

HUNTS POINT TRUCK STUDY

As part of the EIS process, a study of truck movements on Hunts Point was conducted in order to augment peak period inputs to the Best Practices Model (BPM) sub-area regional transportation model as well as provide a broader picture of truck traffic patterns and potential impacts at other times. Most of the trucks destined for the Hunts Point Produce and Meat Markets and other distribution facilities on the Hunts Point peninsula arrive and leave at times other than peak periods. Capturing information about these non-peak truck movements is an important component in the evaluation of alternatives for the Sheridan / Hunts Point EIS.

Truck movement data are not readily available from a single source, so it was necessary for this study to obtain data from several sources, using a number of different methods. Toward this end, manual traffic counts, truck driver surveys and facility operators surveys were conducted on Hunts Point. Driver and employee surveys were also conducted at the Fulton Fish Market in order to determine the level of increase in traffic on Hunts Point once the Fish Market relocates there at the end of 2004.

I. TRAFFIC VOLUMES ON HUNTS POINT

Manual traffic counts were taken at locations throughout Hunts Point over a 24-hour period. Traffic counts for each of the selected locations are presented in the Appendix in the form of line graphs. Three graphs are used for each location, one for each direction of traffic and one for total traffic. For the purposes of this report, data were grouped into hourly totals and broken out by vehicle class. Vehicle classes include: passenger car, 2-axle/4-tire vehicle, 2-axle/6-tire truck, 3-or-more-axle truck, and bus. A screenline was developed, placing counters at all access roads to Hunts Point, in order to account for all vehicles entering and leaving the Hunts Point peninsula. Counters were placed on each access road between Garrison Avenue and Bruckner Boulevard.

Screenline Count Locations

- Leggett Avenue between Garrison Avenue and Bruckner Boulevard
- Longwood Avenue between Garrison Avenue and Bruckner Boulevard
- Lafayette Avenue between Garrison Avenue and Bruckner Boulevard
- Tiffany Street between Garrison Avenue and Bruckner Boulevard
- Barretto Street between Garrison Avenue and Bruckner Boulevard
- Hunts Point Avenue between Garrison Avenue and Bruckner Boulevard
- Faile Street between Garrison Avenue and
- Bryant Avenue between Garrison Avenue and Bruckner Boulevard
- Whittier Street between Garrison Avenue and Bruckner Boulevard
- Edgewater Road between Garrison Avenue and Bruckner Boulevard

Counts were also taken at other key locations on Hunts Point, and include the following:

Other Count Locations

- Hunts Point Avenue between Whittier Street and Oak Point Avenue
- Halleck Street between Randall and Oak Point Avenues
- Viele Avenue between Tiffany and Casanova Streets
- East Bay Avenue between Tiffany and Casanova Streets
- Oak Point Avenue between Tiffany and Casanova Streets
- Randall Avenue between Tiffany and Casanova Streets
- Hunts Point Avenue between Lafayette and Spofford Avenues

Significant entry points for trucks accessing Hunts Point include Leggett Avenue, most trucks here being 2-axle/6-tire trucks; Longwood Avenue, including heavy trucks, (it should be noted that Longwood is not currently a designated truck route); and Tiffany Street, especially trucks with greater than three axles. Hunts Point Avenue, while it does not have high truck traffic volumes as compared to nearby truck routes, has 2- and 3-axle truck volumes of over 100 per hour during mid-day periods at a point between Lafayette and Spofford Avenues, a street segment not designated as a truck route. Truck traffic on local Hunts Point streets will be discussed further in Chapter II of this report.

Additional counts were taken at the following locations, results of which will be included in a subsequent traffic engineering report.

- Whitlock Avenue between Aldus and Longfellow Avenue
- Westbound Bruckner Boulevard before Whitlock Avenue
- Edgewater Road at the entrance to the Produce Market
- Halleck Street and Food Center Drive
- Halleck Street and Ryawa Avenue

II. HUNTS POINT AND FULTON FISH MARKET SURVEYS

Various surveys were conducted at the Hunts Point Meat and Produce Markets and the Fulton Fish Market in order to supplement traffic counts and existing data. Pertinent data obtained from these surveys include truck trip origins/destinations, time of day of arrivals and departures, vehicle types, trip frequency and regional and local routes used. Certain of these data were used as inputs to the Best Practices Model to refine the forecast of future traffic patterns in the study area.

Two separate surveys were conducted on Hunts Point. A truck driver survey was administered to drivers entering both the Meat and Produce Markets. A separate survey was administered to operators of wholesale/distribution facilities outside the markets but on the Hunts Point

peninsula. These surveys were carried out with cooperation and input from the Hunts Point Cooperative Markets and the Hunts Point Economic Development Corporation.

At the Fulton Fish Market, three separate survey forms were used to capture three market groups: suppliers, retailers and employees. Suppliers bring product to the market, usually in tractor-trailers; retailers buy product from the market, generally use smaller trucks or vans, and buy for stores and restaurants; and employees include those employed in any capacity in the market and may work as loaders, unloaders, handlers, clerical, security or business owners. These surveys were carried out with assistance from the Business Integrity Commission (BIC), The New York City Economic Development Corporation and the Korean Seafood Association of New York. In addition, information regarding residence zip codes of fish market employees was obtained from the BIC, and the Korean Seafood Association of New York provided a sample of zip codes of its members.

A. Hunts Point Surveys

1. Truck Driver Surveys at Meat and Produce Markets

Truck drivers at the Hunts Point Produce Market and the Hunts Point Meat Market were interviewed during the spring and summer of 2003. Questions were asked about trip frequency, time of day of trips, local and regional routes used, trip origins and destinations, and about impediments or difficulties in driving to and from the markets. (See Appendix 2 for a copy of the Hunts Point Truck Driver Survey.) **Table 1** shows the dates, times and locations of the interviews and the number of interviews conducted.

Table 1. Driver Interview Surveys

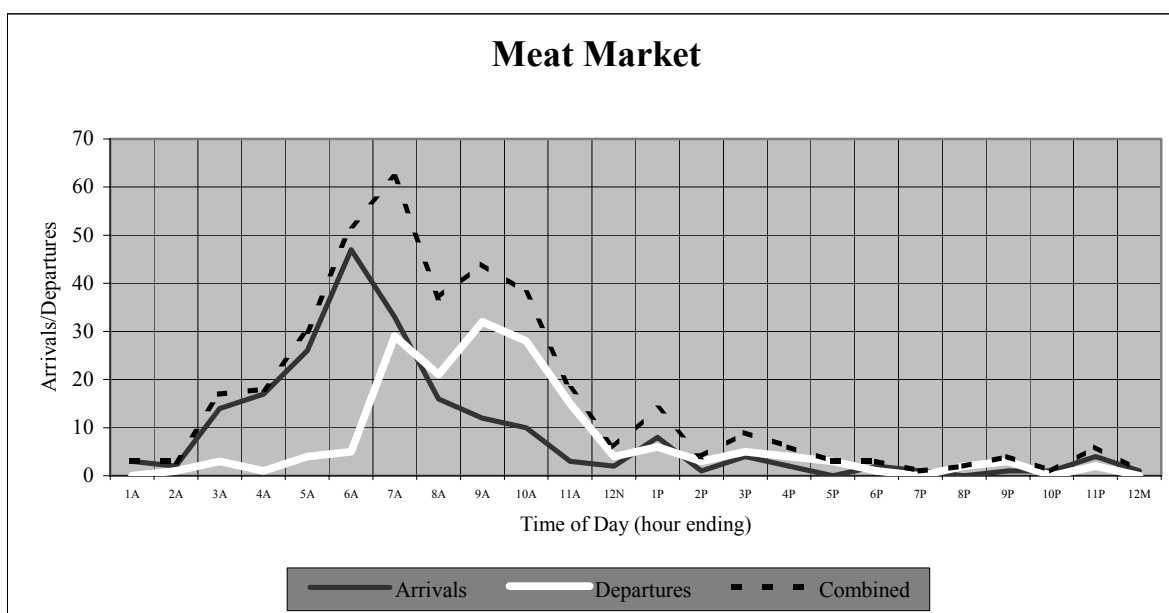
Location	Date	Time	No. of Surveys
Meat Market	4/7/03	5:00 AM-9:00 AM	114
Meat Market	4/14/03	2:00 PM-6:00 PM	39
Meat Market	8/29/03	Midnight - 6:00 AM	59
Subtotal			212
Produce Market	4/10/03	5:00 AM - 9:00 AM	166
Produce Market	4/10/03	2:00 PM - 6:00 PM	69
Produce Market	7/21/03	Midnight - 6:00 AM	135
Produce Market	7/21/03	Noon - 11:00 PM	18
Subtotal			388

a. Arrivals and Departures

Meat Market

Of those interviewed at the Meat Market, 58.6 percent said they arrived at Hunts Point between the hours of 3:00 AM and 7:00 AM. The single peak hour was 5:00 AM to 6:00 AM with 22.4 percent of truck drivers arriving at this time. 64.0 percent of those surveyed indicated that they departed from the market between 6:00 AM and 10:00 AM. The peak departure hour was 8:00 AM to 9:00 AM (18.6 percent). **Figure 1** shows the arrivals and departures for the interview day at the Meat Market.

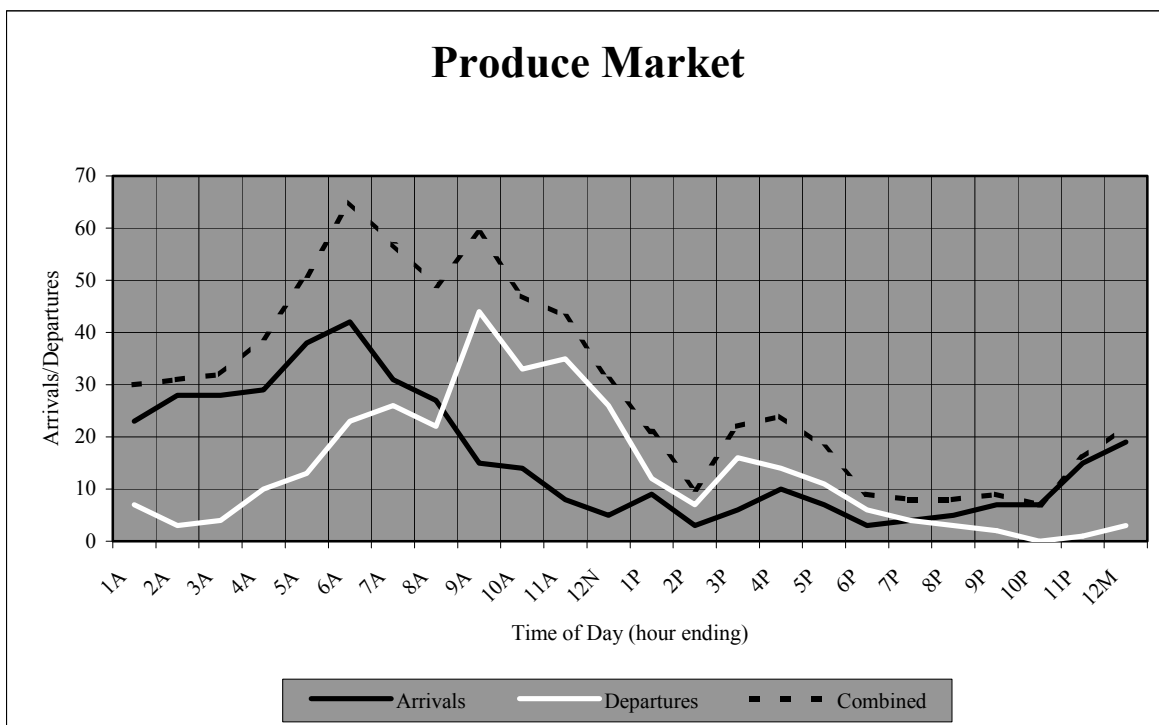
Figure 1. Meat Market: Arrival and Departure Times



Produce Market

At the Produce Market, the peak hour was also 5:00 AM to 6:00 AM with 11.0 percent arriving during this one hour time period. During the four-hour peak period of 3:00 AM to 7:00 AM, 36.6 percent arrived at the Produce Market. The peak period for departure was later than the Meat Market. Of those interviewed, 42.5 percent said they left the market between 8:00 AM and 12:00 PM. The peak hour of departure was 8:00 AM to 9:00 AM resulting in the departure of 13.5 percent of all truckers surveyed. Peak activity at the Produce Market was spread over a longer time period than the Meat Market. **Figure 2** shows the arrivals and departures for the interview day at the Produce Market.

Figure 2. Produce Market: Arrival and Departure Times

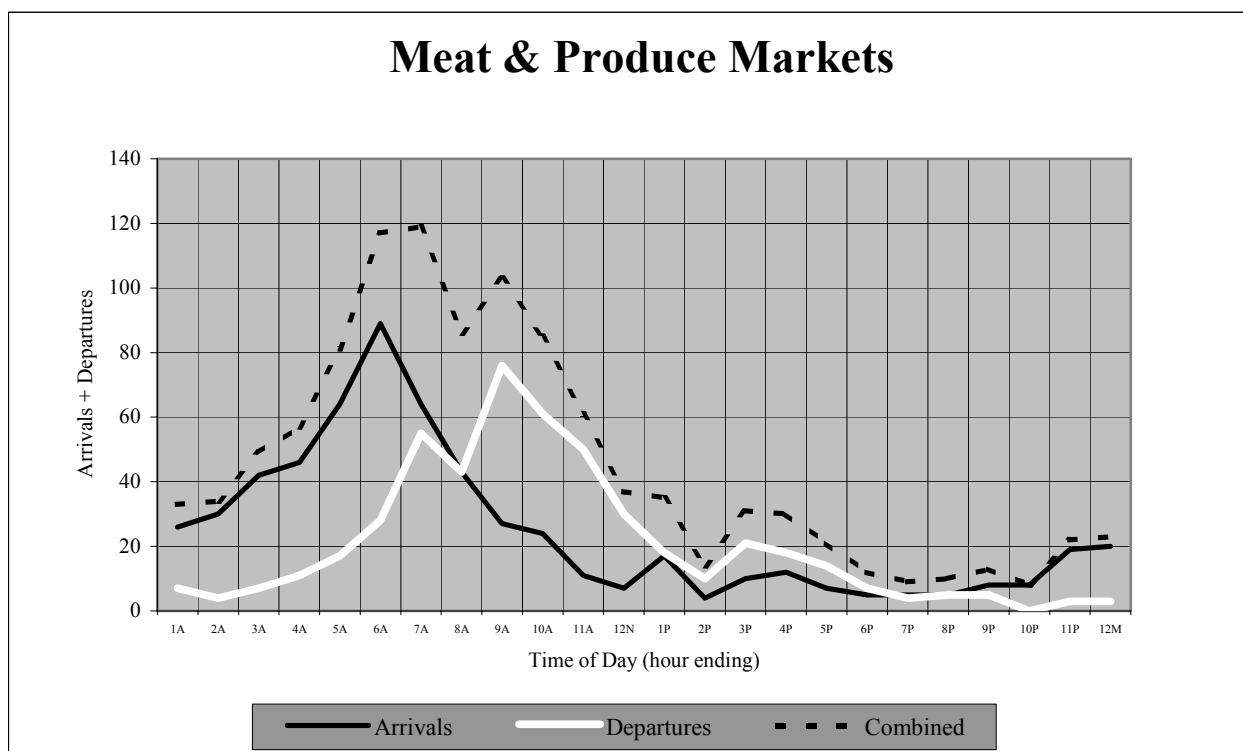


Combined Data

In order to determine the total activity of the two markets, the results for the Meat and Produce Markets were combined. The peak hour for combined meat and produce market arrivals was 5:00 AM to 6:00 AM with 15.0 percent of all arrivals occurring within this one-hour time frame. The peak period for arrivals was 3:00 AM to 7:00 AM with 44.4 percent arriving during this three-hour period. For combined meat and produce market departures, the peak hour was 8:00 AM to 9:00 AM with 15.3 percent departing. The peak period of departures was 6:00 AM to 10:00 AM with 47.3 percent leaving during this period. **Figure 3** shows the arrivals and departures for the Meat and Produce markets combined.

Appendix 3 provides an hourly breakdown of arrival and departure times at the meat and produce markets and the two markets combined over a 24-hour period.

Figure 3. Meat & Produce Markets: Arrival and Departure Times, Combined Data

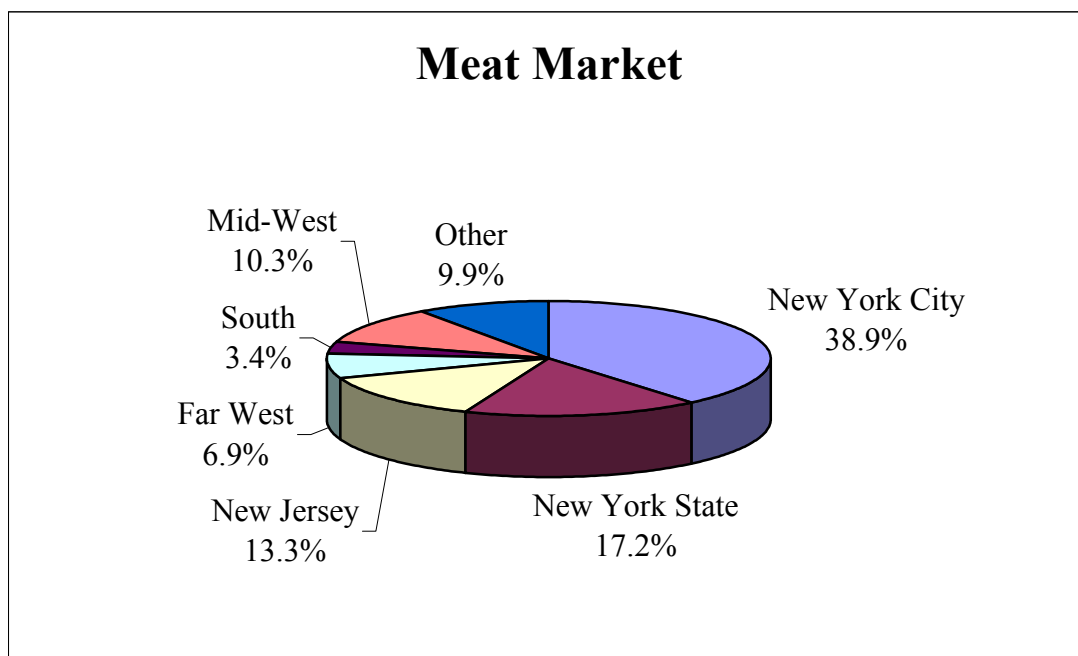


b. Trip Origins

Meat Market

Drivers were asked where their trips originated and where their destination (first stop) would be when they left the markets. At the Meat Market, 38.9 percent of the drivers indicated that they came from New York City and another 17.2 percent came from other areas in New York State. An additional 13.3 percent came from New Jersey, 10.3 percent from the mid-west, 6.9 percent from the far-west, 3.4 percent from southern states, and 9.9 percent indicated that they came from other regions. **Figure 4** shows trip origins for the Meat Market.

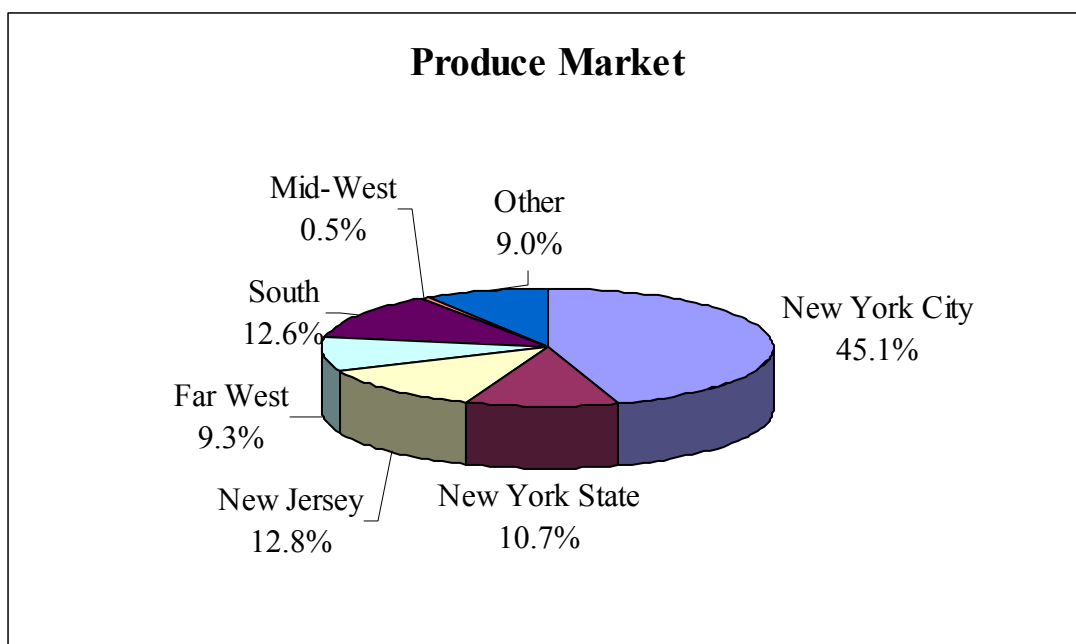
Figure 4. Meat Market: Trip Origins



Produce Market

At the Produce Market, 45.1 percent of drivers surveyed said they came from New York City and 10.7 percent came from other areas within New York State. An additional 12.8 percent of truck drivers surveyed indicated that they came from New Jersey; 9.3 percent came from the far west, and 12.6 percent came from southern states. **Figure 5** shows trip origins for the Produce Market.

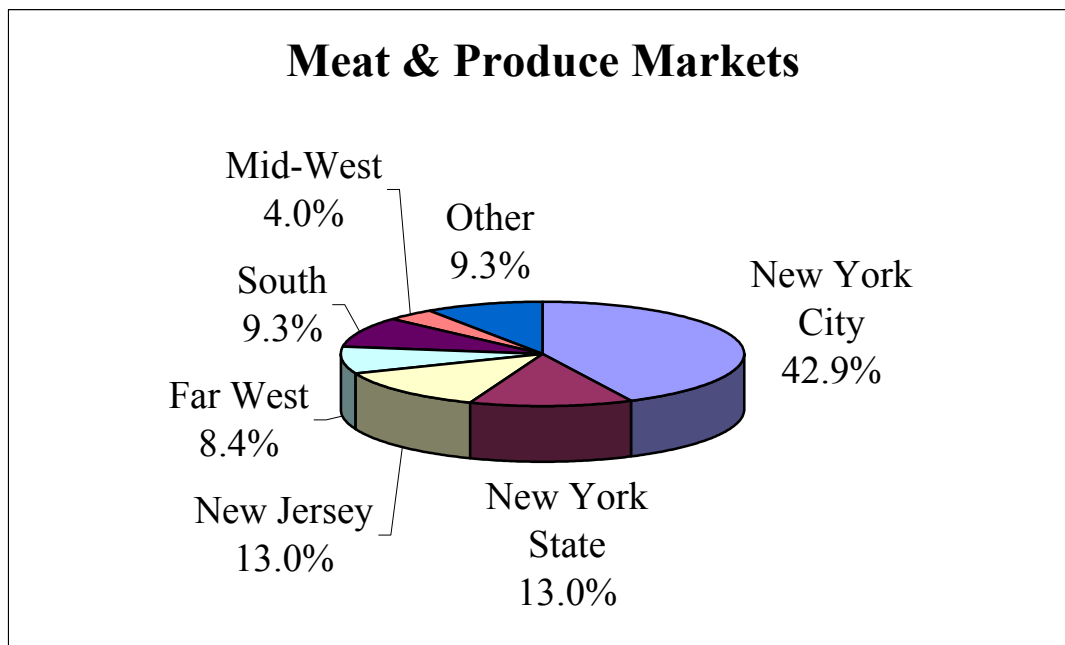
Figure 5. Produce Market: Trip Origins



Combined Data

Combining the survey results from the two markets yielded the following trip origin information: 42.9 percent of truck drivers surveyed came from New York City, with 13.0 percent from the rest of New York State. 13.0 percent came from New Jersey. **Figure 6** shows trip origins from combining data from the Meat and Produce Markets.

Figure 6. Meat & Produce Markets: Combined Trip Origins

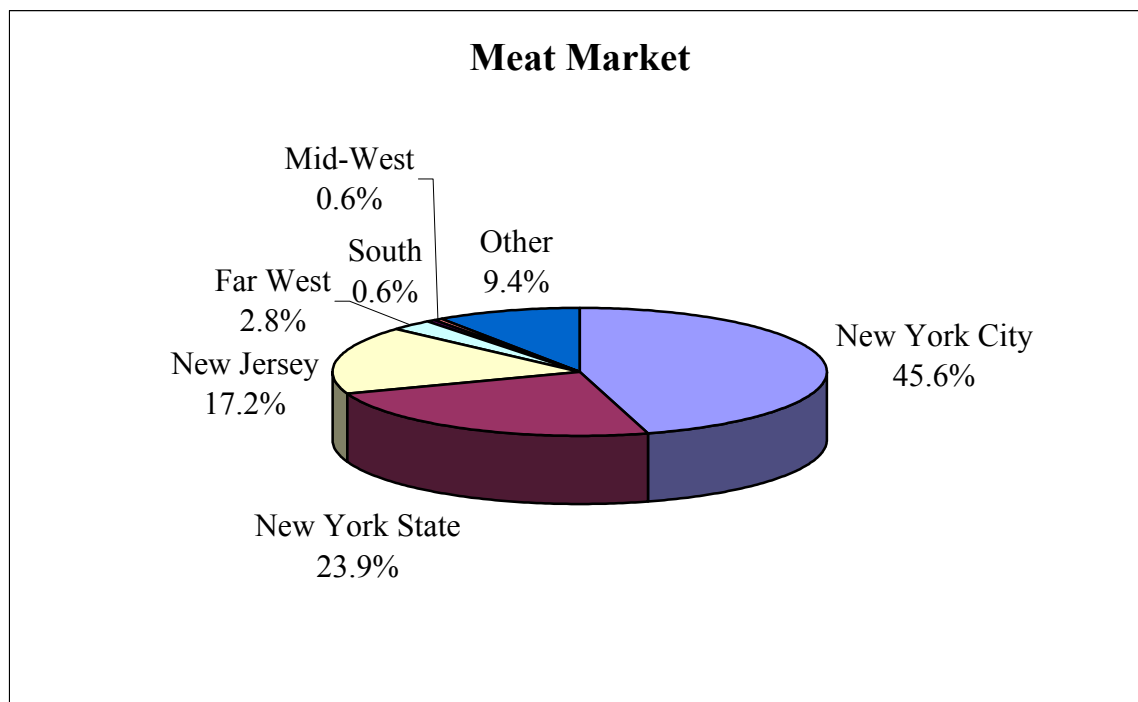


c. Trip Destinations

Meat Market

When drivers left the Meat Market, 45.6 percent of those interviewed indicated that they were heading for destinations in New York City and another 23.9 percent said they were going to other locations in New York State. New Jersey was the third most popular destination for 17.2 percent of the respondents. Overall, over 86 percent of the trucks leaving the meat market were bound for destinations in these three areas. **Figure 7** shows the relative proportions of the Meat Market destinations.

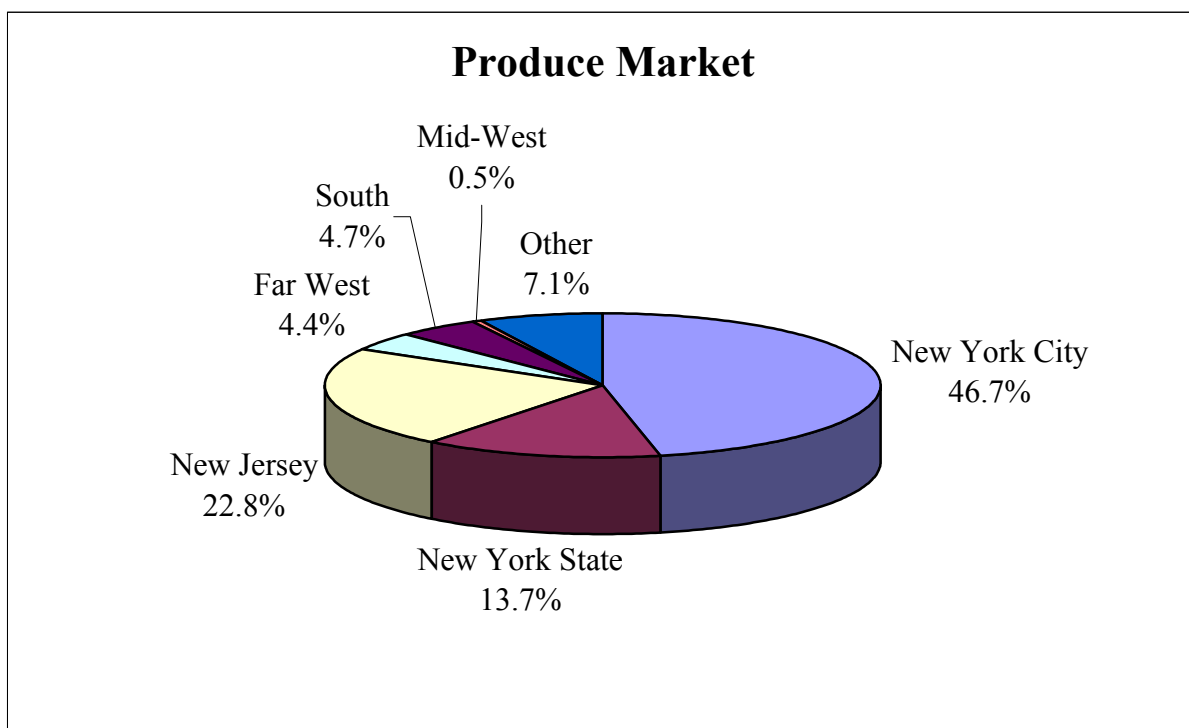
Figure 7. Meat Market: Trip Destinations



Produce Market

Of those drivers leaving the Produce Market, 46.7 percent were going to places in New York City and 13.7 percent were going to other locations in New York State. Another 22.8 percent had destinations in New Jersey. From the Produce Market over 83 percent were going to New York City, New York State and New Jersey when they left Hunts Point. **Figure 8** shows the destinations from the Produce Market.

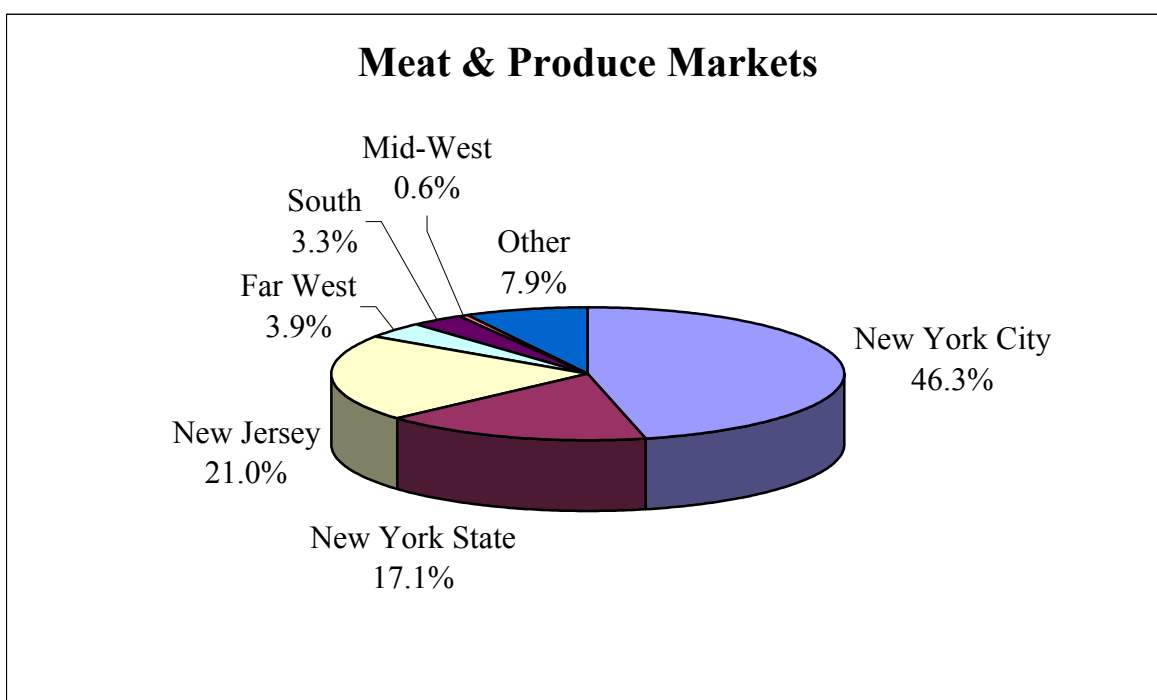
Figure 8. Produce Market: Trip Destinations



Combined Data

Combining the survey results from the two markets, with respect to destinations, 46.3 percent were going to locations in New York City, with an additional 17.1 percent going to some other part of New York State. 21.0 percent had New Jersey as a first destination. Over 84 percent of all traffic coming into the markets goes to the New York-New Jersey region when it departs. **Figure 9** shows the destinations from combined Meat and Produce Market data.

Figure 9. Meat & Produce Markets: Combined Trip Destinations



Almost two-thirds of the drivers interviewed came from New York City, New York State or New Jersey. Over 80 percent of the trucks were going to destinations in these same three areas when they left the markets. There were very few trips oriented to New England, the Middle Atlantic States or Canada.

d. Vehicle Class

Drivers were asked what type of vehicle they had driven to the markets. Three categories of vehicles were used: light trucks (2-axle, 6-tire); single-unit, 3-axle trucks (larger trucks that did not have a trailer, typically with a 30-foot long cargo section) and tractor-trailer combinations (a tractor with a cargo trailer, the tractor could have six or ten wheels and the trailer four to eight wheels).

Meat Market

At the Meat Market, 54.1 percent of the vehicles were Light Trucks and 41.1 percent were tractor-trailers. Single-unit trucks accounted for 4.8 percent of the vehicles. **Table 2** shows the distribution of vehicle classes in the Meat Market.

Table 2. Meat Market: Vehicle Class

Date	Day of Week	Vehicle Class			
		Lt Trucks	Single Unit Truck	Tractor Trailer	Total
4/7/03	Monday	75	4	34	113
4/14/03	Monday	16	3	20	39
8/29/2003	Friday	22	3	32	57
Total for All Survey Periods		113	10	86	209
Percent		54.1%	4.8%	41.1%	100.0%

Produce Market

At the Produce Market, the percent of Light Trucks, 48.3 percent, was lower than the Meat Market. The percent of tractor-trailers was 45.6 percent. Single-unit truck use was slightly higher for the produce market than the meat market. **Table 3** shows the distribution of vehicle classes in the Produce Market.

Table 3. Produce Market: Vehicle Class

Date	Day of Week	Vehicle Class			
		Lt. Trucks	Single Unit Truck	Tractor-Trailer	Total
04/10/03	Thursday	103	20	107	230
07/21/03	Monday	77	3	63	143
Total for all Survey Periods		180	23	170	373
Percent		48.3%	6.2%	45.6%	100.0%

Combined Data

Combining data from the two markets, the most prevalent types were the Light Trucks and the Tractor-trailers. Light Trucks were just over half, 50.3 percent and Tractor-trailers 44.0 percent. Single-unit trucks were a relatively small percentage accounting for just 5.7 percent. **Table 4** shows the distribution of vehicle classes for combined Meat and Produce Market data.

Table 4. Meat & Produce Markets: Vehicle Class

Vehicle Class				
Hunts Point Markets	Lt. Trucks	Single Unit Truck	Tractor-Trailer	Total
Meat Market	113	10	86	209
Produce Market	180	23	170	373
Total For Markets	293	33	256	582
Percent	50.3%	5.7%	44.0%	100.0%

e. Trip Frequency

Drivers were asked about the frequency of their trips to the markets in terms of how many days per week they make the trip. A large percentage of drivers coming to the Meat Market, 42.1 percent, indicated that they were at the market at least five days per week. Only 28.3 percent came once a week or less. At the Produce Market, 30.1 percent indicated that they came once a week or less, while 36.4 percent were there at least five days per week. Overall, for the combined markets, 38.4 percent indicated that they came five days per week or more, while 29.4 percent of the drivers indicated that they came once a week or less. About 32 percent indicated they came two, three or four times per week. **Table 5** illustrates the frequency of visits to the Meat and Produce Markets, respectively and the combined total frequency of trips to both markets.

Table 5. Meat & Produce Markets: Trip Frequency

Trip Frequency (Days per Week)							
Facility	Less than 1	1	2	3	4	5 or more	Total
Meat Market	29	30	20	28	14	88	209
Percent	13.9%	14.4%	9.6%	13.4%	6.7%	42.1%	100.0%
Produce Market	46	69	33	28	67	139	382
Percent	12.0%	18.1%	8.6%	7.3%	17.5%	36.4%	100.0%
Meat & Produce Markets	75	99	53	56	81	227	592
Percent	12.7%	16.7%	9.0%	9.5%	13.7%	38.4%	100%

f. Identified Problems

Each driver was asked to indicate any problems encountered going in and out of the Hunts Point area. Seven potential problems were listed on the questionnaire and there was a space to write in selections that were not listed. Respondents could check more than one problem, as appropriate. The problems listed were:

- Traffic congestion, delays
- Truck routes not well signed
- Strict truck route enforcement
- Tight turns at intersections
- Indirect truck routes
- Truck routes not well lit
- Lack of street name signs

At the Meat Market, 81.1 percent of all drivers reported some problems accessing the market. Of the total interviewed, 45.3 percent indicated traffic congestion as a problem. “Tight Turns at Intersections” and “No Street Name Signs” were the second most frequently checked with approximately 8.0 percent indicating that each of these were issues. “Poor Signing on the Truck Route” was also reported by 6.6 percent of the drivers.

At the Produce Market, 225 (or 58.3 percent) of the drivers had some problem accessing the market. The portion of those drivers reporting no problems was 41.7 percent. The biggest problem identified by drivers was traffic congestion, cited by 31.9 percent of all drivers reporting. In second place was that the truck route was not well signed, 5.4 percent. About the same number, 4.9 percent thought truck route enforcement was a problem. Tight turns at intersections and lack of street name signs were both identified as problems by approximately 4.9 percent of

drivers. Overall for the two markets combined, about two thirds of the drivers, or 66.4 percent had some problems.

g. Local Routes

Drivers were also asked to identify the local Hunts Point streets they used to drive to and from the Meat and Produce Markets. The routes they identified were many and varied. Over 50 different routes were indicated, some on the marked truck routes designated by the City of New York, and some off the truck routes.

Meat Market Entry Routes

Slightly less than half, 49.4 percent, entered the area on two of the marked truck routes, Leggett Avenue and Tiffany Avenue. An additional 31.9 percent entered at Hunts Point Avenue. Only 2.5 percent entered at Edgewater Road, the other designated truck route. The remainder entered the area on streets that were not designated as truck routes – Longwood Avenue, Lafayette Avenue and Barretto Street. Hunts Point Avenue is a truck route only between Southern Boulevard and Garrison Avenue, and again between Randall and East Bay Avenues. Of the trucks that entered on Hunts Point Avenue, all continued on Hunts Point Avenue past Garrison Avenue, through residential neighborhoods on the non-truck route portion of Hunts Point Avenue. This was the most popular single route into the Meat Market. Almost 50 percent of the trucks used Randall Avenue from Tiffany Avenue to either Hunts Point Avenue (which is part of the truck route system south of Randall Avenue) or Halleck Street. A little over 34 percent use the non-truck route, Hunts Point Avenue between Lafayette Avenue and Randall Avenue. Less than 10 percent use the non-truck route, Oak Point Avenue. Only about 8 percent use East Bay Avenue and only 2 percent use Viele Avenue to enter the Meat Market.

Produce Market Entry Routes

Of drivers interviewed at the Produce Market, over half, 54.5 percent, entered Hunts Point using either Leggett Avenue or Tiffany Street. A significant number, 23.4 percent, enter on Hunts Point Avenue. The majority of trucks coming to the Produce Market (46 to 50 percent) use Randall Avenue from Tiffany Avenue to Halleck Street. Spofford Avenue, non-truck route, carries 14.9 percent of the entering traffic between Hunts Point Avenue and Halleck Street. Edgewater Road carried up to 26 percent of traffic entering the Produce Market. Almost 60 percent used Halleck Street to access the market queuing along the street to await entry to the market. No trucks used the truck routes East Bay or Viele Avenue to access the Produce Market.

Meat Market Exit Routes

Leaving the meat market, truck traffic is fairly evenly split between two streets: Halleck Street and East Bay Avenue. Halleck Street traffic uses Edgewater Road, Randall/Leggett and Hunts Point Avenue, including the segments that are not designated as truck routes, to exit the Hunts Point peninsula. East Bay Avenue traffic uses Randall/Leggett, Randall/Longwood or Tiffany to exit Hunts Point. The major routes exiting the peninsula are Hunts Point Avenue (35 percent),

Tiffany Street (20 percent), Leggett Avenue (17 percent), Edgewater Road (13 percent) and Longwood Avenue (12 percent).

Produce Market Exit Routes

Of the traffic exiting the Produce Market, 85 percent travel via Halleck Avenue. The alternative route is via East Bay Avenue and Tiffany. Of the Halleck Avenue traffic, 25 percent exits Hunts Point via Edgewater and 55 percent shifts to Randall and then leaves the Hunts Point peninsula via Hunts Point Avenue, Tiffany, Leggett or Longwood.

Exiting Hunts Point, 33 percent of the traffic uses Tiffany; 25 percent Hunts Point Avenue; 20 percent Leggett Avenue and 14 percent, Edgewater.

Combined Markets Entries and Exits

Over 62 percent of the drivers indicated they exited on marked truck route streets (Leggett Avenue, Tiffany Avenue and Edgewater Road). About the same proportion that entered on Tiffany Avenue exited the same way. This was also true for those that entered on Hunts Point Avenue. About 10 percent exited via Spofford Avenue and the same percent used Lafayette Avenue.

The most-used marked truck routes are Leggett Avenue/Randall Avenue between the Bruckner and Halleck Street; Tiffany Avenue from the Bruckner to Randall Avenue; Hunts Point Avenue from Randall Avenue to Food Center Drive; and Halleck Street from Randall Avenue to Food Center Drive. Edgewater Road/Halleck Street gets significant usage from Produce Market trucks both entering and leaving the market and some usage from trucks exiting the Meat Market

Hunts Point Avenue between Garrison and Randall Avenues is the most heavily used non-truck route. Between 25 and 38 percent of entering and exiting trucks from both markets use this street. Usage of Longwood Avenue varies from 5 to 15 percent. Spofford Avenue and Lafayette Avenue get some significant usage by trucks oriented to the Produce Market.

Figures 10 through 13 summarize truck volumes, based on truck driver interviews, on local streets used to enter and exit both the Meat and Produce Markets.

2. Facility Operator Surveys

While a significant number of trucks on Hunts Point are destined for the cooperative markets, there are also a number of product distributors that generate significant truck traffic on Hunts Point and are located outside the market. In order to capture a sample of these trucks, facility operators outside the markets were surveyed. Businesses interviewed for the facility operators survey were selected with the assistance of the Hunts Point Economic Development Corporation. They consisted primarily of product distributors, with operations on the Hunts Point peninsula, outside the Cooperative Markets.

Survey forms were filled out and returned by 11 firms. Of the 11 returned, seven of the firms are located outside the cooperative markets but on Hunts Point, three are located inside one of the markets and one is located outside Hunts Point. All firms were asked to answer survey questions in terms of an average day's operations at their facility.

The 7 firms outside the market collectively averaged a total of 259 trucks entering their facility with product to be unloaded, and averaged a total of 316 trucks that are loaded at their facility and leave for various destinations. All the firms interviewed are open from Monday through Friday with 5 of them open on the weekend. Most of their activity was fairly evenly distributed throughout the week, though 5 firms reported that their volumes are heavier in the fall.

The majority of inbound trucks, 126, arrive between 6am and 10am, followed by 74 that arrive between 10am and 3pm. The majority of outbound trucks, 160, leave the facility between 3am and 6am, followed by 52 that leave between 6am and 10am, and 66 that leave between 10am and 3pm. An additional 38 trucks leave between 3pm and 7pm.

The majority of inbound trips, 144, come from New Jersey, Pennsylvania or points west. An additional 55 trucks come from Southern New Jersey, Maryland, and Delaware or points south. A total of 18 trucks come from Eastern New York State or Canada, and 14 trucks come from Connecticut or New England, with the remainder scattered among the five boroughs or western New York. Outbound trips have a more even distribution with 77 bound for Manhattan, 58 for Brooklyn, 48 for New Jersey, 35 for the Bronx, 33 for Long Island with the rest scattered among other areas.

Six of the seven firms surveyed identified congestion and traffic related delays as a problem they experience regularly; four of the seven identified lack of direct routes to their destinations as a problem.

As mentioned above, three firms inside the market were also surveyed. Combined, these firms have 60 incoming trucks, primarily tractor-trailers being unloaded at their facility, and 300 being loaded.

3. Regional Access Routes

Information about the distribution of traffic to and from the markets on regional routes was obtained in both the facility operator and truck driver surveys.

Regional Access Routes – Truck Driver Survey

For the purposes of the truck driver survey eleven of the most likely regional approaches to Hunts Point were identified. These were:

- ❑ **Approach 1** – From Queens, Triborough Bridge to Bruckner Expressway;
- ❑ **Approach 2** – George Washington Bridge to Cross Bronx Expressway to Sheridan Expressway;
- ❑ **Approach 3** – New England Thruway to Bruckner Expressway;
- ❑ **Approach 4** – Whitestone Bridge to Hutchinson River Parkway to Bruckner Expressway;
- ❑ **Approach 5** – Major Deegan Expressway (SB) to Cross Bronx Expressway to Sheridan Expressway;
- ❑ **Approach 6** – Throgs Neck Bridge to Cross Bronx Expressway to Bruckner Expressway;
- ❑ **Approach 7** – From Manhattan, Harlem River Bridges to Major Deegan Expressway (NB or SB) to Cross Bronx Expressway to Sheridan Expressway;
- ❑ **Approach 8** – From Manhattan, Triborough Bridge to Bruckner Expressway;
- ❑ **Approach 9** – George Washington Bridge to Major Deegan Expressway to Bruckner Boulevard;
- ❑ **Approach 10** – From Manhattan, Harlem River Bridges and Local Streets; and
- ❑ **LO (Local)** – From the Bronx or Westchester using Local Streets.

Inbound Traffic Approach Routes

Table 6 shows the inbound approach routes used by drivers entering the meat and produce markets. The most widely used regional approach into Hunts Point is Approach 2 via the George Washington Bridge to the Cross Bronx Expressway to the Sheridan Expressway. Over 46 percent of all truckers surveyed at both the meat and produce markets indicated this as their primary access route. The least used regional access road was Approach 8, the Triborough Bridge from Manhattan at 1.7 percent. Trucks using Approach 1 and local streets accounted for 10.1 and 9.3 percent respectively of inbound traffic. The remainder of approach routes ranges from 2.5 to 7.7 percent. **Figure 14** displays the distribution of inbound traffic on a map of regional access routes.

Table 6. Inbound Traffic Approach Route Volumes, Truck Driver Survey

Inbound Route		1	2	3	4	5	6	7	8	9	10	LO	Total
Meat Market	Entry	15	84	13	2	15	16	5	8	0	9	13	180
	Percent	8.3%	46.7%	7.2%	1.1%	8.3%	8.9%	2.8%	4.4%	0.0%	5.0%	7.2%	100.0%
Produce Market	Entry	37	157	7	22	15	24	8	1	22	9	35	337
	Percent	11.0%	46.6%	2.1%	6.5%	4.5%	7.1%	2.4%	0.3%	6.5%	2.7%	10.4%	100.0%
Combined Markets	Entry	52	241	20	24	30	40	13	9	22	18	48	517
	Percent	10.1%	46.6%	3.9%	4.6%	5.8%	7.7%	2.5%	1.7%	4.3%	3.5%	9.3%	100.0%

Outbound Traffic Departure Routes

Departure Routes outlined in this section are the reverse of the aforementioned Approach Routes. The distribution of traffic leaving Hunts Point on regional routes showed a similar pattern with almost 40 percent indicating that they used Departure Route 2 (Sheridan Expressway to the Cross Bronx Expressway to the George Washington Bridge). Departure routes 1, 5, 6 and LO ranged between 8.2 and 9.7 percent of total outbound traffic. The remainder ranged between 2.4 and 6.6 percent. **Table 7** shows the outbound routes used by drivers exiting the meat and produce markets. **Figure 15** displays the distribution of outbound traffic on a map of regional access routes.

It should be noted that, based on survey results, in the case of both inbound and outbound traffic, a higher percentage of market-bound truck traffic used the Sheridan Expressway to access Hunts Point than trucks bound for elsewhere on the peninsula. This may be because the market is a regional facility, serving a wider geographical area with more trucks are coming from farther distances.

Table 7. Outbound Traffic Departure Route Volumes, Truck Driver Survey

Outbound Route		1	2	3	4	5	6	7	8	9	10	LO	Total
Meat Market	Exit	15	38	11	3	10	14	5	7	5	4	11	123
	Percent	12.2%	30.9%	8.9%	2.4%	8.1%	11.4%	4.1%	5.7%	4.1%	3.3%	8.9%	100.0%
Produce Market	Exit	22	113	8	22	21	22	6	2	12	7	22	257
	Percent	8.6%	44.0%	3.1%	8.6%	8.2%	8.6%	2.3%	0.8%	4.7%	2.7%	8.6%	100.0%
Combined Markets	Exit	37	151	19	25	31	36	11	9	17	11	33	380
	Percent	9.7%	39.7%	5.0%	6.6%	8.2%	9.5%	2.9%	2.4%	4.5%	2.9%	8.7%	100.0%

Regional Access Routes – Facility Operators Survey

For the purposes of the facility operators survey, six of the most likely regional approaches to Hunts Point were identified. They are:

- Triborough Bridge to Bruckner Boulevard
- George Washington Bridge to Cross Bronx Expressway to Sheridan Expressway
- New England Thruway to Bruckner Expressway
- Whitestone Bridge to Bruckner Expressway
- Major Deegan Expressway to Cross Bronx Expressway to Sheridan Expressway
- Throgs Neck Bridge to Bruckner Expressway

The seven firms outside the cooperative markets, but on Hunts Point, accounted for a daily average of 259 inbound and 316 outbound vehicles. **Table 8** summarizes the number of trucks using each regional route. The majority of inbound vehicles, 61 percent came to Hunts Point via the George Washington Bridge, Cross Bronx Expressway and Sheridan Expressway. The Triborough Bridge and New England Thruway to Bruckner Expressway routes each accounted for approximately 12 percent of inbound traffic from interviewed firms. The route most often used by outbound traffic was also the Sheridan Expressway to Cross Bronx Expressway to George Washington Bridge, though to a lesser extent, 30.7 percent of traffic from interviewed firms. The Bruckner Expressway to Triborough Bridge accounted for 20.3 percent, with a more even distribution among the remainder of routes. **Figure 16** illustrates the distribution of traffic among regional routes as identified by facility operators.

Data from the facility operator survey should be used for informational purposes only, as they do not constitute a statistically significant sampling of firms on the Hunts Point peninsula. This is due to both the size of the sample (less than 5 percent) and the type of firms interviewed. Due to logistical constraints and lack of cooperation on the part of facility operators, a limited number of firms provided responses to the survey. In addition, surveys were sent to those firms with a larger truck volume in order to account for as many trucks as possible. The many firms on Hunts Point with less than 10 trucks were not interviewed, and are not represented in the survey.

Table 8. Regional Routes, Inbound/Outbound Truck Volumes, Fac. Op. Survey

Route Number	Approach Route	Inbound		Outbound	
		Trucks	Percentage	Trucks	Percentage
1	Triborough/Bruckner	31	12.0%	64	20.3%
2	GWB/CBE/Sheridan	158	61.0%	97	30.7%
3	NE Thruway/Bruckner	33	12.7%	37	11.7%
4	Whitestone/Bruckner	16	6.2%	44	13.9%
5	Deegan/CBE/Sheridan	14	5.4%	40	12.7%
6	Throgs Neck/Bruckner	7	2.7%	34	10.8%
	Total	259	100.0%	316	100.0%

Supplemental Survey

In order to clarify regional route selection for traffic using the Major Deegan Expressway (MDE), it was necessary to conduct a supplemental survey of facility operators on Hunts Point. Survey forms were sent to the seven facility operators who had answered the original questionnaire. (See Appendix 2 for the supplemental survey instrument and accompanying map.) Facility operators were asked to quantify, to the degree possible, their responses. While not conclusive, interviews and survey responses indicate that the MDE, while providing access to the Hunts Point Peninsula and acting as a safety valve for the Cross Bronx Expressway (CBE), is not a primary route used by trucks.

Responses, either verbal or written, were received from four of the seven facility operators. Following is a summary of responses, two of which were quantified, and the remaining two descriptive.

Operator #1 indicated that two of 34 inbound trucks use the MDE from the north, while three use the CBE to the MDE. Leaving his facility, two out of 40 trucks use the MDE to go north towards Westchester, while none use the MDE to access the George Washington Bridge. Operator #1 had indicated in the original survey that 27 of his inbound trucks use the George Washington Bridge. Three of them access the bridge via the MDE while the remainder use the CBE. He also indicated that 19 outbound trucks use the George Washington Bridge. None of them access the bridge via the MDE. All use the CBE.

Operator #2 indicated that two out of 100 trucks use the MDE from the north to access the peninsula, and none leave using that route. Operator #2 had indicated in the original survey that 80 of his inbound trucks use the George Washington Bridge to access Hunts Point and 20 use it to leave. None enter or leave via the MDE. All use the CBE.

In conversation with Operator #3, he would not provide a quantified estimate of trucks, but stated that if there is no traffic congestion on the CBE, truckers generally prefer to take that route to the Sheridan Expressway. But if traffic is heavy on the CBE, they will use the MDE to Bruckner Boulevard.

Operator #4 stated that he does not know which routes his drivers use, but that he believes that most take the CBE to the Sheridan.

4. Regional and Local Route Correlation – Truck Driver Survey

Truck Drivers at the Hunts Point Cooperative Markets were asked to identify the regional and local routes they used to enter and exit the markets. Using 24-hour volume counts gathered at the entry to each of the markets, truck driver responses were expanded and distributed among regional and local routes.

During a 24-hour period, 715 trucks entered the Hunts Point Meat Market and 1,921 entered the Produce Market. These 2,636 market-bound trucks accounted for over 40 percent of all trucks entering the Hunts Point peninsula.

Inbound Traffic

Over 80 percent of inbound trucks destined for the cooperative markets used either Tiffany Street, Hunts Point Avenue or Leggett Avenue. Tiffany Street carried the highest percentage of truck traffic (32.0 percent) to the markets. Over 60 percent of traffic using Tiffany Street arrived at the peninsula using Approach 2 (George Washington Bridge to Cross Bronx Expressway to Sheridan Expressway). Over 41 percent of Hunts Point Avenue traffic and 34 percent of Leggett Avenue traffic used Approach 2. Also at Leggett Avenue, 23.5 percent of traffic came from Approach 1 (From Queens, Triborough Bridge to Bruckner Expressway). At Hunts Point Avenue 15.2 percent used local streets. It should also be noted that 16.8 percent of all inbound traffic using Approach 2 bypassed Tiffany Street and Lafayette Avenue to use Leggett Avenue to enter Hunts Point. **Table 9** provides a summary of expanded inbound market truck volumes distributed among regional approaches.

Outbound Traffic

Drivers of almost three quarters of trucks leaving the cooperative markets said they would use Tiffany Street, Hunts Point Avenue or Leggett Avenue. As was the case with inbound traffic, Tiffany Street carried the highest percentage of traffic (30.8 percent) leaving the peninsula. 54.7 percent of traffic using Tiffany Street left the area on Approach 2. 33.7 percent of Hunts Point Avenue traffic and 35.3 percent of Leggett Avenue traffic also used Approach 2. Almost 11 percent of Hunts Point Avenue traffic stated that they would use Approach 9 (Harlem River Bridges and local streets to Manhattan). 17.6 percent of Leggett Avenue traffic would use Approach 1, and 11.8 percent, Approach 5 (Major Deegan, southbound, to Cross Bronx Expressway to Sheridan Expressway). It should also be noted that 15 percent of all outbound traffic indicating Approach 2 as their regional exit route, used Leggett Avenue to leave the peninsula. **Table 10** provides a summary of expanded outbound truck volumes distributed among regional approaches.

Table 9. Expanded Inbound Truck Volumes

Local Route	Leggett Avenue		Longwood Avenue		Lafayette Avenue		Tiffany Street		Barretto Street		Hunts Point Avenue		Faile Street		Bryant Avenue		Whittier Street		Edgewater Road		Total	
Regional Route																						
1	138	23.5%	14	5.1%	0	0.0%	14	1.6%	7	25.0%	28	4.0%	0	0.0%	0	0.0%	7	10.0%	0	0.0%	208	7.9%
2	201	34.1%	104	38.5%	62	40.9%	512	60.7%	7	25.0%	284	41.4%	0	0.0%	0	0.0%	28	40.0%	0	0.0%	1197	45.4%
3	28	4.7%	7	2.6%	0	0.0%	35	4.1%	0	0.0%	28	4.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	97	3.7%
4	0	0.0%	14	5.1%	0	0.0%	42	4.9%	7	25.0%	0	0.0%	0	0.0%	0	0.0%	14	20.0%	0	0.0%	76	2.9%
5	55	9.4%	28	10.3%	14	9.1%	28	3.3%	0	0.0%	55	8.1%	0	0.0%	0	0.0%	7	10.0%	0	0.0%	187	7.1%
6	14	2.4%	28	10.3%	0	0.0%	69	8.2%	0	0.0%	55	8.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	166	6.3%
7	7	1.2%	7	2.6%	7	4.5%	7	0.8%	0	0.0%	7	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	35	1.3%
8	28	4.7%	0	0.0%	7	4.5%	7	0.8%	0	0.0%	14	2.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	55	2.1%
9	28	4.7%	0	0.0%	7	4.5%	14	1.6%	0	0.0%	28	4.0%	0	0.0%	0	0.0%	7	10.0%	0	0.0%	83	3.1%
10	42	7.1%	7	2.6%	0	0.0%	14	1.6%	0	0.0%	28	4.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	90	3.4%
LO	35	5.9%	62	23.1%	21	13.6%	48	5.7%	7	25.0%	104	15.2%	0	0.0%	0	0.0%	7	10.0%	0	0.0%	284	10.8%
NK*	14	2.4%	0	0.0%	35	22.7%	55	6.6%	0	0.0%	55	8.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	159	6.0%
Total	588	100.0%	270	100.0%	152	100.0%	844	100.0%	28	100.0%	685	100.0%	0	0.0%	0	0.0%	69	100.0%	0	0.0%	2636	100.0%
Entry Point as % of Total Screenline	22.3%		10.2%		5.8%		32.0%		1.0%		26.0%		0.0%		0.0%		2.6%		0.0%		100.0%	

* Not Known

Table 10. Expanded Outbound Truck Volumes

Local Route	Leggett Avenue		Longwood Avenue		Lafayette Avenue		Tiffany Street		Barretto Street		Hunts Point Avenue		Faile Street		Bryant Avenue		Whittier Street		Edgewater Road		Total	
Regional Route																						
1	77	17.6%	26	13.0%	9	5.9%	26	3.2%	17	66.7%	51	7.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	205	7.8%
2	154	35.3%	86	43.5%	68	47.1%	445	54.7%	0	0.0%	240	33.7%	0	0.0%	0	0.0%	0	0.0%	26	8.3%	1018	38.6%
3	17	3.9%	9	4.3%	0	0.0%	34	4.2%	0	0.0%	34	4.8%	0	0.0%	0	0.0%	0	0.0%	26	8.3%	120	4.5%
4	9	2.0%	17	8.7%	17	11.8%	34	4.2%	0	0.0%	9	1.2%	0	0.0%	0	0.0%	0	0.0%	68	22.2%	154	5.8%
5	51	11.8%	9	4.3%	17	11.8%	60	7.4%	0	0.0%	43	6.0%	0	0.0%	0	0.0%	0	0.0%	17	5.6%	197	7.5%
6	0	0.0%	0	0.0%	0	0.0%	34	4.2%	0	0.0%	68	9.6%	0	0.0%	0	0.0%	0	0.0%	86	27.8%	188	7.1%
7	17	3.9%	0	0.0%	9	5.9%	9	1.1%	0	0.0%	9	1.2%	0	0.0%	0	0.0%	0	0.0%	9	2.8%	51	1.9%
8	26	5.9%	9	4.3%	9	5.9%	9	1.1%	0	0.0%	26	3.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	77	2.9%
9	17	3.9%	0	0.0%	0	0.0%	17	2.1%	0	0.0%	77	10.8%	0	0.0%	0	0.0%	0	0.0%	9	2.8%	120	4.5%
10	34	7.8%	9	4.3%	0	0.0%	9	1.1%	0	0.0%	26	3.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	77	2.9%
LO	26	5.9%	34	17.4%	0	0.0%	43	5.3%	9	33.3%	68	9.6%	0	0.0%	0	0.0%	0	0.0%	43	13.9%	223	8.4%
NK*	9	2.0%	0	0.0%	17	11.8%	94	11.6%	0	0.0%	60	8.4%	0	0.0%	0	0.0%	0	0.0%	26	8.3%	205	7.8%
Total	436	100.0%	197	100.0%	145	100.0%	813	100.0%	26	100.0%	710	100.0%	0	0.0%	0	0.0%	0	0.0%	308	100.0%	2636	100.0%
Entry Point as % of Total Screenline	16.6%		7.5%		5.5%		30.8%		1.0%		26.9%		0.0%		0.0%		0.0%		11.7%		100.0%	

*Not Known

B. Fulton Fish Market Surveys

As stated in the introduction, surveys were conducted at the Fulton Fish Market for three market groups: suppliers, retailers and employees. The results of each of these survey groups are summarized below.

1. Suppliers

Suppliers' trucks, usually tractor-trailers supplying product to the Fulton Fish Market, begin queuing up along South Street, north of the market. A total of 21 supply truck drivers were interviewed as they waited to enter the market to have their product unloaded. Following is a summary of data gathered from those surveys.

Tables 11 and 12 show supplier arrival and departure times by vehicle class. While the majority of vehicles, 70 percent, are tractor-trailers, some are light trucks, single unit trucks or other commercial vehicles. Information was obtained anecdotally that many of the smaller vehicles make more than one trip in a night and may drop off *and* pick up product.

Table 11. Supplier Arrival Times

Arrival Time (Hour beginning)	Vehicle Class				
	Tractor -Trailer	Single Unit 3-axle	Light Truck 2-axle, 6-tire	2-axle Commercial Vehicle	Total
10:00 PM			1		1
11:00 PM	2				2
12:00 AM	1				1
1:00 AM	2				2
2:00 AM			1	1	2
3:00 AM	3	2			5
Unknown	6		1		7
Subtotal	14	2	3	1	20
Percent	70.0%	10.0%	15.0%	5.0%	100.0%

Table 12. Supplier Departure Times

Departure Time (Hour beginning)	Vehicle Class				
	Tractor - Trailer	Single Unit 3-axle	Light Truck 2-axle, 6-tire	2-axle Commercial Vehicle	Total
1:00 AM	1				1
2:00 AM	1		1	1	3
3:00 AM	1				1
4:00 AM	3	1			4
5:00 AM	1		1		2
6:00 AM					0
7:00 AM		1			
Unknown	7		1		8
Subtotal	14	2	3	1	20
Percent	70.0%	10.0%	15.0%	5.0%	100.0%

Data for the **Table 13** summarizes the arrival times of all supply trucks entering the market on the night of September 17, 2003, and was supplied by the Business Integrity Commission. While it does not provide vehicle class information, it gives an indication of peak arrival times, generally between 10:30 PM and 3:30 AM.

Table 13. Truck Arrival Times, 9/17/03

Time	Total Trucks
8:30 PM - 9:30 PM	0
9:30 PM - 10:30 PM	4
10:30 PM - 11:30 PM	8
11:30 PM - 12:30 AM	16
12:30 AM - 1:30 AM	19
1:30 AM - 2:30 AM	6
2:30 AM - 3:30 AM	12
3:30 AM - 4:30 AM	5
4:30 AM - 5:30 AM	2
5:30 AM - 6:30 AM	1
6:30 AM - 7:30 AM	0
Total	73

Table 14 below shows supply truck origins and destinations. 38 percent of trucks interviewed had their trip origins in New England, followed by 19 percent from Florida. Upon leaving the Fulton Fish Market almost 28 percent of drivers will be bound for a destination somewhere in New York City and just over 22 percent will head to New Jersey.

Table 14. Supplier Origins and Destinations

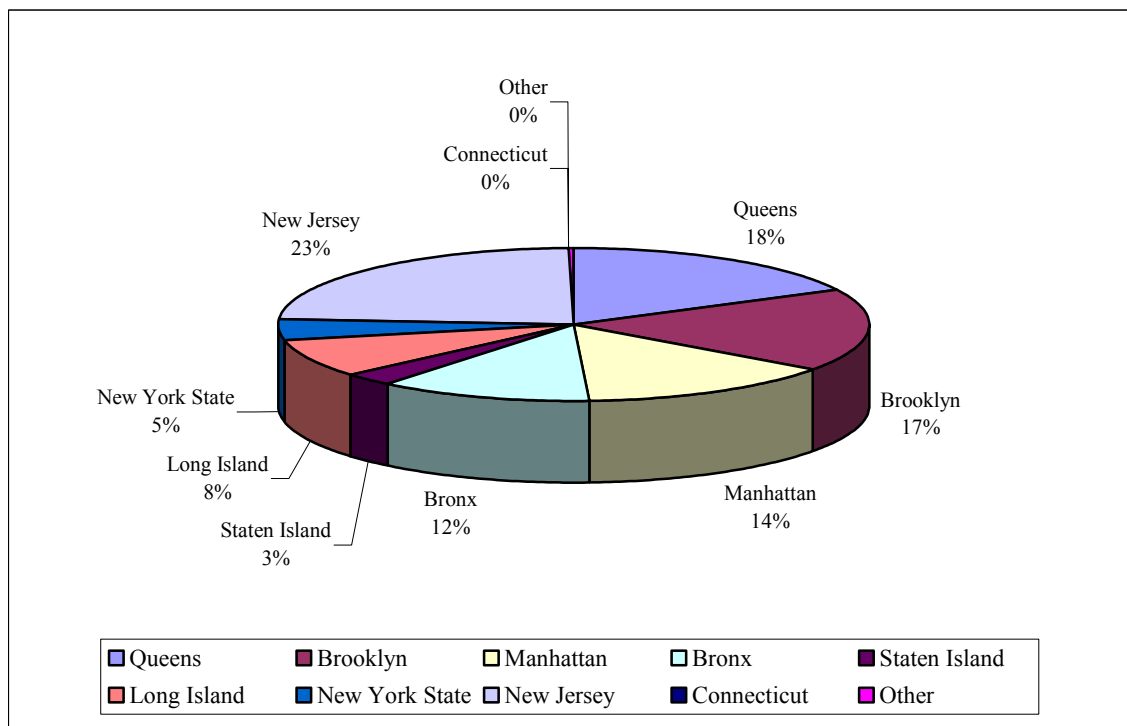
ORIGIN	Number	Percent
New York City	2	9.5%
New York State	0	0.0%
New Jersey	3	14.3%
New England	8	38.1%
Florida	4	19.0%
Long Island	1	4.8%
Maryland	3	14.3%
Total	21	100%
DESTINATION	Number	Percent
New York City	5	27.8%
New York State	1	5.6%
Long Island	1	5.6%
New Jersey	4	22.2%
Delaware	1	5.6%
Pennsylvania	1	5.6%
New England	5	27.8%
Total	18	100%

2. Retailers

Retailers, those purchasing products from the wholesale vendors at the market, begin arriving at around 1:00 AM, with most arriving between 4:00 AM and 7:00 AM. Retailer interviews were conducted at the market, however, since retailers have very little “down time” while at the market, many were unwilling to participate in the on-site interview. In order to increase the number of retailer interviews, a survey form was translated into Korean and distributed to members of the Korean Seafood Association of New York. Korean retailers comprise approximately 70 percent of total retail business at the Fulton Fish Market as reported by the Korean Seafood Association of New York and the Business Integrity Commission.

Figure 18 shows locations of Korean Seafood Association members. New Jersey accounts for the highest proportion of members at over 23 percent, followed by Queens, Brooklyn, Manhattan and Bronx.

Figure 18. Korean Seafood Association Membership Address Locations



The following retailer data are a compilation obtained from both on-site surveys and survey forms distributed to Korean retailers. The vehicles used by retailers are primarily 2-axle commercial vehicles and light trucks. The vast majority of them, over 71 percent, arrived at the market between 2:00 AM and 5:00 AM. While vehicles depart over a longer time span, over 65 percent of vehicles leave the market between the hours of 5:00 AM and 9:00 AM.

Table 15. Retailer Arrivals by Vehicle Class

Arrival Time	Arrivals by Vehicle Class					
	Passenger Car	Van	2-axle Comm. Veh.	Lt Trucks, 2-axle 6 tire	Single Unit, 3-axle	Total
1:00 AM				1	1	2
2:00 AM		3	7	4		14
3:00 AM			4	5		9
4:00 AM	2		6	4		12
5:00 AM	1		3	2		6
6:00 AM	2		2			4
7:00 AM						0
Total	5	3	22	16	1	47

Table 16. Retailer Departures by Vehicle Class

Departure Time	Departures by Vehicle Class					
	Passenger Car	Van	2-axle Comm. Veh.	Lt Trucks, 2-axle 6 tire	Single Unit, 3-axle	Total
2:00 AM					1	1
3:00 AM		1	3	1		5
4:00 AM				3		3
5:00 AM		1	1	5		7
6:00 AM			2	5		7
7:00 AM	2		4	1		7
8:00 AM	2		8	1		11
9:00 AM						
10:00 AM		1	1			2
11:00 AM						
12:00 PM			1			1
Total	4	3	20	16	1	44

Tables 17 and 18 summarize retailer origins and destinations. Queens and New Jersey account for more than 50 percent of retailer origins. Queens also accounts for over 20 percent of retailer destinations. The remainder of the trips leaving the market are distributed more evenly among the five boroughs (excluding Staten Island), New Jersey, Long Island and upstate New York.

Table 17. Retailer Trip Origins

Location	Retailer	
	Number	Percent
Queens	14	29.8%
Bronx	3	6.4%
Staten Island	2	4.3%
Brooklyn	2	4.3%
Manhattan	3	6.4%
Long Island	7	14.9%
New York State	5	10.6%
New Jersey	10	21.3%
Connecticut	1	2.1%
Total	47	100.0%

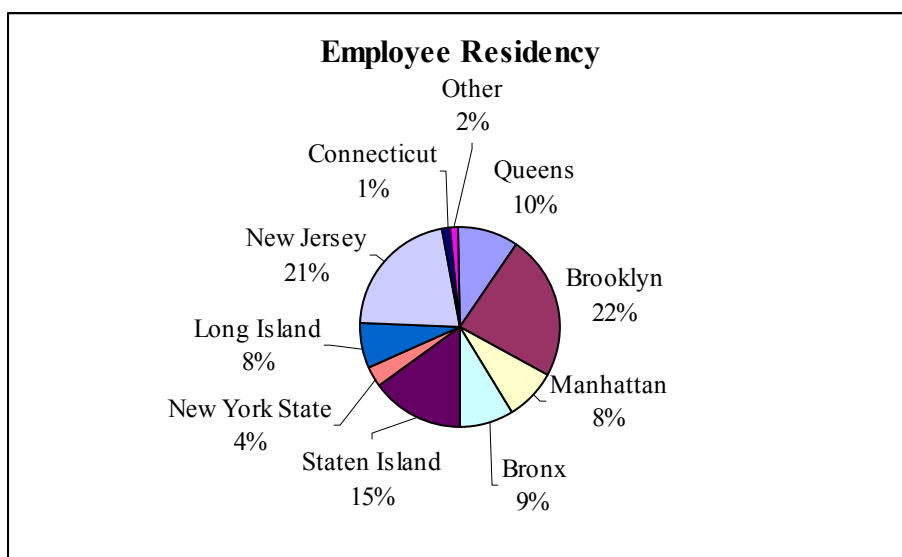
Table 18. Retailer Trip Destinations

Location	Retailer	
	Number	Percent
Queens	10	20.8%
Bronx	5	10.4%
Staten Island	0	0.0%
Brooklyn	8	16.7%
Manhattan	7	14.6%
Long Island	5	10.4%
New York State	5	10.4%
New Jersey	7	14.6%
Connecticut	1	2.1%
Total	48	100.0%

3. Employees

Fulton Fish Market employees include those who load and unload product, as well as people employed by market wholesalers as handlers or clerical workers. It also includes market security personnel. Employees were selected at random and surveyed. In addition, residence zip codes of 199, or approximately one third, of Fulton Fish Market employees were obtained from the Business Integrity Commission. The locations, based on these zip codes, are summarized in Figure 19. Fish Market employee residences are distributed throughout the metropolitan area.

Figure 19. Residency of Fish Market Employees



Employee origin and destination data were obtained from surveys. The majority of trip origins and destinations are fairly evenly distributed among New Jersey, the Bronx, Staten Island and Brooklyn, with Long Island, Manhattan, Queens, and upstate New York making up the remainder. It should be noted that there is a discrepancy between zip code data and trip origin/destination data. The O/D data indicate a much higher O/D level for the Bronx than the zip code data. Also, zip code data for Queens show almost twice the percentage of employees living in Queens than have trip origins there. One reason for the discrepancy may be that the O/D data were taken from surveys administered on site, and interviewers surveyed primarily loaders, unloaders and handlers. Security and clerical personnel were generally not interviewed in this process.

Table 19. Employee Trip Origins

Location	Employee	
	Number	Percent
Queens	6	5.1%
Bronx	22	18.8%
Staten Island	21	17.9%
Brooklyn	18	15.4%
Manhattan	8	6.8%
Long Island	13	11.1%
New York State	5	4.3%
New Jersey	24	20.5%
Total	117	100.0%

Table 20. Employee Trip Destinations

Location	Employee	
	Number	Percent
Queens	6	5.2%
Bronx	18	15.5%
Staten Island	22	19.0%
Brooklyn	18	15.5%
Manhattan	12	10.3%
Long Island	13	11.2%
New York State	5	4.3%
New Jersey	22	19.0%
Total	116	100.0%

Table 21 below shows mode split as obtained during on-site employee surveys. The “Current” data indicates the mode of transportation employees currently use to get to work at the Fulton Fish Market. The “Future” data indicates the mode employees anticipate using to get to work once the fish market moves to Hunts Point. The vast majority, over 70 percent, currently drives to work and will continue to do so once the market moves to Hunts Point.

Table 21. Employee Mode Split

Current and Future	Mode of Transportation							Total
	Drive	Passenger	Subway	Bus	Walk	Other	Don't Know	
Current Number	86	6	22	3	1	2	0	120
Current Percent	71.7%	5.0%	18.3%	2.5%	0.8%	1.7%	0.0%	100%
Future Number	86	0	16	3	0	5	1	111
Future Percent	77.5%	0.0%	14.4%	2.7%	0.0%	4.5%	0.9%	100%

III. HUNTS POINT TRUCK ROUTES

Community groups on Hunts Point have raised the issue of trucks using non-truck routes to access the markets and other facilities on Hunts Point. One of the key goals of this project is to recommend alternatives that alleviate this problem for Hunts Point residents. New York City Department of Transportation has also been working with Hunts Point community groups to develop short-term solutions to this problem and, toward that end, proposed amendments to existing truck routes. New truck route regulations took effect on July 21, 2004, and are shown in Figure 20. These changes are intended to help reduce the number of trucks using residential streets, while maintaining access to industrial areas. NYCDOT recommends that trucks traveling to the peninsula from the south use Leggett Avenue, and trucks coming from the north use Tiffany Street.

IV. FINDINGS / MODEL INPUTS

The truck surveys outlined herein were performed to identify and describe trucking activities that are to be addressed in the forthcoming EIS and provide truck-related data to be used in the modeling process. This data will provide additional “trucking” details at key locations in the study area. Origin and destination data gathered from truck driver interviews will be used for model input purposes.

Truck Volume Peak Periods

Data from truck driver surveys at the Hunts Point Markets, facility operator surveys and manual traffic counts indicate that while significant truck traffic enters and leaves Hunts Point during the traditional/modeling peak periods (6:00 AM – 10:00 AM and 3:00 PM – 7:00 PM), there is also significant truck traffic during non-peak times. During the modeling AM peak period, the meat and produce market data show a peak hour between 6:00 and 7:00 AM, and high levels throughout the AM peak. Significant traffic is also present during AM shoulder periods. Facility operators, on the other hand, indicated that the bulk of their truck traffic enters and leaves their facilities before or after peak periods.

According to manual truck volume count data, truck volumes vary from corridor to corridor, though truck traffic increases significantly during the AM peak. Truck traffic on local Hunts Point streets, however, is sustained at similar levels throughout the day, not tapering off until approximately 3:00 to 4:00 PM. During the traditional/modeling PM peak period, truck traffic to and from Hunts Point is, by all indicators, very low.

Access to Hunts Point Via Local Routes

In response to survey questions about local routes used to access the Hunts Point Markets, truck drivers often responded that they “use the truck routes”. While this may be true in most cases, the validity of this response cannot be assumed, especially if the driver is unfamiliar with the local street network. Therefore, truck volumes obtained by manual traffic counts are used for this analysis.

As mentioned in the body of the report, significant entry points for trucks accessing Hunts Point include Leggett Avenue, primarily 3-axle/6-tire trucks; Longwood Avenue, including heavy trucks (it should be noted that Longwood is not currently a designated truck route); and Tiffany Street, especially trucks with greater than three axles. While Hunts Point Avenue does not have high truck traffic volumes as compared to nearby truck routes, 2- and 3-axle truck volumes of over 100 per hour have been measured during mid-day periods at a point between Lafayette and Spofford Avenues, a street segment not designated as a truck route.

Should NYCDOT remove Tiffany Street between Bruckner Boulevard and Longwood Avenue from the truck route network, as is proposed, trucks currently using Tiffany Street will have to find another route to access the peninsula legally. NYCDOT proposes to add Longwood Avenue

as a designated truck route. Since Longwood Avenue is already being used by a number of trucks, designating it as a truck route would legitimize its use.

Access to Hunts Point Via Regional Routes

Data regarding the use of regional routes to and from Hunts Point were gathered during truck driver interviews at the Meat and Produce Markets and through facility operator surveys. In all cases the route used most often was the George Washington Bridge / Cross Bronx Expressway / Sheridan Expressway and its reverse. At the Meat Market, 46.7 percent of drivers interviewed said they used this route coming to the market. The route with the next highest usage was the Throgs Neck Bridge route at 8.9 percent. The Produce Market yielded similar results with 46.6 percent using the George Washington Bridge / Cross Bronx Expressway / Sheridan Expressway route. Leaving the Meat Market, 30.9 percent use this route and leaving the Produce Market, 44.0 percent. Facility operators responded similarly when asked about regional routes. Of the 259 trucks in the survey, 158, or 61.0 percent accessed Hunts Point via this route.

In assessing traffic to and from the Fulton Fish Market that will use Bronx regional routes in the future, it should be noted that a significant number of supply trucks come from New England and will likely use the New England Thruway and Bruckner Expressway to access the market. However, 19.0 percent of these trucks come from Florida, 14.3 percent from New Jersey, and 14.3 percent from Maryland. Many indicated they would use the George Washington Bridge / Cross Bronx Expressway / Sheridan Expressway route in the future. Anecdotal evidence from individuals associated with the Fulton Fish Market indicates that retailers may shift their current arrival and departure times once the market moves to Hunts Point in order to avoid peak period traffic.

Supplemental Data

NYSDOT was asked by other agencies to gather data regarding the demand for ferry and rail facilities on Hunts Point. In response to this request, questions regarding existing and potential rail and ferry service were added to the Facility Operators questionnaire.

Regarding rail service, the majority of facility operators did not have information regarding shipments coming through New Jersey by rail. Only one indicated receiving one trailer-load per day that had been delivered to New Jersey via rail. None indicated that they would increase rail service once clearance on the Hudson Line has been raised to allow trailer-on-flatcar and larger boxcars. When asked why they do not or will not use or increase the use of rail in the future, of nine survey respondents, six cited no access to rail sidings. Three indicated that their shipments are too small for rail and three stated that rail takes too long. (Each respondent was free to check more than one reason.)

Regarding ferry service, facility operators were asked if any of their shipments come from JFK, Newark Airport / Port of Newark / Elizabeth, the Brooklyn waterfront west of the BQE / Gowanus or Long Island City/Newtown Creek. One firm had 75 trucks coming from the Newark Airport / Port of Newark area, and 25 trucks from the Brooklyn waterfront. This firm expressed an interest in using ferry service for these shipments. Another respondent had 10 trucks coming from the Long Island City area, but indicated no interest in ferry service. Two respondents stated that ferry service shipment delivery time would have to be either the same or faster than current truck delivery times. They also indicated that ferry service frequency would have to be approximately every 30 minutes.

The same questions were subsequently asked to select members of the Hunts Point Cooperative Markets. Results of this survey are provided in a separate memorandum.