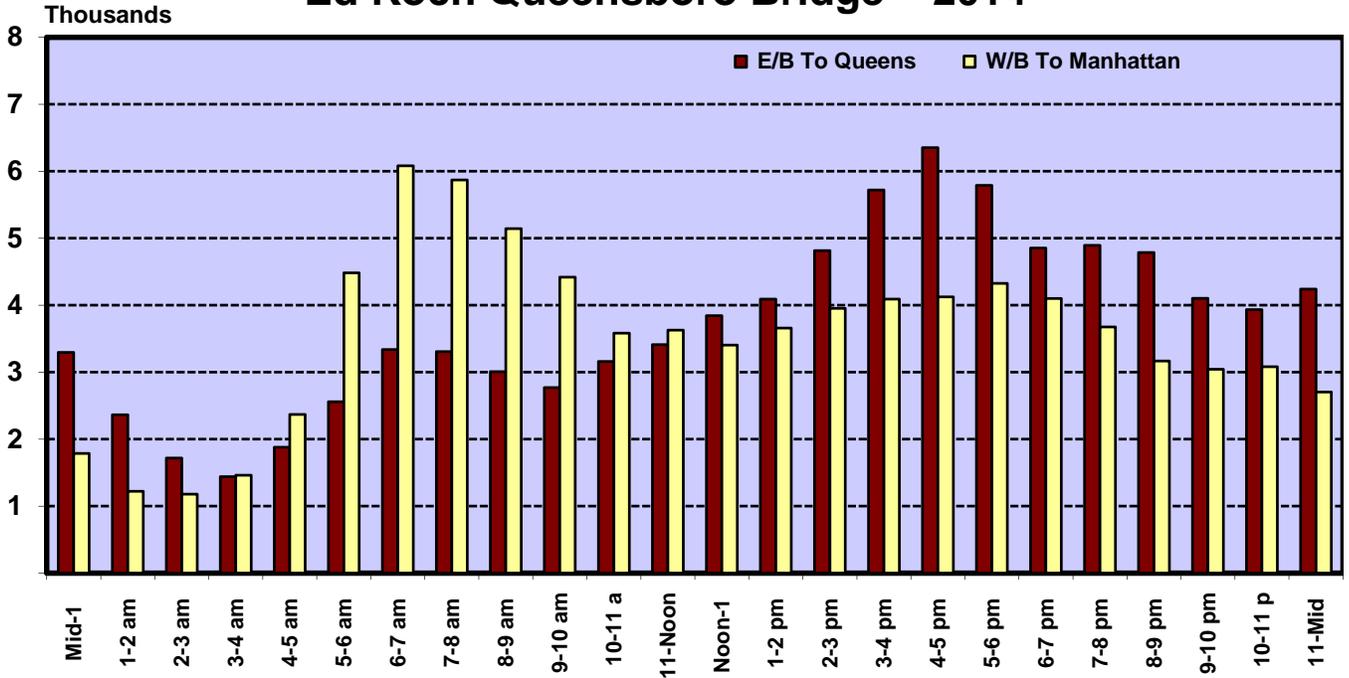
### Westbound to Manhattan

FHWA Classes ▶	Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles							Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles							2-Way Grand Totals	
	Autos, Motorcycles SUVs, Family Vans	Taxis, Liveries, Limos	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles	Autos, Motorcycles SUVs, Family Vans	Taxis, Liveries, Limos	2	2 & 3	4	5 - 7		8 - 13
12-1am	1,522	1,598	2	99	11	47	19	3,296	882	774	2	53	9	37	32	1,787
1-2am	831	1,381		70	12	36	34	2,364	494	585		64	6	35	38	1,222
2-3am	687	868		80	5	32	45	1,717	462	498		129	5	41	43	1,178
3-4am	631	615		103	3	30	58	1,440	596	511		232	5	65	53	1,462
4-5am	867	731		128	5	38	111	1,880	1,130	844		223	6	82	84	2,369
5-6am	1,722	556		147	3	52	79	2,559	2,415	1,531		275	11	181	70	4,483
6-7am	2,864	210		123	11	79	52	3,339	3,641	1,795		332	44	207	62	6,081
7-8am	2,863	176		119	46	93	11	3,308	2,941	1,837		766	53	242	32	5,871
8-9am	2,446	273		119	66	90	13	3,007	2,668	1,096		995	70	295	19	5,143
9-10am	2,118	329		139	61	112	12	2,771	2,323	756		991	29	291	30	4,420
10-11am	1,977	702		268	46	150	16	3,159	1,907	728		618	50	251	29	3,583
11-12am	2,096	777		340	34	144	22	3,413	1,923	890		556	22	194	42	3,627
12-1pm	2,508	706		423	35	157	16	3,845	1,778	931		475	28	150	42	3,404
1-2pm	2,709	734		397	41	194	17	4,092	2,024	973		421	40	169	32	3,659
2-3pm	2,964	1,027		561	41	206	16	4,815	2,314	1,049		380	42	133	36	3,954
3-4pm	3,545	1,161		730	55	214	15	5,720	2,517	1,089		345	20	100	21	4,092
4-5pm	3,833	1,555		737	67	157	5	6,354	2,432	1,329		259	25	62	17	4,124
5-6pm	4,230	828		512	100	114	5	5,789	2,466	1,562		197	23	69	9	4,326
6-7pm	3,717	662		306	85	79	5	4,854	2,617	1,188		190	31	57	17	4,100
7-8pm	3,705	811		248	63	45	23	4,895	2,686	727		154	34	50	24	3,675
8-9pm	3,387	1,079		210	31	57	24	4,788	2,296	663		121	28	46	14	3,168
9-10pm	2,652	1,218		137	31	42	23	4,103	2,105	732		111	11	68	16	3,043
10-11pm	2,429	1,277		117	34	60	17	3,934	2,057	829		99	14	54	29	3,082
11-12pm	2,566	1,489		97	21	40	28	4,241	1,672	870		69	10	47	35	2,703
Totals	58,869	20,763		6,210	907	2,268	666	89,683	48,346	23,787		8,055	616	2,926	826	174,239
7-10am	7,427	778		377	173	295	36	9,086	7,932	3,689		2,752	152	828	81	15,434
10am-1pm	6,581	2,185		1,031	115	451	54	10,417	5,608	2,549		1,649	100	595	113	10,614
1-4pm	9,218	2,922		1,688	137	614	48	14,627	6,855	3,111		1,146	102	402	89	11,705
4-7pm	11,780	3,045		1,555	252	350	15	16,997	7,515	4,079		646	79	188	43	12,550
7am-7pm	35,006	8,930		4,651	677	1,710	153	51,127	27,910	13,428		6,193	433	2,013	326	50,303
6-10am	10,291	988		500	184	374	88	12,425	11,573	5,484		3,084	196	1,035	143	21,515
3-7pm	15,325	4,206		2,285	307	564	30	22,717	10,032	5,168		991	99	288	64	16,642
6am-7pm	37,870	9,140		4,774	688	1,789	205	54,466	31,551	15,223		6,525	477	2,220	388	56,384

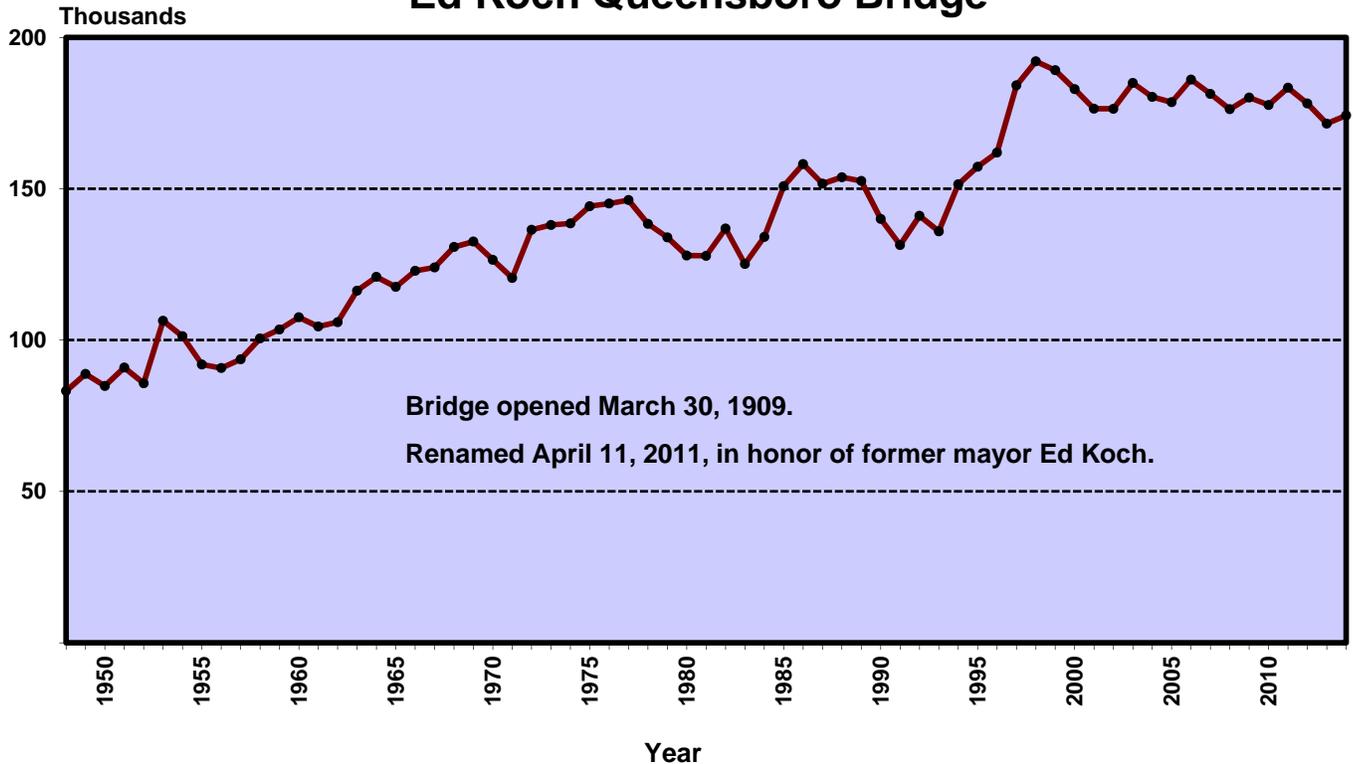
Based on October 2014 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Ed Koch Queensboro Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Ed Koch Queensboro Bridge



## Hourly Vehicular Volumes Manhattan Bridge - 2014

### Eastbound to Brooklyn

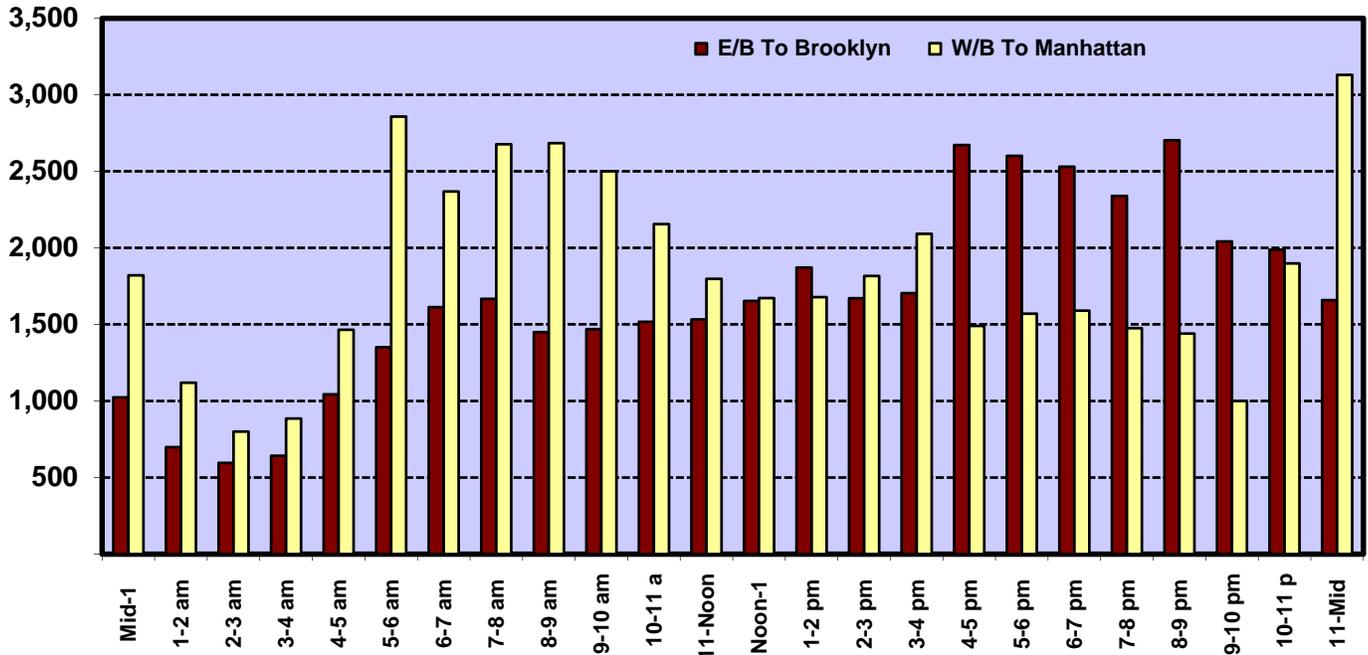
### Westbound to Manhattan

FHWA Classes	Commuter Vans					Total Vehicles	Commuter Vans					Total Vehicles
	Autos & Motorcycles	Commercial Vans Pickups	Buses	Single Unit Trucks	Tractor Trailers		Autos & Motorcycles	Commercial Vans Pickups	Buses	Single Unit Trucks	Tractor Trailers	
	1 & 2	3	4	5-7	8-13		1 & 2	3	4	5-7	8-13	
12-1am	987	19	6	10	2	1,024	1,805	11	1	4	0	1,821
1-2am	679	14	2	4	0	699	1,108	9	1	2	0	1,120
2-3am	575	13	3	4	1	596	790	5	1	5	0	801
3-4am	613	17	4	6	3	643	869	8	3	5	1	886
4-5am	1,015	13	5	10	1	1,044	1,341	22	6	93	4	1,466
5-6am	1,298	11	13	27	2	1,351	2,419	46	56	287	50	2,858
6-7am	1,435	36	41	90	11	1,613	1,889	58	72	308	42	2,369
7-8am	1,407	48	55	148	9	1,667	2,140	56	67	396	19	2,678
8-9am	1,223	28	47	141	11	1,450	2,206	46	51	363	19	2,685
9-10am	1,187	33	58	181	11	1,470	1,970	47	46	412	26	2,501
10-11am	1,241	23	53	188	13	1,518	1,646	45	46	388	31	2,156
11-12am	1,243	34	52	191	13	1,533	1,373	44	33	332	16	1,798
12-1pm	1,289	43	56	252	14	1,654	1,226	44	40	347	16	1,673
1-2pm	1,467	51	64	277	13	1,872	1,206	41	50	367	15	1,679
2-3pm	1,383	31	49	194	14	1,671	1,550	29	36	195	7	1,817
3-4pm	1,451	34	71	142	7	1,705	1,885	28	32	136	11	2,092
4-5pm	2,419	58	69	118	8	2,672	1,274	28	33	149	7	1,491
5-6pm	2,400	46	63	84	9	2,602	1,373	26	43	126	3	1,571
6-7pm	2,366	34	59	66	6	2,531	1,412	13	58	104	3	1,590
7-8pm	2,186	30	63	54	7	2,340	1,335	20	42	79	0	1,476
8-9pm	2,561	31	53	53	6	2,704	1,328	14	23	74	2	1,441
9-10pm	1,938	32	34	34	5	2,043	950	8	11	31	0	1,000
10-11pm	1,911	25	23	26	3	1,988	1,867	7	5	20	0	1,899
11-12pm	1,612	15	13	17	2	1,659	3,102	5	4	19	1	3,131
Totals	35,886	719	956	2,317	171	40,049	38,064	660	760	4,242	273	43,999
7-10am	3,817	109	160	470	31	4,587	6,316	149	164	1,171	64	7,864
10am-1pm	3,773	100	161	631	40	4,705	4,245	133	119	1,067	63	5,627
1-4pm	4,301	116	184	613	34	5,248	4,641	98	118	698	33	5,588
4-7pm	7,185	138	191	268	23	7,805	4,059	67	134	379	13	4,652
7am-7pm	19,076	463	696	1,982	128	22,345	19,261	447	535	3,315	173	23,731
6-10am	5,252	145	201	560	42	6,200	8,205	207	236	1,479	106	10,233
3-7pm	8,636	172	262	410	30	9,510	5,944	95	166	515	24	6,744
6am-7pm	20,511	499	737	2,072	139	23,958	21,150	505	607	3,623	215	26,100

Based on April 2006 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Manhattan Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Manhattan Bridge



# Hourly Vehicular Volumes Williamsburg Bridge - 2014

## Eastbound to Brooklyn

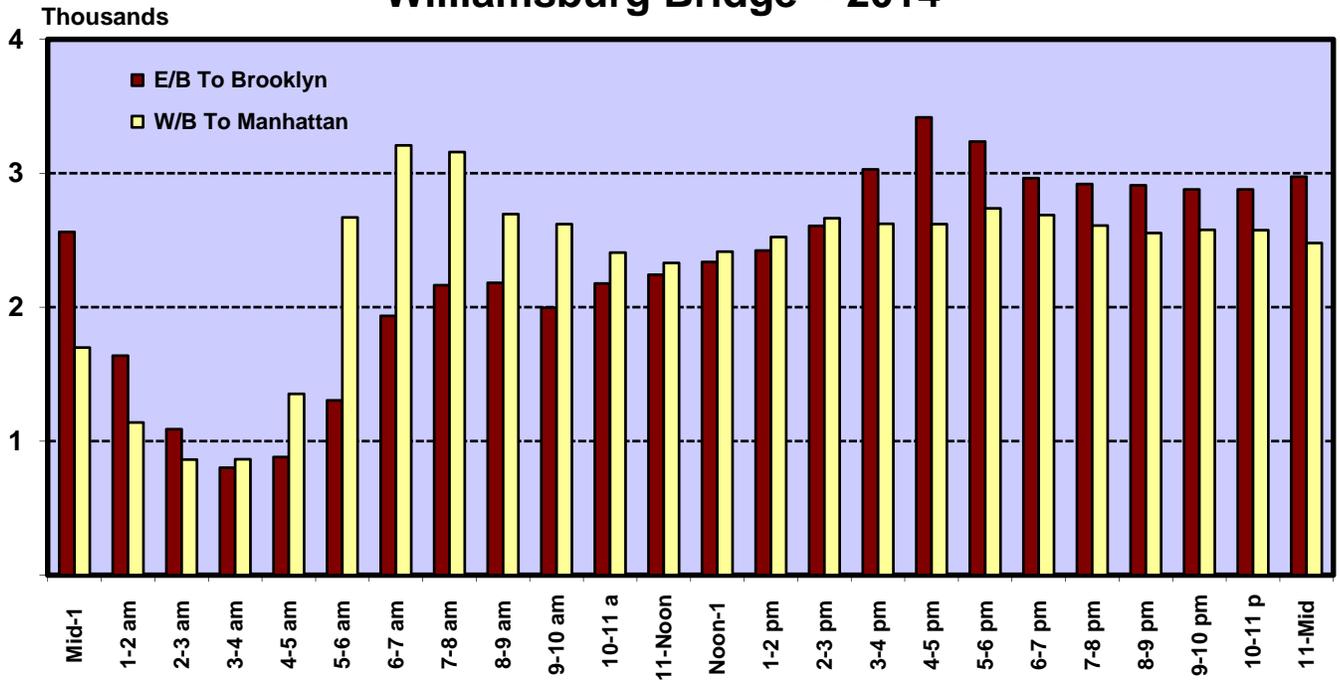
## Westbound to Manhattan

FHWA Classes	Commercial Vans,										Total Vehicles	Commercial Vans,										Total Vehicles
	Autos, Motorcycles					Panel Trucks, Pickups,						Autos, Motorcycles					Panel Trucks, Pickups,					
	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles	
12-1am	1,473	1,010	52	0	25	2	2,562	709	920	40	0	20	10	1,699	709	920	40	0	20	10	1,699	
1-2am	712	862	41	1	19	3	1,638	411	671	27	0	26	4	1,139	411	671	27	0	26	4	1,139	
2-3am	449	561	48	0	24	8	1,090	290	481	50	1	38	3	863	290	481	50	1	38	3	863	
3-4am	343	345	40	3	64	7	802	400	332	75	0	48	10	865	400	332	75	0	48	10	865	
4-5am	438	370	34	2	26	12	882	718	376	156	0	89	14	1,353	718	376	156	0	89	14	1,353	
5-6am	780	383	57	6	55	23	1,304	1,588	553	295	11	199	25	2,671	1,588	553	295	11	199	25	2,671	
6-7am	1,470	239	136	8	76	6	1,935	2,174	356	304	98	202	74	3,208	2,174	356	304	98	202	74	3,208	
7-8am	1,660	238	137	26	94	10	2,165	2,172	211	445	58	241	32	3,159	2,172	211	445	58	241	32	3,159	
8-9am	1,694	181	176	32	92	7	2,182	1,776	146	511	15	234	13	2,695	1,776	146	511	15	234	13	2,695	
9-10am	1,389	275	171	38	114	10	1,997	1,626	171	523	5	274	21	2,620	1,626	171	523	5	274	21	2,620	
10-11am	1,387	365	240	29	149	7	2,177	1,582	159	410	13	232	12	2,408	1,582	159	410	13	232	12	2,408	
11-12am	1,408	312	300	14	202	7	2,243	1,535	194	367	9	212	14	2,331	1,535	194	367	9	212	14	2,331	
12-1pm	1,461	314	321	19	217	6	2,338	1,573	231	396	14	181	20	2,415	1,573	231	396	14	181	20	2,415	
1-2pm	1,534	351	296	9	225	8	2,423	1,837	248	342	33	191	27	2,524	1,837	248	342	33	191	27	2,524	
2-3pm	1,670	437	273	16	195	16	2,607	1,837	248	342	33	191	27	2,524	1,837	248	342	33	191	27	2,524	
3-4pm	2,020	286	465	35	198	25	3,029	1,848	263	355	18	128	11	2,623	1,848	263	355	18	128	11	2,623	
4-5pm	2,338	327	489	83	173	7	3,417	1,854	308	321	9	119	9	2,620	1,854	308	321	9	119	9	2,620	
5-6pm	2,439	271	348	29	140	10	3,237	1,968	389	292	1	76	12	2,738	1,968	389	292	1	76	12	2,738	
6-7pm	2,351	287	237	14	67	8	2,964	1,900	485	244	1	51	7	2,688	1,900	485	244	1	51	7	2,688	
7-8pm	2,168	498	159	12	74	9	2,920	1,805	587	165	3	45	5	2,610	1,805	587	165	3	45	5	2,610	
8-9pm	1,993	723	130	6	52	6	2,910	1,676	682	137	3	51	5	2,554	1,676	682	137	3	51	5	2,554	
9-10pm	2,015	718	105	11	25	6	2,880	1,533	893	110	1	37	4	2,578	1,533	893	110	1	37	4	2,578	
10-11pm	1,859	887	97	6	23	7	2,879	1,405	1,005	122	0	39	4	2,575	1,405	1,005	122	0	39	4	2,575	
11-12pm	1,730	1,134	71	6	32	1	2,974	1,306	1,086	55	0	25	7	2,479	1,306	1,086	55	0	25	7	2,479	
Totals	36,781	11,374	4,423	405	2,361	211	55,555	35,418	10,946	6,100	337	2,918	360	56,079	35,418	10,946	6,100	337	2,918	360	56,079	
7-10am	4,743	694	484	96	300	27	6,344	5,574	528	1,479	78	749	66	8,474	5,574	528	1,479	78	749	66	8,474	
10am-1pm	4,256	991	861	62	568	20	6,758	4,690	584	1,173	36	625	46	7,154	4,690	584	1,173	36	625	46	7,154	
1-4pm	5,224	1,074	1,034	60	618	49	8,059	5,417	710	1,055	95	479	55	7,811	5,417	710	1,055	95	479	55	7,811	
4-7pm	7,128	885	1,074	126	380	25	9,618	5,722	1,182	857	11	246	28	8,046	5,722	1,182	857	11	246	28	8,046	
7am-7pm	21,351	3,644	3,453	344	1,866	121	30,779	21,403	3,004	4,564	220	2,099	195	31,485	21,403	3,004	4,564	220	2,099	195	31,485	
6-10am	6,213	933	620	104	376	33	8,279	7,748	884	1,783	176	951	140	11,682	7,748	884	1,783	176	951	140	11,682	
3-7pm	9,148	1,171	1,539	161	578	50	12,647	7,570	1,445	1,212	29	374	39	10,669	7,570	1,445	1,212	29	374	39	10,669	
6am-7pm	22,821	3,883	3,589	352	1,942	127	32,714	23,577	3,360	4,868	318	2,301	269	34,693	23,577	3,360	4,868	318	2,301	269	34,693	

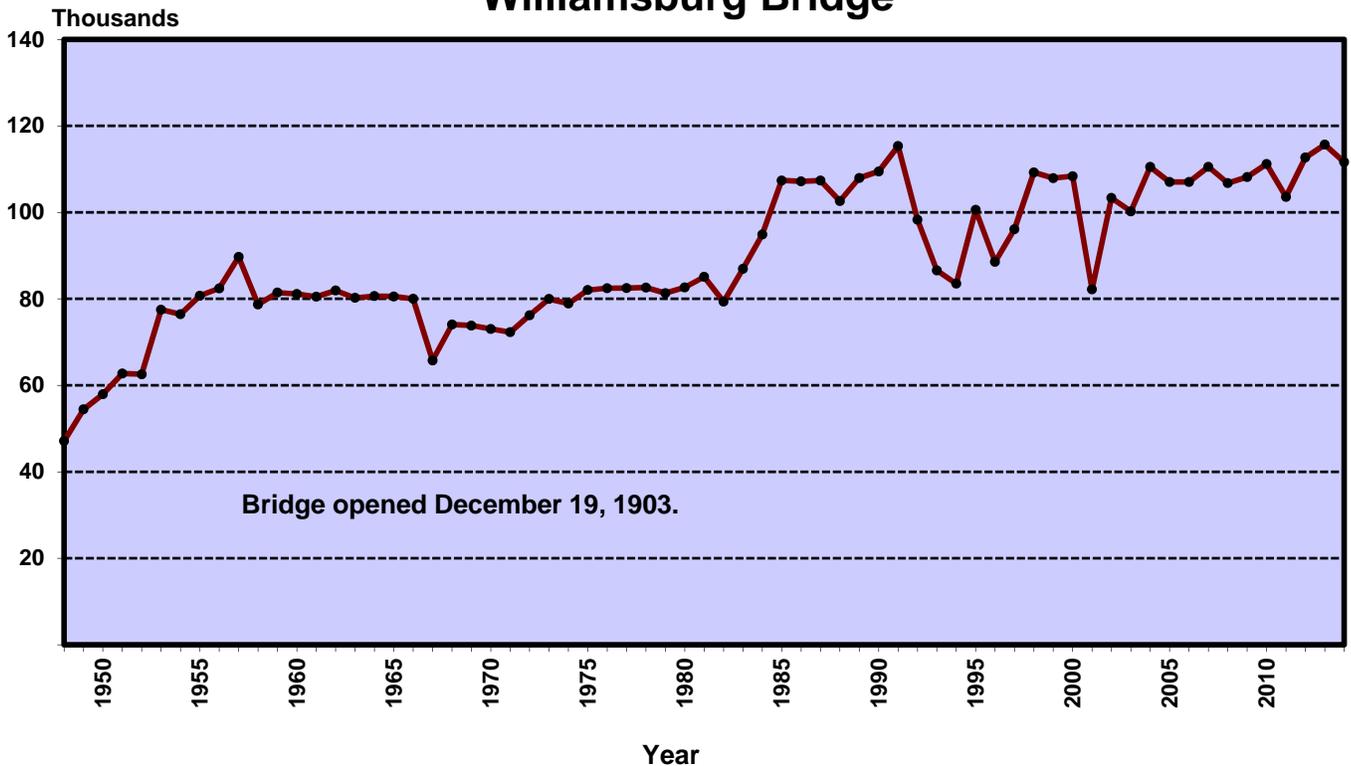
Based on November 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Williamsburg Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Williamsburg Bridge





# Harlem River Bridges



**145<sup>th</sup> Street Bridge  
Over the Harlem River  
Between Manhattan and Bronx**

**Harlem River Bridges**  
**Average Daily Traffic Volumes**  
**1948 - 2014**

<b>Year</b>	<b>Alexander Hamilton</b>	<b>Broadway</b>	<b>Macombs Dam</b>	<b>Madison Avenue</b>	<b>Third Avenue</b>
1948		16,020	33,608	27,222	31,403
1949		17,369	23,854	17,363	20,024
1950		15,462	28,641	27,933	34,984
1951	<i>Bridge</i>	16,374	31,072	33,576	51,478
1952	<i>Opened</i>	17,412	36,100	27,468	34,023
1953	<i>Jan. 1963</i>	16,821	35,331	24,382	37,593
1954		15,958	27,911	23,408	33,667
1955		17,046	27,914	34,681	38,201
1956		17,960	32,761	46,591	42,735
1957		20,345	55,609	40,860	47,269
1958		22,132	50,227	33,393	61,367
1959		25,491	48,720	27,967	56,525
1960		23,025	50,865	22,541	68,079
1961		21,097	32,447	28,375	61,584
1962		19,170	39,580	25,400	53,580
1963		23,110	43,450	27,090	63,840
1964	87,840	25,020	31,050	31,170	63,250
1965	125,133	17,555	37,451	26,315	55,644
1966	104,559	22,438	39,922	28,865	70,938
1967	135,803	22,844	35,595	27,683	52,931
1968	92,771	23,621	33,875	27,658	41,243
1969	132,487	22,224	38,845	28,219	57,748
1970	141,609	23,115	46,523	24,941	48,110
1971	137,881	28,232	40,489	28,891	50,548
1972	142,139	25,178	39,702	26,923	47,454
1973	137,133	24,408	38,349	34,815	60,415
1974	144,909	21,825	40,934	30,425	54,770
1975	134,013	30,638	38,995	29,823	62,079
1976	137,141	26,453	36,065	27,838	54,957
1977	158,710	26,465	33,539	29,832	52,969
1978	151,342	25,145	35,764	34,938	54,177
1979	143,973	27,673	37,145	29,036	54,428
1980	152,852	29,838	37,464	27,476	54,152
1981	148,609	30,485	42,064	29,456	51,483
1982	156,038	30,846	45,178	30,485	60,236
1983	161,772	29,875	42,747	30,715	67,813
1984	164,734	28,338	46,870	33,101	56,706
1985	171,602	33,086	52,497	37,956	59,907
1986	175,635	32,314	50,602	39,809	64,404
1987	180,908	31,934	48,021	31,506	62,089
1988	172,970	33,047	43,318	31,321	62,379
1989	183,661	35,066	43,450	31,688	64,849
1990	192,848	41,705	41,113	32,458	63,516
1991	187,309	40,444	42,393	34,826	65,787
1992	176,279	35,184	42,022	32,907	66,967
1993	180,507	33,752	39,251	32,432	68,812
1994	178,522	32,833	39,876	22,923	66,104
1995	175,279	42,555	41,571	22,739	68,663
1996	176,856	40,040	40,031	17,948	67,206
1997	176,102	34,645	44,033	28,646	71,365
1998	176,632	35,770	42,027	32,922	70,757
1999	180,201	35,412	41,813	38,102	68,544
2000	177,899	37,990	21,008	47,583	73,121
2001	168,605	41,175	39,615	43,331	72,756
2002	168,079	38,287	18,878	49,487	58,949
2003	182,704	36,888	42,254	41,575	43,065
2004	175,323	35,190	40,558	48,723	47,053
2005	181,566	35,698	40,112	48,397	60,152
2006	190,183	33,551	39,878	43,805	61,874
2007	192,651	35,523	40,749	44,663	59,712
2008	189,598	33,266	38,897	41,740	58,510
2009	191,646	35,566	39,508	43,480	59,039
2010	192,213	37,292	39,627	42,966	60,549
2011	182,174	35,770	44,311	41,423	59,603
2012	185,309	35,411	39,020	41,782	59,053
2013	188,417	35,462	38,930	47,046	60,120
2014	178,809	34,239	38,417	41,340	58,447

**Harlem River Bridges (cont'd)**  
**Average Daily Traffic Volumes**  
**1948 - 2014**

<b>Year</b>	<b>University Heights</b>	<b>Washington</b>	<b>Willis Avenue</b>	<b>145th Street</b>	<b>Totals</b>
1948	21,706	29,374	29,648	18,196	207,177
1949	14,098	32,122	42,772	25,908	193,510
1950	24,986	29,541	38,708	22,416	222,671
1951	25,270	28,599	35,958	26,872	249,199
1952	21,527	28,270	33,207	24,189	222,196
1953	29,240	37,298	38,579	29,385	248,629
1954	22,979	39,339	46,675	26,119	236,056
1955	18,151	33,988	44,809	35,449	250,239
1956	21,834	30,598	43,752	30,550	266,781
1957	34,077	38,861	51,395	28,114	316,530
1958	37,078	50,100	49,773	25,677	329,747
1959	33,580	51,652	58,705	39,709	342,349
1960	36,763	54,008	59,050	30,868	345,199
1961	43,749	61,542	50,902	33,767	333,463
1962	35,940	56,110	55,910	27,540	313,230
1963	26,030	32,760	65,290	27,520	309,090
1964	31,490	41,410	65,190	31,260	407,680
1965	23,458	35,560	53,219	26,924	401,259
1966	25,700	31,104	53,677	25,284	402,487
1967	26,990	33,921	69,609	22,368	427,744
1968	26,126	35,218	58,730	22,853	362,095
1969	29,941	19,136	60,192	24,200	412,992
1970	26,718	33,661	61,433	23,580	429,690
1971	29,622	38,522	53,609	24,401	432,195
1972	31,620	36,812	49,431	23,105	422,364
1973	33,503	46,079	51,537	23,431	449,670
1974	29,297	42,014	53,322	21,616	439,112
1975	29,111	41,522	52,984	21,189	440,354
1976	34,494	39,058	53,873	19,750	429,629
1977	29,128	38,185	52,484	20,888	442,200
1978	35,883	37,690	54,335	21,484	450,758
1979	31,796	37,348	44,851	21,566	427,816
1980	32,562	38,061	52,061	21,826	446,292
1981	34,454	38,061	52,561	21,150	448,323
1982	25,416	44,168	55,762	22,656	470,785
1983	32,233	42,186	60,296	23,516	491,153
1984	30,485	46,896	66,017	23,802	496,949
1985	37,553	51,302	65,638	28,722	538,263
1986	36,192	54,935	66,824	26,181	546,896
1987	37,223	46,094	67,558	24,895	530,228
1988	38,542	48,025	64,862	25,818	520,282
1989	42,246	49,092	66,012	23,317	539,381
1990	19,768	61,668	62,315	24,172	539,563
1991	18,220	57,526	60,415	26,448	533,368
1992	39,232	51,925	66,522	26,315	537,353
1993	38,895	52,795	70,472	25,390	542,306
1994	38,134	57,009	67,344	23,299	526,044
1995	21,238	56,372	67,716	25,749	521,882
1996	35,280	56,204	70,229	27,156	530,950
1997	39,639	54,708	73,461	24,151	546,750
1998	41,640	57,307	78,145	24,862	560,062
1999	42,287	58,907	71,555	26,361	563,182
2000	45,557	68,075	73,175	34,362	578,770
2001	46,381	57,443	72,901	26,552	568,759
2002	45,311	63,609	73,435	35,796	551,831
2003	50,126	63,154	66,710	23,034	549,510
2004	47,350	57,530	74,700	25,994	552,421
2005	44,938	58,019	66,708	25,802	561,392
2006	42,118	57,689	66,212	21,733	557,043
2007	41,422	56,945	65,113	21,147	557,925
2008	39,340	52,768	62,167	23,148	539,434
2009	39,165	52,420	58,548	24,364	543,736
2010	39,230	52,014	56,934	28,749	549,574
2011	43,601	52,373	57,710	27,677	544,642
2012	39,641	57,011	62,062	27,918	547,207
2013	40,774	54,031	65,216	28,167	558,163
2014	37,791	52,537	67,951	28,357	537,888

# Hourly Vehicular Volumes Alexander Hamilton Bridge - 2014

## Eastbound to Bronx

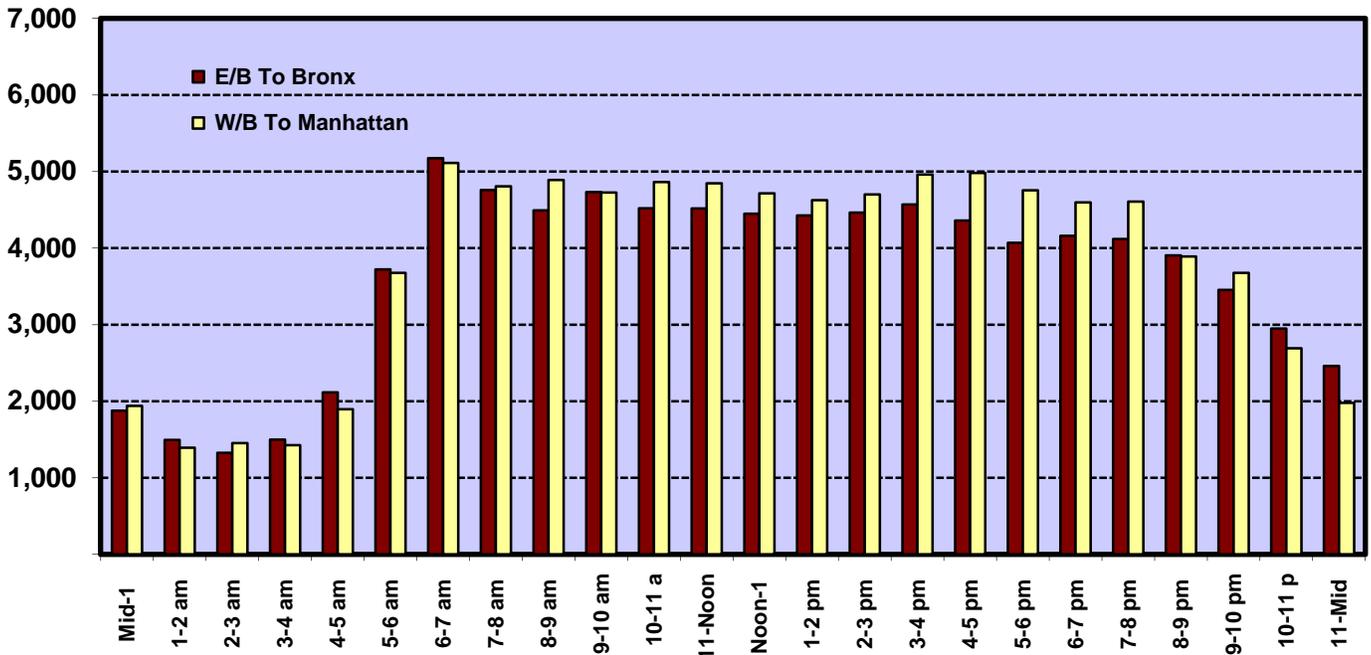
## Westbound to Manhattan

FHWA Classes ▲	Eastbound to Bronx										Westbound to Manhattan										
	Autos, Motorcycles SUVs, Family Vans					Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles					Autos, Motorcycles SUVs, Family Vans					Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles					
	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	Total Vehicles
12-1am	1,345	71	37	4	69	351	1,877	1,420	14	53	14	51	388	1,940	1,420	14	53	14	51	388	1,940
1-2am	884	62	23	3	66	456	1,494	854	21	56	6	60	395	1,392	854	21	56	6	60	395	1,392
2-3am	633	37	23	0	104	530	1,327	712	13	43	3	48	635	1,454	712	13	43	3	48	635	1,454
3-4am	577	46	34	1	194	647	1,499	544	0	43	3	86	750	1,426	544	0	43	3	86	750	1,426
4-5am	1,046	60	83	0	215	711	2,115	962	18	84	0	159	672	1,895	962	18	84	0	159	672	1,895
5-6am	2,199	21	101	2	164	1,235	3,722	2,219	47	132	0	348	930	3,676	2,219	47	132	0	348	930	3,676
6-7am	3,618	9	308	1	87	1,152	5,175	3,773	40	269	53	187	790	5,112	3,773	40	269	53	187	790	5,112
7-8am	3,674	20	277	19	327	442	4,759	3,693	61	317	40	266	429	4,806	3,693	61	317	40	266	429	4,806
8-9am	3,289	46	296	34	405	422	4,492	3,762	42	221	26	321	517	4,889	3,762	42	221	26	321	517	4,889
9-10am	3,388	28	372	42	406	495	4,731	3,375	39	175	21	432	683	4,725	3,375	39	175	21	432	683	4,725
10-11am	3,272	14	292	15	462	464	4,519	3,110	33	333	24	509	853	4,862	3,110	33	333	24	509	853	4,862
11-12am	3,211	84	290	8	449	475	4,517	3,066	30	258	27	401	1,063	4,845	3,066	30	258	27	401	1,063	4,845
12-1pm	3,209	78	272	23	399	468	4,449	2,964	43	254	30	441	983	4,715	2,964	43	254	30	441	983	4,715
1-2pm	3,409	42	267	27	312	369	4,426	3,034	34	276	45	341	895	4,625	3,034	34	276	45	341	895	4,625
2-3pm	3,602	39	217	21	303	281	4,463	3,264	63	246	30	313	784	4,700	3,264	63	246	30	313	784	4,700
3-4pm	3,601	67	226	35	308	333	4,570	3,675	46	323	15	255	646	4,960	3,675	46	323	15	255	646	4,960
4-5pm	3,523	46	224	58	257	251	4,359	3,867	33	284	13	232	552	4,981	3,867	33	284	13	232	552	4,981
5-6pm	3,288	35	303	20	176	248	4,070	3,967	37	167	3	171	409	4,754	3,967	37	167	3	171	409	4,754
6-7pm	3,532	7	148	7	156	310	4,160	3,994	16	124	2	111	350	4,597	3,994	16	124	2	111	350	4,597
7-8pm	3,442	37	123	29	157	331	4,119	3,907	21	130	7	116	427	4,608	3,907	21	130	7	116	427	4,608
8-9pm	3,277	55	91	9	163	310	3,905	3,258	24	121	5	92	390	3,890	3,258	24	121	5	92	390	3,890
9-10pm	2,783	75	96	4	91	405	3,454	3,056	27	93	0	80	420	3,676	3,056	27	93	0	80	420	3,676
10-11pm	2,461	42	61	0	48	337	2,949	2,278	30	82	6	61	234	2,691	2,278	30	82	6	61	234	2,691
11-12pm	2,098	66	33	0	43	220	2,460	1,432	19	63	8	60	397	1,979	1,432	19	63	8	60	397	1,979
Totals	65,361	1,087	4,197	362	5,361	11,243	87,611	66,186	751	4,147	381	5,141	14,592	91,198	66,186	751	4,147	381	5,141	14,592	91,198
7-10am	10,351	94	945	95	1,138	1,359	13,982	10,830	142	713	87	1,019	1,629	14,420	10,830	142	713	87	1,019	1,629	14,420
10am-1pm	9,692	176	854	46	1,310	1,407	13,485	9,140	106	845	81	1,351	2,899	14,422	9,140	106	845	81	1,351	2,899	14,422
1-4pm	10,612	148	710	83	923	983	13,459	9,973	143	845	90	909	2,325	14,285	9,973	143	845	90	909	2,325	14,285
4-7pm	10,343	88	675	85	589	809	12,589	11,828	86	515	18	514	1,311	14,332	11,828	86	515	18	514	1,311	14,332
7am-7pm	40,998	506	3,184	309	3,960	4,558	53,515	41,771	477	2,978	276	3,793	8,164	57,459	41,771	477	2,978	276	3,793	8,164	57,459
6-10am	13,969	103	1,253	96	1,225	2,511	19,157	14,603	182	982	140	1,206	2,419	19,532	14,603	182	982	140	1,206	2,419	19,532
3-7pm	13,944	155	901	120	897	1,142	17,159	15,503	132	898	33	769	1,957	19,292	15,503	132	898	33	769	1,957	19,292
6am-7pm	44,616	515	3,492	310	4,047	5,710	58,690	45,544	517	3,247	329	3,980	8,954	62,571	45,544	517	3,247	329	3,980	8,954	62,571

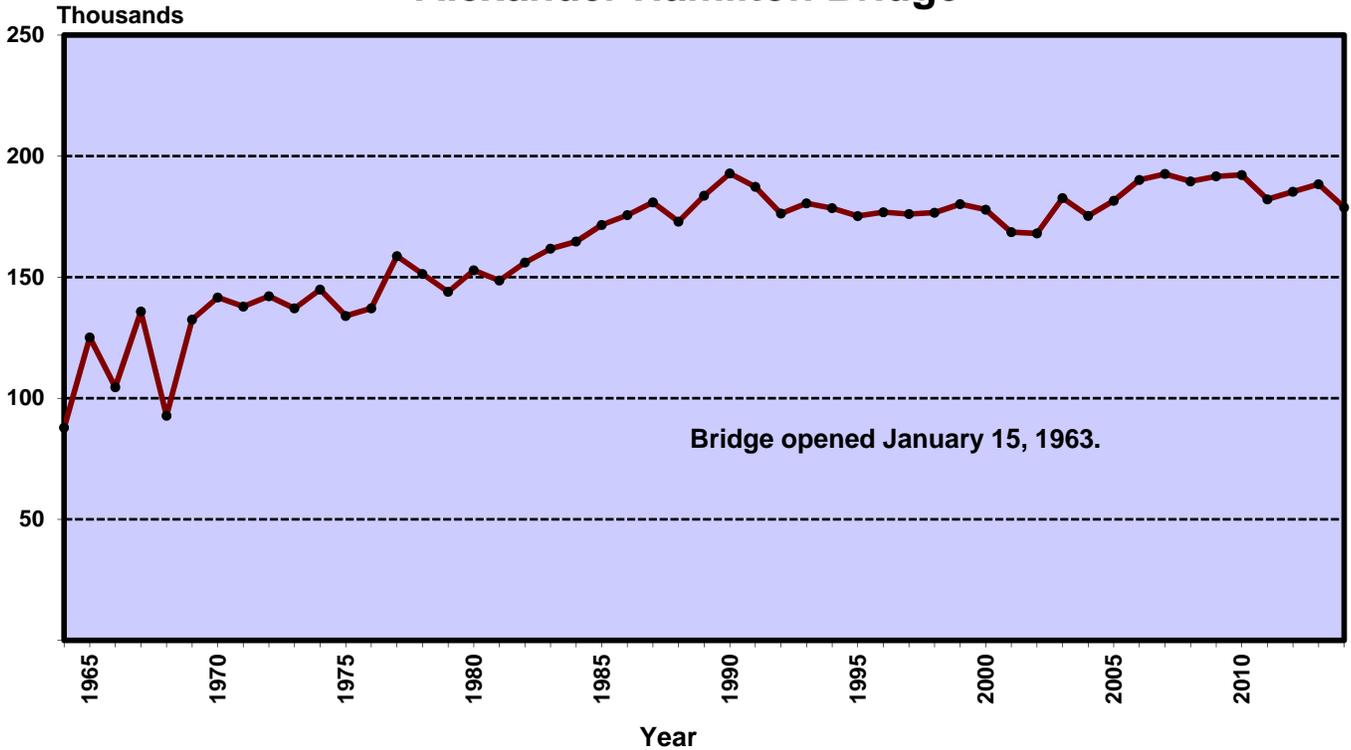
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Alexander Hamilton Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Alexander Hamilton Bridge



# Hourly Vehicular Volumes Broadway Bridge - 2014

## Northbound to Bronx

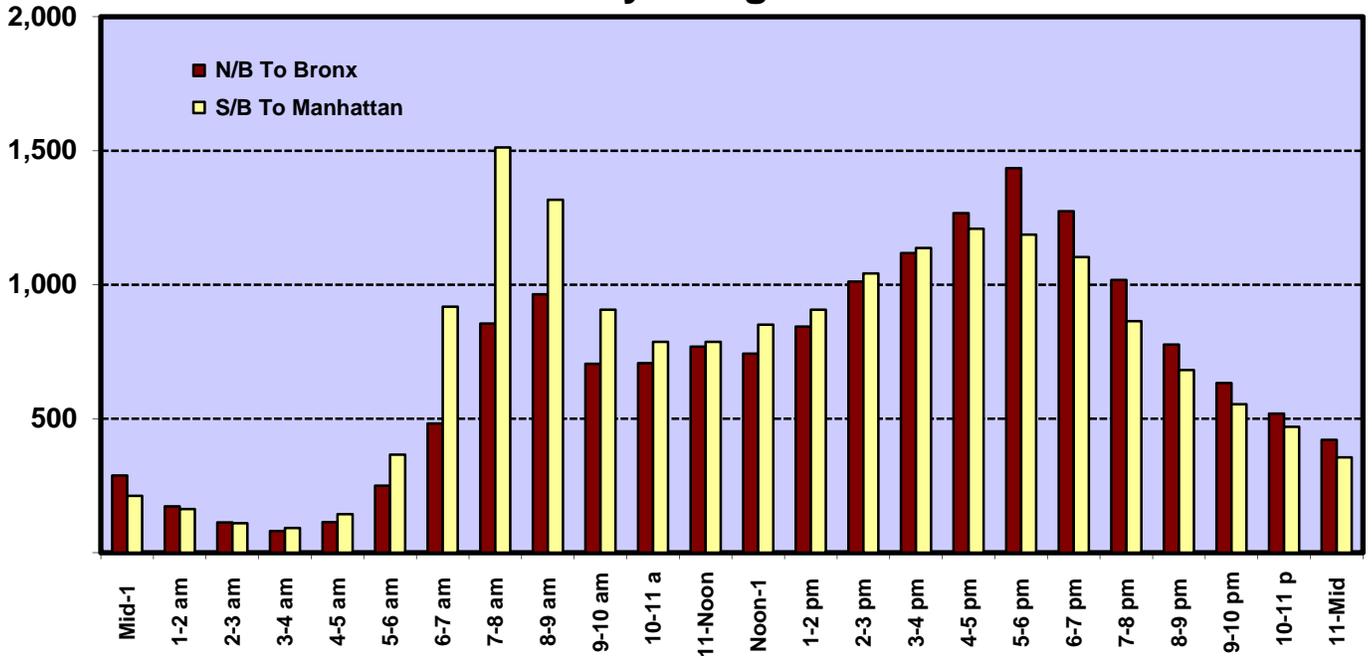
## Southbound to Manhattan

FHWA Classes	Northbound to Bronx							Southbound to Manhattan							2-way Grand Totals
	Autos, SUVs, Family Vans	Taxis, Liverys, Limos	Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles	Buses	Single Unit Trucks	Multiple Unit Trucks	Total Vehicles	Autos, SUVs, Family Vans	Taxis, Liverys, Limos	Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles	Buses	Single Unit Trucks	Multiple Unit Trucks	Total Vehicles	
12-1am	248	17	8	4	5-7	8-13	288	1,2,3	2	2 & 3	4	5-7	8-13	212	
1-2am	138	17	0	11	2	2	173	128	64	3	15	2	0	336	
2-3am	97	7	5	12	5	1	113	92	47	1	20	0	3	223	
3-4am	63	14	3	0	0	1	81	57	42	4	4	1	2	173	
4-5am	81	11	1	13	4	4	114	59	22	3	2	4	2	258	
5-6am	145	10	3	57	34	1	250	100	27	10	7	1	5	616	
6-7am	352	14	13	69	3	31	482	285	51	17	65	9	1	1,400	
7-8am	712	27	23	63	17	13	855	731	84	28	48	13	5	2,367	
8-9am	814	74	22	34	10	10	964	1,223	173	50	45	19	9	2,281	
9-10am	553	55	44	32	17	4	705	1,020	168	56	38	21	17	1,612	
10-11am	552	59	44	16	26	10	707	656	127	37	23	20	26	1,494	
11-12am	615	77	26	19	24	8	769	525	156	60	10	20	9	1,556	
12-1pm	591	64	34	20	26	8	743	529	159	60	10	20	8	1,594	
1-2pm	671	52	45	43	32	1	844	635	126	45	17	20	8	1,751	
2-3pm	835	77	30	38	22	10	1,012	632	179	46	22	19	9	2,054	
3-4pm	955	81	26	39	15	2	1,118	774	146	49	40	27	6	2,255	
4-5pm	1,065	119	26	47	9	1	1,267	850	168	53	47	17	2	2,476	
5-6pm	1,221	132	41	37	3	1	1,435	955	156	50	30	18	0	2,622	
6-7pm	1,176	45	23	28	1	1	1,274	976	135	39	29	7	1	2,377	
7-8pm	932	44	15	15	9	3	1,018	886	149	16	43	7	2	1,882	
8-9pm	698	42	11	16	9	1	777	698	102	16	40	7	1	1,459	
9-10pm	573	40	15	2	1	2	633	482	138	21	32	4	5	1,187	
10-11pm	454	45	11	7	0	2	519	398	103	10	41	1	2	989	
11-12pm	363	34	10	8	5	1	421	319	110	6	31	2	2	777	
Totals	13,904	1,157	479	627	276	119	16,562	13,245	2,726	682	661	243	120	34,239	
7-10am	2,079	156	89	129	44	27	2,524	2,899	468	154	131	53	31	6,260	
10am-1pm	1,758	200	104	55	76	26	2,219	1,689	441	142	50	60	43	4,644	
1-4pm	2,461	210	101	120	69	13	2,974	2,256	493	148	109	63	17	6,060	
4-7pm	3,462	296	90	112	13	3	3,976	2,817	440	105	102	32	3	7,475	
7am-7pm	9,760	862	384	416	202	69	11,693	9,661	1,842	549	392	208	94	24,439	
6-10am	2,431	170	102	198	47	58	3,006	3,630	552	182	196	62	32	7,660	
3-7pm	4,417	377	116	151	28	5	5,094	3,667	608	158	149	49	5	9,730	
6am-7pm	10,112	876	397	485	205	100	12,175	10,392	1,926	577	457	217	95	25,839	

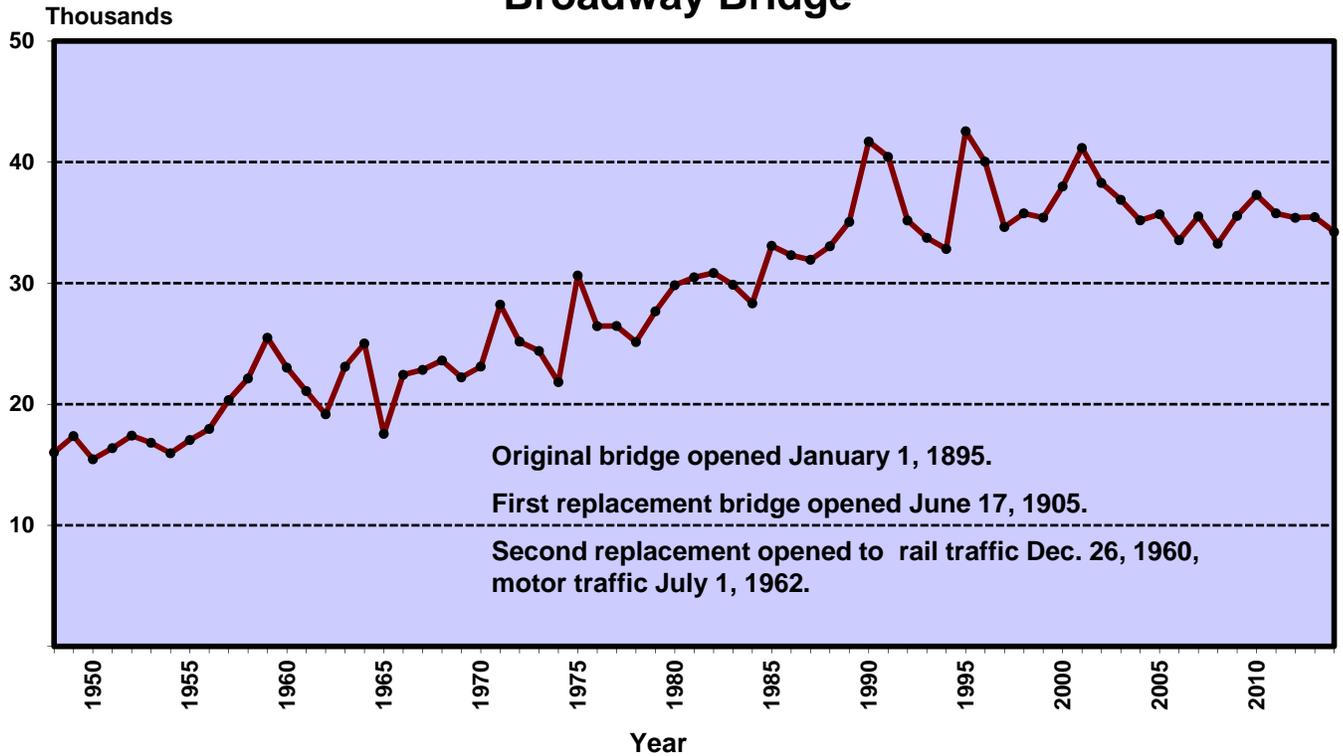
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Broadway Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Broadway Bridge



# Hourly Vehicular Volumes Macombs Dam Bridge - 2014

## Eastbound to Bronx

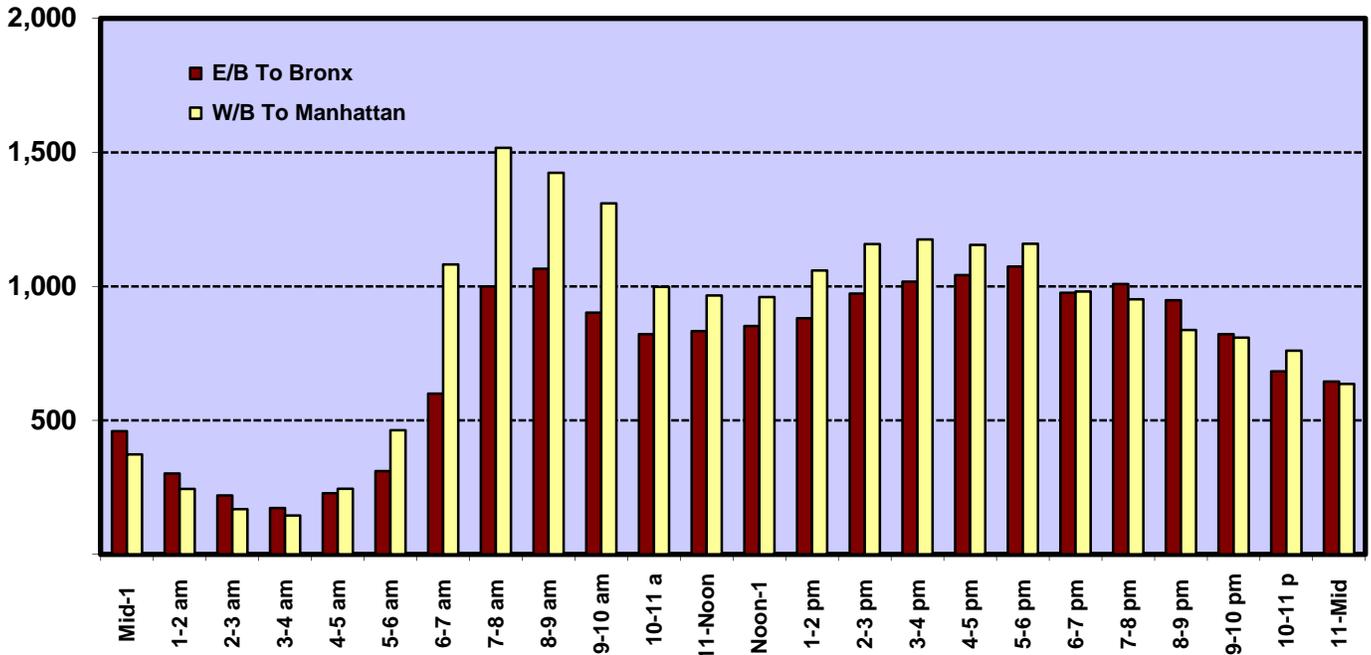
## Westbound to Manhattan

FHWA Classes	Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles					Autos, Motorcycles, SUVs, Family Vans					Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles					Total Vehicles	Multiple Unit Trucks	Single Unit Trucks	Buses	Multiple Unit Trucks	Total Vehicles	2-way Grand Totals
	2	2 & 3	4	5 - 7	8 - 13	1, 2, 3	Taxis, Livery, Limos	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	2	2 & 3							
12-1am	371	44	28	5	9	3	460	321	31	15	4	1	1	373	833							
1-2am	245	26	19	5	5	2	302	212	18	11	2	0	1	244	546							
2-3am	169	31	10	1	8	1	220	139	21	6	2	1	0	169	389							
3-4am	131	26	11	1	1	3	173	123	16	3	2	1	0	145	318							
4-5am	170	42	7	1	7	1	228	191	17	13	2	1	1	245	473							
5-6am	247	46	9	3	1	5	311	339	72	28	14	7	3	463	774							
6-7am	470	82	23	7	18	0	600	689	174	107	59	42	11	1,082	1,682							
7-8am	818	119	25	20	15	3	1,000	1,065	194	119	87	31	21	1,517	2,517							
8-9am	876	88	23	58	16	5	1,066	1,135	115	95	26	45	8	1,424	2,490							
9-10am	722	85	44	44	22	2	902	1,033	109	75	14	71	8	1,310	2,212							
10-11am	640	86	49	12	32	3	822	799	71	57	22	43	6	998	1,820							
11-12am	624	100	67	8	28	6	833	740	87	82	18	32	7	966	1,799							
12-1pm	646	98	70	8	25	5	852	756	88	71	13	21	11	960	1,812							
1-2pm	670	105	66	10	27	3	881	800	131	74	22	24	8	1,059	1,940							
2-3pm	775	108	55	10	24	1	973	885	139	83	28	20	3	1,158	2,131							
3-4pm	841	80	49	17	25	6	1,018	903	122	79	34	33	4	1,175	2,193							
4-5pm	879	70	44	24	22	3	1,042	928	91	87	34	14	1	1,155	2,197							
5-6pm	859	104	39	32	33	7	1,074	983	87	62	21	6	0	1,159	2,233							
6-7pm	797	90	51	11	22	5	976	846	68	47	15	5	0	981	1,957							
7-8pm	825	91	64	9	16	4	1,009	822	68	43	16	2	1	952	1,961							
8-9pm	789	91	51	5	8	4	948	728	59	38	9	3	0	837	1,785							
9-10pm	690	75	44	6	6	1	822	699	68	27	11	4	0	809	1,631							
10-11pm	568	61	38	5	6	5	683	652	49	43	10	6	0	760	1,443							
11-12pm	538	53	38	3	9	4	645	550	44	26	13	3	0	636	1,281							
Totals	14,360	1,801	924	288	385	82	17,840	16,338	1,943	1,295	489	417	95	20,577	38,417							
7-10am	2,416	292	92	105	53	10	2,968	3,233	418	289	127	147	37	4,251	7,219							
10am-1pm	1,910	284	186	28	85	14	2,507	2,295	246	210	53	96	24	2,924	5,431							
1-4pm	2,286	293	170	37	76	10	2,872	2,588	392	236	84	77	15	3,392	6,264							
4-7pm	2,535	264	134	67	77	15	3,092	2,757	246	196	70	25	1	3,295	6,387							
7am-7pm	9,147	1,133	582	237	291	49	11,439	10,873	1,302	931	334	345	77	13,862	25,301							
6-10am	2,886	374	115	112	71	10	3,568	3,922	592	396	186	189	48	5,333	8,901							
3-7pm	3,376	344	183	84	102	21	4,110	3,660	368	275	104	58	5	4,470	8,580							
6am-7pm	9,617	1,215	605	244	309	49	12,039	11,562	1,476	1,038	393	387	88	14,944	26,983							

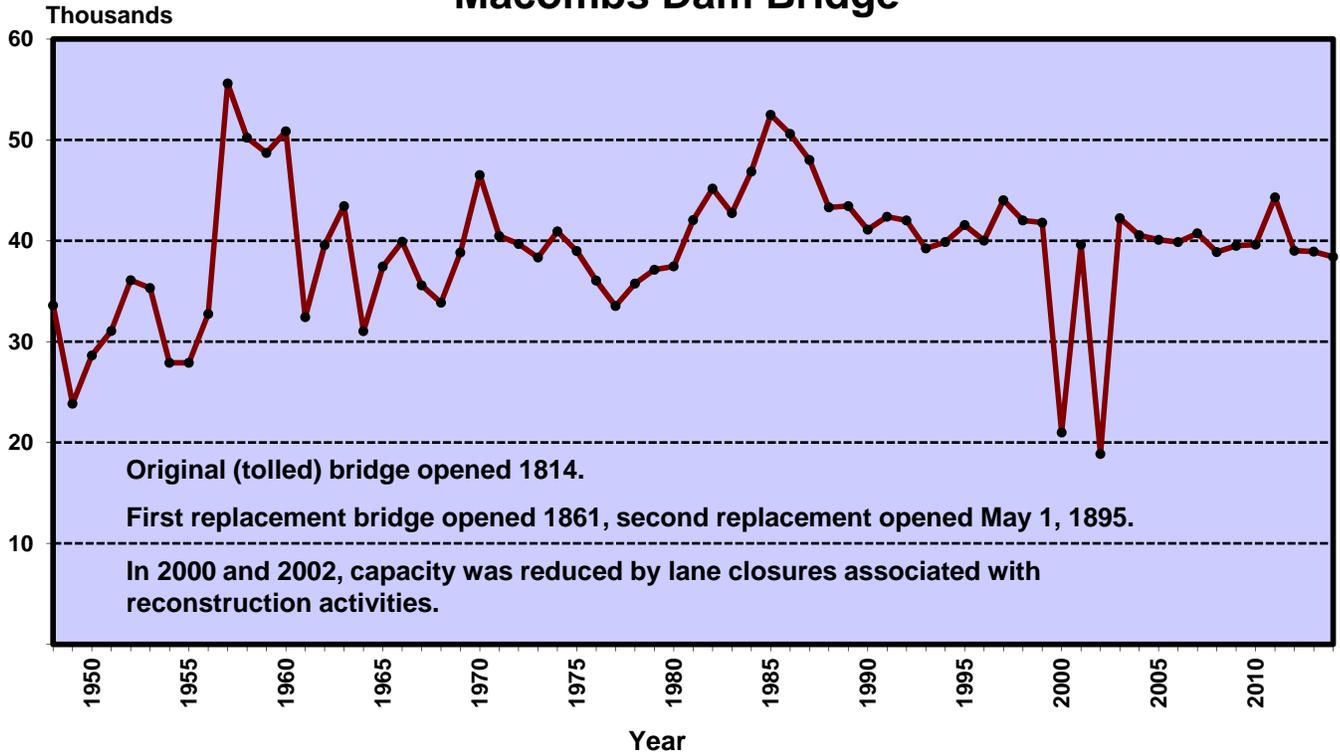
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Macombs Dam Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Macombs Dam Bridge



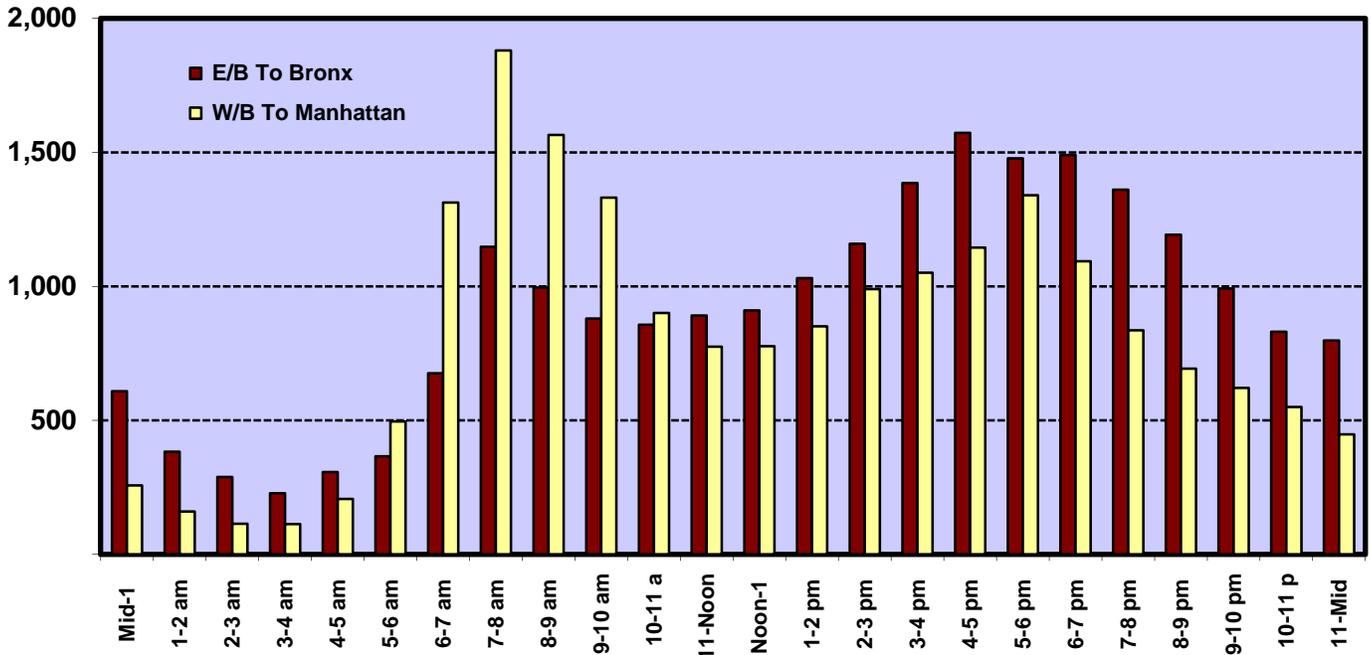
# Hourly Vehicular Volumes Madison Avenue Bridge - 2014

FHWA Classes ▲	Eastbound to Bronx							Westbound to Manhattan							2-way Grand Totals				
	Autos, Motorcycles SUVs, Family Vans			Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles			Total Vehicles	Autos, Motorcycles SUVs, Family Vans			Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles			Total Vehicles					
	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13		1, 2, 3	2	2 & 3	4	5 - 7	8 - 13		1, 2, 3	2	2 & 3	4	5 - 7
12-1am	489	82	17	10	8	3	234	11	6	2	4	0	257						
1-2am	266	86	11	4	16	0	139	14	1	1	4	1	160						
2-3am	196	69	7	1	16	0	101	8	1	0	2	2	114						
3-4am	148	52	13	1	9	5	76	22	9	0	4	2	113						
4-5am	200	63	17	1	18	8	138	36	16	2	13	2	207						
5-6am	285	38	14	2	27	0	352	63	15	18	45	3	496						
6-7am	565	45	25	8	33	0	842	127	58	171	105	10	1,313						
7-8am	993	36	26	39	51	3	1,468	121	118	89	78	6	1,880						
8-9am	771	64	37	88	34	2	1,221	47	160	25	108	4	1,565						
9-10am	546	173	74	42	36	9	983	42	143	42	117	4	1,331						
10-11am	559	130	80	26	1	1	681	33	93	40	53	1	901						
11-12am	650	85	86	19	48	3	596	22	96	18	42	1	775						
12-1pm	607	110	103	28	60	2	625	14	54	34	48	2	777						
1-2pm	773	71	89	23	75	0	691	17	42	47	53	1	851						
2-3pm	895	56	111	21	76	0	784	22	77	73	32	2	990						
3-4pm	1,001	111	147	63	61	3	912	20	66	34	19	0	1,051						
4-5pm	1,121	195	156	57	41	3	1,043	47	14	31	10	0	1,145						
5-6pm	1,250	57	110	35	26	0	1,194	106	6	25	9	0	1,340						
6-7pm	1,323	36	67	30	34	0	987	49	24	22	10	2	1,094						
7-8pm	1,200	63	58	20	19	1	767	25	18	23	2	1	836						
8-9pm	1,058	77	34	14	9	1	658	16	9	4	5	1	693						
9-10pm	874	73	28	8	9	0	576	8	20	10	6	1	621						
10-11pm	708	87	20	7	8	1	495	22	19	8	5	1	550						
11-12pm	688	64	21	10	14	1	417	14	5	9	3	0	448						
Totals	17,166	1,923	1,351	557	789	46	15,980	906	1,070	728	777	47	19,508						
7-10am	2,310	273	137	169	121	14	3,672	210	421	156	303	14	4,776						
10am-1pm	1,816	325	269	73	169	6	1,902	69	243	92	143	4	2,453						
1-4pm	2,669	238	347	107	212	3	2,387	59	185	154	104	3	2,892						
4-7pm	3,694	288	333	122	101	3	3,224	202	44	78	29	2	3,579						
7am-7pm	10,489	1,124	1,086	471	603	26	11,185	540	893	480	579	23	13,700						
6-10am	2,875	318	162	177	154	14	4,514	337	479	327	408	24	6,089						
3-7pm	4,695	399	480	185	162	6	4,136	222	110	112	48	2	4,630						
6am-7pm	11,054	1,169	1,111	479	636	26	12,027	667	951	651	684	33	15,013						

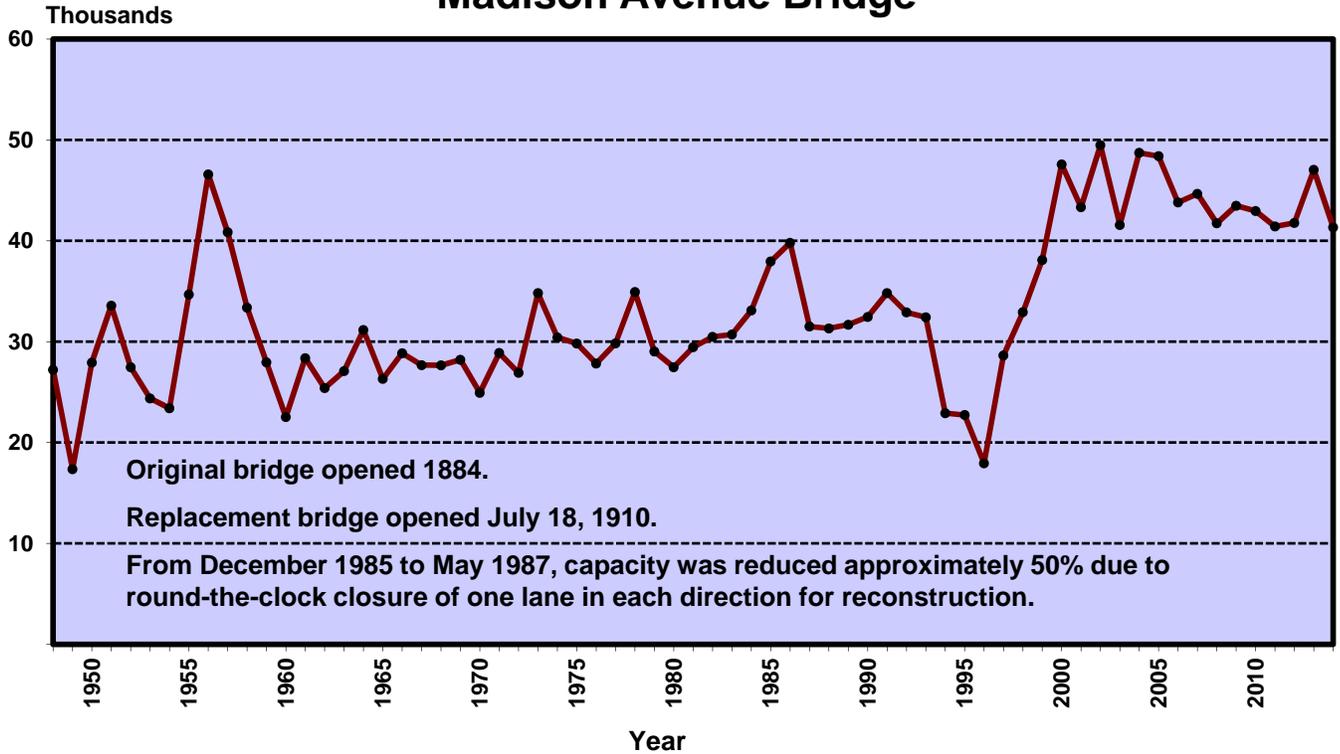
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Madison Avenue Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Madison Avenue Bridge



# Hourly Vehicular Volumes

## Third Avenue Bridge - 2014

### Northbound to Bronx

FHWA Classes	Commercial Vans, Panel Trucks, Pickups, Taxis, Liveryes, Limos					Autos, Motorcycles, SUVs, Family Vans			Total Vehicles	
	2	2 & 3	4	5 - 7	8 - 13	1, 2, 3	2	2 & 3		
12-1am						836	162	21	33	1,059
1-2am						498	136	20	47	709
2-3am						365	172	36	32	610
3-4am						416	218	42	96	779
4-5am						855	219	83	214	1,395
5-6am						2,103	298	177	278	2,913
6-7am						2,891	192	272	323	3,867 **
7-8am						1,917	158	245	153	2,565
8-9am						1,815	79	322	136	2,375
9-10am						1,826	189	309	23	2,511
10-11am						1,962	291	306	26	2,722
11-12am						1,992	266	264	28	2,700
12-1pm						2,030	207	273	61	2,695
1-2pm						2,338	194	222	140	3,018
2-3pm						2,577	289	180	116	3,271
3-4pm						2,904	244	111	57	3,370
4-5pm						2,905	302	91	29	3,377
5-6pm						2,714	297	158	39	3,242
6-7pm						2,902	262	104	37	3,331
7-8pm						2,540	255	79	32	2,924
8-9pm						2,223	211	61	28	2,532
9-10pm						2,093	180	65	57	2,398
10-11pm						1,988	225	61	45	2,324
11-12pm						1,446	227	35	39	1,760
Totals	46,136	5,273	3,537	2,437	231	58,447				

### Southbound to Manhattan

FHWA Classes	Commercial Vans, Panel Trucks, Pickups, Taxis, Liveryes, Limos					Autos, Motorcycles, SUVs, Family Vans			Total Vehicles	
	2	2 & 3	4	5 - 7	8 - 13	1, 2, 3	2	2 & 3		
12-1am						836	162	21	33	1,059
1-2am						498	136	20	47	709
2-3am						365	172	36	32	610
3-4am						416	218	42	96	779
4-5am						855	219	83	214	1,395
5-6am						2,103	298	177	278	2,913
6-7am						2,891	192	272	323	3,867 **
7-8am						1,917	158	245	153	2,565
8-9am						1,815	79	322	136	2,375
9-10am						1,826	189	309	23	2,511
10-11am						1,962	291	306	26	2,722
11-12am						1,992	266	264	28	2,700
12-1pm						2,030	207	273	61	2,695
1-2pm						2,338	194	222	140	3,018
2-3pm						2,577	289	180	116	3,271
3-4pm						2,904	244	111	57	3,370
4-5pm						2,905	302	91	29	3,377
5-6pm						2,714	297	158	39	3,242
6-7pm						2,902	262	104	37	3,331
7-8pm						2,540	255	79	32	2,924
8-9pm						2,223	211	61	28	2,532
9-10pm						2,093	180	65	57	2,398
10-11pm						1,988	225	61	45	2,324
11-12pm						1,446	227	35	39	1,760
Totals	46,136	5,273	3,537	2,437	231	58,447				

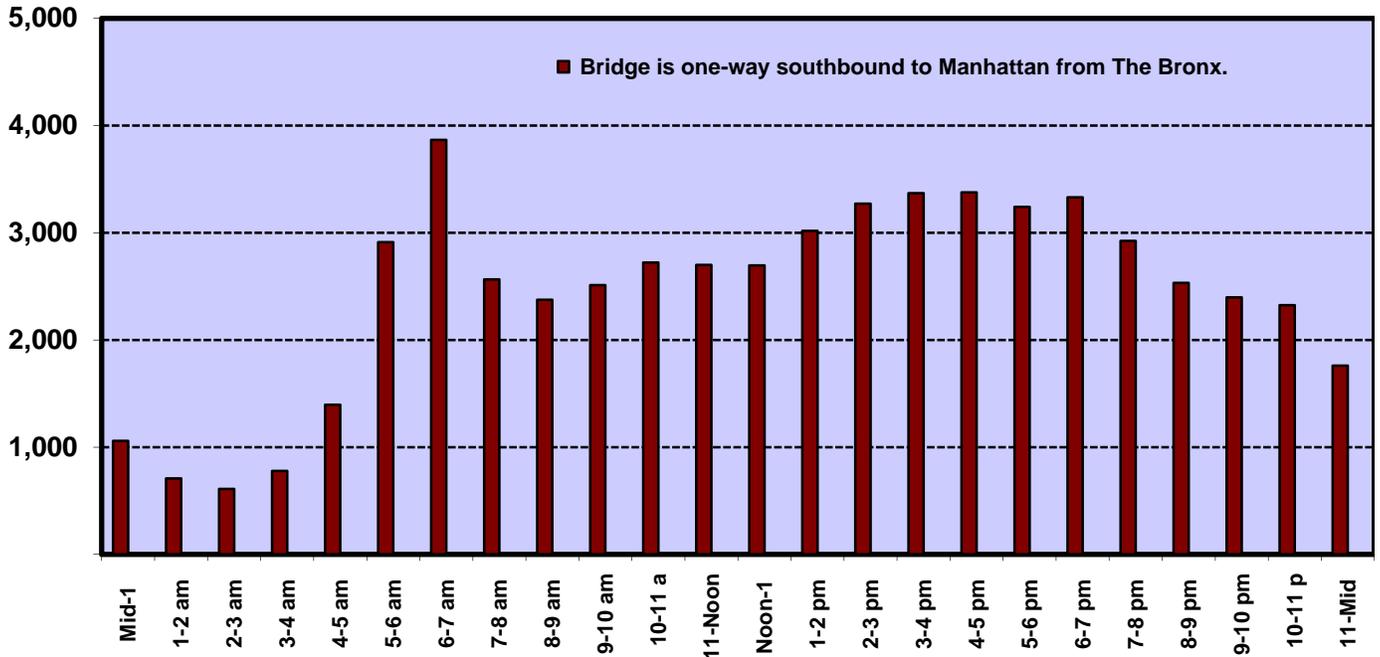
**Bridge is 1-way southbound from Bronx to Manhattan.**

FHWA Classes	Commercial Vans, Panel Trucks, Pickups, Taxis, Liveryes, Limos	Buses	Single Unit Trucks	Multiple Unit Trucks	Total Vehicles
7-10am	5,558	121	445	25	7,451
10am-1pm	5,984	843	375	36	8,117
1-4pm	7,819	513	273	14	9,659
4-7pm	8,521	353	120	21	9,950
7am-7pm	27,882	2,778	1,213	96	35,177
6-10am	8,449	1,148	768	55	11,318
3-7pm	11,425	464	170	25	13,320
6am-7pm	30,773	2,857	1,536	126	39,044

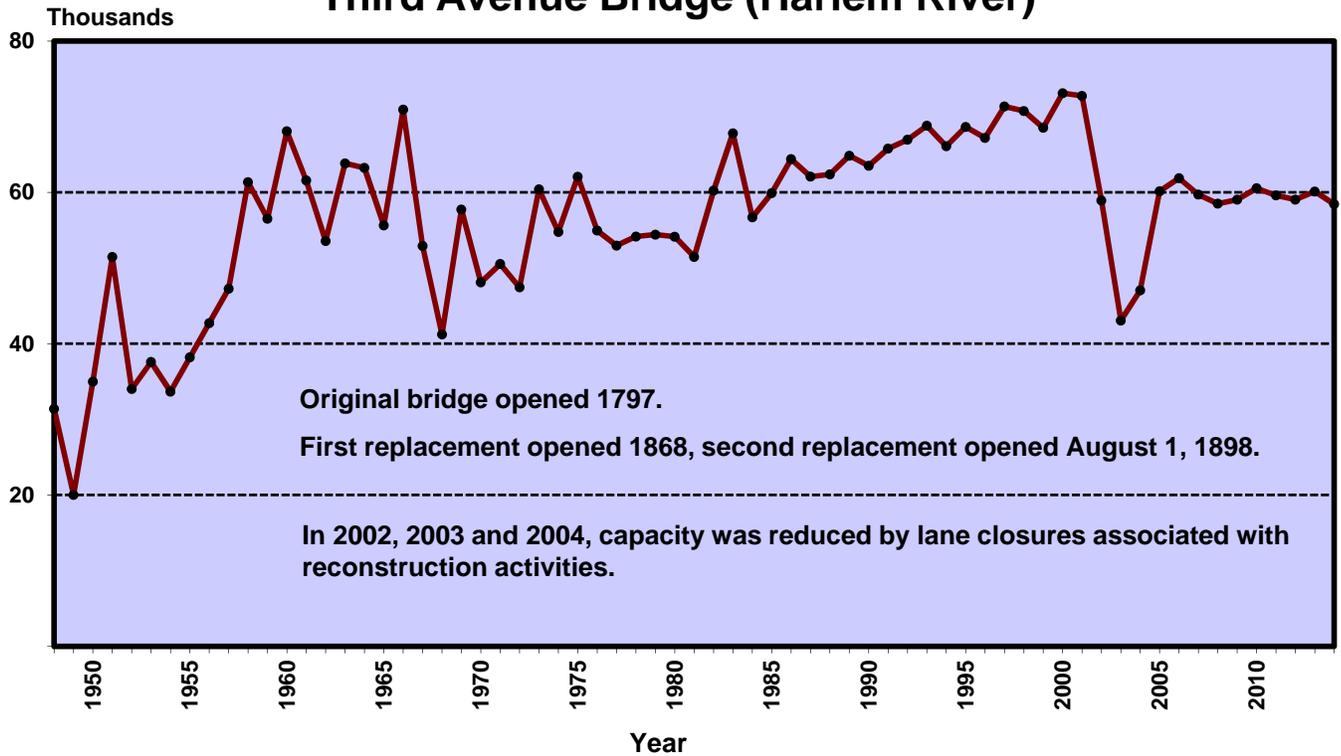
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Third Avenue Bridge (Harlem River) ~ 2014



## Average Daily Traffic Volumes Third Avenue Bridge (Harlem River)



# Hourly Vehicular Volumes

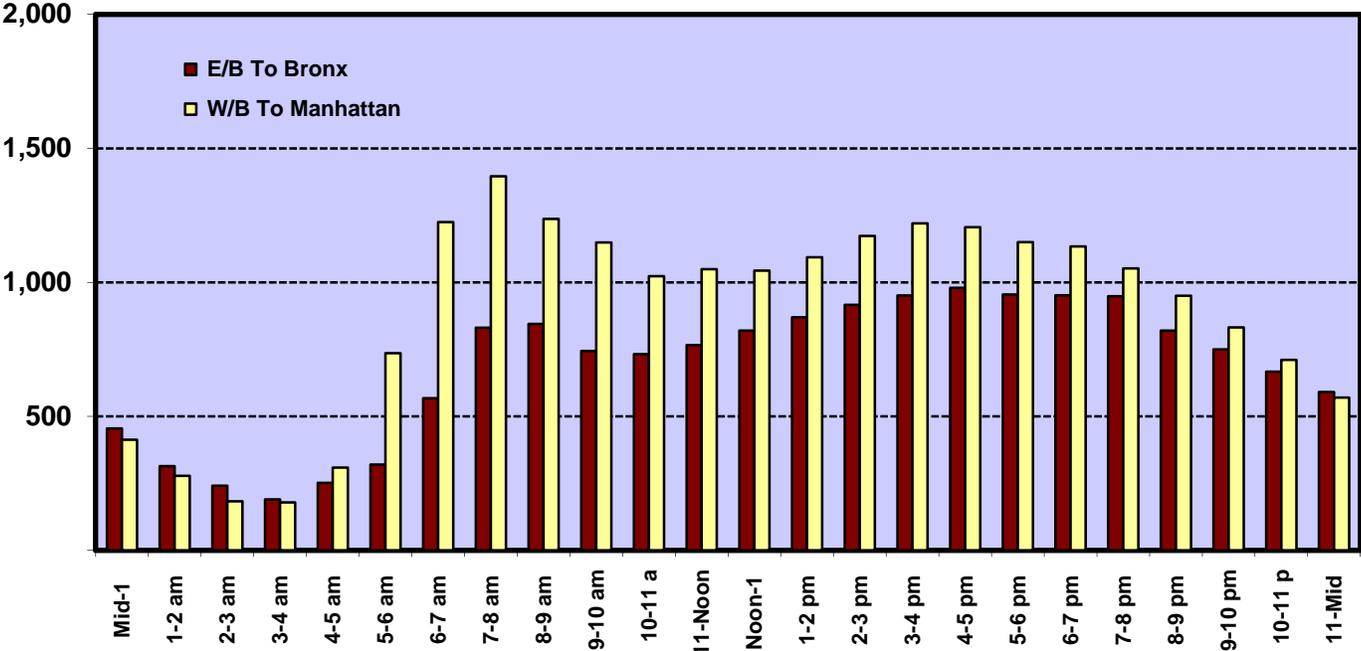
## University Heights Bridge - 2014

FHWA Classes	Eastbound to Bronx							Westbound to Manhattan							2-way Grand Totals
	Autos, Motorcycles, SUVs, Family Vans			Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles			Total Vehicles	Autos, Motorcycles, SUVs, Family Vans			Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles			Total Vehicles	
	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13		1, 2, 3	2	2 & 3	4	5 - 7	8 - 13		
12-1am	387	50	4	4	9	1	455	357	36	6	6	8	0	413	
1-2am	282	20	8	2	2	0	314	214	46	9	1	8	0	278	
2-3am	215	17	2	2	5	0	241	131	28	8	2	14	0	183	
3-4am	153	17	6	2	11	1	190	165	4	2	4	4	0	179	
4-5am	207	11	19	4	5	6	252	267	20	9	1	12	0	309	
5-6am	274	19	14	3	8	2	320	620	49	39	9	17	2	736	
6-7am	435	46	16	17	53	1	568	982	73	79	65	24	2	1,225	
7-8am	673	52	37	29	36	4	831	1,173	60	58	53	50	2	1,396	
8-9am	656	71	58	32	24	4	845	1,017	78	74	20	45	3	1,237	
9-10am	511	97	59	19	56	2	744	841	111	99	27	61	10	1,149	
10-11am	532	76	84	16	21	3	732	770	106	71	13	61	2	1,023	
11-12am	589	62	48	13	46	8	766	854	52	61	19	56	7	1,049	
12-1pm	614	76	57	16	53	4	820	845	61	55	25	54	4	1,044	
1-2pm	689	57	72	18	25	9	870	847	99	69	34	44	1	1,094	
2-3pm	717	87	51	20	30	11	916	926	117	62	25	42	1	1,173	
3-4pm	746	76	72	30	26	1	951	1,031	63	50	35	39	2	1,220	
4-5pm	787	68	61	42	21	1	980	995	88	58	24	40	1	1,206	
5-6pm	770	99	50	19	14	3	955	946	104	65	17	18	0	1,150	
6-7pm	817	79	30	7	17	2	952	960	105	34	15	20	0	1,134	
7-8pm	734	135	49	18	10	2	948	860	127	36	14	15	0	1,052	
8-9pm	669	104	25	11	10	1	820	790	102	33	11	13	1	950	
9-10pm	673	46	19	9	3	0	750	711	86	19	10	6	0	832	
10-11pm	570	66	18	7	6	0	667	592	91	12	8	7	1	711	
11-12pm	514	58	9	6	3	1	591	475	65	15	3	11	1	570	
Totals	13,214	1,489	868	346	494	67	16,478	17,369	1,771	1,023	441	669	40	21,313	
7-10am	1,840	220	154	80	116	10	2,420	3,031	249	231	100	156	15	3,782	
10am-1pm	1,735	214	189	45	120	15	2,318	2,469	219	187	57	171	13	3,116	
1-4pm	2,152	220	195	68	81	21	2,737	2,804	279	181	94	125	4	3,487	
4-7pm	2,374	246	141	68	52	6	2,887	2,901	297	157	56	78	1	3,490	
7am-7pm	8,101	900	679	261	369	52	10,362	11,205	1,044	756	307	530	33	13,875	
6-10am	2,275	266	170	97	169	11	2,988	4,013	322	310	165	180	17	5,007	
3-7pm	3,120	322	213	98	78	7	3,838	3,932	360	207	91	117	3	4,710	
6am-7pm	8,536	946	695	278	422	53	10,930	12,187	1,117	835	372	554	35	15,100	

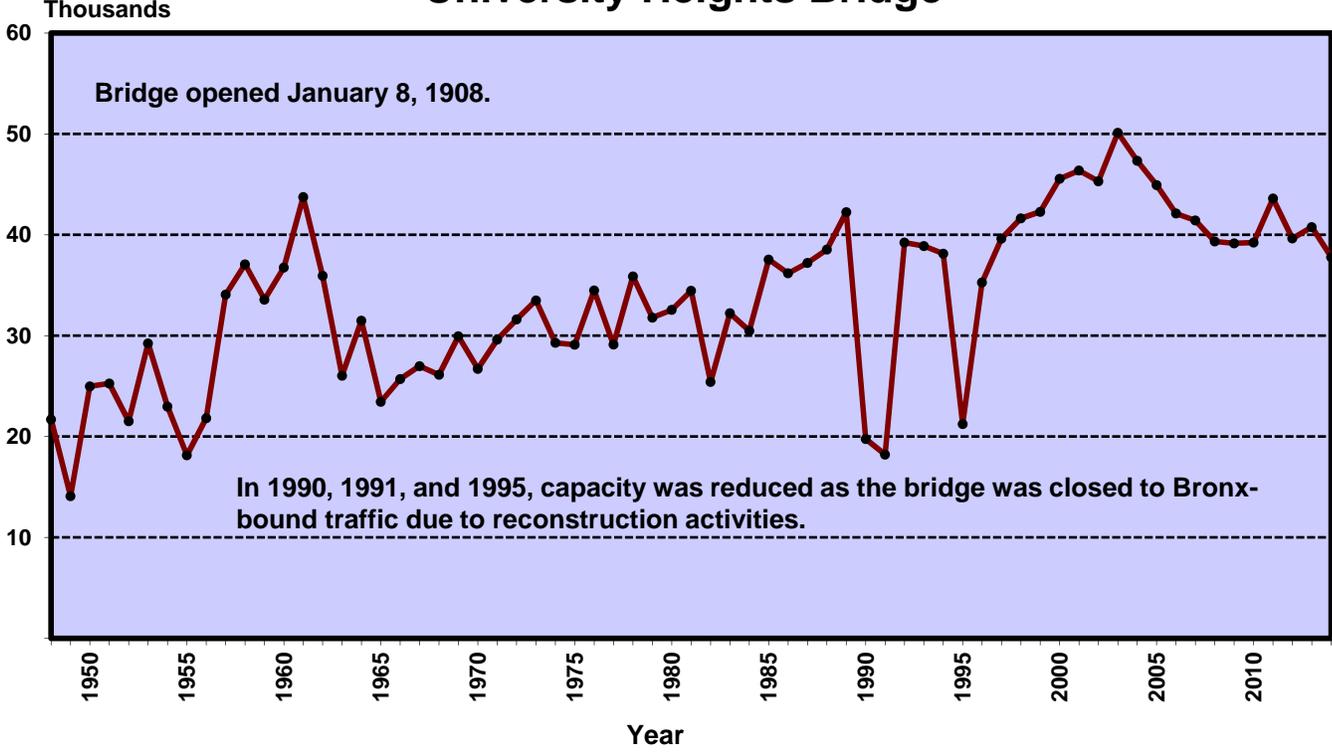
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes University Heights Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions University Heights Bridge



# Hourly Vehicular Volumes

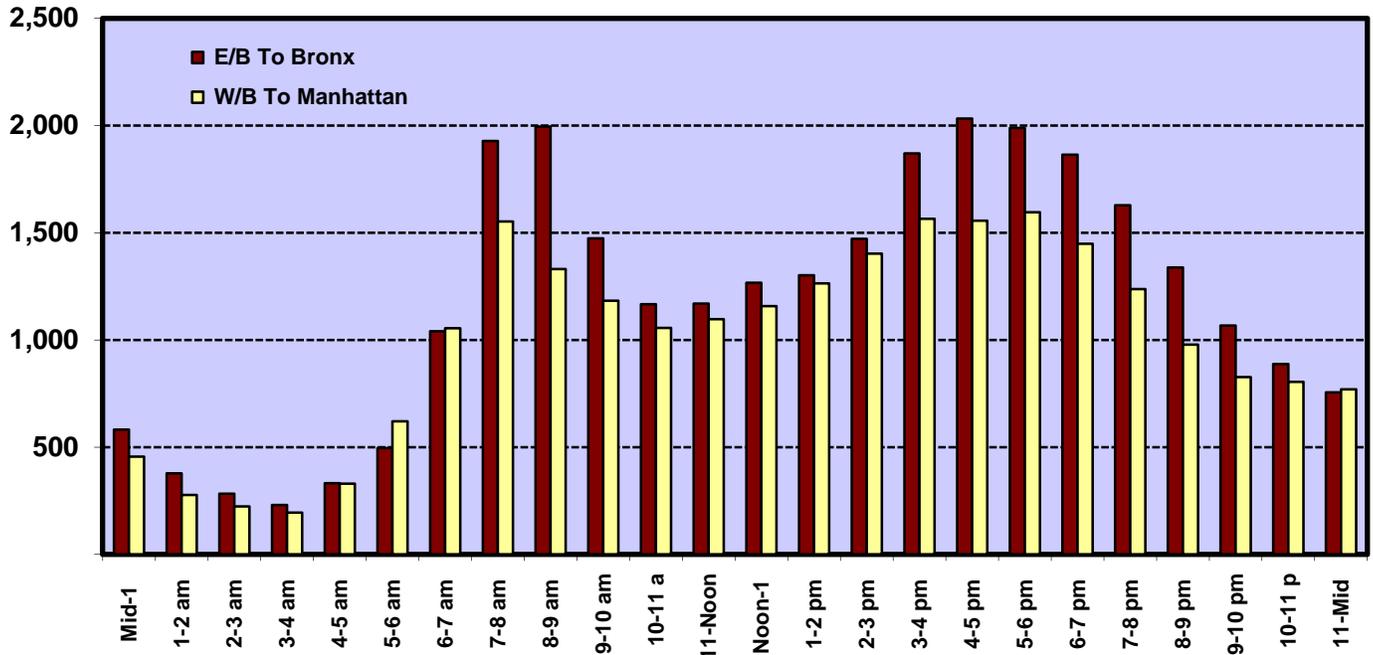
## Washington Bridge - 2014

	<b>Eastbound to Bronx</b>					<b>Westbound to Manhattan</b>					<b>2-Way Totals</b>	
	Autos	Buses	Commuter Vans	Trucks	Commercial Vans	Totals	Autos	Buses	Commuter Vans	Trucks		Commercial Vans
12-1am	---	---	---	---	---	582	---	---	---	---	---	456
1-2am	---	---	---	---	---	378	---	---	---	---	---	277
2-3am	---	---	---	---	---	283	---	---	---	---	---	224
3-4am	---	---	---	---	---	230	---	---	---	---	---	195
4-5am	---	---	---	---	---	332	---	---	---	---	---	330
5-6am	---	---	---	---	---	496	---	---	---	---	---	621
6-7am	---	---	---	---	---	1,041	---	---	---	---	---	1,055
7-8am	1,652	63	35	57	121	1,928	1,311	61	117	38	26	1,553
8-9am	1,672	51	30	90	153	1,996	1,123	62	68	51	27	1,331
9-10am	1,220	40	26	96	92	1,474	1,028	35	52	40	28	1,183
10-11am	1,061	31	7	29	39	1,167	964	34	10	26	22	1,056
11-12am	1,012	24	14	56	64	1,170	958	45	28	30	36	1,097
12-1pm	1,134	38	17	23	55	1,267	1,084	28	10	20	16	1,158
1-2pm	1,192	29	5	30	46	1,302	1,184	30	17	19	14	1,264
2-3pm	1,281	31	23	63	74	1,472	1,212	57	43	51	40	1,403
3-4pm	1,701	40	11	33	85	1,870	1,412	44	44	44	21	1,565
4-5pm	1,692	40	51	62	188	2,033	1,324	38	67	82	45	1,556
5-6pm	1,778	33	49	35	94	1,989	1,449	29	44	33	41	1,596
6-7pm	1,713	22	30	23	76	1,864	1,313	36	53	18	29	1,449
7-8pm	---	---	---	---	---	1,628	---	---	---	---	---	1,237
8-9pm	---	---	---	---	---	1,338	---	---	---	---	---	978
9-10pm	---	---	---	---	---	1,067	---	---	---	---	---	827
10-11pm	---	---	---	---	---	888	---	---	---	---	---	805
11-12pm	---	---	---	---	---	756	---	---	---	---	---	770
Totals	---	---	---	---	---	28,551	---	---	---	---	---	23,986
7-10am	4,544	154	91	243	366	5,398	3,462	158	237	129	81	4,067
10am-1pm	3,207	93	38	108	158	3,604	3,006	107	48	76	74	3,311
1-4pm	4,174	100	39	126	205	4,644	3,808	131	104	114	75	4,232
4-7pm	5,183	95	130	120	358	5,886	4,086	103	164	133	115	4,601
7am-7pm	17,108	442	298	597	1,087	19,532	14,362	499	553	452	345	16,211
6-10am	---	---	---	---	---	6,439	---	---	---	---	---	5,122
3-7pm	6,884	135	141	153	443	7,756	5,498	147	208	177	136	6,166
6am-7pm	---	---	---	---	---	20,573	---	---	---	---	---	17,266

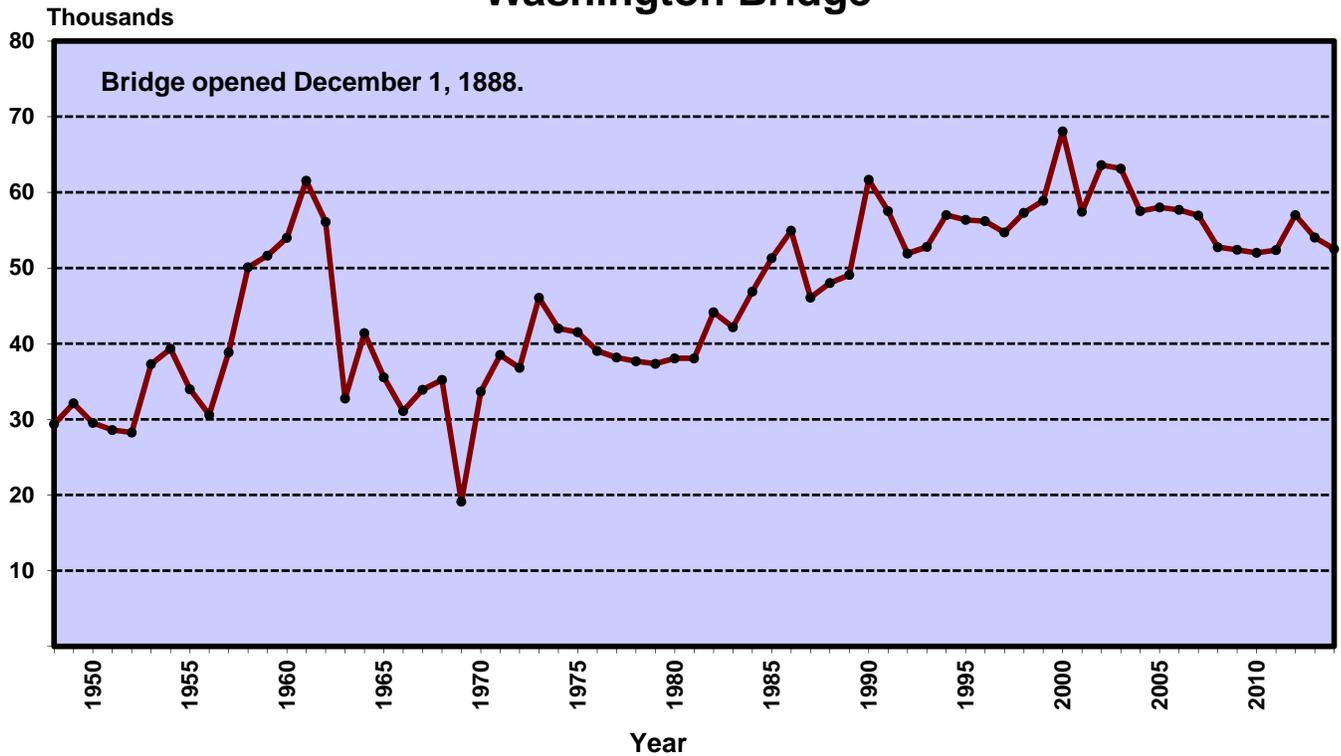
\*\* Peak Volumes

Based on September 1989 Classification Survey Data.

## Hourly Vehicular Volumes Washington Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Washington Bridge



# Hourly Vehicular Volumes

## Willis Avenue Bridge - 2014

### Northbound to Bronx

### Southbound to Manhattan

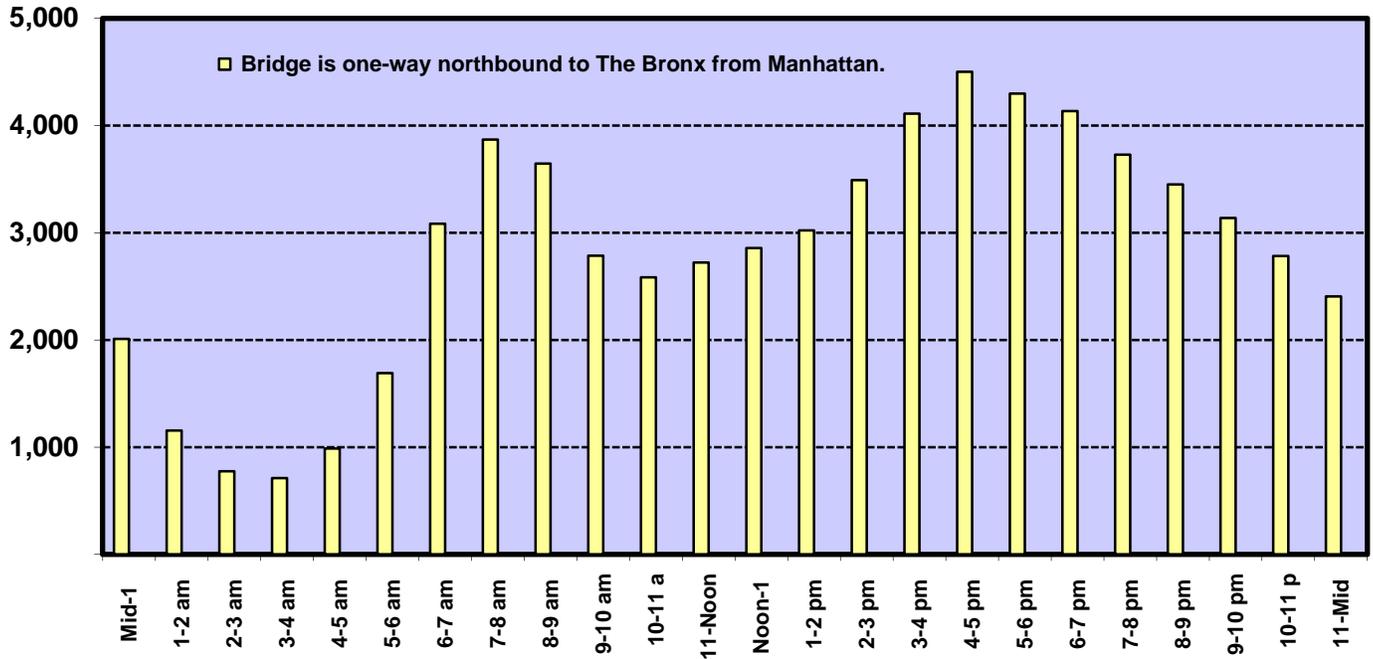
FHWA Classes ▲	Northbound to Bronx					Southbound to Manhattan					2-way Grand Totals			
	Autos, Motorcycles SUVs, Family Vans	Taxis, Liveryes, Limos	Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles	Buses	Single Unit Trucks	Multiple Unit Trucks	Total Vehicles	Autos, Motorcycles SUVs, Family Vans	Taxis, Liveryes, Limos	Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles		Buses	Single Unit Trucks	Multiple Unit Trucks
12-1am	1,779	115	71	3	32	10	2,010	1,2,3	2	2 & 3	4	5-7	8-13	2,010
1-2am							1,155							1,155
2-3am							775							775
3-4am							712							712
4-5am							987							987
5-6am	1,399	100	72	9	56	55	1,691	1,2,3	2	2 & 3	4	5-7	8-13	1,691
6-7am	2,701	86	114	30	96	58	3,085							3,085
7-8am	3,444	97	138	62	103	26	3,870							3,870
8-9am	2,982	116	178	213	123	34	3,646							3,646
9-10am	2,193	101	221	85	160	26	2,786							2,786
10-11am	1,941	107	275	42	190	29	2,584							2,584
11-12am	2,054	90	315	20	214	30	2,723							2,723
12-1pm	2,121	113	288	35	264	37	2,858							2,858
1-2pm	2,285	98	324	29	254	32	3,022							3,022
2-3pm	2,724	70	377	42	250	28	3,491							3,491
3-4pm	3,272	116	378	117	201	28	4,112							4,112
4-5pm	3,502	179	465	164	177	15	4,502							4,502
5-6pm	3,649	108	338	66	125	13	4,299							4,299
6-7pm	3,713	64	236	31	82	9	4,135							4,135
7-8pm	3,368	95	164	18	75	9	3,729							3,729
8-9pm	3,160	93	121	10	53	14	3,451							3,451
9-10pm	2,853	107	86	7	68	17	3,138							3,138
10-11pm	2,513	121	98	6	36	9	2,783							2,783
11-12pm	2,121	130	106	7	38	5	2,407							2,407
Totals	53,774	2,106	4,365	996	2,597	484	67,951							67,951
7-10am	8,619	314	537	360	386	86	10,302							10,302
10am-1pm	6,116	310	878	97	668	96	8,165							8,165
1-4pm	8,281	284	1,079	188	705	88	10,625							10,625
4-7pm	10,864	351	1,039	261	384	37	12,936							12,936
7am-7pm	33,880	1,259	3,533	906	2,143	307	42,028							42,028
6-10am	11,320	400	651	390	482	144	13,387							13,387
3-7pm	14,136	467	1,417	378	585	65	17,048							17,048
6am-7pm	36,581	1,345	3,647	936	2,239	365	45,113							45,113

Bridge is 1-way northbound from Manhattan to Bronx.

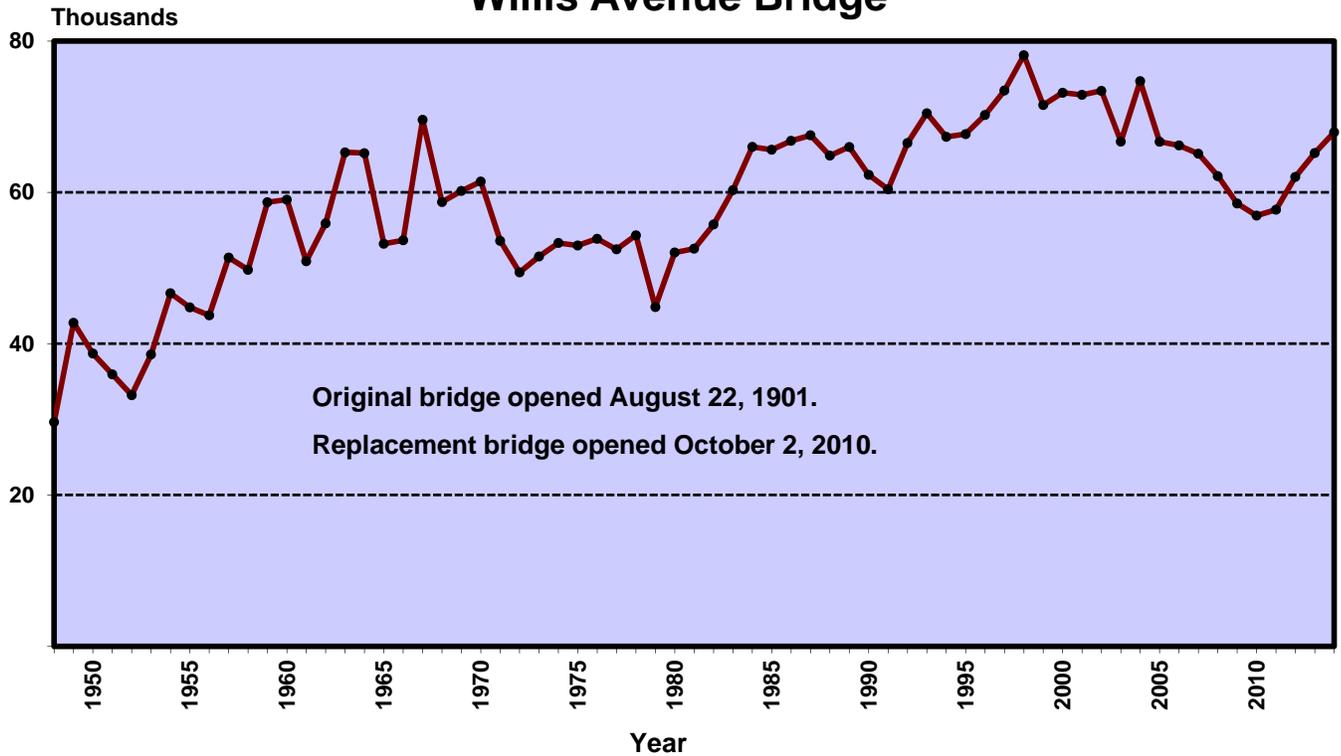
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Willis Avenue Bridge ~ 2014



## Average Daily Traffic Volumes Willis Avenue Bridge



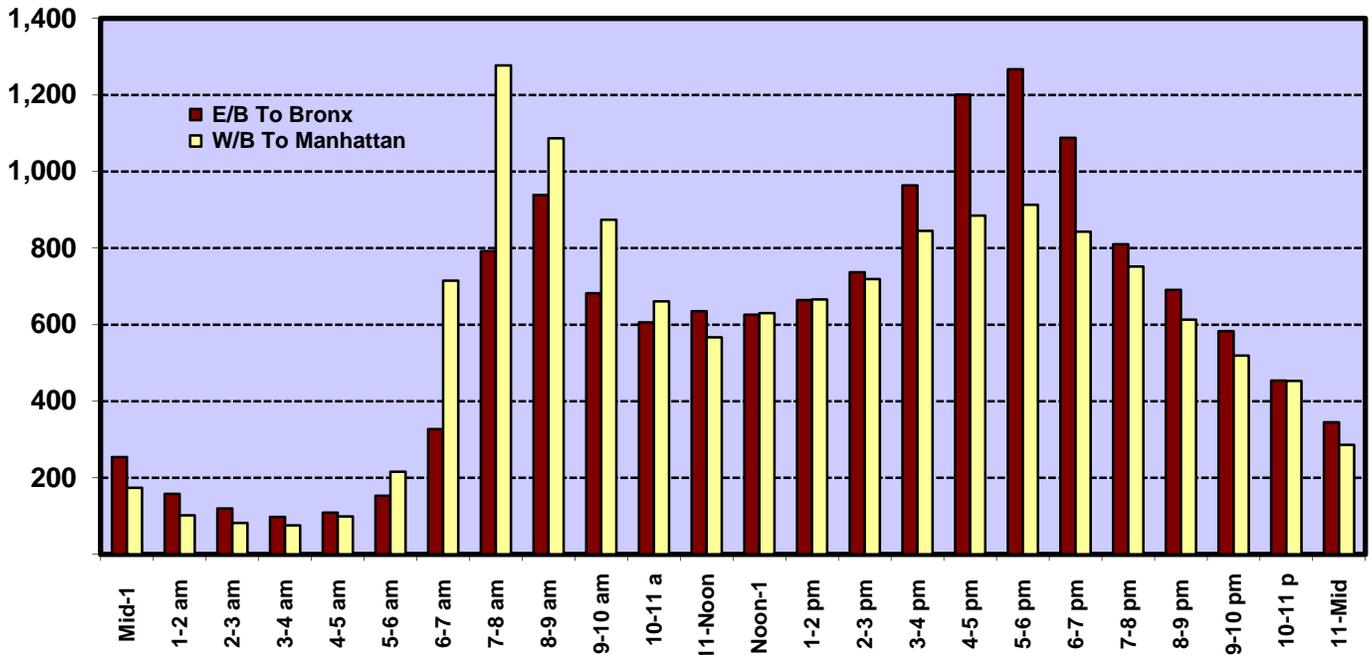
# Hourly Vehicular Volumes 145th Street Bridge - 2014

FHWA Classes ▲	Eastbound to Bronx							Westbound to Manhattan							2-way Grand Totals
	Autos, Motorcycles SUVs, Family Vans			Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles			Total Vehicles	Autos, Motorcycles SUVs, Family Vans			Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles			Total Vehicles	
	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13		1, 2, 3	2	2 & 3	4	5 - 7	8 - 13		
12-1am	172	69	5	7	0	1	254	112	51	4	5	2	0	428	
1-2am	67	78	7	4	1	1	158	53	46	1	1	1	0	260	
2-3am	49	65	0	2	4	0	120	30	49	1	0	2	0	202	
3-4am	43	46	1	1	4	3	98	33	34	4	3	1	1	174	
4-5am	47	44	12	2	2	2	109	44	33	12	3	5	2	208	
5-6am	93	44	6	3	7	0	153	143	44	8	8	11	2	369	
6-7am	227	63	12	19	5	1	327	363	124	39	108	72	9	1,042	
7-8am	567	163	28	22	11	1	792	785	262	93	67	47	23	2,069	
8-9am	633	164	50	68	21	3	939	645	221	143	17	42	19	2,026	
9-10am	389	208	34	19	28	4	682	535	179	85	17	52	6	1,556	
10-11am	337	177	47	11	32	2	606	396	142	67	19	33	4	1,267	
11-12am	372	152	62	13	30	6	635	340	136	53	10	21	7	1,202	
12-1pm	341	146	75	12	45	7	626	408	112	75	14	14	7	1,256	
1-2pm	401	129	66	15	51	2	664	416	127	58	21	40	4	1,330	
2-3pm	440	167	64	13	50	3	737	502	108	41	40	24	4	1,456	
3-4pm	608	190	69	61	35	1	964	656	103	43	35	6	2	1,809	
4-5pm	721	197	120	121	37	5	1,201	746	84	26	22	5	2	2,086	
5-6pm	882	249	69	33	33	1	1,267	715	148	24	11	14	1	2,180	
6-7pm	914	81	50	13	27	3	1,088	640	164	17	8	13	1	1,931	
7-8pm	669	82	38	11	9	1	810	625	93	19	8	5	2	1,562	
8-9pm	602	38	28	11	12	0	691	499	88	12	6	5	3	1,304	
9-10pm	377	182	16	6	2	0	583	391	99	14	8	6	1	1,102	
10-11pm	291	137	13	8	5	0	454	335	94	10	7	6	1	907	
11-12pm	230	92	11	6	6	0	345	224	50	6	2	1	3	631	
Totals	9,472	2,963	883	481	457	47	14,303	9,636	2,591	855	440	428	104	28,357	
7-10am	1,589	535	112	109	60	8	2,413	1,965	662	321	101	141	48	5,651	
10am-1pm	1,050	475	184	36	107	15	1,867	1,144	390	195	43	68	18	3,725	
1-4pm	1,449	486	199	89	136	6	2,365	1,574	338	142	96	70	10	4,595	
4-7pm	2,517	527	239	167	97	9	3,556	2,101	396	67	41	32	4	6,197	
7am-7pm	6,605	2,023	734	401	400	38	10,201	6,784	1,786	725	281	311	80	20,168	
6-10am	1,816	598	124	128	65	9	2,740	2,328	786	360	209	213	57	6,693	
3-7pm	3,125	717	308	228	132	10	4,520	2,757	499	110	76	38	6	8,006	
6am-7pm	6,832	2,086	746	420	405	39	10,528	7,147	1,910	764	389	383	89	21,210	

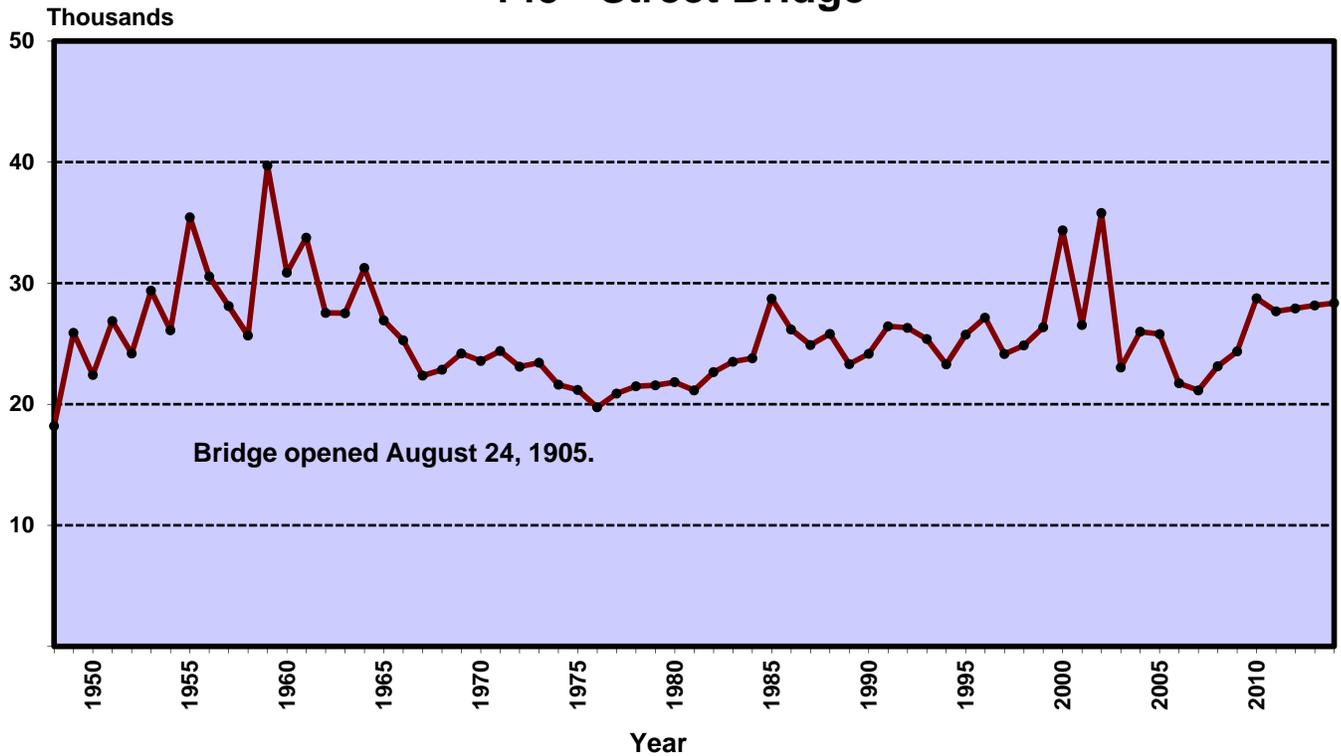
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes 145<sup>th</sup> Street Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions 145<sup>th</sup> Street Bridge





# MTABT Facilities



**Hugh L. Carey Tunnel Exit to West Street**

**MTABT Manhattan Facilities ~ Average Daily Traffic Volumes  
1948 - 2014**

Year	Hugh L. Carey Tunnel			Robert F. Kennedy Memorial Bridge	
	Henry Hudson Bridge	(Brooklyn- Battery Tunnel)	Queens- Midtown Tunnel	Manh. Plz. (Triborough Bridge)	Manhattan Totals
1948	40,050	<i>Opened</i>	26,462	26,465	92,977
1949	47,472	<i>05/25/1950</i>	30,045	32,554	110,071
1950	53,559	37,258	34,044	36,995	161,856
1951	57,700	41,253	36,680	44,639	180,272
1952	61,592	45,366	38,866	48,503	194,327
1953	65,432	47,999	38,509	48,595	200,535
1954	69,025	45,120	38,185	52,286	204,616
1955	71,240	45,843	39,839	59,913	216,835
1956	69,477	48,054	49,544	64,460	231,535
1957	62,865	54,490	54,311	64,677	236,343
1958	57,321	53,789	58,321	62,982	232,413
1959	56,529	49,468	61,115	64,389	231,501
1960	56,675	48,970	62,008	63,115	230,768
1961	57,140	48,197	62,301	59,603	227,241
1962	59,548	48,173	65,038	60,251	233,010
1963	52,803	48,271	63,038	60,988	225,100
1964	50,768	51,893	67,713	66,139	236,513
1965	45,353	56,455	69,386	69,755	240,949
1966	44,043	57,674	69,850	71,540	243,107
1967	43,409	57,611	69,416	73,602	244,038
1968	44,908	60,652	66,432	75,932	247,924
1969	45,382	62,116	68,884	78,481	254,863
1970	46,720	62,042	77,180	85,121	271,063
1971	50,541	64,032	81,747	90,372	286,692
1972	45,818	52,065	74,936	80,052	252,871
1973	41,871	49,916	74,214	85,592	251,593
1974	38,331	46,620	75,219	82,676	242,846
1975	30,603	45,636	65,315	72,566	214,120
1976	30,557	52,444	65,881	68,325	217,207
1977	31,840	53,500	71,150	73,276	229,766
1978	33,605	58,252	72,696	76,572	241,125
1979	33,387	60,445	69,827	87,885	251,544
1980	31,817	62,386	73,216	88,439	255,858
1981	36,625	58,657	81,211	93,361	269,854
1982	30,923	56,189	78,229	88,158	253,499
1983	31,279	61,130	78,134	92,967	263,510
1984	34,898	58,032	74,808	95,247	262,985
1985	41,680	63,469	76,065	94,644	275,858
1986	49,005	60,778	71,478	93,432	274,693
1987	52,778	63,256	77,813	95,795	289,642
1988	54,910	62,959	76,243	99,438	293,550
1989	50,556	59,254	72,828	92,720	275,358
1990	57,528	60,512	71,186	99,840	289,066
1991	56,279	63,883	80,616	94,487	295,265
1992	58,660	62,510	81,835	97,198	300,203
1993	54,650	57,561	77,288	92,660	282,159
1994	58,291	57,013	68,511	79,536	263,351
1995	62,899	61,097	73,882	95,696	293,574
1996	58,759	57,091	72,285	92,981	281,116
1997	59,660	54,690	78,023	91,313	283,686
1998	59,339	61,091	79,697	93,863	293,990
1999	61,165	63,307	80,941	98,553	303,966
2000	66,304	63,242	80,879	103,079	313,504
2001	69,087	13,762	72,864	102,224	257,937
2002	70,731	56,976	82,834	94,759	305,300
2003	72,209	56,271	85,377	93,177	307,034
2004	73,114	54,488	86,599	97,958	312,159
2005	70,407	49,043	86,063	91,898	297,411
2006	71,761	57,436	89,972	98,582	317,751
2007	70,094	56,539	88,379	97,241	312,253
2008	69,101	55,037	86,709	95,146	305,993
2009	66,607	50,674	85,144	91,731	294,156
2010	69,641	54,187	88,014	93,455	305,297
2011	63,433	54,481	87,662	88,717	294,293
2012	63,434	54,299	87,937	90,956	296,626
2013	59,087	55,145	86,737	91,386	292,355
2014	58,809	54,007	86,081	91,509	290,406

MTABT Toll Increases January 1972, September 1975, May 1980, April 1982, January 1984, January 1986, February 1987, July 1989, January 1993, March 1996, May 2003, March 2005, March 2008, July 2009, December 2010, & March 2013.

# Hourly Vehicular Volumes

## Metropolitan Transportation Authority Bridges & Tunnels 2014

	Henry Hudson Bridge		Hugh L. Carey Tunnel (Brooklyn-BatteryTunnel)		Queens-Midtown Tunnel		Robert F. Kennedy Memorial Bridge (Triborough Bridge) Manhattan Plaza		Totals	
	S/B	N/B	N/B	S/B	W/B	E/B	W/B	E/B	Entering Manhattan	Leaving Manhattan
12-1am	104	342	189	570	508	933	492	545	1,293	2,390
1-2am	46	152	86	244	251	454	209	269	592	1,119
2-3am	33	74	59	115	120	271	116	162	328	622
3-4am	42	42	84	82	141	211	116	181	383	516
4-5am	115	53	248	78	322	453	283	482	968	1,066
5-6am	538	109	889	154	1,112	845	1,091	1,042	3,630	2,150
6-7am	2,401	470	2,420	418	2,508	1,277	3,211	1,594	10,540	3,759
7-8am	3,333 **	1,249	3,071 **	663	3,635	1,271	4,024 **	1,871	14,063 **	5,054
8-9am	2,889	1,659	2,918	760	4,032 **	1,159	3,617	2,006	13,456	5,584
9-10am	2,198	1,065	2,773	783	3,748	1,199	3,423	1,970	12,142	5,017
10-11am	1,732	904	1,980	795	2,698	1,434	3,166	1,853	9,576	4,986
11-12am	1,605	906	1,496	918	2,568	1,658	2,854	1,947	8,523	5,429
12-1pm	1,437	986	1,366	1,024	2,482	2,021	2,613	2,099	7,898	6,130
1-2pm	1,368	1,170	1,490	1,152	2,325	2,321	2,535	2,328	7,718	6,971
2-3pm	1,573	1,504	1,596	1,476	2,434	2,761	2,886	2,713	8,489	8,454
3-4pm	2,026	1,971	1,572	1,958	2,601	2,867 **	3,143	2,931	9,342	9,727
4-5pm	2,184	2,316	1,516	2,303	2,703	2,852	3,190	3,107 **	9,593	10,578
5-6pm	2,409	2,601	1,542	2,445 **	2,756	2,815	3,296	2,941	10,003	10,806 **
6-7pm	2,107	2,680 **	1,241	2,322	2,568	2,515	3,084	2,524	9,000	10,041
7-8pm	1,263	2,210	899	1,842	2,039	2,187	2,338	2,100	6,539	8,339
8-9pm	785	1,477	601	1,435	1,590	2,200	1,742	1,827	4,718	6,939
9-10pm	655	1,338	492	1,157	1,498	2,224	1,510	1,568	4,155	6,287
10-11pm	428	1,206	490	1,005	1,243	2,003	1,262	1,398	3,423	5,612
11-12pm	237	817	405	881	859	1,409	943	907	2,444	4,014
<b>Totals</b>	<b>31,508</b>	<b>27,301</b>	<b>29,423</b>	<b>24,584</b>	<b>46,741</b>	<b>39,340</b>	<b>51,144</b>	<b>40,365</b>	<b>158,816</b>	<b>131,590</b>
7-10am	8,420	3,973	8,762	2,206	11,415	3,629	11,064	5,847	39,661	15,655
10am-1pm	4,774	2,796	4,842	2,737	7,748	5,113	8,633	5,899	25,997	16,545
1-4pm	4,967	4,645	4,658	4,586	7,360	7,949	8,564	7,972	25,549	25,152
4-7pm	6,700	7,597	4,299	7,074	8,027	8,182	9,570	8,572	28,596	31,425
7am-7pm	24,861	19,011	22,561	16,603	34,550	24,873	37,831	28,290	119,803	88,777
6-10am	10,821	4,443	11,182	2,624	13,923	4,906	14,275	7,441	50,201	19,414
3-7pm	8,726	9,568	5,871	9,032	10,628	11,049	12,713	11,503	37,938	41,152
6am-7pm	27,262	19,481	24,981	17,021	37,058	26,150	41,042	29,884	130,343	92,536

\*\* Peak Volumes

# Hourly Vehicular Volumes

## Hugh L. Carey Tunnel - 2014

### Northbound to Manhattan

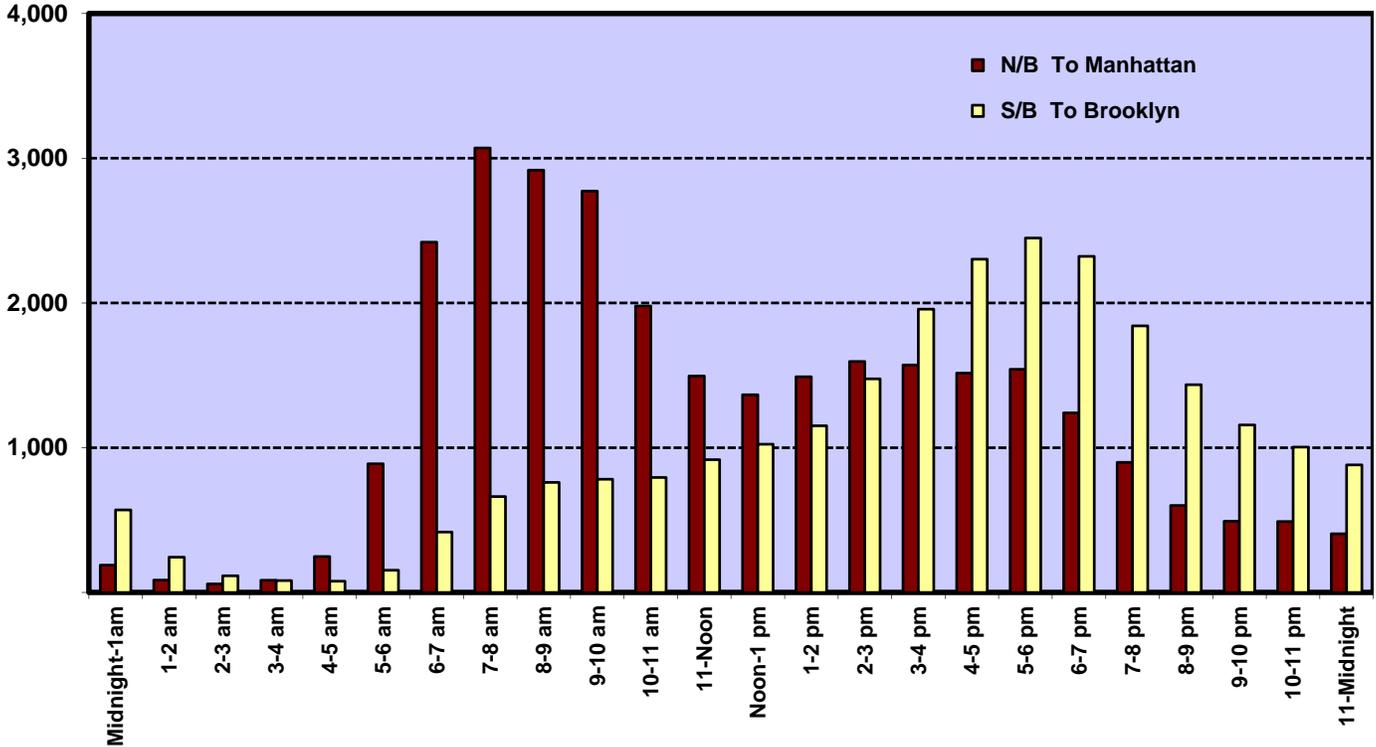
### Southbound to Brooklyn

FHWA Classes ▶	Commuter Vans					Total Vehicles	Commuter Vans					2-Way Grand Totals
	Autos & Motorcycles		Pickups Large SUVs		Buses		Single Unit Trucks		Tractor Trailers		Total Vehicles	
	1 & 2	3	4	5-7	8-13		1 & 2	3	4	5-7	8-13	
12-1am	163	6	10	10	0	189	519	11	34	6	0	570
1-2am	75	4	6	1	0	86	233	0	10	1	0	244
2-3am	53	0	3	3	0	59	110	1	3	1	0	115
3-4am	71	1	8	4	0	84	80	0	0	2	0	82
4-5am	160	9	61	18	0	248	73	0	4	1	0	78
5-6am	800	9	71	9	0	889	136	2	11	5	0	154
6-7am	2,161	15	217	27	0	2,420	311	7	87	13	0	418
7-8am	2,696	16	318	41	0	3,071	478	7	160	18	0	663
8-9am	2,550	15	318	35	0	2,918	555	6	181	18	0	760
9-10am	2,532	20	180	41	0	2,773	600	8	153	22	0	783
10-11am	1,802	24	100	53	1	1,980	695	9	74	17	0	795
11-12am	1,386	13	62	34	1	1,496	829	9	62	18	0	918
12-1pm	1,257	14	66	29	0	1,366	943	11	52	18	0	1,024
1-2pm	1,347	13	91	39	0	1,490	1,040	12	74	26	0	1,152
2-3pm	1,433	12	121	29	1	1,596	1,351	15	84	26	0	1,476
3-4pm	1,404	6	149	13	0	1,572	1,785	13	136	24	0	1,958
4-5pm	1,322	5	178	10	1	1,516	2,087	7	189	20	0	2,303
5-6pm	1,374	3	155	7	3	1,542	2,178	6	250	14	1	2,449
6-7pm	1,151	4	78	7	1	1,241	2,132	6	172	11	1	2,322
7-8pm	854	1	41	3	0	899	1,736	5	94	7	0	1,842
8-9pm	572	3	22	4	0	601	1,340	7	80	8	0	1,435
9-10pm	467	1	22	2	0	492	1,093	4	48	12	0	1,157
10-11pm	464	1	22	3	0	490	964	5	28	8	0	1,005
11-12pm	358	0	34	13	0	405	831	6	35	9	0	881
Totals	26,452	195	2,333	435	8	29,423	22,099	157	2,021	305	2	24,584
7-10am	7,778	51	816	117	0	8,762	1,633	21	494	58	0	2,206
10am-1pm	4,445	51	228	116	2	4,842	2,467	29	188	53	0	2,737
1-4pm	4,184	31	361	81	1	4,658	4,176	40	294	76	0	4,586
4-7pm	3,847	12	411	24	5	4,299	6,397	19	611	45	2	7,074
7am-7pm	20,254	145	1,816	338	8	22,561	14,673	109	1,587	232	2	16,603
6-10am	9,939	66	1,033	144	0	11,182	1,944	28	581	71	0	2,624
3-7pm	5,251	18	560	37	5	5,871	8,182	32	747	69	2	9,032
7am-7pm	22,415	160	2,033	365	8	24,981	14,984	116	1,674	245	2	17,021

Based on May 2006 Classification Survey Data.

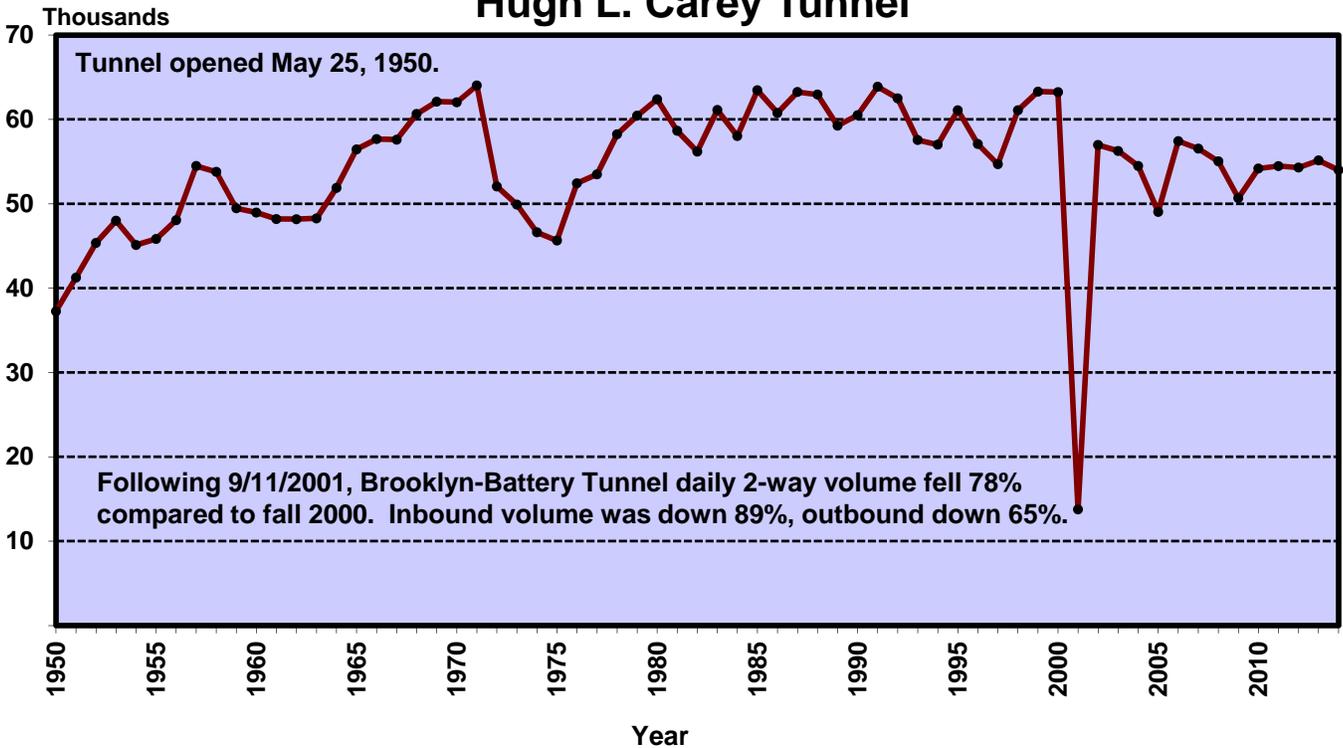
\*\* Peak Volumes

## Hourly Vehicular Volumes Hugh L. Carey Tunnel ~ 2014



Formerly Brooklyn-Battery Tunnel; officially renamed Hugh L. Carey Tunnel October 22, 2012.

## Average Daily Traffic Volumes ~ Total of Both Directions Hugh L. Carey Tunnel



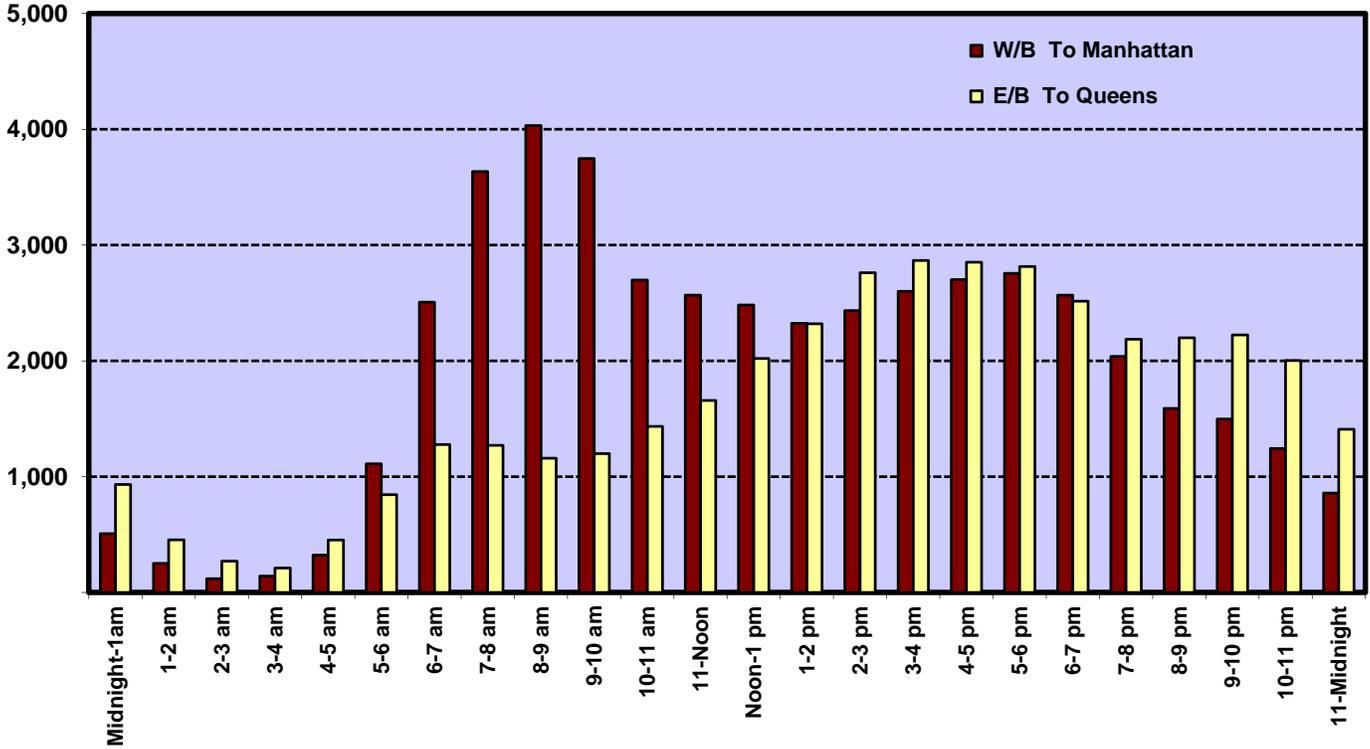
## Hourly Vehicular Volumes Queens-Midtown Tunnel - 2014

FHWA Classes ▶	Westbound to Manhattan										Eastbound to Queens										2-Way Grand Totals		
	Autos & Motorcycles					Commuter Vans					Total Vehicles	Autos & Motorcycles					Commuter Vans					Total Vehicles	
	1 & 2	3	4	5-7	8-13	1 & 2	3	4	5-7	8-13		1 & 2	3	4	5-7	8-13	1 & 2	3	4	5-7			8-13
12-1am	492	2	3	11	0	508	900	9	1	23	0	933	1,441										
1-2am	239	2	1	9	0	251	433	4	0	17	0	454	705										
2-3am	112	1	1	6	0	120	254	5	0	12	0	271	391										
3-4am	127	1	3	10	0	141	188	10	0	13	0	211	352										
4-5am	258	6	18	40	0	322	373	31	4	43	2	453	775										
5-6am	970	11	55	76	0	1,112	753	22	13	57	0	845	1,957										
6-7am	2,143	88	158	119	0	2,508	1,156	35	50	36	0	1,277	3,785										
7-8am	3,133	129	229	143	1	3,635	1,131	48	60	32	0	1,271	4,906										
8-9am	3,625	114	142	151	0	4,032	1,012	37	70	40	0	1,159	5,191										
9-10am	3,378	95	169	102	4	3,748	1,052	45	61	41	0	1,199	4,947										
10-11am	2,449	75	91	81	2	2,698	1,244	58	69	63	0	1,434	4,132										
11-12am	2,380	64	61	63	0	2,568	1,473	56	71	58	0	1,658	4,226										
12-1pm	2,302	38	57	85	0	2,482	1,809	65	56	91	0	2,021	4,503										
1-2pm	2,121	66	69	69	0	2,325	2,062	105	59	95	0	2,321	4,646										
2-3pm	2,210	59	111	54	0	2,434	2,560	79	47	75	0	2,761	5,195										
3-4pm	2,312	54	169	66	0	2,601	2,651	64	66	86	0	2,867	5,468										
4-5pm	2,470	33	165	35	0	2,703	2,630	78	67	77	0	2,852	5,555										
5-6pm	2,588	18	127	23	0	2,756	2,655	45	72	43	0	2,815	5,571										
6-7pm	2,455	17	72	24	0	2,568	2,391	30	57	37	0	2,515	5,083										
7-8pm	1,965	13	46	15	0	2,039	2,087	21	59	20	0	2,187	4,226										
8-9pm	1,513	20	28	29	0	1,590	2,090	26	41	43	0	2,200	3,790										
9-10pm	1,440	14	17	27	0	1,498	2,133	23	23	44	1	2,224	3,722										
10-11pm	1,191	8	13	31	0	1,243	1,931	21	11	40	0	2,003	3,246										
11-12pm	833	7	4	15	0	859	1,372	4	4	29	0	1,409	2,268										
Totals	42,706	935	1,809	1,284	7	46,741	36,340	921	961	1,115	3	39,340	86,081										
7-10am	10,136	338	540	396	5	11,415	3,195	130	191	113	0	3,629	15,044										
10am-1pm	7,131	177	209	229	2	7,748	4,526	179	196	212	0	5,113	12,861										
1-4pm	6,643	179	349	189	0	7,360	7,273	248	172	256	0	7,949	15,309										
4-7pm	7,513	68	364	82	0	8,027	7,676	153	196	157	0	8,182	16,209										
7am-7pm	31,423	762	1,462	896	7	34,550	22,670	710	755	738	0	24,873	59,423										
6-10am	12,279	426	698	515	5	13,923	4,351	165	241	149	0	4,906	18,829										
3-7pm	9,825	122	533	148	0	10,628	10,327	217	262	243	0	11,049	21,677										
7am-7pm	33,566	850	1,620	1,015	7	37,058	23,826	745	805	774	0	26,150	63,208										

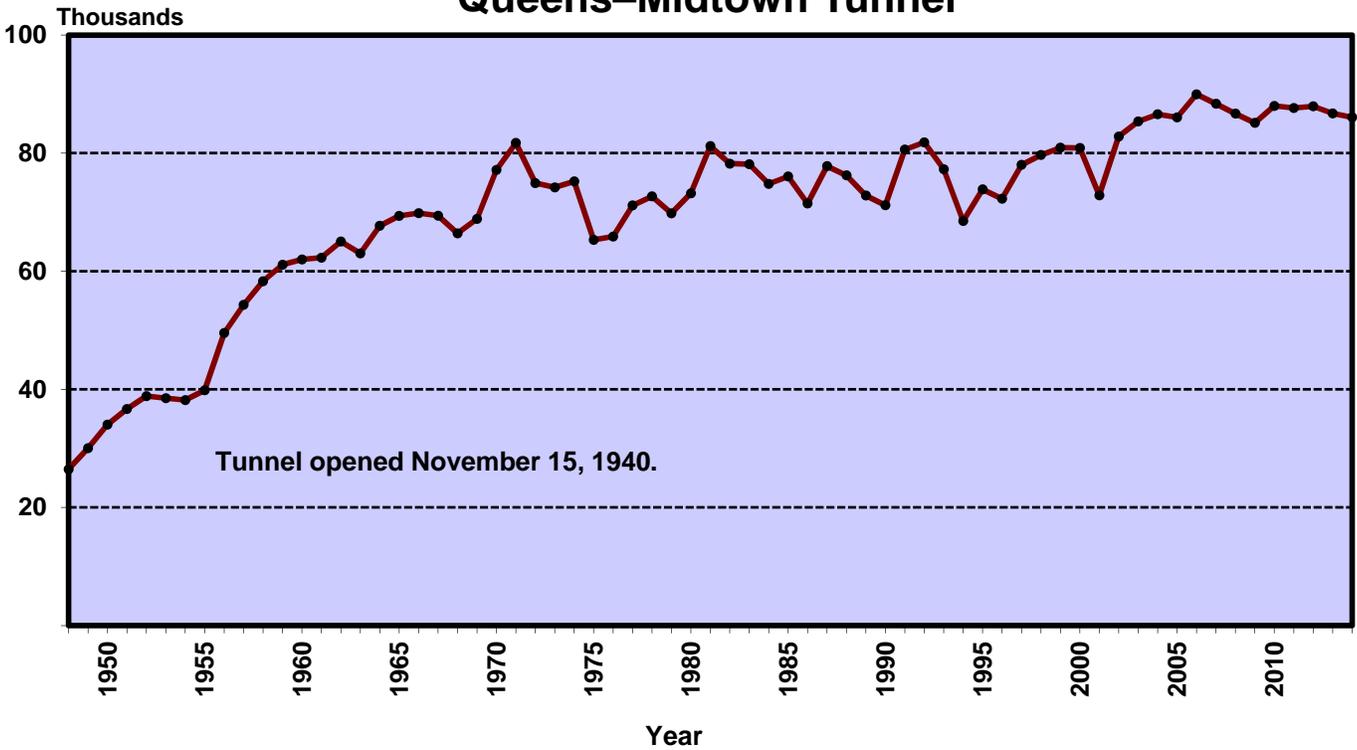
Based on May 2006 Classification Survey Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Queens-Midtown Tunnel ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Queens-Midtown Tunnel



# Hourly Vehicular Volumes

## Robert F. Kennedy Memorial Bridge Manhattan Plaza - 2014

### Eastbound to Queens & Bronx

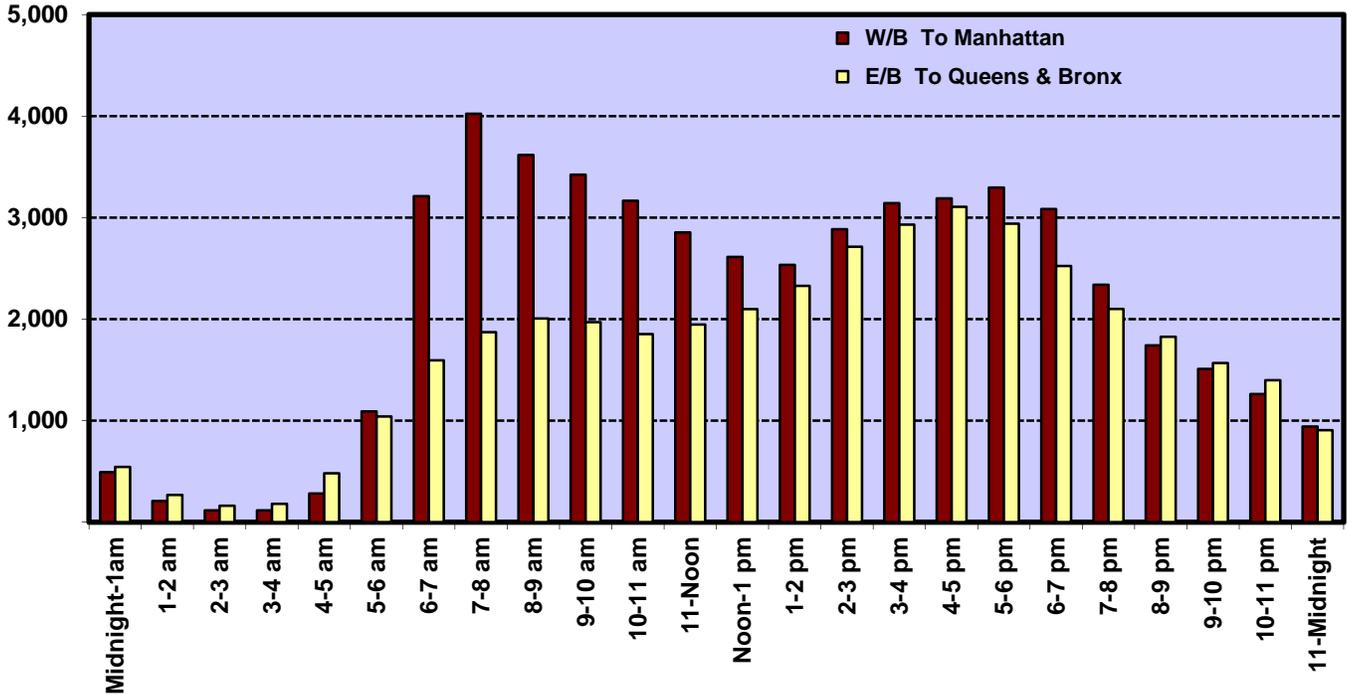
### Westbound to Manhattan

FHWA Classes ▲	Autos, Motorcycles							Commercial Vans, Panel Trucks, Pickups, Police, Fleet Vehicles							Total Vehicles	Multiple Unit Trucks	Single Unit Trucks	Buses	2 & 3	4	5 - 7	8 - 13	Total Vehicles	2-way Grand Totals
	1, 2, 3	2	2 & 3	4	5	34	10	1, 2, 3	2	2 & 3	4	5 - 7	8 - 13	1, 2, 3										
12-1am	464	20	12	5	34	10	545	325	131	10	4	15	7	492									1,037	
1-2am	193	13	6	2	48	7	269	150	37	3	2	10	7	209									478	
2-3am	118	9	4	1	22	8	162	80	9	8	1	10	8	116									278	
3-4am	129	9	10	1	22	10	181	84	6	6	0	11	9	116									297	
4-5am	339	75	9	4	37	18	482	219	22	10	3	14	15	283									765	
5-6am	747	118	31	8	81	57	1,042	874	71	37	10	63	36	1,091									2,133	
6-7am	1,116	187	51	28	161	51	1,594	2,569	183	168	56	140	95	3,211									4,805	
7-8am	1,332	180	117	43	145	54	1,871	3,071	303	268	98	178	106	4,024								**	5,895	
8-9am	1,514	169	136	31	133	23	2,006	2,614	311	287	66	227	112	3,617									5,623	
9-10am	1,475	162	127	19	139	48	1,970	2,403	412	242	44	200	122	3,423									5,393	
10-11am	1,319	156	122	22	121	53	1,853	2,067	540	206	40	183	130	3,166									5,019	
11-12am	1,325	207	139	12	203	61	1,947	1,941	475	147	34	144	113	2,854									4,801	
12-1pm	1,490	224	140	14	190	41	2,099	1,736	412	139	40	171	115	2,613									4,712	
1-2pm	1,608	282	162	17	213	46	2,328	1,719	328	187	37	157	107	2,535									4,863	
2-3pm	1,911	338	169	35	220	40	2,713	2,029	445	160	43	126	83	2,886									5,599	
3-4pm	2,112	317	216	44	216	26	2,931	2,275	492	159	47	108	62	3,143									6,074	
4-5pm	2,297	304	237	56	190	23	3,107	2,315	478	192	51	107	47	3,190								**	6,297	
5-6pm	2,412	209	161	20	120	19	2,941	2,499	496	132	44	86	39	3,296									6,237	
6-7pm	2,081	173	125	24	98	23	2,524	2,460	446	80	24	52	22	3,084									5,608	
7-8pm	1,761	104	106	30	74	25	2,100	1,857	360	38	28	33	22	2,338									4,438	
8-9pm	1,541	112	70	23	37	44	1,827	1,409	243	34	15	25	16	1,742									3,569	
9-10pm	1,336	118	44	18	33	19	1,568	1,186	267	15	16	14	12	1,510									3,078	
10-11pm	1,194	97	27	10	58	12	1,398	875	336	13	8	15	15	1,262									2,660	
11-12pm	781	49	28	8	31	10	907	581	311	14	7	14	16	943									1,850	
Totals	30,595	3,632	2,249	475	2,686	728	40,365	37,338	7,114	2,555	718	2,103	1,316	51,144									91,509	
7-10am	4,321	511	380	93	417	125	5,847	8,088	1,026	797	208	605	340	11,064									16,911	
10am-1pm	4,134	587	401	48	574	155	5,899	5,744	1,427	492	114	498	358	8,633									14,532	
1-4pm	5,631	937	547	96	649	112	7,972	6,023	1,265	506	127	391	252	8,564									16,536	
4-7pm	6,790	686	523	100	408	65	8,572	7,274	1,420	404	119	245	108	9,570									18,142	
7am-7pm	20,876	2,721	1,851	337	2,048	457	28,290	27,129	5,138	2,199	568	1,739	1,058	37,831									66,121	
6-10am	5,437	698	431	121	578	176	7,441	10,657	1,209	965	264	745	435	14,275									21,716	
3-7pm	8,902	1,003	739	144	624	91	11,503	9,549	1,912	563	166	353	170	12,713									24,216	
6am-7pm	21,992	2,908	1,902	365	2,209	508	29,884	29,698	5,321	2,367	624	1,879	1,153	41,042									70,926	

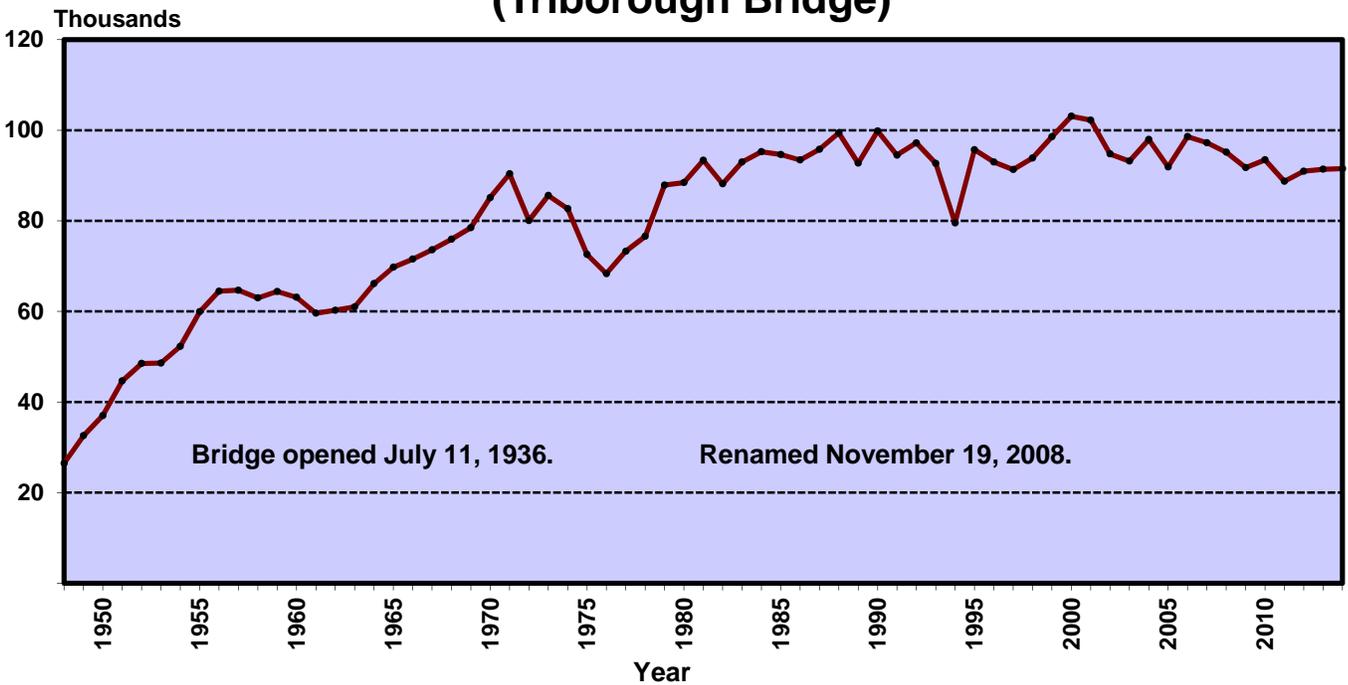
Based on October 2013 Classification Survey Data.

\*\* Peak Volumes

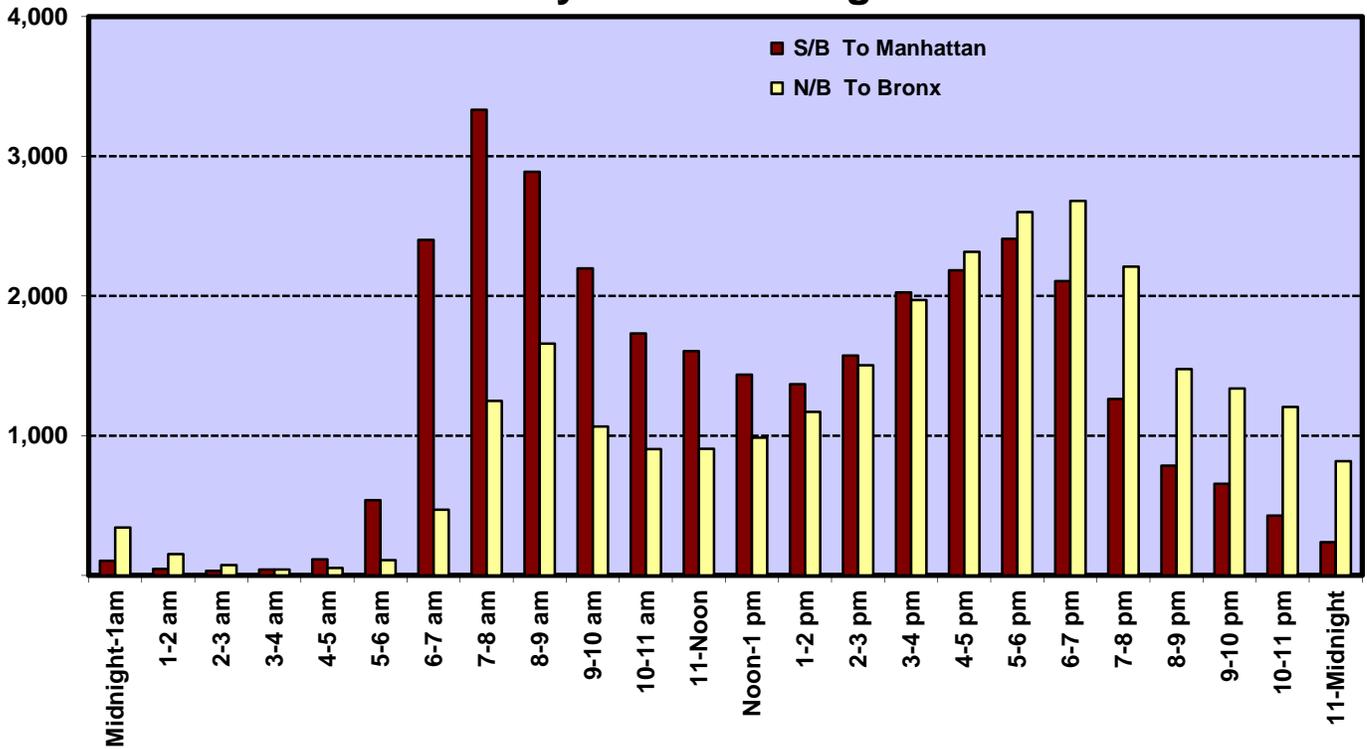
## Hourly Vehicular Volumes Robert F. Kennedy Memorial Bridge, Manhattan Plaza ~ 2014 (Triborough Bridge)



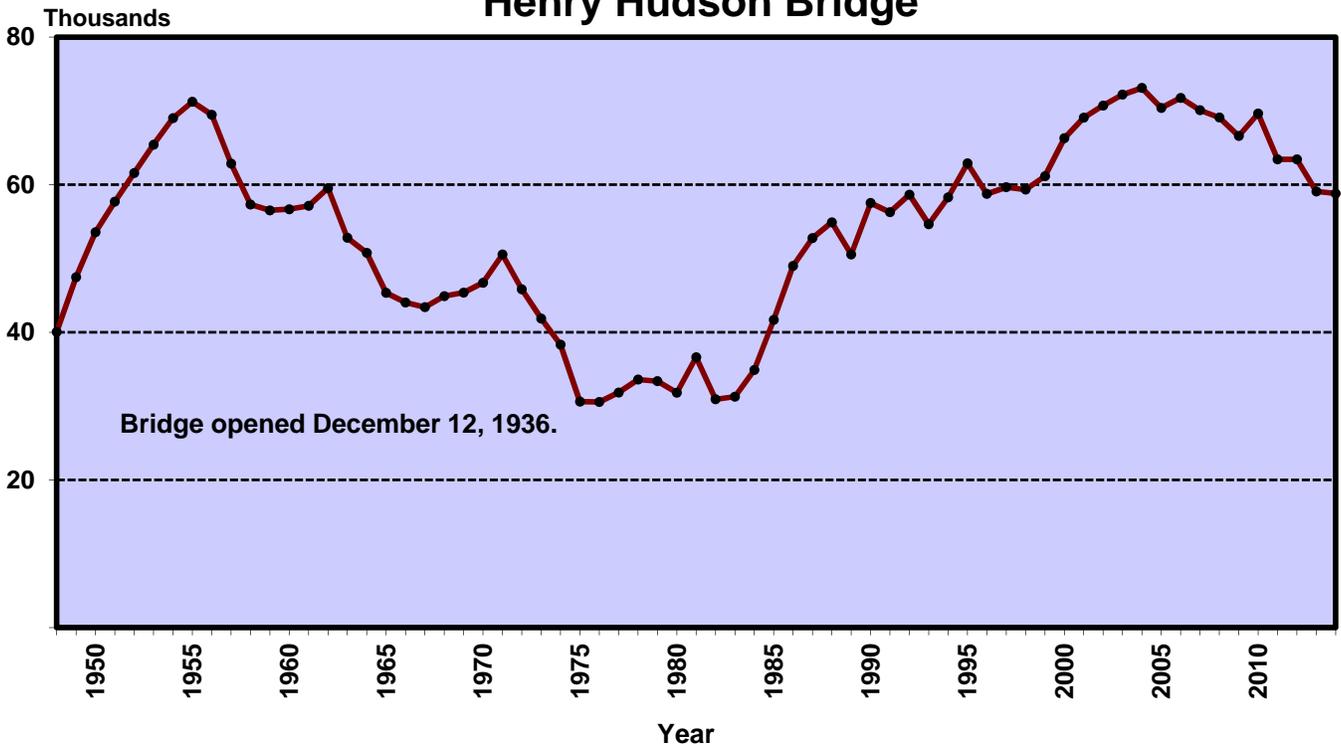
## Average Daily Traffic Volumes ~ Total of Both Directions Robert F. Kennedy Memorial Bridge, Manhattan Plaza (Triborough Bridge)



## Hourly Vehicular Volumes Henry Hudson Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Henry Hudson Bridge



# PANYNJ Facilities



Holland Tunnel Entrance at Varick-Broome Streets

**PANYNJ Manhattan - New Jersey Facilities**  
**Average Daily Traffic Volumes**  
**1948 - 2014**

<i>Year</i>	<i>George Washington Bridge</i>	<i>Holland Tunnel</i>	<i>Lincoln Tunnel</i>	<i>Totals</i>
1948	42,306	42,623	30,856	115,785
1949	49,261	45,167	35,515	129,943
1950	54,437	49,660	42,556	146,653
1951	64,516	53,792	47,842	166,150
1952	76,446	51,317	53,490	181,253
1953	84,398	53,270	56,909	194,577
1954	90,306	54,560	57,528	202,394
1955	98,013	55,445	58,468	211,926
1956	97,059	56,961	59,068	213,088
1957	98,110	56,801	63,712	218,623
1958	97,435	55,881	68,178	221,494
1959	105,334	57,926	73,761	237,021
1960	106,245	57,678	75,697	239,620
1961	104,107	56,277	76,449	236,833
1962	111,090	58,518	81,038	250,646
1963	127,452	58,814	79,337	265,603
1964	143,193	59,702	82,929	285,824
1965	155,967	55,060	82,312	293,339
1966	167,304	55,559	81,118	303,981
1967	173,093	54,181	80,879	308,153
1968	182,934	53,962	83,396	320,292
1969	189,817	54,438	84,868	329,123
1970	194,910	58,574	94,354	347,838
1971	210,749	57,968	93,346	362,063
1972	221,172	61,485	95,963	378,620
1973	232,686	64,731	99,786	397,203
1974	211,955	64,765	99,827	376,547
1975	215,927	62,381	96,399	374,707
1976	215,136	64,663	101,451	381,250
1977	222,897	63,015	99,101	385,013
1978	229,666	66,405	103,441	399,512
1979	232,739	61,403	99,582	393,724
1980	235,615	64,417	104,702	404,734
1981	250,804	68,750	107,827	427,381
1982	249,294	73,997	110,453	433,744
1983	254,728	76,226	110,210	441,164
1984	258,723	71,819	123,233	453,775
1985	275,934	76,121	116,397	468,452
1986	286,398	77,300	122,053	485,751
1987	288,642	73,655	124,342	486,639
1988	284,984	84,626	120,569	490,179
1989	281,812	84,429	121,452	487,693
1990	272,556	87,976	121,711	482,243
1991	262,491	87,502	117,508	467,501
1992	268,007	90,206	118,659	476,872
1993	260,732	92,685	119,652	473,069
1994	259,863	94,637	119,299	473,799
1995	266,029	96,310	119,759	482,098
1996	275,469	96,798	120,927	493,194
1997	282,293	100,986	121,509	504,788
1998	297,188	100,872	124,452	522,512
1999	317,640	103,020	128,692	549,352
2000	317,618	101,137	129,710	548,465
2001	309,310	43,377	106,257	458,944
2002	310,771	92,557	129,511	532,839
2003	319,029	101,097	127,323	547,449
2004	315,066	96,171	125,159	536,396
2005	304,302	96,960	126,455	527,717
2006	312,078	98,425	127,245	537,748
2007	291,391	100,491	122,092	513,974
2008	293,059	97,057	118,153	508,269
2009	289,694	96,184	118,982	504,860
2010	292,047	94,667	119,832	506,546
2011	279,896	93,560	117,653	491,109
2012	276,648	92,743	113,166	482,557
2013	277,645	90,012	112,162	479,819
2014	280,784	87,232	109,796	477,812

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

PANYNJ toll increases May 1975, January 1984, April 1987, April 1991, March 2001, March 2008, September 2011, December 2012, December 2013, & December 2014.

## Hourly Vehicular Volumes

### Port Authority of New York & New Jersey 2014

	George Washington Bridge		Holland Tunnel		Lincoln Tunnel		Totals	
	E/B	W/B	E/B	W/B	E/B	W/B	Entering Manhattan	Leaving Manhattan
12-1am	1,501	2,500	708	993	793	1,398	3,002	4,891
1-2am	1,059	1,294	442	629	528	720	2,029	2,643
2-3am	943	972	347	447	442	468	1,732	1,887
3-4am	1,160	1,192	380	477	495	427	2,035	2,096
4-5am	2,108	1,472	638	755	920	469	3,666	2,696
5-6am	6,080	2,820	2,066	1,439	3,021	754	11,167	5,013
6-7am	11,133 **	5,002	2,973 **	2,349	4,983 **	1,394	19,089 **	8,745
7-8am	9,805	6,650	2,820	2,635 **	4,499	1,921	17,124	11,206
8-9am	8,444	7,611	2,712	2,389	4,216	1,898	15,372	11,898
9-10am	8,331	6,600	2,551	2,007	3,872	1,979	14,754	10,586
10-11am	7,317	6,121	2,202	1,882	3,148	1,838	12,667	9,841
11-12am	6,598	5,690	1,898	1,877	2,782	2,045	11,278	9,612
12-1pm	6,312	6,149	1,811	2,005	2,474	2,388	10,597	10,542
1-2pm	6,243	7,015	1,821	2,248	2,418	2,773	10,482	12,036
2-3pm	6,684	8,602	1,960	2,473	2,539	3,520	11,183	14,595
3-4pm	7,349	10,111	2,288	2,463	2,408	4,238	12,045	16,812
4-5pm	7,798	9,745	2,500	2,204	2,041	4,653	12,339	16,602
5-6pm	8,163	11,787 **	2,632	2,188	1,298	4,963 **	12,093	18,938 **
6-7pm	8,002	11,349	2,537	2,206	1,873	4,884	12,412	18,439
7-8pm	6,424	10,058	2,091	2,493	1,895	3,941	10,410	16,492
8-9pm	5,075	7,520	1,693	2,162	1,892	3,102	8,660	12,784
9-10pm	4,221	5,721	1,584	2,169	1,717	2,756	7,522	10,646
10-11pm	3,532	4,528	1,416	1,891	1,590	2,749	6,538	9,168
11-12pm	2,558	3,435	1,142	1,639	1,284	1,390	4,984	6,464
Totals	136,840	143,944	43,212	44,020	53,128	56,668	233,180	244,632
7-10am	26,580	20,861	8,083	7,031	12,587	5,798	47,250	33,690
10am-1pm	20,227	17,960	5,911	5,764	8,404	6,271	34,542	29,995
1-4pm	20,276	25,728	6,069	7,184	7,365	10,531	33,710	43,443
4-7pm	23,963	32,881	7,669	6,598	5,212	14,500	36,844	53,979
7am-7pm	91,046	97,430	27,732	26,577	33,568	37,100	152,346	161,107
6-10am	37,713	25,863	11,056	9,380	17,570	7,192	66,339	42,435
3-7pm	31,312	42,992	9,957	9,061	7,620	18,738	48,889	70,791
6am-7pm	102,179	102,432	30,705	28,926	38,551	38,494	171,435	169,852

\*\* Peak Volumes

Note: NYC DOT uses the averages of vehicular volumes from selected representative fall weekdays. Publications from other sources may be based on alternative computation methodologies, yielding different results for some facilities, notably the tolled bridges and tunnels.

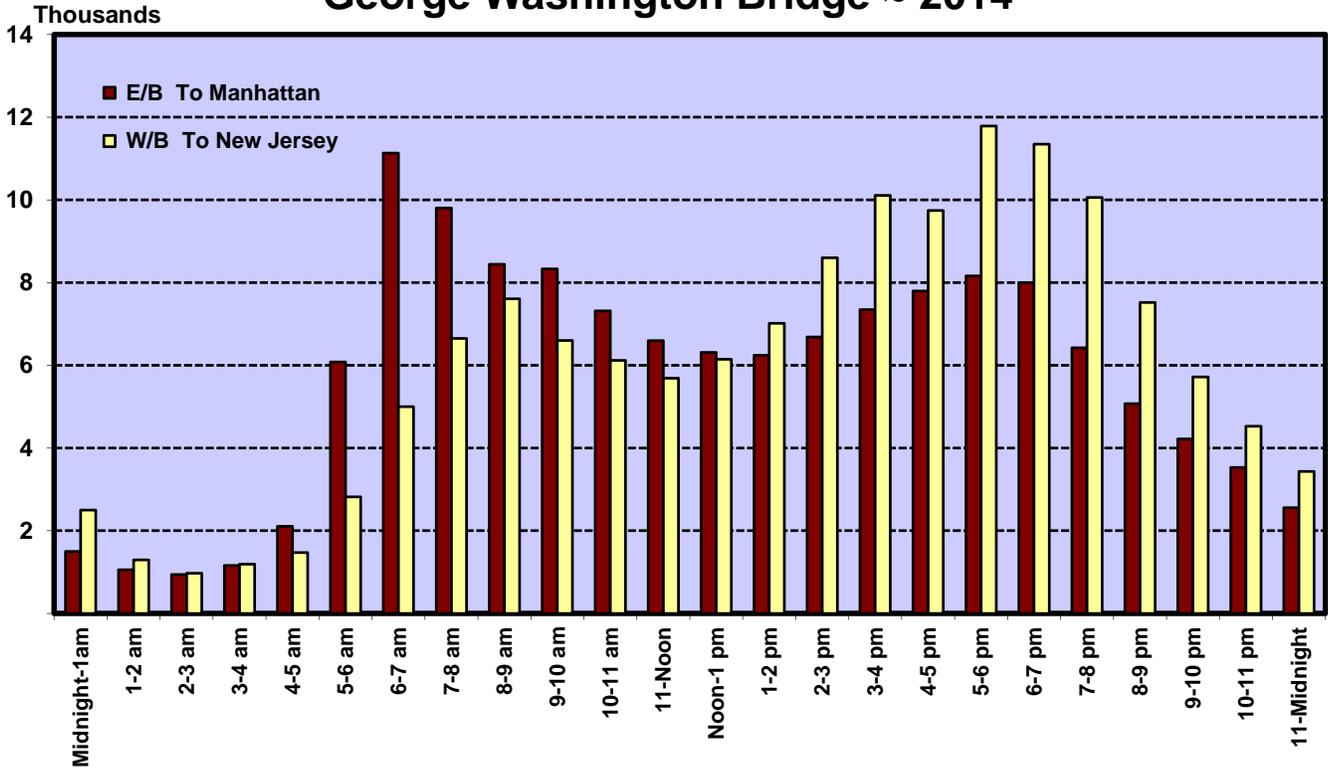
## Hourly Vehicular Volumes George Washington Bridge - 2014

	<b>Eastbound to Manhattan</b>					<b>Westbound to New Jersey</b>					<b>2-Way Grand Totals</b>
	Autos	Buses	Small Trucks	Large Trucks	Total Vehicles	Autos	Buses	Small Trucks	Large Trucks	Total Vehicles	
12-1am	1,254	11	42	194	1,501	2,098	11	81	310	2,500	4,001
1-2am	753	3	56	247	1,059	996	5	68	225	1,294	2,353
2-3am	594	3	63	283	943	638	0	73	261	972	1,915
3-4am	694	3	93	370	1,160	708	0	99	385	1,192	2,352
4-5am	1,409	9	174	516	2,108	960	0	134	378	1,472	3,580
5-6am	5,067	28	331	654	6,080	2,061	11	261	487	2,820	8,900
6-7am	10,018	82	485	548	11,133	4,132	49	278	543	5,002	16,135
7-8am	9,071	89	317	328	9,805	6,014	58	229	349	6,650	16,455
8-9am	7,626	80	386	352	8,444	6,753	85	331	442	7,611	16,055
9-10am	7,457	74	381	419	8,331	5,662	66	325	547	6,600	14,931
10-11am	6,541	59	311	406	7,317	5,017	61	361	682	6,121	13,438
11-12am	5,873	55	290	380	6,598	4,621	37	356	676	5,690	12,288
12-1pm	5,654	57	270	331	6,312	5,020	45	373	711	6,149	12,461
1-2pm	5,631	61	253	298	6,243	5,829	42	401	743	7,015	13,258
2-3pm	6,063	81	258	282	6,684	7,557	52	395	598	8,602	15,286
3-4pm	6,791	95	231	232	7,349	9,149	63	379	520	10,111	17,460
4-5pm	7,305	91	195	207	7,798	9,176	75	260	234	9,745	17,543
5-6pm	7,733	94	149	187	8,163	11,033	71	279	404	11,787	19,950
6-7pm	7,610	80	116	196	8,002	10,674	81	228	366	11,349	19,351
7-8pm	6,050	67	87	220	6,424	9,449	56	148	405	10,058	16,482
8-9pm	4,720	53	78	224	5,075	7,105	38	97	280	7,520	12,595
9-10pm	3,930	35	59	197	4,221	5,273	24	102	322	5,721	9,942
10-11pm	3,287	25	44	176	3,532	4,110	21	56	341	4,528	8,060
11-12pm	2,328	21	33	176	2,558	3,069	16	61	289	3,435	5,993
<b>Totals</b>	<b>123,459</b>	<b>1,256</b>	<b>4,702</b>	<b>7,423</b>	<b>136,840</b>	<b>127,104</b>	<b>967</b>	<b>5,375</b>	<b>10,498</b>	<b>143,944</b>	<b>280,784</b>
7-10am	24,154	243	1,084	1,099	26,580	18,429	209	885	1,338	20,861	47,441
10am-1pm	18,068	171	871	1,117	20,227	14,658	143	1,090	2,069	17,960	38,187
1-4pm	18,485	237	742	812	20,276	22,535	157	1,175	1,861	25,728	46,004
4-7pm	22,648	265	460	590	23,963	30,883	227	767	1,004	32,881	56,844
7am-7pm	83,355	916	3,157	3,618	91,046	86,505	736	3,917	6,272	97,430	188,476
6-10am	34,172	325	1,569	1,647	37,713	22,561	258	1,163	1,881	25,863	63,576
3-7pm	29,439	360	691	822	31,312	40,032	290	1,146	1,524	42,992	74,304
6am-7pm	93,373	998	3,642	4,166	102,179	90,637	785	4,195	6,815	102,432	204,611

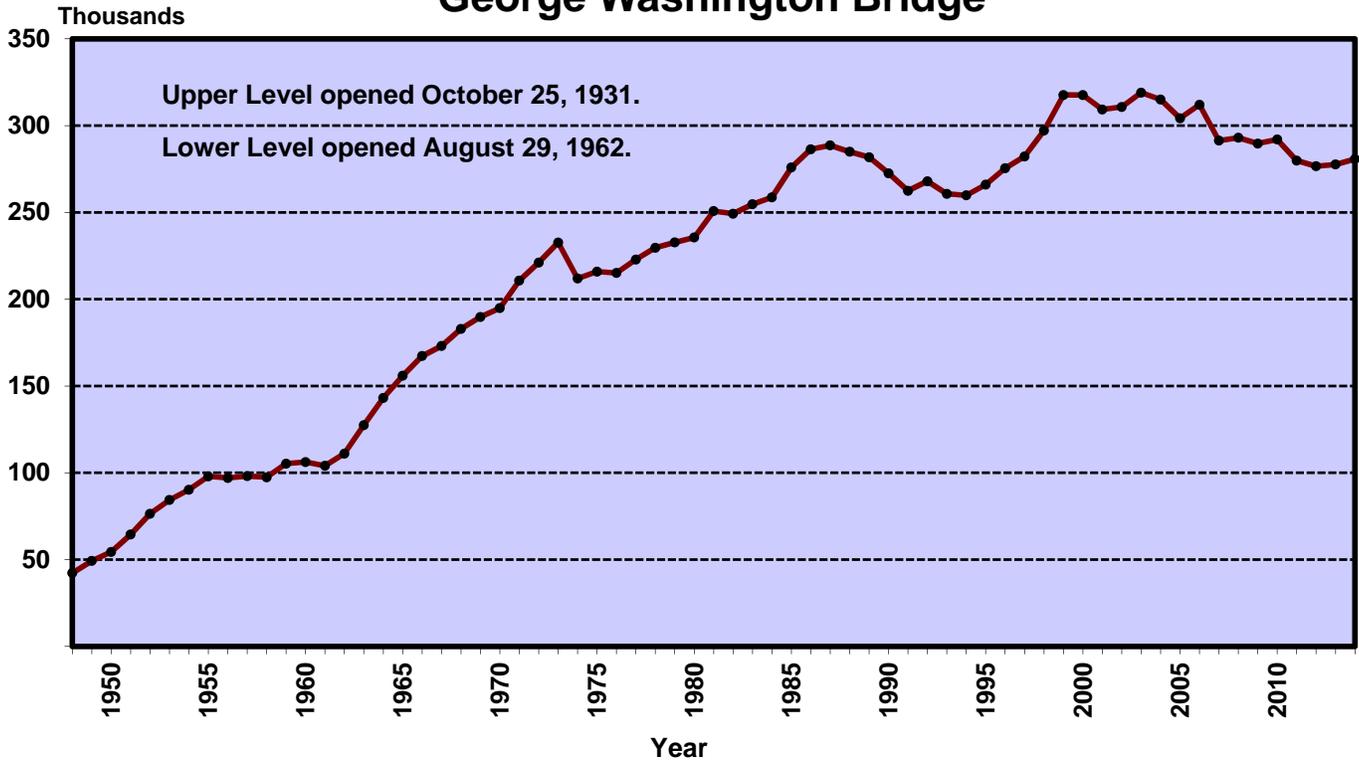
Classification based on October 2014 Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes George Washington Bridge ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions George Washington Bridge



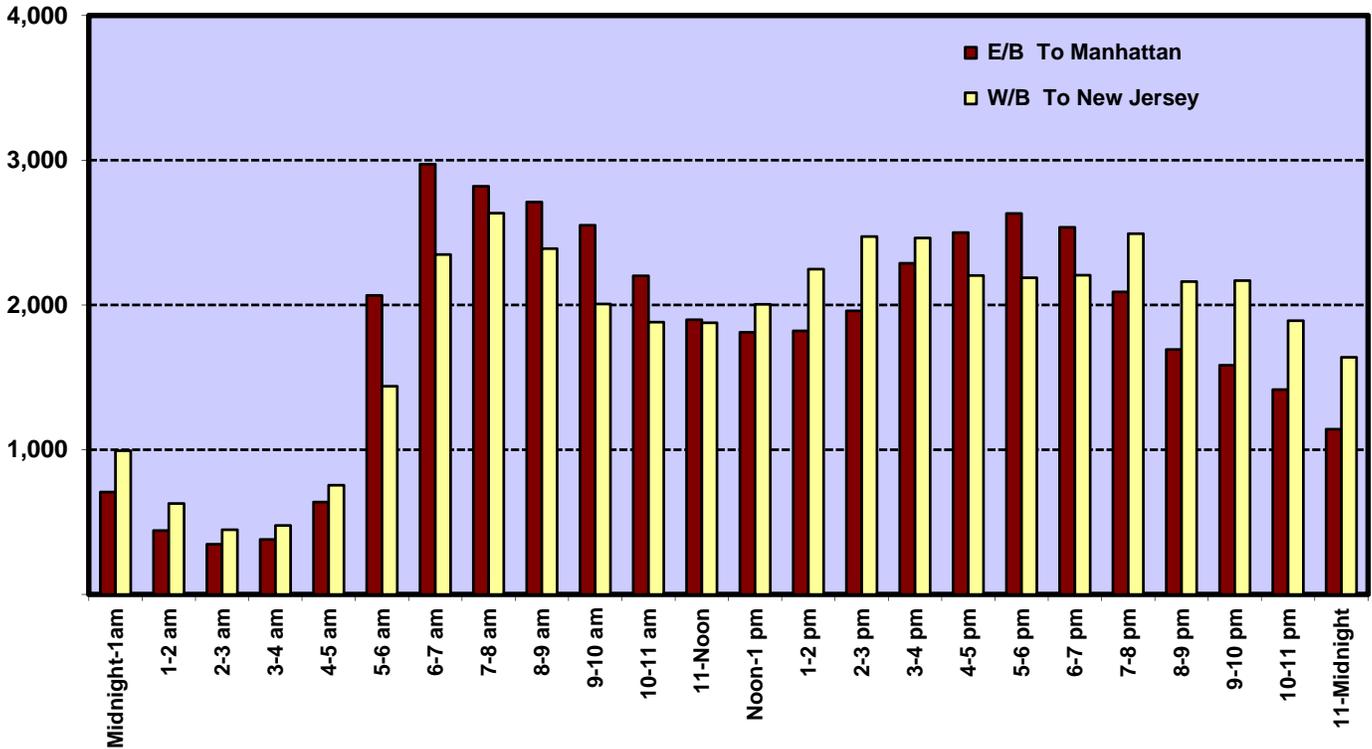
## Hourly Vehicular Volumes Holland Tunnel - 2014

	<i>Eastbound to Manhattan</i>					<i>Westbound to New Jersey</i>					<b>2-Way Grand Totals</b>
	Autos	Buses	Small Trucks	Large Trucks	Total Vehicles	Autos	Buses	Small Trucks	Large Trucks	Total Vehicles	
12-1am	665	5	38	0	708	980	0	13	0	993	1,701
1-2am	408	4	30	0	442	599	2	27	1	629	1,071
2-3am	301	4	41	1	347	418	1	28	0	447	794
3-4am	313	4	62	1	380	432	4	44	0	477	857
4-5am	565	7	65	1	638	687	4	63	1	755	1,393
5-6am	1,909	21	132	4	2,066	1,382	5	52	0	1,439	3,505
6-7am	2,796	50	124	3	2,973	2,248	16	85	0	2,349	5,322
7-8am	2,611	66	142	1	2,820	2,515	41	79	0	2,635	5,455
8-9am	2,509	63	138	2	2,712	2,227	59	103	0	2,389	5,101
9-10am	2,381	49	119	2	2,551	1,839	36	132	0	2,007	4,558
10-11am	2,073	26	102	1	2,202	1,703	21	158	0	1,882	4,084
11-12am	1,807	18	72	1	1,898	1,683	12	182	0	1,877	3,775
12-1pm	1,728	15	67	1	1,811	1,816	13	176	0	2,005	3,816
1-2pm	1,734	19	67	1	1,821	2,068	10	170	0	2,248	4,069
2-3pm	1,876	23	60	1	1,960	2,299	23	151	0	2,473	4,433
3-4pm	2,175	51	62	0	2,288	2,317	20	126	0	2,463	4,751
4-5pm	2,363	85	51	1	2,500	2,049	38	115	2	2,204	4,704
5-6pm	2,524	71	36	1	2,632	2,031	61	96	0	2,188	4,820
6-7pm	2,461	48	27	1	2,537	2,097	40	69	0	2,206	4,743
7-8pm	2,043	19	28	1	2,091	2,386	19	88	0	2,493	4,584
8-9pm	1,636	14	43	0	1,693	2,100	24	38	0	2,162	3,855
9-10pm	1,543	11	30	0	1,584	2,121	14	34	0	2,169	3,753
10-11pm	1,386	11	19	0	1,416	1,849	13	29	0	1,891	3,307
11-12pm	1,115	6	21	0	1,142	1,579	6	54	0	1,639	2,781
<b>Totals</b>	<b>40,922</b>	<b>690</b>	<b>1,576</b>	<b>24</b>	<b>43,212</b>	<b>41,425</b>	<b>479</b>	<b>2,112</b>	<b>4</b>	<b>44,020</b>	<b>87,232</b>
7-10am	7,501	178	399	5	8,083	6,581	136	314	0	7,031	15,114
10am-1pm	5,608	59	241	3	5,911	5,202	46	516	0	5,764	11,675
1-4pm	5,785	93	189	2	6,069	6,684	53	447	0	7,184	13,253
4-7pm	7,348	204	114	3	7,669	6,177	139	280	2	6,598	14,267
7am-7pm	26,242	534	943	13	27,732	24,644	374	1,557	2	26,577	54,309
6-10am	10,297	228	523	8	11,056	8,829	152	399	0	9,380	20,436
3-7pm	9,523	255	176	3	9,957	8,494	159	406	2	9,061	19,018
6am-7pm	29,038	584	1,067	16	30,705	26,892	390	1,642	2	28,926	59,631

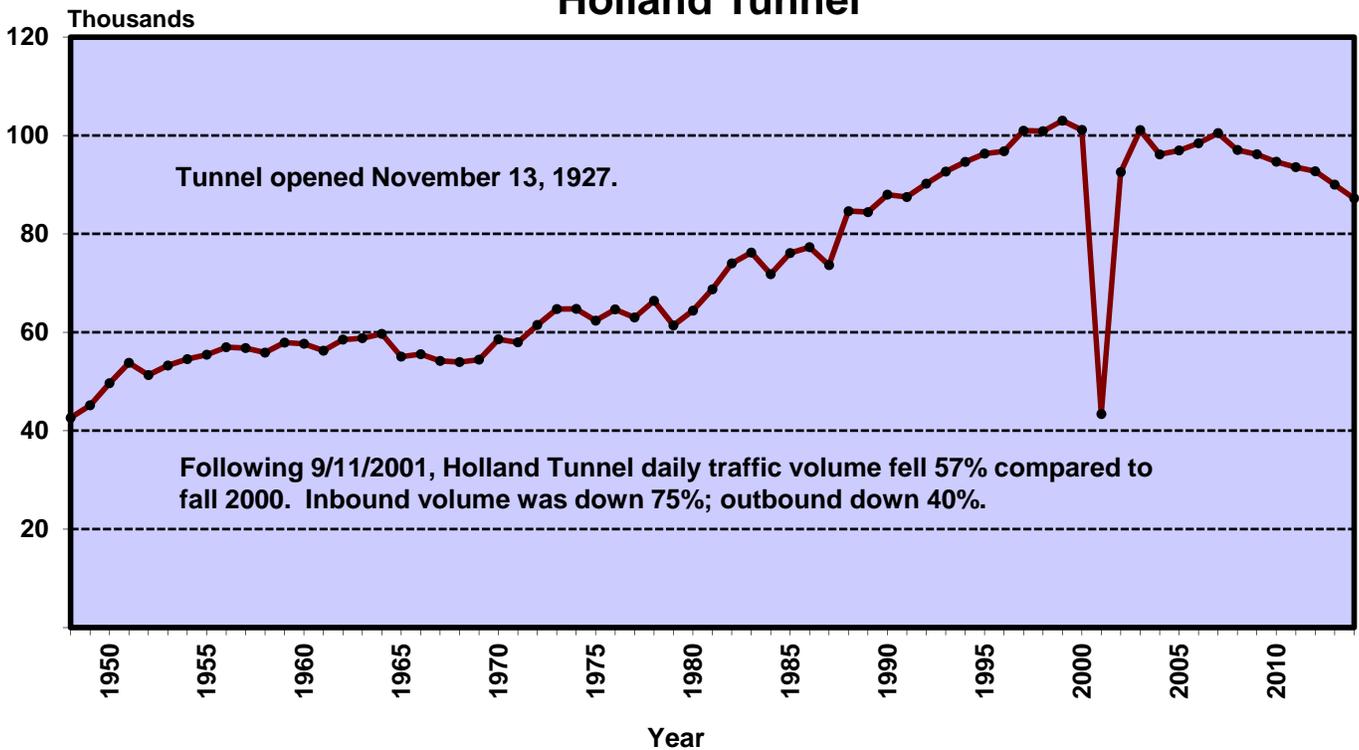
Classification based on October 2014 Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Holland Tunnel ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Holland Tunnel



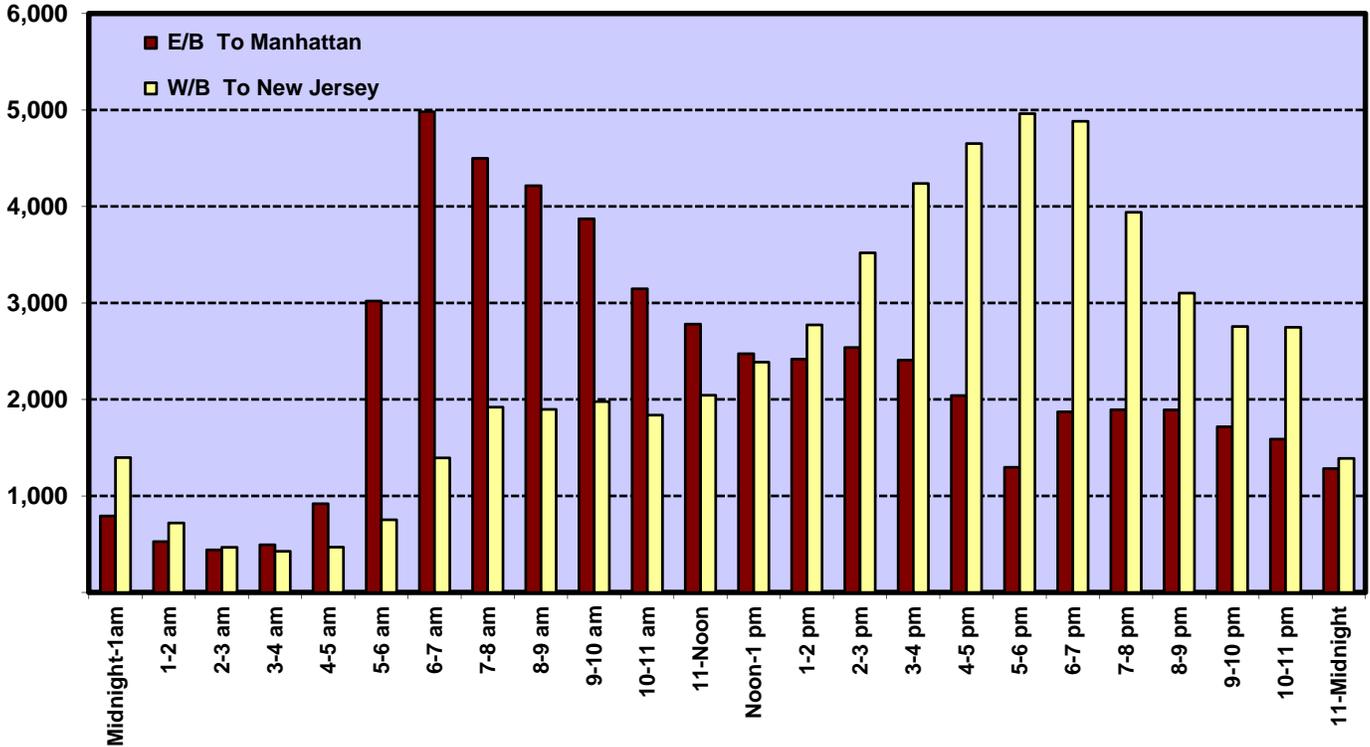
## Hourly Vehicular Volumes Lincoln Tunnel - 2014

	<b>Eastbound to Manhattan</b>					<b>Westbound to New Jersey</b>					<b>2-Way Grand Totals</b>
	Autos	Buses	Small Trucks	Large Trucks	Total Vehicles	Autos	Buses	Small Trucks	Large Trucks	Total Vehicles	
12-1am	671	57	42	23	793	1,211	87	61	39	1,398	2,191
1-2am	419	29	48	32	528	586	50	42	42	720	1,248
2-3am	341	11	59	31	442	357	15	50	46	468	910
3-4am	343	13	93	46	495	312	14	42	59	427	922
4-5am	652	31	155	82	920	323	7	60	79	469	1,389
5-6am	2,407	183	331	100	3,021	528	64	80	82	754	3,775
6-7am	3,988	510	429	56	4,983	959	268	90	77	1,394	6,377
7-8am	3,333	827	302	37	4,499	1,162	566	140	53	1,921	6,420
8-9am	2,932	990	276	18	4,216	984	697	191	26	1,898	6,114
9-10am	2,975	623	257	17	3,872	1,062	697	183	37	1,979	5,851
10-11am	2,664	266	201	17	3,148	1,219	336	227	46	1,838	4,986
11-12am	2,395	228	144	15	2,782	1,537	222	225	61	2,045	4,827
12-1pm	2,142	191	128	13	2,474	1,876	165	280	67	2,388	4,862
1-2pm	2,075	223	111	9	2,418	2,206	182	331	54	2,773	5,191
2-3pm	2,133	298	99	9	2,539	2,970	206	306	38	3,520	6,059
3-4pm	1,923	405	74	6	2,408	3,673	259	261	45	4,238	6,646
4-5pm	1,469	505	61	6	2,041	3,943	419	266	25	4,653	6,694
5-6pm	905	353	35	5	1,298	4,063	685	203	12	4,963	6,261
6-7pm	1,375	442	44	12	1,873	3,986	724	160	14	4,884	6,757
7-8pm	1,530	301	47	17	1,895	3,337	490	108	6	3,941	5,836
8-9pm	1,573	232	62	25	1,892	2,689	293	103	17	3,102	4,994
9-10pm	1,453	178	50	36	1,717	2,454	214	60	28	2,756	4,473
10-11pm	1,358	144	59	29	1,590	2,469	191	63	26	2,749	4,339
11-12pm	1,100	103	53	28	1,284	1,200	117	32	41	1,390	2,674
<b>Totals</b>	<b>42,156</b>	<b>7,143</b>	<b>3,160</b>	<b>669</b>	<b>53,128</b>	<b>45,106</b>	<b>6,968</b>	<b>3,574</b>	<b>1,020</b>	<b>56,668</b>	<b>109,796</b>
7-10am	9,240	2,440	835	72	12,587	3,208	1,960	514	116	5,798	18,385
10am-1pm	7,201	685	473	45	8,404	4,632	723	742	174	6,271	14,675
1-4pm	6,131	926	284	24	7,365	8,849	647	898	137	10,531	17,896
4-7pm	3,749	1,300	140	23	5,212	11,992	1,828	629	51	14,500	19,712
7am-7pm	26,321	5,351	1,732	164	33,568	28,681	5,158	2,783	478	37,100	70,668
6-10am	13,228	2,950	1,264	128	17,570	4,167	2,228	604	193	7,192	24,762
3-7pm	5,672	1,705	214	29	7,620	15,665	2,087	890	96	18,738	26,358
6am-7pm	30,309	5,861	2,161	220	38,551	29,640	5,426	2,873	555	38,494	77,045

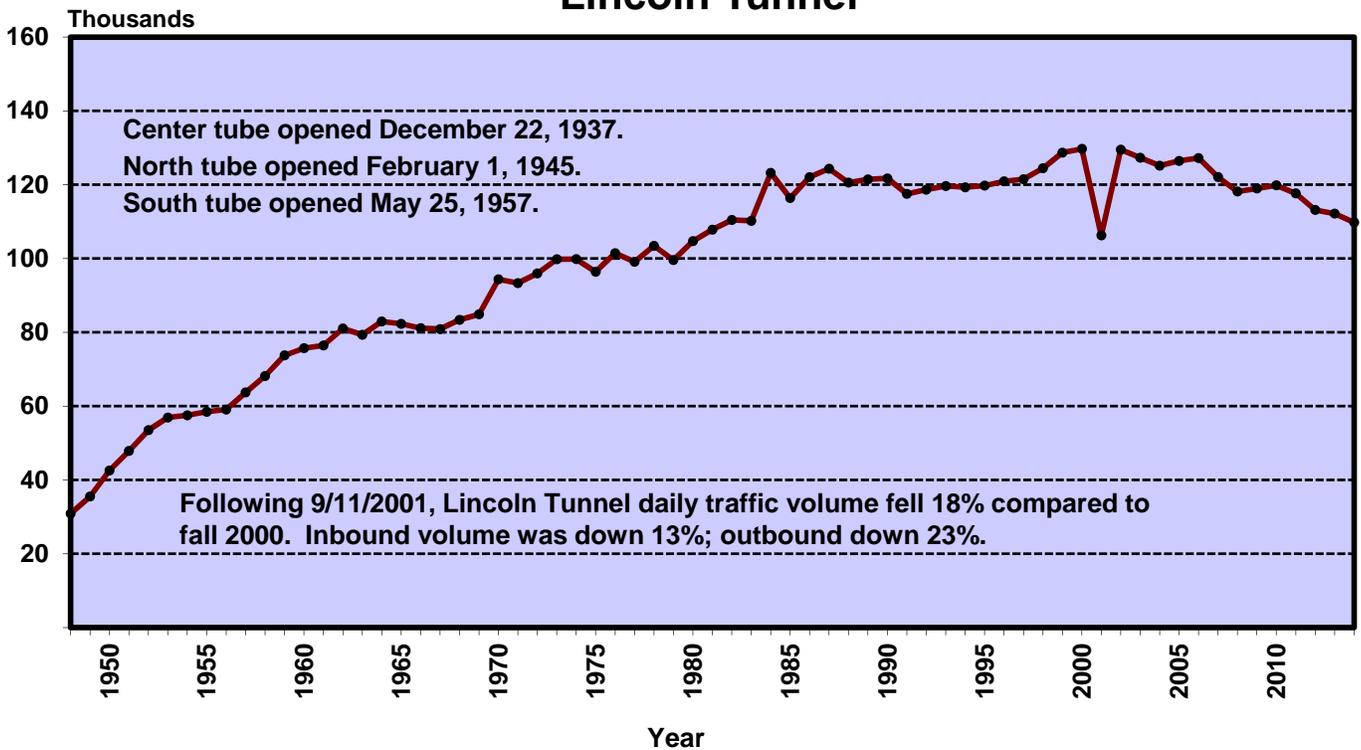
Classification based on October 2014 Data.

\*\* Peak Volumes

## Hourly Vehicular Volumes Lincoln Tunnel ~ 2014



## Average Daily Traffic Volumes ~ Total of Both Directions Lincoln Tunnel





# **APPENDIX**

## **2014 Bridge and Tunnel Reconstruction**



# APPENDIX

## Major Bridge Reconstruction In 2014

### ***Brooklyn Bridge (East River between Brooklyn & Manhattan)***

As of Monday night, April 4, 2011, the Brooklyn Bridge was closed to Manhattan-bound traffic during overnight hours for long-term reconstruction.

The closure times in 2014 were as follows.

01/06 – 01/10:	Fri night/Sat morning Sat night/Sun morning Sun night/Mon morning Mon – Thu nights	Midnight - 7:00am, Midnight – 9:00am, Midnight – 6:00am, 11:00pm – 6:00am.
01/11 – 04/04:	Fri night/Sat morning Mon – Thu nights	Midnight - 7:00am, 11:00pm – 6:00am.
04/05 – 04/07:	12:01am Sat. - 6:00am Mon.	
04/07 – 04/11:	Fri night/Sat morning Mon – Thu nights	Midnight - 7:00am, 11:00pm – 6:00am.
04/12 – 05/30:	Fri night/Sat morning Sat night/Sun morning Mon – Thu nights	Midnight - 7:00am, Midnight – 9:00am, 11:00pm – 6:00am. <i>No closures Fri night 05/23 to Tue morning 05/27.</i>
05/31 – 06/02:	12:01am Sat - 6:00am Mon.	
06/02 – 06/12:	Fri night/Sat morning Sat night/Sun morning Mon – Thu nights	Midnight - 7:00am, Midnight – 9:00am, 11:00pm – 6:00am.
06/13 – 06/16:	12:01am Fri - 6:00am Mon.	
06/17 – 07/11:	Fri night/Sat morning Sat night/Sun morning Mon – Thu nights	Midnight - 7:00am, Midnight – 9:00am, 11:00pm – 6:00am. <i>No closures Noon Thu 07/03 to Mon morning 07/07.</i>
07/12 – 07/25:	12:01am Sat. - 6:00am Mon, 11:00pm – 6:00am	Mon – Thu nights.
07/26 – 08/01:	12:01am – 7:00am 11:00pm – 6:00am	Sat, Mon – Thu nights.
08/02 – 08/08:	12:01am – 7:00 am 12:01am – 9:00 am 11:00pm – 6:00am	Sat, Sun, Mon – Thu nights 11:00pm – 6:00am,

08/09 – 08/29: 11:00pm – 6:00am Mon – Thu nights,  
 12:01am – 7:00am Sat,  
 12:01am – 11:00am Sun.

08/30 – 09/26: 11:00pm – 6:00am Mon – Thu nights,  
 12:01am – 7:00am Sat,  
 12:01am – 9:00am Sun.  
*No closures Labor Day weekend Fri night 08/29 to Tue morning 09/02.*

09/27 – 10/10/: 11:00pm – 6:00am Mon – Thu nights,  
 12:01am – 7:00am Sat,

10/11 – 10/17: 12:01am Sat - 6:00am Mon,  
 11:00pm – 6:00am Mon – Thu nights.

10/18 – 10/24: 12:01am Sat – 11:00am Sun,  
 Mon – Thu nights 11:00pm – 6:00am.

10/25 – 10/31: 12:01am Sat – 6:00am Mon,  
 Mon – Thu nights 11:00pm – 6:00am.

11/01 – 11/07: 12:01am – 7:00am Sat,  
 11:00pm – 6:00am Mon – Thu nights.

11/08 – 11/14: 12:01 am Sat – 6:00am Mon,  
 Mon – Thu nights 11:00pm – 6:00am.

11/15 – 12/31: 12:01am – 7:00am Sat,  
 12:01am – 9:00am Sun,  
 11:00pm – 6:00am Mon – Thu nights.  
*No closures November 23-30 and December 22-28.*

Bicycle and pedestrian access was maintained during these times.

The northbound FDR Drive exit to the bridge was closed during these times.

The Brooklyn – Queens Expressway eastbound exit to the Manhattan-bound bridge was closed during these times.

The Manhattan Bridge Lower Roadway was operated Manhattan-bound weekdays from 9:30pm to 3:00pm.

Throughout 2014, there were additional closures of single lanes in each direction on the Brooklyn Bridge during off-peak hours.

### ***Ed Koch Queensboro Bridge (East River between Queens & Manhattan)***

This bridge was officially renamed on April 11, 2011, when the mayor signed the legislation which had been passed by the City Council on March 23, 2011.

Throughout 2014, a High Occupancy Vehicle (HOV) facility was in effect on the Ed Koch Queensboro Bridge. The normally Queens-bound South Upper Roadway was reversed between 6:00am and 9:30am on weekdays to accommodate Manhattan-bound HOVs (no trucks) carrying two or more occupants.

## **Ed Koch Queensboro Bridge Operation: All 2014.**

- North Inner Roadway: W/B all times; W/B trucks required to use this roadway.  
South Inner Roadway: E/B all times; E/B trucks required to use this roadway.  
North Upper Roadway: W/B all times.  
South Upper Roadway: Closed for reversal 5:30–6:00am weekdays,  
W/B HOVs 6:00–9:30am weekdays,  
Closed for reversal 9:30–10:00am weekdays,  
E/B all other times.  
North Outer Roadway: Reserved for bicyclists and pedestrians at all times.  
South Outer Roadway: E/B all times for passenger cars only.  
Closed nightly from 9:00pm to 6:00am.

Throughout 2014, there were additional intermittent closings of single lanes on individual roadways of the Ed Koch Queensboro Bridge during off-peak hours.

## ***Manhattan Bridge (East River between Brooklyn & Manhattan)***

The Manhattan Bridge was open to pedestrians and bicyclists during all hours throughout 2014.

**Note:** *During 2014, the nearby Brooklyn Bridge was closed to Manhattan-bound traffic during overnight hours.*

## **Manhattan Bridge Operation: January 1, 2014 To January 31, 2014**

- **6:00am – 10:00am weekdays.**

*One of three lanes closed on the Lower Roadway.*

- Manhattan-bound: 4 lanes.
  - 2 lanes on the North Upper Roadway (no trucks, left lane reserved for buses and HOV 2+).
  - 2 lanes on the Lower Roadway.
- Brooklyn-bound: 2 lanes on the South Upper Roadway.

- **10:00am – 3:00pm weekdays.**

*Two of three lanes closed on the Lower Roadway.*

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

- **3:00pm – 9:30pm weekdays.**

*One of three lanes closed on the Lower Roadway.*

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

- **9:30pm – 6:00am weekdays & weekend 9:00pm Friday - 10:00am Monday**  
*One of three lanes closed on the Lower Roadway.*
  - Manhattan-bound: 4 lanes.
    - 2 lanes on the North Upper Roadway.
    - 2 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.

### **Manhattan Bridge Operation: February 1, 2014 To March 7, 2014**

- **6:00am – 2:30pm weekdays.**
  - Manhattan-bound: 5 lanes.
    - 2 lanes on the North Upper Roadway (no trucks 5–10 am, left lane reserved for buses and HOV 2+).
    - 3 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.
- **3:00pm – 9:30pm weekdays.**
  - Manhattan-bound: 2 lanes on the North Upper Roadway.
  - Brooklyn-bound: 5 lanes.
    - 2 lanes on the South Upper Roadway.
    - 3 lanes on the Lower Roadway.
- **9:30pm – 2:00pm weekdays.**
  - Manhattan-bound: 5 lanes.
    - 2 lanes on the North Upper Roadway.
    - 3 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.
- **9:00pm Friday To 2:30pm Monday.**
  - Manhattan-bound: 5 lanes.
    - 2 lanes on the North Upper Roadway.
    - 3 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.

### **Manhattan Bridge Operation: March 8, 2014 To December 31, 2014**

- **6:00am – 3:30pm weekdays.**
  - Manhattan-bound: 5 lanes.
    - 2 lanes on the North Upper Roadway (no trucks 5–10 am, left lane reserved for buses and HOV 2+).
    - 3 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.
- **4:00pm – 9:30pm weekdays.**
  - Manhattan-bound: 2 lanes on the North Upper Roadway.
  - Brooklyn-bound: 5 lanes.
    - 2 lanes on the South Upper Roadway.
    - 3 lanes on the Lower Roadway.

- **9:30pm – 2:00pm weekdays.**
  - Manhattan-bound: 5 lanes.
    - 2 lanes on the North Upper Roadway.
    - 3 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.

- **9:00pm Friday To 3:30pm Monday.**
  - Manhattan-bound: 5 lanes.
    - 2 lanes on the North Upper Roadway.
    - 3 lanes on the Lower Roadway.
  - Brooklyn-bound: 2 lanes on the South Upper Roadway.

**Note: 1 of 3 Lower Roadway lanes closed as follows:**

09/13- 09/21:	10:00am – 2:00pm	Weekdays,
	12:01 am – 5:00am	Weeknights,
	7:00am – 10:00pm	Sat-Sun.
09/22- 11/28:	10:00am – 2:00pm	Weekdays,
	12:01 am – 5:00am	Weeknights,

Throughout 2014, there were additional closures of single lanes in each direction on the Manhattan Bridge during off-peak hours.

***Williamsburg Bridge (East River between Brooklyn & Manhattan)***

Throughout 2014 trucks were permitted only on the outer roadways.

Pedestrian and bicycle access was maintained on the bridge at all times throughout 2014.

Throughout 2014, there were closures of single lanes in each direction on the Williamsburg Bridge during off-peak hours.

***Alexander Hamilton Bridge (Harlem River between Bronx & Manhattan)***

Eastbound lane closures were in effect as follows:

All 2014:	11:00pm - 5:30am	Weeknights.	1 E/B lane closed as needed.
	12:01am-5:30am	Sat.	1 or 2 E/B lanes closed as needed.
	12:01am-6:00am	Sun.	1 or 2 E/B lanes closed as needed.

Westbound lane closures were in effect as follows:

All 2014:	11:00pm - 5:30am	Weeknights.	1 W/B lane closed as needed.
	12:01am-5:30am	Sat.	1 W/B lane closed as needed.
	1:00am-5:00am	Sat.	1 or 2 W/B lanes closed as needed.
	2:00am-5:30am	Sun.	1 or 2 W/B lanes closed as needed.

### ***Broadway Bridge (Harlem River between Bronx & Manhattan)***

Northbound lane closures were in effect as follows:

07/21-07/25: 8:00am - 3:00pm Mon-Thu. 1 N/B lane closed.

Southbound lane closures were in effect as follows:

07/25: 8:00am - 3:00pm Fri. 1 S/B lane closed.

Throughout 2014, there were additional closures of single lanes in each direction on the Broadway Bridge during off-peak hours.

### ***3<sup>rd</sup> Avenue Bridge (Harlem River between Manhattan and Bronx)***

The exit ramp to southbound FDR Drive was closed as follows:

01/21-01/23: 12:01am - 5:00am Ramp closed 1 night only.

02/17-01/20: 12:01am - 5:00am Ramp closed 1 night only.

### ***Willis Avenue Bridge (Harlem River from Manhattan to Bronx)***

The entire bridge was closed as follows:

01/07: 1:00am - 5:30am Tue.

01/21-01/25: 1:00am - 5:30am Tue-Fri,  
2:00am - 6:00am Sat.

07/22-07/26: 1:00am - 5:30am Tue-Fri,  
2:00am - 6:00am Sat.

### ***Henry Hudson Bridge***

On Sunday, August 3, from 4:00 am to noon, all northbound lanes of the bridge were closed for the biking portion of the annual New York City Triathlon.

Throughout 2014, there were additional intermittent lane closures in both directions on the Henry Hudson Bridge during off-peak hours.

### ***Hugh L. Carey Tunnel (formerly Brooklyn-Battery Tunnel)***

Throughout 2014, the inbound exit to Trinity Place was closed weekdays between 6:00-10:00am, and between 3:00-7:00pm.

Throughout 2014, between 6:00am and 10:00am on weekdays, there were three lanes inbound and one lane outbound.

Due to a major electrical equipment modernization project, there were a series of overnight and weekend tube closures as follows.

02/21-02/24: 9:00pm Friday - 5:00am Monday One tube closed.

04/25-04/28: 9:00pm Friday - 5:00am Monday One tube closed.

05/16-05/19:	9:00pm Friday - 5:00am Monday	One tube closed.
06/09-06/09:	9:00pm Friday - 5:00am Monday	One tube closed.
06/27-06/30:	9:00pm Friday - 5:00am Monday	One tube closed.
08/08-08/10:	9:00pm Friday - 3:00pm Sunday	One tube closed.

*2-way traffic was maintained in the open tube during all of the above-described tube closures.*

The following closures were in effect for the Annual Stephen Siller Tunnels to Towers Run.

09/27-09/28:	10:00pm Saturday - 8:00am Sunday	One tube closed.
	<i>2-way traffic was maintained in the open tube during this time.</i>	
09/28:	8:00am – 3:00pm	Sunday Both tubes closed.

Throughout 2014, there were additional intermittent closures of single lanes in the Hugh L. Carey Tunnel during off-peak hours.

### **Robert F. Kennedy Bridge (formerly Triborough Bridge)**

At the Harlem River Lift Span, closures were in effect as follows.

01/10:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
03/14:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
03/21:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
04/28:	Approximately 7:00pm	Mon.
	<i>All lanes closed in both directions for 15-20 minutes to allow for marine traffic.</i>	
06/06:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
06/27:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
08/08:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
09/05:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
10/10:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
10/31:	12:01am – 5:00am	Fri.
	<i>All lanes closed in both directions for 15-20 minutes at a time.</i>	
11/25:	Approximately 4:30pm	Tue.
	<i>All lanes closed in both directions for 15-20 minutes to allow for marine traffic.</i>	

The ramp leading from Manhattan to Queens was closed as follows:

02/24-03/07: 9:00pm – 5:00am Nightly.  
*Closures lasting approximately 5-10 minutes at a time.*

03/20-04/04: 9:00pm – 5:00am Nightly.  
*Closures lasting approximately 5-10 minutes at a time.*

The ramp leading onto Randall's Island from the Manhattan Plaza was closed as follows:

06/16-07/11: Round-the-clock All days.  
*This ramp became an exit-only ramp during this time. Cars and buses heading to the island from Manhattan were detoured onto the Randall's Island/Ward's Island ramp, about a quarter mile past the Manhattan toll plaza heading to Queens. This ramp put motorists on the Ward's side of the island.*

Throughout 2014, there were also intermittent closures of single lanes on the Robert F. Kennedy Bridge during off-peak hours.

### ***George Washington Bridge (Hudson River between Manhattan & New Jersey)***

On Sunday, June 8, 2014, the lower level was closed from midnight to 10 am for the 27<sup>th</sup> annual American Cancer Society fundraiser, known as the "GWB Challenge."

From June 16 to September 15, three Upper Level lanes were closed overnight from 9 pm to 5 am Monday through Thursday and from 10pm to 10am Friday and Saturday for deck rehabilitation work. Work alternated between the eastbound and westbound directions.

On the morning of July 22, two of four upper level eastbound lanes were closed for emergency repairs until approximately 3 pm.

Throughout 2014, there were additional intermittent closures of single lanes during off-peak hours to facilitate PANYNJ maintenance work.

### ***Holland Tunnel (Hudson River between Manhattan & New Jersey)***

On Sunday, October 26, 2014, from Midnight to 6:00am, the tunnel was closed westbound for an emergency response drill.

Throughout 2014, there were intermittent closures of single lanes during off-peak hours to facilitate PANYNJ maintenance work.

### ***Lincoln Tunnel (Hudson River between Manhattan & New Jersey)***

Beginning April 22, the westbound helix was closed overnight for rehabilitation. Westbound traffic was diverted to the eastbound helix lanes and eastbound traffic exited at Pleasant Avenue and used local streets to access the tunnel via JFK Boulevard East. The closure schedule was as follows:

04/22-12/31: Sunday through Thursday 11 pm to 5 am the next morning,  
Saturday 12:01 am to 8:00 am,  
Sunday 1:00 am to 9:00 am.

On Sunday, April 27<sup>th</sup>, the south tube was closed for the 28<sup>th</sup> Annual Lincoln Tunnel Challenge to benefit Special Olympics New Jersey.

Throughout 2014, there were intermittent lane closures during off-peak hours to facilitate PANYNJ maintenance work.

