2012-2014 LIRR
Origin and Destination Report

Volume I: Travel Behavior Among All LIRR Passengers

August 23, 2016

Prepared for:

Metropolitan Transportation
Authority
2 Broadway
New York, NY 10004

Submitted by:
Abt SRBI
275 Seventh Avenue
New York, NY 10001

Table of Contents

1. Background and Objectives

This report summarizes the 2012-2014 Metropolitan Transportation Authority (MTA)/ Long Island Rail Road (LIRR) Origin and Destination (OD) Survey, conducted by Abt SRBI, Inc. for the MTA. The study involved two processes. First, it captured train boarding and alighting figures by way of head counts. Second, it provided a more in-depth travel and demographic profile of customers by way of self-reported surveys.

The OD Study was designed to provide a complete, geographically detailed representation of LIRR passenger travel patterns. Thus, it generated data that will serve as inputs into decision and benchmarking models as the LIRR undergoes significant service changes in the coming years (i.e., East Side Access). Specifically, it will be used to augment MTA's regional transit ridership forecast models used to support development of New Starts transit projects. It will also satisfy MTA's requirements for ridership data collection within the past 5 years to validate the performance of these models. In addition, data collected will be instrumental for compliance with Title VI reporting. Finally, the data obtained will also be used to satisfy a multitude of information needs in the day-to-day operations of LIRR. Abt SRBI collected the surveys and passenger counts from September 2012 through May 2014.[1]

The results are reported in two volumes. This report, Volume I, refers to travel behavior among the universe of LIRR customers. Travel and demographic data was collected using self-reported surveys collected onboard LIRR trains, by mail and web. In addition, passenger count data was also collected onboard Eastbound and Westbound trains. This report presents descriptive findings from both the survey and count data collection efforts. *Although passenger count summaries from head counts (not from the self-reported surveys) are presented in the body of the report and in the Appendix, these should be used with caution. The figures may overstate actual ridership at specific locations by unavoidably including persons who transfer from one train to another. This occurs mostly at Jamaica Station but also at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.*

A second volume - Volume II of this report takes a closer look at specific subpopulations of interest as identified by LIRR.

[1] Some time periods were avoided. See Section 2 ("Methodology") of this report for discussion on scheduling.

2. Methodology

2.1 Overview

The methodology was designed to meet the objective of capturing the universe of LIRR passengers for station boarding/alighting counts per station and self-reported detailed travel behavior. LIRR has been conducting these surveys for many decades; however this survey was completely redesigned to improve overall accuracy, capture travelers using new inter-agency transfer points (i.e., Port Authority of New York & New Jersey AirTrain JFK) and provide consistency to OD data captured for other MTA agencies, particularly MTA Metro North Railroad (MNR) from 2007. To meet this goal, development of the new design was a long, careful process and involved several tasks including the development of a new sampling frame, survey instrument, data collection protocols, and data processing. Throughout the process, quality assurance and testing were employed to ensure accuracy and unbiased findings. Also, each phase required approval by a large committee of MTA, LIRR and AECOM (statistical consultant) representatives before implementation. The final outcome was data that met or exceeded the thresholds set by MTA for sample size and quality.

2.2 Sampling Plan

The sampling plan called for passenger counts to be collected on every train operated by the LIRR, encompassing travel on weekdays, Saturdays, and Sundays. In order to obtain the most accurate snapshot of "typical" ridership across all LIRR branches, weekday fieldwork was conducted on Tuesdays, Wednesdays, and Thursdays only. Mondays and Fridays were excluded from the field schedule to eliminate any biases that might be caused by residual atypical weekend travel. Daypart definitions for the field period can be found in Appendix A.

Similarly, the main portion of the field period did not include holiday times, extra trains on holiday eves, and summer months, which were deemed as atypical. In addition, there was no field work during severe weather, and schedules were modified when possible to minimize ridership biases that could stem from fare increases, special events, and scheduled track maintenance work. One major weather related incident was Super Storm Sandy, which struck New York City in late October 2012 and resulted in major service disruptions on LIRR. The OD survey was suspended until January 2013 due to atypical LIRR service following the storm.

A supplementary sample of 24 specially targeted "Summer-Only" trains was separately fielded in July and August of 2012. The discussion on these trains can be found in the supplementary report on special populations in Volume II and is not included here. Note that some of these unique summer trains operated only on Fridays and Mondays.

Every station was included in this study and was assigned to a branch based upon LIRR definitions. However, there were no dedicated trains for the few City Terminals Branch stations located between Jamaica and Woodside. Instead, these stations were completely canvassed within other branches. In contrast, the few trains servicing only the Jamaica to Atlantic Terminal route are reported separately.

Daypart definitions may be found in Appendix A. Branch definitions can be found in Appendix B.

2.3 General Passenger Count Methodology

In the main portion of the study, passenger counts were collected onboard the universe of 1,662 Eastbound and Westbound trains. This excludes the additional 24 "Summer-Only" trains mentioned above and reported upon separately in Volume II. The onboard counting methodology was previously used in the Metro-North Railroad 2007 Origin and Destination study and found to be the most effective and accurate way of collecting data. It was also identified as a way to avoid counting errors at LIRR stations where numerous entrance and egress options make it very difficult to track passengers properly (e.g., Jamaica, Woodside, and Penn Station) or where LIRR platforms act as thoroughfares for other transportation modes (i.e., using the Woodside platform to access the subway).

Generally, two field interviewers were stationed in each train car– one at each door in each car within each train set.[2] Typically two doors opened per car; however, in some instances during rush hours on multi-platform stations (e.g., Hicksville and Jamaica), the number of open doors per train increased twofold since both the left and right doors open. Despite doors opening on both sides, two interviewers per car were used in these instances as well. Counts at these stations could still be completed with two interviewers per car. At each station, the interviewers were required to count all boarding ("ons") and alighting ("offs") passengers at their respective doors. Between stations, one of the interviewers would walk through the car and count the total number of passengers seated and standing.[3] The car counts were later used to reconcile and validate door counts. Once validated, full train head counts were tallied and submitted on a rolling basis to MTA and LIRR for review and approval. After approval, Abt SRBI constructed a full matrix of station and branch head counts. Having the on, off, and onboard counts for whole trains provided the most complete picture of the activity within the train runs.

Note that, although passenger count summaries from head counts are presented in this report, they are to be used with caution. The figures represent people boarding trains and include those who transfer from one train to another, resulting in overstated counts. This occurs mostly at Jamaica Station but also at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

In addition to the head counts, Westbound trains (e.g.: toward Manhattan) also included a survey component. While SRBI crew members would be assigned to perform head counts of passengers, their partner would be responsible for distributing surveys to newly boarded passengers. Each agent was required to return to their post at the train door to prepare for counting as the train approached the next station. More on this effort is described below.

Exhibits of training manuals and collection tools may be found latter in this methodology section and in Appendix C.

---

[2] Generally, there were two field interviewers per car; exceptions were very low ridership trains where it was deemed more cost efficient to reduce staff.

[3] For bi-level trains with high ridership, a third crew member was stationed in each car in order to count onboard passengers on the upper level.

2.4 General Travel Behavior Methodology

Concurrent with passenger counting, distribution and collection[4] of surveys took place onboard all LIRR trains to all passengers traveling Westbound, towards terminal stations in Manhattan, Brooklyn and Western Queens. The survey instrument asked respondents about both legs of their trip when applicable (return trip, or corresponding Eastbound trip.) In addition to door counts at station stops, at least one interviewer in each car was responsible for distribution and collection of paper surveys between stations.

Restricting survey distribution to only the Westbound direction was deemed the best method since it allowed for collection of most data for both legs of trip and avoided question redundancy, heavy burden on passengers, and unnecessary costs. The overall response rate was 48.6%, which exceeded the 40% that was targeted. Exhibits of training manuals and collection tools may be found later in this methodology section and in Appendix C. The survey instrument may be found in Appendix D and E.

[4] A web and mail option was also offered to passengers who wished to fill in the survey at a later time. Each survey had a unique code that was respondents had to enter in order to submit survey via web.

3. Pretests

3.1 Background

Pretests for the LIRR OD project were conducted on May 2nd and May 3rd of 2012. The pretests were intended to meet numerous objectives.

First and most importantly, the pretests were required to test two possible full-scale designs for data collection. One involved head counts and survey distribution per train at the station platform, and the other involved onboard counts and distribution. For each of the two designs, survey distribution was Westbound only.

Additionally, two versions of the survey instrument were tested for completeness and response rate. At issue was the placement of the residence address question for those who did not start or end the trip at home. In one version, placement was early in the survey, right after the start location question; in the other version, it was at the end of the survey, just prior to the contest invitation. This test was conducted because it was unclear which placement of the residence question would be more effective in eliciting a response (i.e., is placement up front in the survey with another address question more effective than placement towards the end of the survey with other background questions?).

Additionally, the pretests were administered to help identify any issues with general training protocols, from which revisions could be made prior to main implementation.

3.2 Assessment of Head Count Designs

Design #1: Station Platform Head Counts

The platform-based design pretest was conducted on Tuesday, May 2nd from 8am to 9am at Hicksville station. Peak hour was chosen as the time period given train frequency and ridership volume. Similarly, Hicksville was selected as the site given its ridership volume and complexity as this station has two above-ground platforms servicing three tracks and both Westbound and Eastbound travel. Counts and survey distribution for ten trains were completed: six were Westbound and four were Eastbound. The train types of train sets included Electric (M3 and M7 equipment) and Diesel. Three SRBI field crew members were assigned to each platform, two responsible for counting passengers getting on and off from one car and one for survey distribution; the car selected was deemed to be highest in traffic given its location immediately adjacent to the access stair and escalator. In addition, one person per train (onboard) was dedicated to collecting surveys just prior to Jamaica station. Supervisors and senior level Abt SRBI project manager observers were also present.

The total count for Westbound passengers yielded a pseudo onboard ridership count of 143 for this one car at Hicksville during the entire peak period. This count was within a reasonable range given expected ridership (average per car of 102 from 2011 Ridership Book) and adjusting for the position of the car adjacent to high-traffic easy platform access points. This pretest noted that there may be an issue about capturing an exact count per train on platforms that service both Eastbound and Westbound trains during the same time period, and in incidences where passengers arrive at a platform too early and allow a train or two to pass by before embarking on the chosen train (e.g., they may be waiting for a friend, an express/local train, or for a non-peak, lower cost train).

Questionnaire distribution was more problematic. First, one of the two platforms at Hicksville served both the Eastbound and Westbound direction, with a significant Eastbound ridership. Thus it was not

easily detectable whether any particular waiting passenger was heading Westbound and should have been given a survey. It was not surprising, therefore, that some Eastbound passengers were given a survey in error. The "on" count was 143, yet the number of surveys given out was 148. Given that not all Westbound passengers agreed to take a survey, this finding suggested a significant number of Eastbound passengers were given a survey in error.

Moreover, response rates were low. Of the 148 distributed, keeping in mind that some were given out in error, the number of surveys received back with at least something filled in was 31; the minimum criteria of having both origin and destination station records, and traveling Westbound brought the number down to 27. The response rate, calculated by dividing the number with an OD station traveling Westbound by the "ons" was 19%. This was far lower than the 40% goal.

Design #2: Onboard Head Counts

The onboard design pretest was conducted on Wednesday, May 3rd from 8am to noon on the Long Beach Branch. Both peak and non-peak hours were captured and included two Westbound trains and one Eastbound train. The Long Beach Branch was selected for the pilot because the train duration was not too long (each trip took about an hour) and each train started or ended at Penn Station. Moreover, this branch had the full range of station proximity configurations - in close proximity (2-3 minutes apart) and stations that were further apart. These trains included electric train sets only. Two SRBI field crew members were assigned to each car. One person was responsible for door counting and distributing surveys; the other was responsible for door and onboard counting. Supervisors and senior level Abt SRBI observers were also present.

The station-to-station "ons" counts for the first Westbound train (#825) correlated nicely with the onboard counts at each station, with most counts reconciling exactly. Valley Stream, Jamaica, and Woodside had minor discrepancies between the reported onboard counts and the expected onboard counts based on boarding passengers. The difference between the two numbers ranged from four to seven passengers in each case. This was likely due to passengers moving between cars. Counts on the second Westbound train (#833) were very similar. The only onboard count discrepancies occurred at Lynbrook, Valley Stream, and Jamaica. For this train, counts were at most off by two passengers. The table below shows onboard counts as they compare to the counts in the 2011 LIRR Ridership Book.

Table 1. 2012-2014 LIRR Survey Pretest Counts and 2011 LIRR Ridership Book Counts: Comparison of Onboard Counts

Train	Car Onboard Count	Number of Cars	Approximate Train Onboard Count	2011 LIRR Ridership Count	WOJ/EOJ
825	59	10	590	570	East of Jamaica
	89	10	890	900	West of Jamaica
833	27	10	270	210	East of Jamaica
	35	10	350	300	West of Jamaica

The process appeared to go smoothly for all stations except at the initiation station, where passengers climbed onboard before we could assemble our crews in place. The process was also difficult at Jamaica station, where counting both "ons" and "offs" simultaneously for double doors was very difficult.

Questionnaire distribution went smoothly with no particular problems or issues. Of the 111 surveys that were distributed onboard trains, 54 were returned, yielding a 49% response rate, far higher than what was achieved with the platform approach and exceeding the 40% goal.

3.3 Questionnaire Version Results

Of the 95 eligible collected surveys (with an OD station pair) across both pretest data collection protocols, 33 were version 1 (place of residence question was early in the order of questions) and 62 were version 2 (placement of residence question was later). In each version, most gave an address that was their home address and so the residence follow-up question was not needed. Of the ones where that question was required (9 total), 3 were version 1 and 6 were version 2, roughly an equal proportion. All 3 in version 1 answered the follow-up residence question. Only 2 of the 6 in version 2 answered the follow-up residence question.

Table 2. Results of Pretest Questionnaire Testing

	Version 1 (earlier in the question order)	**Version 2 (later in the question order)**
Number of surveys completed	33	62
Number of respondents needing the follow-up residency question	3	6
Number of respondents who answered the follow-up residency question	3 (100%)	2 (33%)

The sample sizes were quite small; however it appeared that version 1, with the residency question earlier, was more effective in eliciting a response to the follow-up residence question where needed.

3.4 Training Evaluation

The pretests confirmed that the general training protocols were effective as no other noteworthy operational issues were encountered apart from what was presented above.

3.5 Summary of Outcome of Pretests

Based on the findings from the pretests, several decisions were made for the main study. First, to respond to specific pretest objectives, it was decided that the onboard design would be employed, mainly because it yielded the required response rate Second, it was decided that version 1 of the questionnaire with the follow-up residence question earlier in the question order would be used because it yielded more complete responses.

In addition, count procedures would be adjusted. At the initiation station, we would count onboards as a substitute for the “ons” to account for the fact that customers may have already boarded before we

were able to position the crew. Also, at stations where doors open on both sides, counts of only "offs" and onboards would be conducted; the "ons" would be derived mathematically.[5]

Most importantly, MTA/LIRR and Abt SRBI agreed that the pretests were necessary and yielded important information to allow for a more efficient, accurate and smooth implementation process.

[5] While not an integral part of the pretests, it was also determined that major transferring activity at Jamaica led to counting errors. Thus it was determined that station counts were best gathered by recording "onboards" and "offs" only, with a mathematical computation of "ons."

4. Implementation of Data Collection

4.1 Overview

Data collection took place after the pretest determinations, starting in September 2012 and concluding in May 2014.[6] This length of data collection was needed to support a high-quality and well-supervised field team, resulting in superior quality in collected data compared to results from past OD projects which had attempted to complete similar levels of field work in a more truncated time period. Field work was halted during holiday times and summertime due to atypical ridership patterns, and during the time period immediately after Super Storm Sandy in October 2012. Special consideration was made at scheduling around special events, including a spring fare increase and track work when possible. A total of 1,662 trains were counted, not including the special summertime effort, encompassing the entirety of the LIRR system at the time of fieldwork. Over 200 in-house Abt SRBI staff were mobilized to count and survey the LIRR system over the duration of the study.

Each shift was staffed according to train set information provided by LIRR, with crew size based on the maximum number of interviewers needed for the largest train on a shift. Each shift was headed by a field supervisor. Shifts were designed to be as efficient as possible, minimizing both the number of deadhead (non-working) trips necessary to field all trains and the downtime between working trains. Deadheads were used only to shuttle workers to initiation stations when there were no other options. In rare instances where no LIRR service was available, staff were picked up from the Abt SRBI midtown Manhattan office and shuttled out to their start location via vans.

Field supervisors were responsible for distributing field materials (pencils, surveys, count sheets, aprons) to staff and collecting them at the end of the shift. Staff members were also equipped with LIRR-issued ID badges, safety vests, and clickers for counting. Onboard trains, their responsibilities included taking detailed notes about train conditions and monitoring staff to ensure established protocols were being followed. Collected materials were stored in a private room in Penn Station, from which it was then transported to Abt SRBI's office.

Weekly status meetings were held while field work was in session. During these meetings, Abt SRBI would provide updates to the MTA/LIRR on the previous week's field work, as well as discuss any outstanding issues, such as upcoming deliverables or any challenges that had come up during the week. Abt SRBI also kept a running train tally that tracked the week-to-week progress of field work. This train tally was provided for MTA and LIRR before each weekly meeting. The survey schedule was also provided to MTA/LIRR for the following week.

4.2 Training

Training sessions were integral to proper preparation for fieldwork and were held regularly at Abt SRBI's office. All new staff members were required to complete training for the study before being eligible for field work. In addition, Abt SRBI re-trained all staff after a long period of downtime, particularly after Super Storm Sandy and the summer months.

The training was comprehensive and covered the following general topic areas:

---

[6] Field work was also conducted for 24 additional seasonal "summer only" trains during July and August of 2012.

- Overview of the study
- Dress code
- Role division onboard trains
- Directions on how to use clickers
- How to complete the count forms
- Proper behavior
- What to do in the event of service disruptions
- What to do at the end of a shift

The full training manual can be found in Appendix C.

In addition to formal training sessions, field supervisors reinforced established protocols on a regular basis during the course of fieldwork.

4.3 Passenger Counts

Passengers were counted on all Eastbound and Westbound trains in the system, with the exception of special trains during holiday and summer periods (see Volume II for supplementary special trains counted during the summer). Field staff were stationed at each train door and responsible for counting the boarding and alighting passengers at each station. Between stations, one agent in each car would be responsible for obtaining a total onboard head count of people within the car. When necessary, bi-level trains would also be staffed with a third crew member whose responsibility was to obtain the onboard head count of the top level of the train. In cases of extremely low ridership, some trains would only be staffed with one survey agent per car.

As mentioned in the Pretests section, at the initial station for a train run, onboard counts were collected in lieu of "ons". At Jamaica, staff were instructed to focus on only the "off" counts because it would be difficult to count both the "ons" and "offs" at the same time given that the doors often open on both sides at this major transfer point. The "off" counts were chosen over "on" as this would reduce chances of errors in counting given customers tend to line-up before the train arrives. The on counts for Jamaica were then imputed using an arithmetical formula based on the onboard figure at the prior station, as well as the "offs" and onboard numbers for Jamaica station.

Field staff used clickers and recorded counts on a custom count form that were pre-populated to specify the train number and the scheduled station stops (See Figures 1 and 2 below) for each train. At the end of each round trip, field staff would submit all count sheets to the field supervisor, who would review each sheet for completeness.

Counts were submitted to MTA/LIRR on a rolling basis for review and approval throughout the duration of the study. This is described in more detail in Section 5.1 ("Count Data") of this report.

Note: During the period when the counts were performed, weekend service on the West Hempstead Branch was suspended due to budget cuts. Therefore, no weekend count data is available for the West Hempstead Branch.

4.3.1 Figure 1 – Sample Eastbound Count Sheet

2012 LIRR Origin & Destination Study 5609
Eastbound

Date: 09/17/2013
Weather:

Staff Name: ☐ Seat Counter
Partner Name: Car No: Train No: 1616 Crew No: 322-C
Supe Name: Supervisor Cell No.: ☐ (check if Quiet Car)

Huntington		No. of Passengers												Remarks
		ONs			OFFs			SUM			On-Board			
001	Penn Station													
002	Woodside													
043	Forest Hills	x	x	x	x	x	x	x	x	x	x	x	x	
070	Kew Gardens	x	x	x	x	x	x	x	x	x	x	x	x	
003	Atlantic Terminal	x	x	x	x	x	x	x	x	x	x	x	x	
096	Nostrand Avenue	x	x	x	x	x	x	x	x	x	x	x	x	
036	East New York	x	x	x	x	x	x	x	x	x	x	x	x	
005	Long Island City	x	x	x	x	x	x	x	x	x	x	x	x	
004	Hunterspoint Avenue	x	x	x	x	x	x	x	x	x	x	x	x	
137	Bolands Landing	x	x	x	x	x	x	x	x	x	x	x	x	
006	Jamaica													
138	Hillside													
063	Hollis	x	x	x	x	x	x	x	x	x	x	x	x	
106	Queens Village	x	x	x	x	x	x	x	x	x	x	x	x	
041	Floral Park	x	x	x	x	x	x	x	x	x	x	x	x	
094	New Hyde Park	x	x	x	x	x	x	x	x	x	x	x	x	
088	Merillon Avenue	x	x	x	x	x	x	x	x	x	x	x	x	
007	Mineola													
025	Carle Place	x	x	x	x	x	x	x	x	x	x	x	x	
131	Westbury													
008	Hicksville													
127	Syosset													
030	Cold Spring Harbor													
065	Huntington													

Abt SRBI

1 of 1

4.3.2 Figure 2 – Counting Clicker

A counting clicker (see Figure 2) was used to keep record how many customers were getting off and boarding.

4.4 Survey Questionnaire

The OD survey questionnaire was offered to passengers on all Westbound trains. Questionnaire distribution took place concurrently with the train counts.

Survey packages were carefully prepared for each car in a train. Each package was packed generously, at approximately 125% of expected ridership, in order to eliminate the risk that a field interviewer would run out of questionnaires to distribute. As an extra precaution, the supervisor also carried supplemental surveys to distribute if needed.

As an added level of quality control, each survey had a unique PIN number on the cover page and the PIN number on successive surveys in each bag would be in sequential order. The Westbound count forms included a field where the interviewer had to enter their top serial number at each station (see Figure 3 above). The sequential ordering of PIN numbers helped Abt SRBI track the survey range for each train and each station within a train run. As the PIN ranges were used for control, once a train has been fielded, no questionnaires from the corresponding range were repurposed for other fieldwork.

4.4.1 Figure 3 – Sample Westbound Count Sheet

2012 LIRR Origin & Destination Study 5609
Westbound

Date: 10/08/2013
Weather:

Staff Name: ☐ Surveyor ☐ Seat Counter ☐ Top Level on Bi-level
Partner Name: Car No: Train No: 1605 Crew No: 329-B
Supe Name: Supe Cell No.: (check if Quiet Car)

Huntington		Top Serial No.						No. of Passengers										Remarks
								ONs			OFFs			SUM			On-Board	
065	Huntington																	
030	Cold Spring Harbor																	
127	Syosset																	
008	Hicksville																	
131	Westbury																	
025	Carle Place																	
007	Mineola																	
088	Merillon Avenue																	
094	New Hyde Park																	
041	Floral Park	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
106	Queens Village	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
063	Hollis	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
138	Hillside	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
006	Jamaica																	
137	Bolands Landing	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
004	Hunterspoint Avenue	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
005	Long Island City	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
036	East New York	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
096	Nostrand Avenue	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
003	Atlantic Terminal	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
070	Kew Gardens																	
043	Forest Hills																	
002	Woodside																	
001	Penn Station																	

Surveys Per Bag: 2 Total No. of Surveys Collected:

Abt SRBI

1 of 1

The survey questionnaire was distributed in a paper survey format to any customers willing to take it onboard all Westbound trains. It was designed with the assumption that the primary response mode would be administration and collection onboard trains. However, respondents were also given additional options to return their surveys via postage-paid Business Reply Mail or by completing a corresponding web survey. In addition, the questionnaire was available in both English and Spanish both in paper and online.

In total, 119,002 completed surveys were obtained over the course of the field period, exceeding the 40% goal. Of those, the vast majority 117,504 (98.7%) were collected onboard trains. Very few respondents mailed back their surveys, 1,175 (1.0%) or completed it online, 323 (0.3%). In all, 3,998 surveys (about 3%) were completed in Spanish. Almost all of these were completed onboard using the paper instrument. None of the web completes were in Spanish.

The front panel of the questionnaire included an appeal to customers to help LIRR improve its service by participating in the survey, information about the cash drawing to further incentivize participation, and information about how to access the survey online. Each questionnaire cover (see Figure 4 below) also contained a unique PIN number (Password) that served 3 purposes for the study:

- Unique identifier – each PIN was only printed once, so there were no duplicates in the study. This identifier was consistent across both paper and web surveys.

- Web survey access – each PIN served as a password for access to the web survey for respondents who wished to complete it online. Once a survey had been completed, that PIN was locked out from the web survey, ensuring that each PIN number would only be used once.

- Train association – When preparing materials for field work, Abt SRBI kept a record of which PIN ranges were packed for each train. Since the PIN numbers were unique and consecutive, it was possible to track exactly which surveys corresponded to any given train. This was important and could be used to confirm or refute reported travel behavior, as well as fill in missing station information from surveys if possible.

4.4.2 Figure 4 – Sample Questionnaire Cover

Long Island Rail Road

TRAVEL SURVEY

Dear Long Island Rail Road Customer,

LIRR would like to know more about how you travel and use our commuter rail system. By taking a few minutes to complete this survey, you will be helping us improve the service we provide to you. As you answer these questions, please think about your entire trip from beginning to end. **If you have already filled out this questionnaire on a previous trip, please complete it again.** All additional information is of great value to us. We ask that you complete this questionnaire as soon as possible and return it to us in one of three ways:

1) By handing it back to survey personnel on board your train,

2) By mailing it back postage-free,

3) By answering the questions online at www.opinionport.com/LIRRSurvey.html Enter the password printed on this page to begin the online survey.

Complete this survey for a chance to win one of **ten $250 cash prizes**. See **www.opinionport.com/LIRRSurvey/rules.html** for more details.

Thank you very much for your cooperation.

Approximately every two months, a random drawing will be held to select the winner of a $250 cash prize. To be eligible, you must complete the survey, and provide specified contact information to be notified in the event that you are a winner; or you may submit a postcard to "Abt SRBI, LIRR Travel Survey, 275 7th Avenue, Suite 2700, New York, NY 10001" including your name, address, and telephone number. The last drawing will be conducted after May 15, 2014. See the complete rules at www.opinionport.com/LIRRSurvey/rules.html No purchase is necessary. Void where prohibited. If you are under 18 years of age, an employee of SRBI, and/or the MTA or any of its agencies, you may complete the survey but will not be eligible for the drawing.

Your Password/Su Contraseña:	054567

Estimado Cliente del Long Island Rail Road,

El LIRR quisiera más información acerca de la manera en la cual hace viajes y usa nuestro sistema de trenes de cercanías. Al tomar unos momentos para completar esta encuesta, nos ayudara a mejorar el servicio que le proporcionamos. Mientras usted conteste estas preguntas, por favor, piense de su viaje entero desde el comienzo hasta el final. **Si ya ha llenado este cuestionario en un viaje anterior, haga el favor de completarlo de nuevo.** Toda la información adicional es de gran valor para nosotros. Le rogamos que complete el cuestionario tan pronto como sea posible y que nos lo devuelva en una de tres maneras:

1) Entregándolo al personal de la encuesta abordo su tren,

2) Enviándolo por correo, franqueo gratis,

3) Contestando las preguntas en línea en www.opinionport.com/LIRRSurvey.html Ingrese la contraseña impresa en esta página para comenzar la encuesta en línea.

Completa esta encuesta para tener la oportunidad de ganar uno de **diez premios de $250 en efectivo**. Vaya al **www.opinionport.com/LIRRSurvey/rules.html** para más detalles.

Muchas gracias por su cooperación.

Aproximadamente cada dos meses, una selección al azar será celebrado para seleccionar el ganador de un premio de $250 en efectivo. Para ser elegible, usted debe completar la encuesta y proveer la información de contacto especificada para ser notificado si acaso usted es un ganador; usted puede someter una carta postal a "Abt SRBI, LIRR Travel Survey, 275 7th Avenue, Suite 2700, New York, NY 10001" incluyendo su nombre, dirección, y número de teléfono. La última selección se tomará después del Mayo 15, 2014. Vea a las reglas completas en www.opinionport.com/LIRRSurvey/rules.html Ninguna compra es necesaria. Inválido donde prohibido. Si usted tiene menos de 18 años de edad, eres un empleado de SRBI, y/o la MTA o algunas de sus agencias, usted puede completar la encuesta pero no será elegible para la selección al azar.

Please complete this important survey for a chance to win a cash prize!

The order of questions within the survey followed the respondent's Westbound trip from the start, asking about their trip origin, origin station, and station access mode. Some questions on parking were then presented to respondents who accessed their Westbound LIRR station by car. After asking about any potential transfer stations, the focus then shifted to the destination station, destination location and destination access mode. After the Westbound related questions, the survey then asked about the respondent's corresponding Eastbound trip. The next section collected demographic information about the respondent. At the end of the questionnaire, respondents had the opportunity to enter into a drawing (10 prizes of $250 each) by providing their contact information.

The copy of the full paper questionnaire can be found in Appendix D along with example screenshots of the web survey in Appendix E.

5. Data Entry, Processing and Weighting

5.1 Count Data

All field materials were returned to Abt SRBI offices from collection holding areas in Penn Station, where they were reviewed for accuracy and clarity. While in-field assurance checks were done by supervisors on site, each field person's count sheet was once again reviewed in detail in the home office to ensure they were consistent with the data input instructions that were outlined during field training and reinforced over time. Once the count sheets passed quality assurance guidelines, they were grouped by train and data entered.

The detailed train information provided in the entered count data was checked for accuracy and the count numbers were compared to the original counts sheets as necessary to confirm that no errors occurred during data entry.

Once the counts passed through review, they were submitted to the MTA/LIRR for approval. Any substantial discrepancies between expected ridership counts as provided by LIRR, and the counts obtained during field work were isolated and reported. When possible, Abt SRBI would also suggest explanations for what may have caused the discrepancy (e.g., special events, weather conditions). If the submitted counts were determined to be unrepresentative of typical travel, a train was flagged to be recounted. 36 trains (of the total 1,662 LIRR trains counted, or 2%) were recounted in this process.

Count data was delivered periodically over the course of the study. There were 23 sets of intermediate count data delivered, followed by an aggregate dataset containing all counts for all trains at the end of the study.

Note that, although passenger count summaries from head counts are presented in this report, they are to be used with caution. The figures represent people boarding trains and include those who transfer from one train to another, resulting in overstated counts. This occurs mostly at Jamaica Station but also at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

5.2 Survey Data

After surveys were collected from the field, they were separated based upon their completion status into three categories:

1. Questionnaires with both origin station and destination station questions answered (regardless of completion status of the rest of the questionnaire)
2. Questionnaires with no responses in either origin station or destination station questions
3. Blank questionnaires

If both the origin station and destination station questions were answered, the survey was counted as a "completed" survey. Any questionnaires that had other information but were missing either origin or destination station were set aside to see if they could be converted into a completed status using other available information to derive the origin or destination station. This was done primarily by referencing the "top serial number" for each station on the Westbound count sheet to determine the origin station where the survey was distributed. Additionally, in-house editing staff tried to determine whether the reported trip origin or trip destination was in close proximity to any of the stations on the train run. Any questionnaires for which both the origin station and destination station were not reported or could not be additionally determined, as well as all remaining blank questionnaires, were

not included in further data processing. Out of the approximately 125,000 surveys returned, about 6,000 (5%) were excluded in this process. Each completed questionnaire was stamped with a unique ID and unique ID ranges were documented by train. These IDs served as an additional control measure to ensure each survey was matched correctly to the train it was surveyed on.

A web form, which was nearly identical to the web survey for respondents, was designed for data entry. This allowed Abt SRBI to track data entry progress, manage the format of the entered data, and enabled a more seamless merging of the paper responses with the respondent self-administered web responses.

Abt SRBI reviewed the entered survey data in batches, performed any necessary cleaning, and delivered the cases as intermediate datasets to MTA/LIRR. The survey data was delivered over 6 intermediate waves, followed by an aggregate dataset of all unweighted records at the end of the study. A fully weighted aggregate dataset was also delivered to the client.

5.3 Survey Cleaning

In order to qualify as a completed survey, a record had to contain both an origin and destination station. These two data points were required for data expansion. Using count data for reference, reported origin and destination stations were aligned to the control counts.

If the origin station was missing, a reviewer would refer to the count forms of the corresponding train. Westbound count forms contained fields to indicate the topmost survey PIN number for each station. This information would enable a reviewer to identify which station the survey's PIN number was associated with. For example, if the topmost serial number for a train that stopped at the Babylon station was 052137 and the topmost serial number for Lindenhurst, the next station, was 052141, then a survey with the serial number of 052140 was handed out to a person boarding at Babylon station.

Other questions in the survey were carefully reviewed for consistency as well. In any instance where a sub-question was filled out but the parent question was not, the parent question was filled in by a review. Some examples include:

- If a respondent did not select that they transferred at an LIRR station, but then specified a station where they transferred, the "yes" option to the "Did you transfer?" question was filled in.

- If a respondent specified a subway line for their egress mode, but did not fill out the parent question indicating that the subway was used, the subway option was be filled in.

- If a respondent wrote a response in an Other-Specify field, the reviewer would make sure the "Other" option in the parent question was also selected.

In addition to this type of cleaning, Abt SRBI reviewed the aggregate survey data after it was data entered to determine whether any "code-ups" into existing response categories were necessary. For example, a code-up to the existing category "Recreation" was made if a respondent indicated "have a meal" or "see a play" in the Other-Specify response for the trip purpose question since those are considered recreational purposes.

For some questions with Other-Specify responses, if a substantial number of respondents gave similar verbatim answers (typically more than 3% of initial waves); new answer choice codes were developed to aggregate these responses. For example, in the "address type" questions (Is this the address where you…?), a number of people reported either the address belonging to a person they

were visiting or that the address was a place for recreational activity. New response codes for "visit family/friends" and "participate in recreational activities" were added to more clearly display these responses.

Any question that prompted a verbatim response from a respondent was left unedited in order to preserve raw data. The same is true for all Other-Specify responses that could not be coded up. For example, verbatim responses such as "too long", "a few" or "-1" to Question 11 ("Please indicate how many minutes it took you to get from your parking spot to the train platform ") were left unedited in the dataset. Similarly, responses such as "100018" or "train" to Q16 ("After exiting your last LIRR train, how many subways and/or buses will (did) you take to reach your final destination?") were also left unedited. These responses, which indicate inadequate or erroneous reporting by the respondents, were retained to maintain the completeness of the data collected.

5.4 Geocoding

The address information collected from the respondents was central to the OD survey and an extensive set of geocoding procedures was developed and implemented to enable mapping of the address data. The agreed upon procedures included the following steps:

Step 1 – Survey data were organized into "waves" (or batches) with address question "consolidation" for geocoding.

a. Waves – Completed survey data was divided into 6 "waves" (chronological batches) of data. Each wave was then geocoded accordingly. Address data were processed one wave at a time, thus Wave 2 geocoding did not begin until Wave 1 geocoding was finalized. At the end of the study, an additional final data quality review of all geocoding was conducted for the entire dataset from all waves.

b. Consolidation – Survey questions with address data requiring geocoding were Question 3 – Trip origin location (Q3), Question 6 – Home location if trip did not begin at home (Q6), and Question 17 – Destination location (Q17).

   Each of these had distinct address fields such as:
   "Q3ADD" (address)
   "Q3CITY" (city/town)
   "Q3ST" (state)
   "Q3ZIP" (ZIP code)

   For geocoding purposes, the three questions containing address information were temporarily consolidated (with unique identifiers based on Respondent ID and question number) in order to make geocoding more streamlined and uniform. This process aided in geocoding by ensuring duplicate address information was coded identically among the three questions After geocoding was completed the original Q3, Q6, and Q17 fields were populated back to their original question structure via the unique identifier.

Step 2 – Consolidated address table (created in Step 1b) was then categorized according to the input data quality in QADD, QCITY and QZIP.[7]

The data was organized as follows to geocode according to level of specificity and degree of completeness of input data:

a. Complete location (data provided in QADD, QCITY, and QZIP)
b. Address only (data provided only in QADD, not in QCITY and not in QZIP)
c. ZIP code (data provided in QZIP, not in QADD, but possibly in QCITY)
d. City (data provided only in QCITY, not in QADD, not in QZIP)
e. Null (no valid address data provided in QADD, QCITY, and QZIP)

Step 3 – The Complete Location (Step 2a), Address (Step 2b) and City (Step 2d) data from categories described above were reviewed manually and standardized.

a. Manual review of address records was completed to standardize the addresses, manually fix spelling errors, fill in missing data fields, and align data into correct data fields. General internet lookup tools were used to complete this manual address standardization process such as Google, Google Maps, Bing, Bing Maps, Yahoo, etc.

b. Street or intersection addresses as organized in Step 2b were assumed by default to be "New York, NY" if no QCITY and QZIP were provided. Unless noted otherwise as QST ≠"NY" or place names outside of New York City, such as "Huntington Station" or "Newark", QCITY and QST were standardized to "New York, NY". For example, if only "6th Ave" was provided in QADD, with QCITY and QZIP null, this record was standardized as "6TH AVENUE, NEW YORK, NY", with "New York, NY" defaulting to Manhattan if Borough was not specified.

c. Records with city only input in QCITY from Step 2d were manually standardized to correct city name with spelling errors fixed.

Step 4 – The standardized address records (Step 3) were geocoded as QACCU 1, 2A, 2B, 3, or 4.

a. Bing Maps REST services API was used for geocoding (WGS 84 coordinate system) http://msdn.microsoft.com/en-us/library/ff701715.aspx. Bing Maps API was used as the agreed upon geocoding software for availability of geocoding street data for the entire LIRR region uniformly. Use of ESRI GIS geocoding tools, geocoder setup, would have required gathering and management of street GIS layers from the different municipalities and counties, adding time, costs and inconsistencies through the region. Bing Maps API was used for the open source output of the geocoding precision (address, intersection, street, zip, city etc.) compared with other APIs such as Google Maps which does not provide this information in an open source manner.

[7] QST (State) was not used as criteria for this organization step. If data was provided in QST it was carried forth in all occurrences. If QST was not provided it was not a limitation as QST was filled in as result of geocoding output, and as per LIRR ridership is contained in NY State by default.

b. The variables QX (Longitude) and QY (Latitude) were populated accordingly using geocoding output. Similarly, the variables QADDGIS, QCITYGIS, QZIPGIS, and QSTGIS were also populated using the geocoded address.

c. The geocoding output included a "precision" field used to populate QACCU as output geocoding accuracy (i.e., what precision the coordinates represent). This variable can be used to guide use of geocoded address data depending on the type and intent of analysis being used.
   i. QACCU = 1 = House number, street, city, state, and ZIP code (resulted in geocoding at the full address location)
   ii. QACCU = 2a = Street, city, and ZIP code (no house number) (resulted in geocoding to the street centroid within the zip code)
   iii. QACCU = 2b = Street and city (no house number, no ZIP code) (resulted in geocoding to the street centroid)
   iv. QACCU = 3 = ZIP code (resulted in geocoding to the zip code centroid)
   v. QACCU = 4 = City (resulted in geocoding to the city centroid)
   vi. QACCU = 0 = Ungeocoded (resulted in no geocode)

Step 5 – City and/or Zip only survey data, as noted in Step 2c and Step 2d, were geocoded.

a. For ZIP code data from Step 2c, a standardized list of all ZIP codes in the greater New York City region was used with ZIP code center point coordinates (i.e., centroids). The input data ZIP codes were joined to this list via a table join. QX (longitude) and QY (latitude) were populated for QZIPGIS, QCITYGIS and QSTGIS accordingly as well. By default, records with ZIP code and city were attempted to be geocoded to ZIP code accuracy first. If these could not be geocoded (i.e., the input ZIP code provided was not valid), then these records were geocoded to city as noted in Step 5b.

b. For city data from Step 2d, a standardized list of all cities (i.e., cities / towns) in the region was used with city center-point coordinates (i.e., centroids). The input provided cities from Step 2d were joined to this list via a table join. QX (longitude) and QY (latitude) were populated as well as QZIPGIS, QCITYGIS and QSTGIS accordingly.

c. Remaining ungeocoded records from 2c and 2d not geocoded in processes 5a and 5b were manually examined and corrected to join to the ZIP code and city tables accordingly.

Step 6 – Additional adjustments to geocoding results were made after completion of all geocoding from Step 4 and Step 5.

a. All input locations for major transportation stations (NY Penn Station, Grand Central Station, Atlantic Terminal, JFK Airport, and LGA Airport) were checked for identical uniform geocoding. As these are exact locations, the geocoding precision was updated as QACCU = 1 for these as well.

b. As listed in Appendix F, a list of common New York City "places" was developed, and provided input locations matching these were checked for identical uniform geocoding accordingly. As these places were in-between a street geocoding accuracy and city geocoding accuracy, such as "SoHo", the geocoding precision was updated as QACCU = 3, equivalent to the precision of ZIP code geocoding.

c. As listed in Appendix G, a list of all cities/villages/towns in the region comprised of 85% or greater land coverage of only one ZIP code was developed. This list was used to geocode to ZIP code centroid coordinates for QACCU = 3 instead of only the city/town centroid coordinates of QACCU = 4. For example, if "Glen Cove, NY" was provided the ZIP code centroid of "11542" was added to the input as "Glen Cove, NY, 11542"; this town is comprised of only one ZIP code covering 95.4% of the town boundaries.

d. As listed in Appendix H, a list of all LIRR train stations was developed, and provided input locations of train stations matching these were checked for identical uniform geocoding accordingly. As these are exact locations, the geocoding precision was updated as QACCU = 1 for these as well.

Step 7 – After geocoding and adjustments were done final data quality checks were run.

a. Geocoded data with QACCU = 2A and QACCU = 2B were checked to see if the output address had a valid ZIP code field. QACCU was changed to reflect this (i.e., records with ZIP code were coded as 2a; records without ZIP code were coded as 2B).

b. All QACCU = 3 geocoded locations to ZIP codes were grouped and examined for uniformity of coordinates of identical geocoded ZIP codes.

c. All QACCU = 3 geocoded locations to place names were grouped and examined for uniformity of coordinates of identical geocoded places, in Appendix F .

d. All QACCU = 4 geocoded locations to cities were grouped and examined for uniformity of coordinates of identical geocoded cities.

e. Final coordinates in QX and QY were examined in tabular format for appropriate coordinate range in positive/negative sign accordingly.

f. Final coordinates in QX and QY were mapped and examined for locations in ESRI ArcGIS software.

g. Final coordinates in QX and QY in New York City were mapped and examined for New York City Borough locations in ESRI ArcGIS software. For example "5th Avenue, New York, NY" by default should be geocoded to Manhattan, and not to Brooklyn, whereas "6th Avenue, Brooklyn, NY" should be geocoded to Brooklyn and not Manhattan. ArcGIS spatial locational queries were run to examine data attributes compared to coordinate locations in NYC Boroughs, from NYC Borough GIS layers.

h. The final data fields of QADDGIS, QCITYGIS, QSTGIS, and QZIPGIS were examined for data integrity to be correct (i.e., numeric ZIP codes only in QZIPGIS and 2 digit state codes in QSTGIS, etc.)

i. All remaining ungeocoded records were examined and reviewed for possible manual geocoding, and/or labeled as ungeocoded. Ungeocoded records were populated as QACCU = 0, and if the input survey record was null data then QSTATUS = 1, otherwise if the input data provided was ungeocodable then QSTATUS = 2. All geocoded records were populated as QSTATUS = 3.

Step 8 – After data quality checks were completed, the previously developed regional zone GIS map was assigned to QZONE.

a. All final QX (Longitude) and QY (Latitude) geocoded coordinates were mapped in ESRI ArcGIS software to assign the zone through a "spatial join" process. The zones GIS layer and list was utilized from pervious LIRR surveys with zone assignments to allow from geographic zone comparisons between survey data. Appendix I lists the names of the 15 zones in the NY region with maps of the zones used to populate the QZONE field. Geocoded coordinates outside of the region were populated to QZONE as 0.

Step 9 – As noted in Step 1b the Q3, Q6, and Q17 address data was consolidated into temporary data fields for data processing as Q, QADD, QCITY, QST, and QZIP fields. The Q field, though it has no direct parallel variable in the data, was used to designate which of the three address questions the address data was pulled from.

a. Upon completion of all steps the consolidated address data was populated back accordingly to original questions of Q3, Q6, and Q17 data fields, from question number and temporary unique id.

Step 10 – For geocoded address records geocoded in Manhattan only with QACCU = 1 (Accuracy =1, full street and/or intersections), the NYC Department of City Planning (NYC DCP) Geosupport Desktop Edition geocoding package was used for additional geocoding.

a. This step was included after steps 1-9 to align Manhattan addresses with the NYC Department of City Planning (NYC DCP) Geosupport geocoding package. The "Geosupport Desktop Edition" package was downloaded, installed and tested first from http://www.nyc.gov/html/dcp/html/bytes/gdeguide.shtml

b. The corresponding coordinates were labeled QXGEOS (Longitude) and QYGEOS (Latitude) and included in the dataset. A corresponding QACCUGEOS value was provided to signify the accuracy level to which Geosupport was able to geocode the cases. These coordinates did not replace the coordinates produced by Bing API, but rather were provided as supplementary geocodes that can be used at MTA/LIRR's preference and discretion.

Upon completion and review of the final geocoded dataset, additional geocoding quality controls and review were completed. The following adjustments were completed.

Geocoding Adjustment 1 – Geocoding Penn Station Manhattan addresses for increased geographic precision around the station area.

There were 4,077 addresses in the data (in all survey questions) with "11 Pennsylvania Plaza" as a final geocoded address.

a. Addresses indicating travel to/from Penn Station in Manhattan were all adjusted to "11 Pennsylvania Plaza, New York, NY, 10001" with updated coordinates to 40.750434, -73.992119 and QACCU = 1. 3,091 of the 4,077 (75.8%) records were adjusted.

b. Addresses indicating travel to/from Madison Square Garden in Manhattan were all adjusted to "4 Pennsylvania Plaza, New York, NY, 10001" with updated coordinates to 40.74998, -73.99413 and QACCU = 1. 545 of the 4,077 (13.4%) records were adjusted.

c. Addresses indicating specific "Penn Plaza" addresses were geocoded to the specific address provided, such as "2 Penn Plaza" and "7 Penn Plaza", with QACCU = 1. Previously all references to "Penn Plaza" were geocoded only to the one single Penn Station location. 441 of the 4,077 (10.8%) records were adjusted.

Geocoding Adjustment 2 – Geocoding Atlantic Terminal Brooklyn addresses for increased geographic precision around the station area.

There were 1,775 addresses in the data (in all survey questions) with a reference to Atlantic Terminal, or 139 Flatbush, as a final geocoded address.

a. Addresses indicating travel to/from Atlantic Terminal in Brooklyn were all adjusted to "139 Flatbush Ave, Brooklyn, NY, 11217" with updated coordinates to 40.684403, -73.9777 and QACCU = 1. 863 of the 1,775 (48.6%) records were adjusted.

b. Addresses indicating travel to/from Barclay Center in Brooklyn were all adjusted to "620 Atlantic Ave, Brooklyn, NY, 11217" with updated coordinates to 40.682678, -73.97540, and QACCU = 1. 284 of the 1,775 (16.0%) records were adjusted.

c. Addresses indicating specific locations around the Atlantic Terminal area were geocoded to the specific address provided, such as "Atlantic Terminal & Flatbush" and "Atlantic Terminal Hicks St". Previously all references to "Atlantic" were geocoded only to the one single Atlantic Terminal location. 628 of the 1,775 (35.3%) records were adjusted.

Geocoding Adjustment 3 – Street Name without Building Number and with ZIP code (QACCU = 2A)

There were 20,695 addresses in the data (in all survey questions) with street name without building number and with ZIP code.

a. Addresses with same output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) remained unchanged with no adjustment required, determined as correct geocoding. No adjustment was made for 15,859 of the 20,695 (76.6%) records.

b. Addresses with different output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) required an adjustment, determined as incorrect geocoding. 4,836 of the 20,695 (23.4%) records were adjusted as follows:

- 1,753 records were successfully geocoded entirely again to correct ZIP code with accuracy (QACCU) = 1 or 2A.
- 251 records were matched to "ZIP buildings" list geocoded with accuracy (QACCU) = 1. "ZIP buildings" are specific buildings in NYC that have a single ZIP code designated for the entire building. Appendix J lists all the "ZIP buildings" used in this step.
- 2,464 were geocoded again to correct ZIP code as ZIP code centroid accuracy (QACCU) = 3.
- 23 were geocoded again to city centroid with accuracy (QACCU) = 4.
- 260 geocodes remained unchanged with after manual review determined that the output ZIP code was correct.
- 5 records were ungeocoded to accuracy (QACCU) = 0 due to conflicting unresolved input address data that could not be manually geocoded.

Geocoding Adjustment 4 – Street Name with Building Number and without ZIP code (QACCU = 2B)

There were 7,698 addresses in the data (in all survey questions) with street name without building number without ZIP code.

a. Upon further review by LIRR, it was determined these 7,698 records should remain unchanged with no adjustment required or possible.

Geocoding Adjustment 5 – Street Name with Building Number and with ZIP code (QACCU = 1 or 3)

There were 33,089 input addresses with a building number and street name (QADD) (in all survey questions) geocoded as QACCU = 1 with a provided ZIP code (QZIP).

a. Addresses with same output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) remained unchanged with no adjustment required, determined as correct geocoding. No adjustment was made for 25,380 of the 33,089 (76.7%) records.

b. Addresses with different output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) required an adjustment, determined as incorrect geocoding. 7,709 of the 33,089 (23.2%) records were adjusted as follows:

- Of these 7,709, there existed 1,044 (3.1% overall from the 33,089) matching the New York City buildings with a single ZIP code list provided by LIRR. Adjustment to QACCU = 1 with ZIP codes of specific buildings.

- Of these 7,709, there existed 652 (1.9% overall from the 33,089) that have exactly the same identical input address but differing input to output ZIP codes. These remained unchanged, determined as participant error on input ZIP code, with identical input / output addresses. No adjustment was made for these 652 records.

- The remaining 6,013 (18.1% overall from the 33,089) records are primarily the result of participant error from not knowing the correct ZIP code to use for trip destination addresses, for example:
  Input: "32ND ST + 7TH AVE, NY, NY 10003"
  Output: "W 32ND ST & 7TH AVE, NEW YORK, NY, 10001"
  http://binged.it/1M9VOYn

  The provided input address does not match the output ZIP code when geocoded, but was not determined to be a geocoding error. The error is in the participant incorrectly providing the wrong ZIP code with the address. Thus, only the address, city and state were used to geocode correctly for the updated output ZIP code for that address location accordingly. In this input example the participant provided "32nd & 7th Ave" in Manhattan at 10003 but the correct ZIP code of that same intersection is 10001. In such cases the input ZIP code was ignored and the output geocoded corrected ZIP code was accepted. No adjustment was made for these 6,013 records.

There were 3,855 input addresses with a building and street (QADD) (in all survey questions) geocoded as QACCU = 3 with a provided ZIP code (QZIP).

a. Addresses with same output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) remained unchanged with no adjustment required, determined as correct geocoding. No adjustment was made for 3,492 of the 3,855 (90.6%) records.

b. Addresses with different output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) required an adjustment, determined as incorrect geocoding. 363 of the 3,855 (9.4%) records were adjusted as follows:

- The records were first matched against New York City building ZIP codes list provided by LIRR, if matched then changed to QACCU = 1.
- The remaining records were manually reviewed and all geocoded again accordingly to QACCU 1, 2A or 3, the highest geocoding precision possible in each case with manual review.

Geocoding Adjustment 6 – ZIP code only (QACCU = 3)

There were 78,642 input addresses without a building/street (QADD) (in all survey questions) geocoded as QACCU = 3 with a provided ZIP code (QZIP).

a. Addresses with same output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) remained unchanged with no adjustment required, determined as correct geocoding. No adjustment was made for 77,800 of the 78,642 (98.9%) records.

b. Addresses with different output geocoded ZIP code (QZIPGIS) as input ZIP code (QZIP) required an adjustment, determined as incorrect geocoding. 842 of the 78,642 (1.1%) records were adjusted as follows:

- 624 records adjusted to ZIP code centroid (QACCU = 3) from manual review geocoding to ZIP codes.
- 218 records adjusted to city centroid (QACCU = 4) from manual review geocoding to city centroids from incorrect ZIP codes.

Geocoding Adjustment 7 – Composition of Zones used for QZONE assignment from 1998 and 2006 LIRR survey report methodology.

The Zones outside of Manhattan are comprised of entire county boundaries. In Manhattan the 7 zones are comprised of the following ZIP code boundaries:

ZONE	ZONEID	ZIP CODES
Downtown Manhattan	1	10004, 10005,10006, 10007, 10038, 10282
Lower Manhattan	2	10002, 10012, 10013, 10014
Mid-Manhattan West	3	10001, 10011, 10018, 10019, 10020, 10036
Mid-Manhattan East	4	10003, 10009, 10010, 10016, 10017, 10022
Upper West Side	5	10023, 10024, 10025, 10069,
Upper East Side	6	10021, 10028, 10065, 10075, 10128, 10129
Upper Manhattan	7	10026, 10027, 10030, 10031, 10032, 10033, 10034, 10035, 10037, 10039, 10040

At the survey onset in 2012 the Geographic Zones agreed upon to be used were based on the 2006 LIRR ZIP code zones. The 2006 report noted the ZIP codes were used in each of the "zones" in 2006 that were actually derived from the 1998 report ZIP code list previously. Thus the protocols again were followed with the same ZIP code methodology from the 1998 to 2006 and currently, to use the ZIP code list from the 2006 report.

The ZIP code list from 2006 was examined and a new ESRI GIS shapefile was recreated based on the available 2012 ESRI GIS ZIP code polygon shapefile. There were a few minor additions and subtractions of ZIP codes that reflect the updates to the 2006 ZIP code list with the available 2012 ZIP code layer.

A top-level summary of the geocoding adjustments can be found below:

Geocoding Adjustment	Total Records Identified	No Change	X/Y Adjusted	ACCU Adjusted
1	4,077	10.8%	89.2%	0%
2	1,775	0.1%	99.9%	0%
3	20,695	77.9%	0%	22.1%
4	7,698	100.0%	0%	0%
5	33,089	96.8%	0%	3.2%
6	78,642	98.9%	0%	1.1%
7	N/A	N/A	N/A	N/A

5.5 Survey Data Expansion

Data expansion, or weighting of the survey data, was conducted by AECOM under a separate contract with the MTA. This is a vital step in the survey process because it adjusts the results of the survey data collected to bring them more in line with what is known about a population, or in this case, the count totals. For example, if 50% of the weekday survey data collected is from trips made in the AM Peak, but AM Peak trips actually represent 68.5% of all weekday trips, data expansion or weighting can be used to statistically "increase the value" of each survey record to represent the population. It is also important to understand the difference between linked and unlinked trips. Linked trips capture the entire journey as one trip, even if there is a transfer along the way. Unlinked trips capture each time a person boards and alights any given LIRR train. A person making a single journey with a transfer from one LIRR train to another would count as two unlinked trips, but only one linked trip.

Passenger counts represent all people boarding trains and include those who transfer from one train to another resulting in overstated ridership counts. Thus the summaries from head counts are shown here but are to be used with caution. Transfer activity occurs mostly at Jamaica Station but also at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

Not only is it important to fully understand customer behavior, but with the LIRR East Side Access project, the role of Jamaica Station is likely to change in significant ways in the future. In order to predict how Jamaica Station is likely to function with the East Side Access project, it is essential that the MTA Regional Transit Forecasting Model be calibrated to represent, as best as possible, existing, measured customer behavior at Jamaica Station. The key to this assessment is to understand the following:

- The magnitude of transfers between LIRR trains & services

- The magnitude of transfers between LIRR and JFK AirTrain
- The magnitude of transfers between LIRR and NYCT Subway and Bus
- LIRR entry passengers (those who enter the LIRR at Jamaica)
- LIRR exit passengers (those who exit the LIRR to the local street network at Jamaica)

For the 2012-2014 LIRR OD Survey effort, significant emphasis was placed on developing a methodology that allows the LIRR and MTA to understand all existing customer behavior at Jamaica. With the survey control counts collected as unlinked trips (total passengers boarding and alighting each train), the data expansion needs to be conducted in a consistent fashion. Following the initial data expansion to unlinked trips (boarding and alighting passengers) it is simple to calculate a linked trip weight. The linked trip weight calculation is performed by dividing the unlinked trip weight by the number of LIRR trains the trip record boarded. The number of LIRR trains boarded is derived based on a respondent's reported transfers. In each case, this number equals to 1 plus the total number of transfers. For example, if a respondent reported one transfer, they boarded two separate trains (LIRR entry to transfer station, transfer station to LIRR exit).

AECOM (MTA/LIRR's modeling consultant) recommended expanding the LIRR OD survey by day-parts to ensure that the expanded datasets matched station-level "ons" and "offs" by time of day. This approach expanded the dataset by time-of-day (DAYPART) and train origination branch (Far Rockaway, Port Washington, Port Jefferson, Huntington, etc.) to station-level boarding and alighting counts.

Two sets of weights were developed: a "Level 0" weight, which only requires the respondents' origin station and destination station , and a "Level 1" weight, which takes into account further trip characteristics (i.e., geocoded origin and destination, location type of origin and geocoded destination) in addition to the criteria for the "Level 0" weight. Both "Level 0" and "Level 1" have unlinked and linked weights calculated.

Of the 119,002 records in the dataset, 4,833 did not qualify for a "Level 0" weight because they contained invalid or incomplete answers. The invalid responses included:

- The reported origin and destination stations were identical. 362 records were omitted as part of this step.
- The destination station was further eastbound than the origin station (for Westbound trips). 94 records were omitted as part of this step.
- The reported origin and destination combination was impossible (e.g., trains do not make stops at one of the reported stations during the time of day the survey was collected). 40 records were omitted as part of this step.
- The remaining 4,337 had missing data for Q7 (origin LIRR station), Q13 (transfer station) and/or Q14 (destination LIRR station).

Of the 114,169 records that qualified for a "Level 0" weight, 65,157 also qualified for a "Level 1" weight. Level 1 records required valid entries for Q3X/Q3Y (geocoded origin), Q4 (origin location type), Q7 (origin LIRR station), Q14 (destination LIRR station), Q17X/Q17Y (geocoded destination), and Q18 (destination location type).

After the initial development of "Level 0" and "Level 1" weights, revisions to the geocoding protocols (see section 5.4 for details) resulted in approximately 250 records becoming ineligible for "Level 1" weights. The new number of records eligible for "Level 1" weights resulted in small but necessary changes to the data expansion, or weighting.".

The following describes the steps used to conduct the expansion using this approach. Steps 1-3 of the data expansion outline the development of a "Level 0" weight, while Steps 4 - 6 describe the "Level 1" weight and its application in calculating Jamaica transfers.

Step 1 – Identify Originating Train Branch and DAYPART for each Westbound LIRR Train

In Step 1, each LIRR Westbound train was identified in two dimensions. They were 1) an originating train branch (which branch the Westbound train started on) and 2) which DAYPART the train belonged to. Using these two pieces of information, the station-level count data and the raw survey records were pulled by Abt SRBI by dimension (time-of-day and originating LIRR branch).

Step 2 – Develop Expansion Boarding Station and Expansion Alighting Station Variables to the Survey Records.

The LIRR OD survey asked customers the following about the stations used on the trip:

- Origin station
- Transfer locations
- Destination station

The vast majority of transfers on the LIRR will occur at Jamaica Station. An important step in maintaining consistency with the control count data is to identify where the respondent boarded and alighted the train the survey was completed on. This step ensured that the collected surveys fully align to the control counts ("ons" and "offs" by train).

As an example, a hypothetical customer who was surveyed on a Far Rockaway train bound for Penn Station, reported boarding at Far Rockaway station, transferred at Jamaica Station and arrived at Atlantic Terminal. For this record, the Expansion Boarding and Expansion Alighting Station would be:

- Expansion Boarding Station: Far Rockaway
- Expansion Alighting Station: Jamaica

By using an expansion boarding and expansion alighting station, Abt SRBI precisely aligned the completed survey record to how this customer would have been counted in the control counts. The other leg of their trip would be potentially accounted for by a corresponding record on another originating branch that captures the leg of the trip between Jamaica and Atlantic Terminal. These variables in the survey are W_ORIGIN and W_DESTINATION, respectively.

Note that cases where the entire trip was confirmed as valid (from boarding to transfer to alighting station) were considered for the "Level 0" survey expansion process. Of the 119,002 cases in the final dataset, 114,169 (96%) were used for expansion.

Step 3 – Expand the Data Using the Expansion Boarding and Expansion Alighting Station, by Originating Train Branch and DAYPART ("Level 0" Weighting)

Using the "Expansion Boarding" and "Expansion Alighting" stations as defined in Step 2, the station-level control counts by originating branch and DAYPART were used by Abt SRBI to expand the dataset. By performing the expansion by originating branch (13 total; see Appendix B for list of branches) and DAYPART (4 weekdays plus Saturday and Sunday; see Appendix A for daypart definitions), we ensured that when the records were combined that:

- Station level "ons"/"offs" matched the control counts
- We measured the key behavior dimensions associated at Jamaica Station including entries, exits, and transfers between LIRR trains.
- We preserved the measured distributions by time-of-day and measured how Jamaica behavior changed by time-of-day.
- The expansion "by dayparts" was conducted until all survey records were assigned an unlinked trip weight.

To preserve the transferring behavior at Jamaica, AECOM adjusted the Level 0 weights to balance out the number of transfer records who were surveyed on the first half of their trip versus the second half of their trip. Survey records where the respondent indicated they made a transfer at Jamaica were split into two categories based on their Westbound trip:

- First Leg records – Records where customers were surveyed on the portion of their trip onboard the LIRR east of Jamaica (prior to making the transfer at Jamaica)
- Second Leg records – Records where customers were surveyed on the portion of their trip onboard the LIRR west of Jamaica (after making the transfer at Jamaica)

Table 1 below summarizes the number of unweighted transfer survey records at Jamaica, as well as Level 0 weighted transfer survey records for first and second leg transfers at Jamaica. The table shows that first leg records were more than twice as big as second leg records and the Level 0 expansion corrects for this difference. Reasons for the imbalance may be due to the fact that the second leg of most customers' trips is shorter than the first leg, therefore they have less time to fill out a survey, or they lost a seat after transferring at Jamaica and were less likely to fill out a survey while standing.

Table 1 – Unweighted and Weighted Transfers at Jamaica by First and Second Leg of Journey

		Unweighted Transfer Survey Records at Jamaica			Weighted Transfers at Jamaica ("Level 0" unlinked weight)		
Time Period	**Daypart**	**First Leg**	**Second Leg**	**Difference**	**First Leg**	**Second Leg**	**Difference**
Sunday	1	3,263	1,421	-56.5%	7,187	7,188	0%
Saturday	2	3,185	1,390	-56.4%	7,572	7,572	0%
AM Peak	3	4,747	2,157	-54.6%	11,535	11,536	0%
Midday Off Peak	4	1,199	609	-49.2%	2,463	2,464	0%
PM Reverse Peak	5	1,101	488	-55.7%	2,594	2,594	0%
Overnight Off Peak	6	504	219	-56.5%	1,074	1074	0%
Avg Weekday	3-6	7,551	3,473	-54.0%	17,666	17,668	0%

Step 4 – Adjust Linked and Unlinked Trip Weights to Account for Geocoded Origins/Destinations & Trip Purpose ("Level 1" Weighting)

AECOM added to the expansion of the LIRR OD survey to include a "Level 1" data expansion. The Abt SRBI dataset included weights for survey records with known boarding and alighting stations, yet many of these survey records did not include a trip purpose or geocoding for an origin or destination location. In order to classify records by trip purpose and geographical markets, AECOM developed "Level 1" weights for records that had all of the following information:

- Known boarding and alighting stations
- True origin was geocoded

- True destination was geocoded
- Origin location type was reported (origin is home, work, shopping location, school, or other)
- Destination location type was reported (destination is home, work, shopping location, school, or other)

"Level 1" weights facilitate market-based summaries and analyses that provide a better understanding of trip purpose and origin/destination location. "Level 1" unlinked weights may be used to understand station activity and volumes, and "Level 1" linked weights may be used to understand LIRR customer travel patterns. It is important to note that **"Level 1" linked trip weights were applied for all survey analyses in the results section of this report.**

More technically, AECOM developed "Level 1" weights for records having the following information:

- Boarding (Q7) and alighting stations (Q14_R)
- Geocoded origin (Q3X/Q3Y) and destination (Q17X/Q17Y)
- Origin location type (Q4) and destination location type (Q18)

Step 5 – Calculation of Transfers at Jamaica

In this step, AECOM performed an analysis of initial expansion of records which reported transferring at Jamaica. Because the transfers are primarily used for developing trip tables and examining travel patterns, they were developed using the Level 1 weights described in Step 4, since Level 1 weights better facilitate market-based summaries, as mentioned previously.

After making sure the weights properly correct the imbalance for the first leg/second leg as shown in Step 3, it was necessary to obtain the proper distribution of transfers On and Off and exits and entries at Jamaica.

The ON transfers at Jamaica were calculated as follows:

1. Weight survey data using LEVEL1_unlinked weights, since this results in unlinked boardings, including transfers and true origins;
2. Select records for the relevant time periods;
3. Select records where the origin station based on the trip leg (W_ORIGIN, as described in Step 2 in the previous section) is Jamaica;
4. Run a frequency (on variable Q13A – "In the course of this WESTBOUND trip, will you (did you) transfer between LIRR trains to reach your final destination?") to obtain transfers (i.e. those indicating they did transfer with a W_ORIGIN of Jamaica) and entries (i.e. those indicating that they did not transfer with a W_ORIGIN of Jamaica).

The same procedure, with a substitution of the destination station (W_DESTINATION, as described in Step 2 in the previous section) in the third step of calculating the transfers above, was used to obtain the OFF transfers and exits.

Table 2 below shows the summary of the number of expanded survey records at Jamaica, the number of passengers who transfer to or from other trains, and those who enter or exit at Jamaica. The Total Ons at Jamaica were calculated by summing up the Transfers On and the Entries; the Total Offs were calculated by summing up the Transfer Offs and the Exit.

Table 2 – Summary of Total Expanded Surveys with Jamaica Transfers, Exits and Entries
(using Level 1 unlinked weight and W_ORIGIN and W_DESTINATION)

Time Period	Total Offs	All Passengers On/Off Trains at Jamaica (Sum of Expanded Survey Records)		Transfers at Jamaica		Entries and Exits at Jamaica (No transfers)	
		Total Ons	Total Offs	Transfer On	Transfer Off	Entries at Jamaica	Exits at Jamaica
Sunday	1	10,104	13,007	7,963	9,832	2,140	3,175
Saturday	2	11,155	13,270	8,310	8,841	2,845	4,429
AM Peak	3	12,689	14,895	11,965	11,724	724	3,170
Midday Off Peak	4	3,327	4,056	2,725	2,860	601	1,196
PM Reverse Peak	5	2,793	4,626	2,697	2,904	95	1,723
Overnight Off Peak	6	1,409	2,159	1,183	1,320	225	839
Avg Weekday	3-6	20,217	25,736	18,571	18,809	1,645	6,928

An additional step was required since the results of the Level 1 Unlinked Weights (for the Total Ons and Offs) in the table above do not match exactly with the actual counts conducted during fieldwork. The Level 1 unlinked weights were created with a standard expansion procedure (also known as Iterative Proportional Fitting, or IPF) that sequentially adjusts the weights to match first the Ons and then the Offs, and repeating the procedure until the weighted survey records match with the count data, to a desired accuracy level, such as within 5 percent of the actual count. This procedure is commonly used for data expansion but typically does not match the actual count data perfectly, for multiple reasons:

- The procedure requires the Ons and Offs for each station to be equal by time of day, which frequently is not the case in actual count data,
- The count data is an average, and will not necessarily match perfectly with the dates the survey was collected, and
- Some origin and destination station pairs by time of day may not have any survey data, but could have trips that were included in the count data. This causes other station pairs to have higher weights to correct for this.

A final set of proportional adjustments were then made to the transfers and entries/exits in cases where the expanded Ons and Offs, from IPF, did not match the actual observed Ons and Offs counts. This was done by applying the percentage of weighted survey records by DAYPART that were transfers to the count data. Table 3 shows the adjusted transfers and entries/exits which match the counts.

Table 3 – Summary of Total Expanded Surveys with Jamaica Transfers, Exits and Entries, Adjusted to Match Control Counts (using Level 1 unlinked weight)

		All Passengers On/Off Trains at Jamaica (using Control Counts)		Adjusted Transfers at Jamaica		Adjusted Entries and Exits at Jamaica	
Time Period	**Daypart**	**Total Ons**	**Total Offs**	**Transfer On**	**Transfer Off**	**LIRR Entries**	**LIRR Exits**
Sunday	1	10,309	11,344	8,125	8,575	2,184	2,769
Saturday	2	11,436	13,152	8,519	8,762	2,917	4,390
AM Peak	3	12,689	15,426	11,965	12,142	724	3,284
Midday Off Peak	4	3,346	4,056	2,741	2,860	605	1,196
PM Reverse Peak	5	2,877	4,745	2,778	2,979	99	1,766
Overnight Off Peak	6	1,470	2,154	1,234	1,317	236	837
Avg Weekday	3-6	20,382	26,381	18,718	19,299	1,664	7,082

Step 6 – Calculate the Linked Trip Weight

Following the completion of the adjusted expansion to unlinked trips (Step 5), the last step was to calculate a LIRR linked trip weight for each survey record. The linked trip weight represented the number of total LIRR passenger trips who enter/exit the LIRR (ignoring transfer activity). To convert the unlinked trip weights (Step 3) to linked trip weight was a very simple calculation, where:

$$\text{Linked Trip Weight} = \frac{\text{Unlinked Trip Weight}}{\text{Number of Trains Boarded}}$$

6. Results

6.1 Passenger Count Data (Head Counts)

Passenger count summaries from head counts presented below. As explained in preceding sections, these figures should be used with caution. The figures represent people boarding trains and include those who transfer from one train to another, resulting in overstated counts. This occurs mostly at Jamaica Station but also at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

Weekday ridership exceed weekends by small margins, with the vast majority of weekday travel occurring during the Peak periods (AM Westbound and PM Eastbound). Westbound head counts were more concentrated in the AM Peak than its congruent daypart of Eastbound PM Peak. In contrast, Eastbound ridership showed higher proportions of both Midday Off-Peak and Overnight ridership than Westbound ridership.

During weekends, Saturday trains had slightly higher ridership in both directions than Sunday.

Table 1. Passenger Counts – Totals by Daypart within Direction

Weekday Total Counts	Number	Percent
Westbound	**163,020**	**49**
AM Peak	111,328	68
Midday Off-Peak	23,609	14
PM Reverse Peak	17,604	11
Overnight Off-Peak	10,479	6
Eastbound	**167,515**	**51**
AM Reverse Peak	11,935	7
Midday Off-Peak	31,041	19
PM Peak	96,233	57
Overnight Off-Peak	28,306	17
Total Counts	(330,535)	

Weekend Total Counts	Number	Percent
Westbound	**135,060**	**49**
Saturday	76,394	57
Sunday	58,666	43
Eastbound	**142,127**	**51**
Saturday	77,923	55
Sunday	64,204	45
Total Counts	(277,187)	

6.1.1 Departure Branch - Weekday

The breakdown of weekday Westbound passenger count data by departure branch shows that four suburban branches (Babylon, Huntington, Ronkonkoma, and Port Washington) accounted for the majority of travel across all time periods.

Travel in the City Terminal Zone was deleted from these tables since the figures overstate actual ridership due to transfer activity, mostly at Jamaica Station. The majority of these riders were also captured in West of Jamaica counts (reflected below). Transfer activity is prevalent but more minor at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

Table 2. Passenger Counts –Branch Ridership Comparison Weekday: Westbound

	AM Peak		Midday Off-Peak		PM Reverse Peak		Overnight Off-Peak	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Departure Branch								
Babylon	23,637	24	4,387	22	3,207	22	2,287	26
Huntington	19,404	20	3,962	20	3,529	25	2,057	23
Port Washington	15,079	15	3,671	19	2,271	16	940	11
Ronkonkoma	13,390	14	2,520	13	1,575	11	1,530	17
Far Rockaway	7,049	7	1,576	8	1,056	7	437	5
Long Beach	5,370	6	1,105	6	746	5	255	3
Hempstead	4,707	5	776	4	783	5	490	6
Port Jefferson	3,443	4	655	3	473	3	344	4
Montauk	2,101	2	476	2	354	2	278	3
Oyster Bay	1,874	2	387	2	279	2	155	2
West Hempstead	1,257	1	109	1	59	*	99	1
Greenport	58	*	37	*	8	*	8	*
Total Counts	(97,369)		(19,661)		(14,340)		(8,880)	

* Less than 0.5 percent

Weekday Eastbound trip origin stations were most heavily concentrated in the City Terminal Zone across all time periods, emphasizing the importance of the LIRR system for customers to get to and from New York City for work. These figures are not shown since the figures represent people boarding and includes customers who transfer from one train to another thereby resulting in overstating of actual ridership as. This occurs mostly at Jamaica Station. It also occurs far less frequently at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

Table 3. Passenger Counts –Branch Ridership Comparison Weekday: Eastbound

	AM Reverse Peak		**Midday Off-Peak**		**PM Peak**		**Overnight Off-Peak**	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Departure Branch								
Babylon	688	34	763	21	1,140	29	954	34
Huntington	601	29	1,750	49	1,588	41	1,107	40
Port Washington	343	17	265	7	369	9	163	6
Far Rockaway	92	4	212	6	183	5	182	7
Ronkonkoma	88	4	294	8	292	7	146	5
Long Beach	79	4	100	3	110	3	69	2
Port Jefferson	54	3	87	2	77	2	53	2
Hempstead	52	3	48	1	21	1	20	1
Montauk	27	1	27	1	76	2	78	3
Oyster Bay	12	1	23	1	32	1	19	1
West Hempstead	10	*	5	*	10	*	7	*
Greenport	1	*	1	*	0	*	0	*
Total Counts	(2,047)		(3,575)		(3,898)		(2,798)	

* Less than 0.5 percent

6.1.2 Departure Branch - Weekend

Weekend ridership followed a similar pattern to weekday ridership. Babylon, Huntington, Ronkonkoma, and Port Washington branches stations serviced the most Westbound customers.

Eastbound ridership boardings were also heavily skewed to the City Terminal Zone but not shown here, much like during all weekday time periods.

Table 4. Passenger Counts –Branch Ridership Comparison Weekend

	WESTBOUND				EASTBOUND			
	Saturday		Sunday		Saturday		Sunday	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Departure Branch								
Babylon	15,756	25	10,258	22	2,987	35	2,160	30
Huntington	14,971	24	11,030	23	2,890	34	2,761	38
Ronkonkoma	9,315	15	6,649	14	560	7	432	6
Port Washington	9,086	14	6,528	14	792	9	757	10
Far Rockaway	4,096	6	3,652	8	351	4	365	5
Long Beach	3,324	5	2,394	5	343	4	218	3
Montauk	1,982	3	2,470	5	204	2	264	4
Hempstead	1,968	3	1,723	4	79	1	78	1
Port Jefferson	1,696	3	1,564	3	156	2	112	2
Oyster Bay	991	2	713	2	63	1	58	1
West Hempstead[8]	53	*	52	*	21	*	25	*
Greenport	0	*	0	*	0	*	0	*
Total Counts	(63,238)		(47,033)		(8,446)		(7,230)	

* Less than 0.5 percent

[8] There was no weekend service on West Hempstead branch during the period that the counts were performed. The count represents ridership to St Albans station serviced by Babylon branch.

6.2 Travel Information – Weekday and Weekend Westbound Customers (Survey Data)[9]

The following sections present Westbound travel information from the self-reported survey effort. The results presented here include weekday and weekend results for all dayparts.

6.2.1 Trip Purpose

By far, a majority of the customers reported traveling to and from work was the purpose of their trip on LIRR. About 59% of those taking the Westbound trip used LIRR for commuting to or from work. However, about 30% also took the train for recreational purposes or personal business. Reaching JFK Airport was a purpose for a very small segment of the ridership.

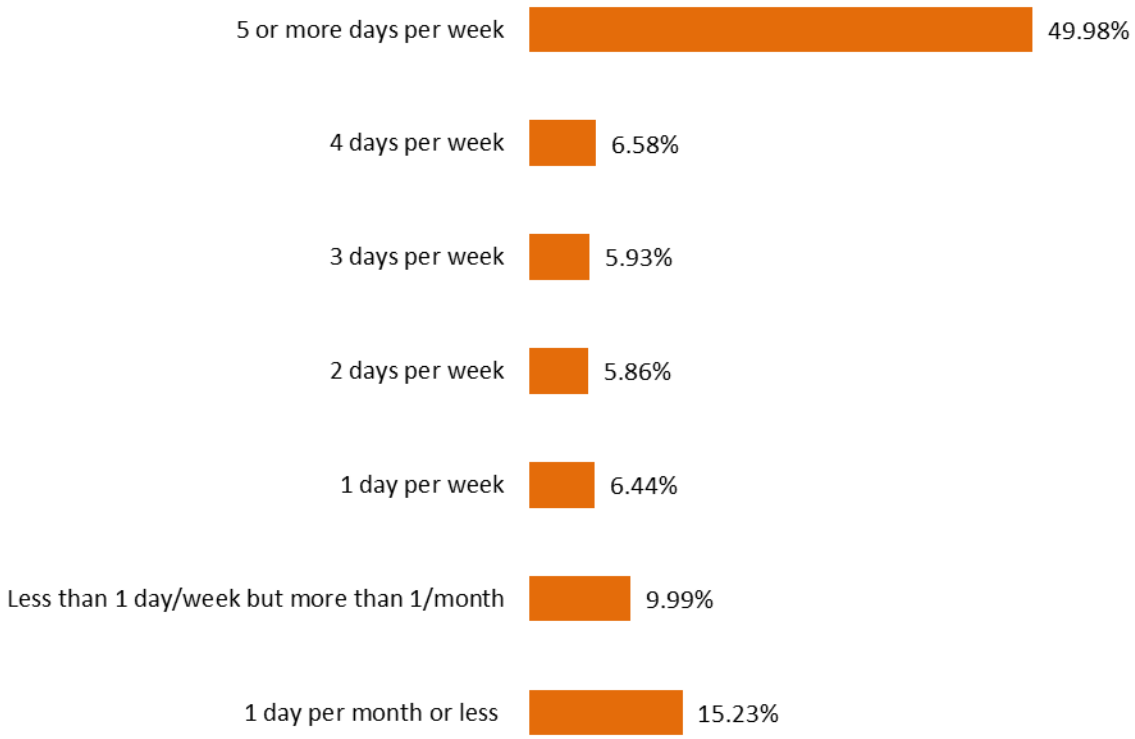
Figure 1. Westbound Trip Purpose, All Days (N=253,501)

[9] All figures in Section 6 present both weekday and weekend results including all dayparts. Weighted total answering responses have been used as the base for all results and figures presented in this section. Detailed tables, with the unweighted and weighted bases are included in Appendix L. All weighted values are based on the "Level 1" linked trip weight, with the total varying depending on how many respondents answered the specific questions correctly/completely.

6.2.2 Trip Frequency

Concurrent with the most reported trip purpose of traveling to work, almost half of all Westbound respondents reported taking the LIRR at least five days per week, with another quarter reporting at least using the LIRR one day per week (but less than five). The remaining quarter of captured respondents was infrequent customers, who ride the LIRR less than once per week.

Figure 2. Westbound Trip Frequency, All Days (N=248,760)



6.2.3 Westbound Trip Origin – Location, Type, and Time

Over 80% of reported Westbound trips originated in either Nassau or Suffolk counties, and another 14% of the trips originated in Queens. Some respondents indicated their trip origin location further west than LIRR's westernmost terminals (e.g., Manhattan, New Jersey). These responses are likely indicative of respondent error as these Westbound trips cannot be possible using the LIRR. A large majority of the customers began their Westbound travel from home. A quarter of the customers began their trip at other location types such as work, visiting with family or friends, school, etc. Use of the LIRR to commute from a suburban work location was relatively low, at about 7%. More than half of Westbound customers began their trips from their original location during the AM Peak period, specifically between 6 and 9 AM. Again, this is consistent with the provided responses for trip purpose, where people reported primarily commuting to work.

Figure 3. Westbound Trip Origin, All Days (N=256,619)

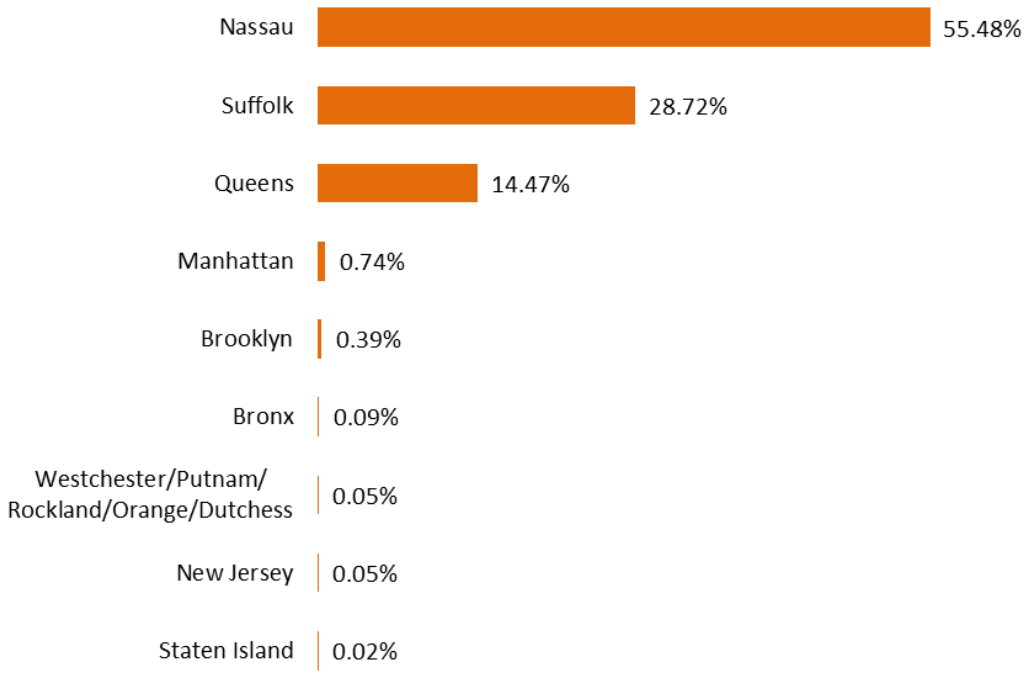


Figure 4. Westbound Origin Location Type (N=256,966)

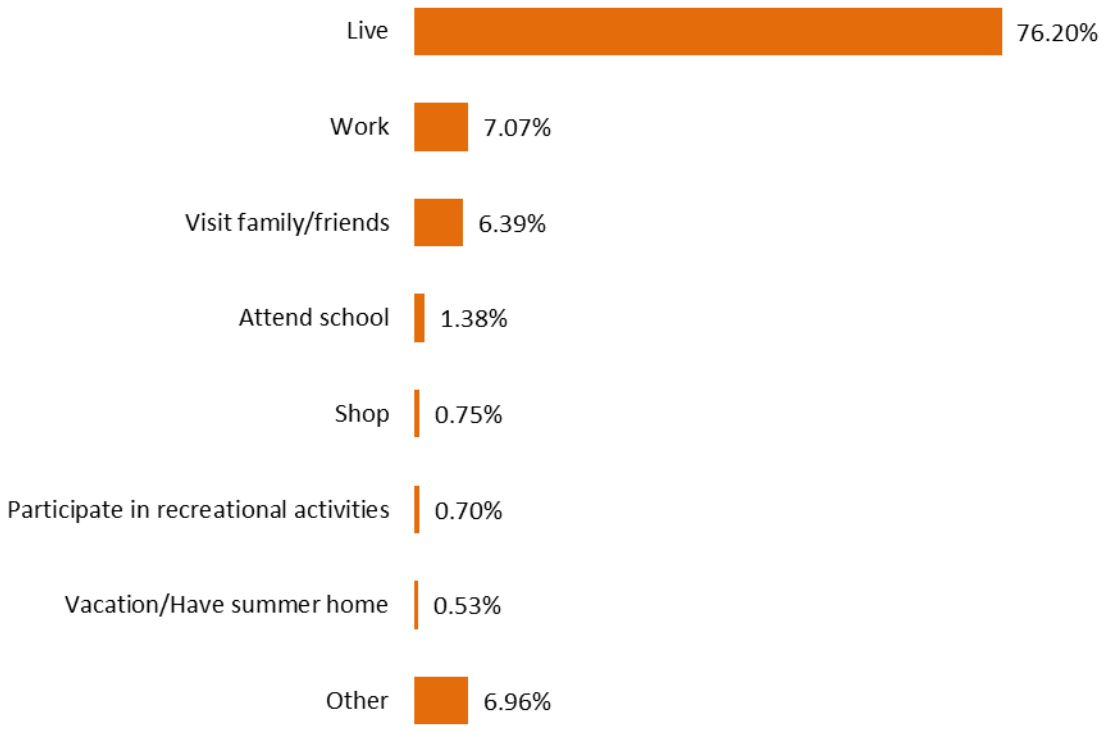
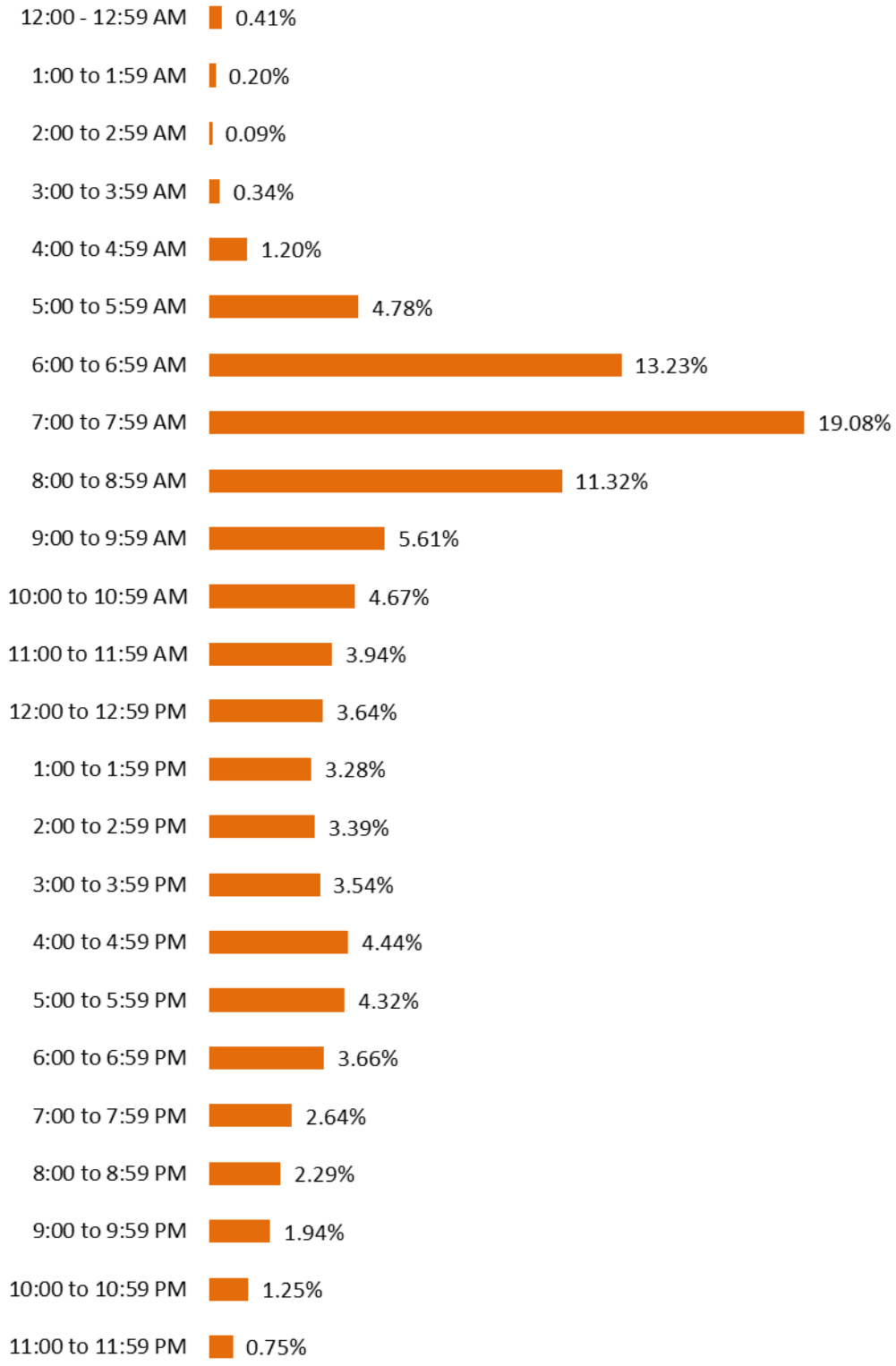
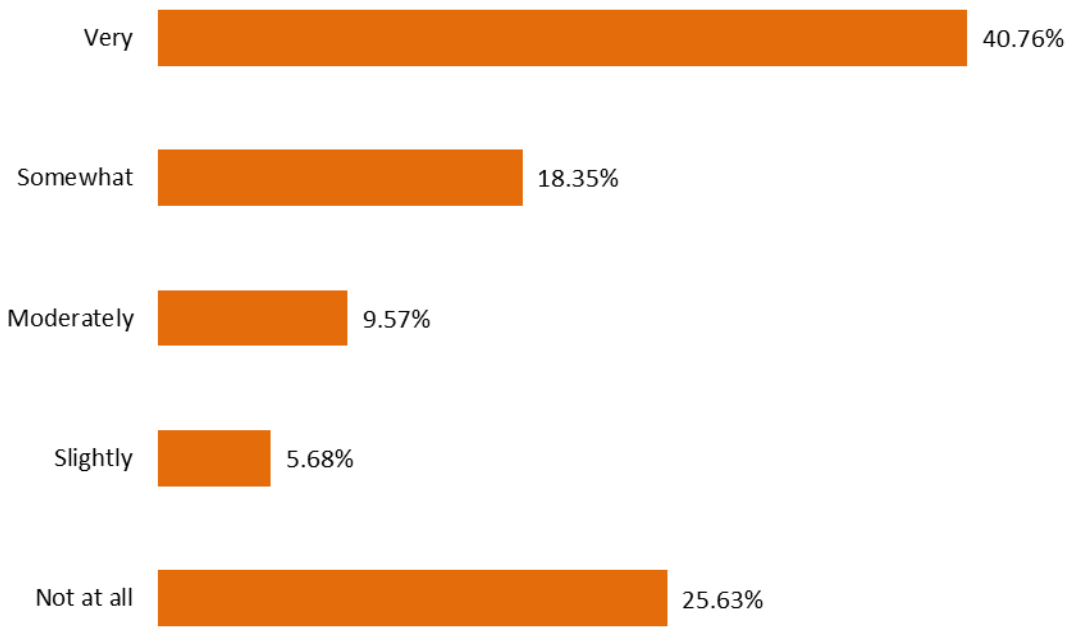


Figure 5. Origin Time (from Origin Location) of Westbound Trip (N=243,668)



About 40% of respondents mentioned that LIRR service was a very important factor when choosing the location of their home, while a quarter claimed it was not a factor at all.

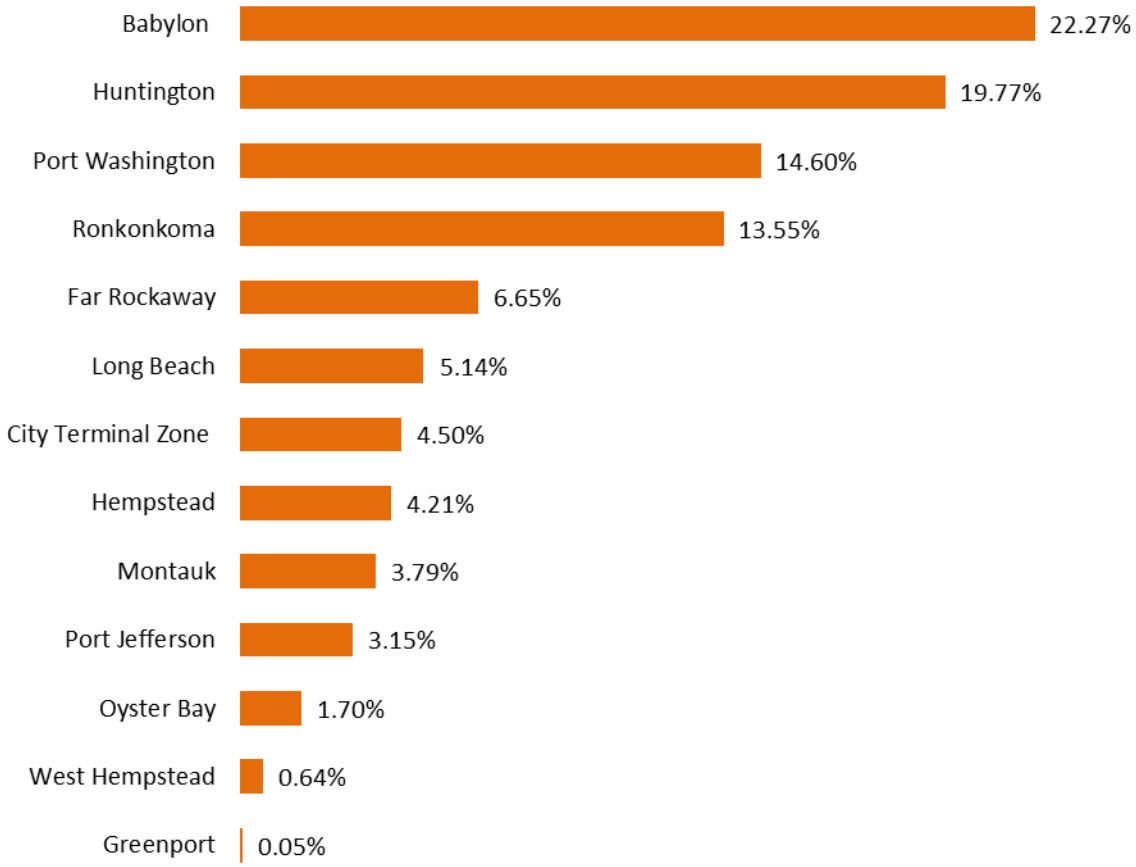
Figure 6. Importance of LIRR Service in Choosing Home Location (N=224,580)



6.2.4 Westbound Origin Station and Train Boarding Time

The most reported origin stations were those belonging to the Babylon, Huntington, Port Washington, and Ronkonkoma branches. This is similar to the departure branch count information presented earlier. For a detailed breakdown by station, refer to Appendix L.

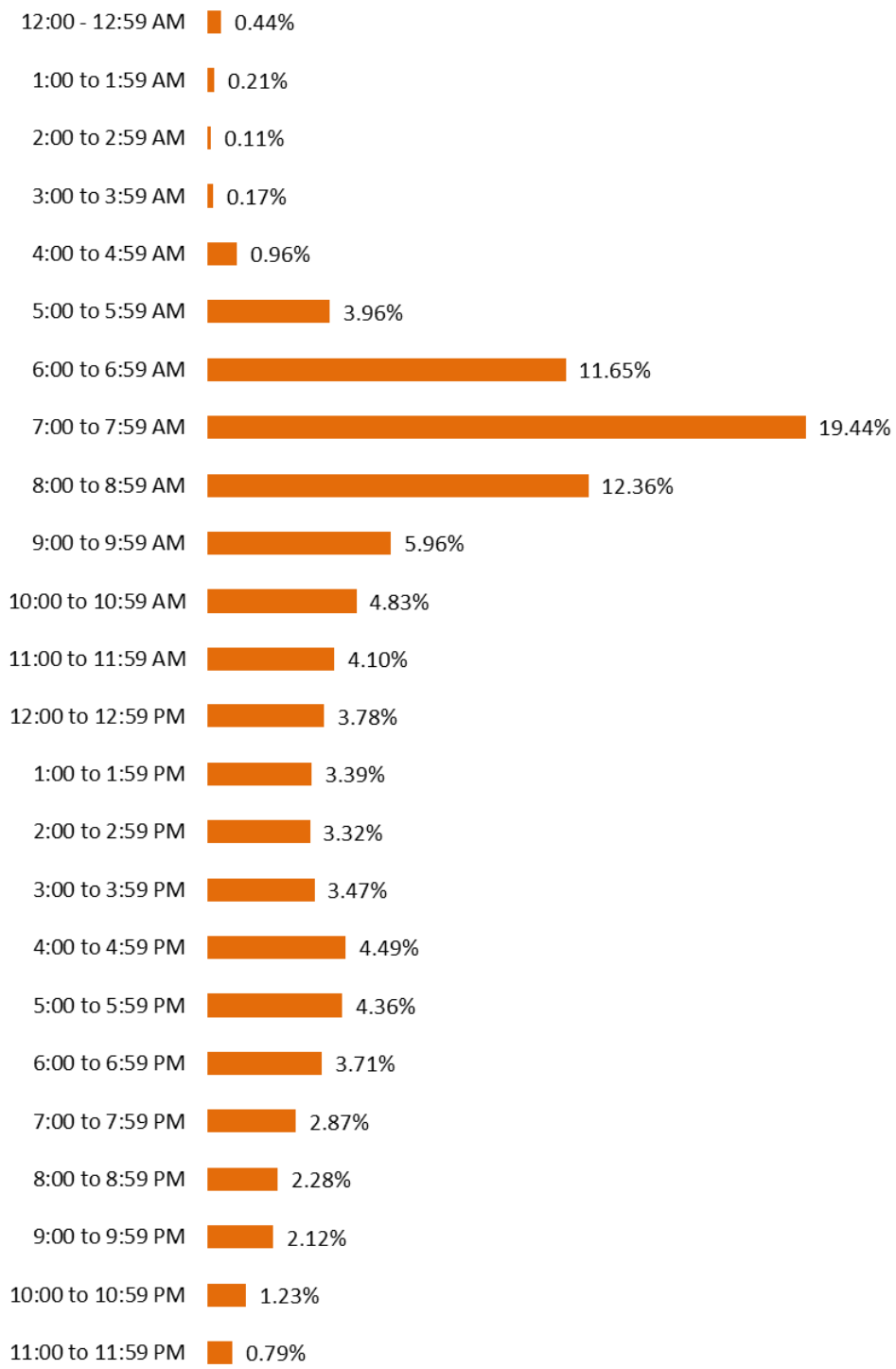
Figure 7. Westbound Origin Branch, All Days (N=256,966)[10]



[10] Please see Appendix L for distributions for stations including stations within the City Terminal Zone branch.

For these train boardings, there was a clear uptick that occurred primarily between 6 AM and 10 AM. This trend is in line with what customers reported as the times they left their origin locations .

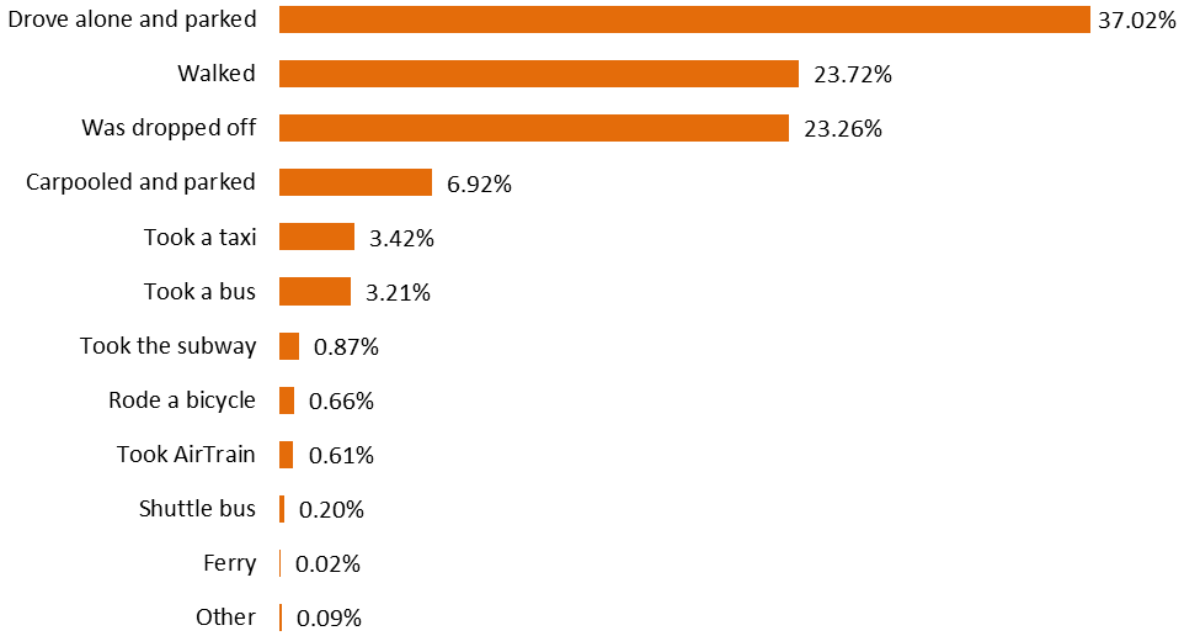
Figure 8. Westbound Train Departure Time (N=238,325)



6.2.5 Station Access Mode

Cars were instrumental in allowing people to reach their origin station, with two-thirds of all Westbound respondents driving, being dropped off, or carpooling to reach their LIRR trains. Interestingly, about a quarter of customers opted to walk to their station.

Figure 9. Westbound Station Access Mode, All Days (N=253,881)



6.2.6 Parking

Given the popularity of the car for access mode, most Westbound respondents indicated parking in a lot or space, with similar percentages specifying the need for a permit or not. These two mentions accounted for over three-quarters of responses. Of those who parked in non-metered spaces, most reported using street parking.

Figure 10. Parking Location, All Days (N=107,965)

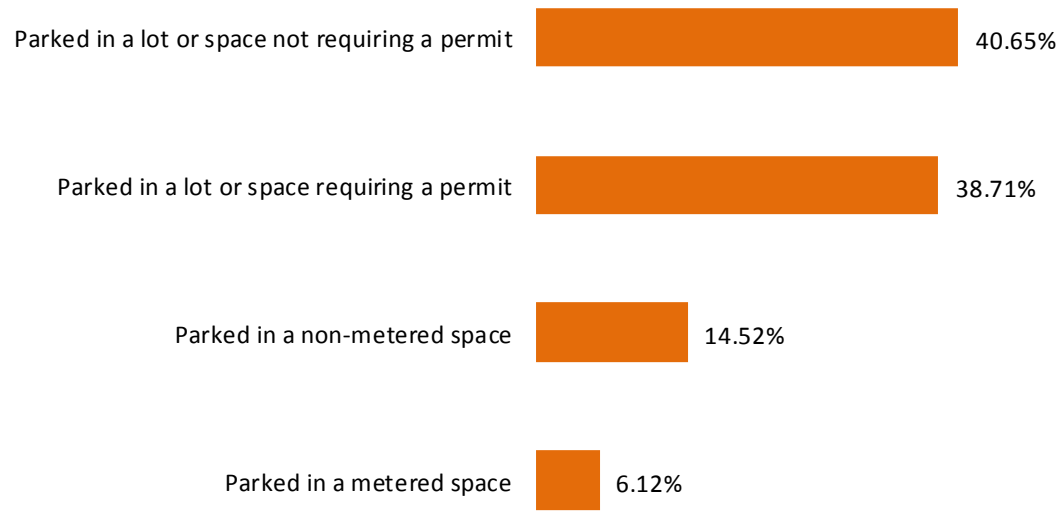
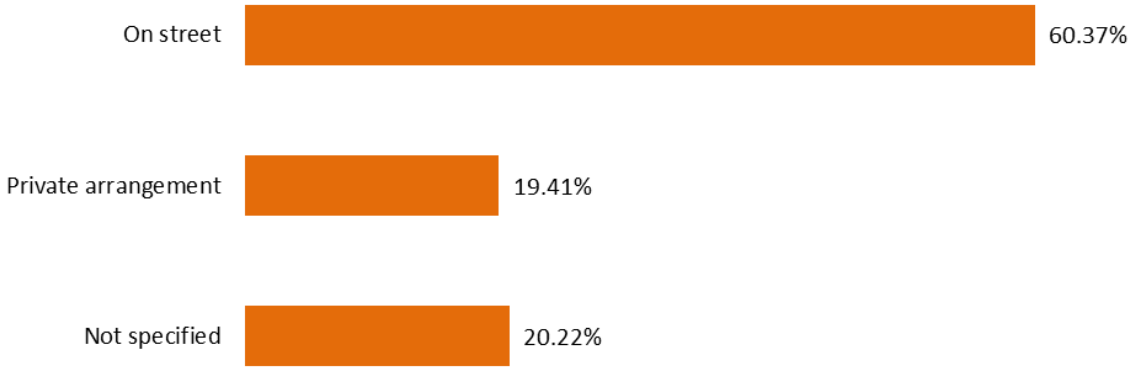


Figure 11. Non-metered Space Type, All Days (N=15,676)



About half of respondents who parked reported paying for their parking spot. Of those who paid to park, over half paid annually and about a fifth paid daily for parking. People who paid to park monthly and annually reported paying approximately $100 on average.

Figure 12. Payment for Parking, All Days (N=85,266)

Figure 13. Parking Payment Frequency, All Days (N=40,150)

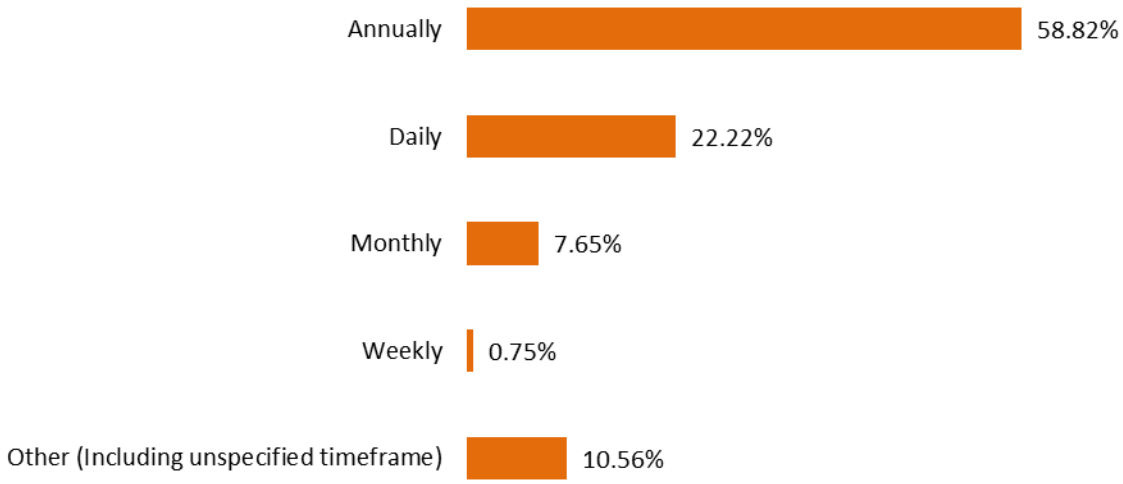


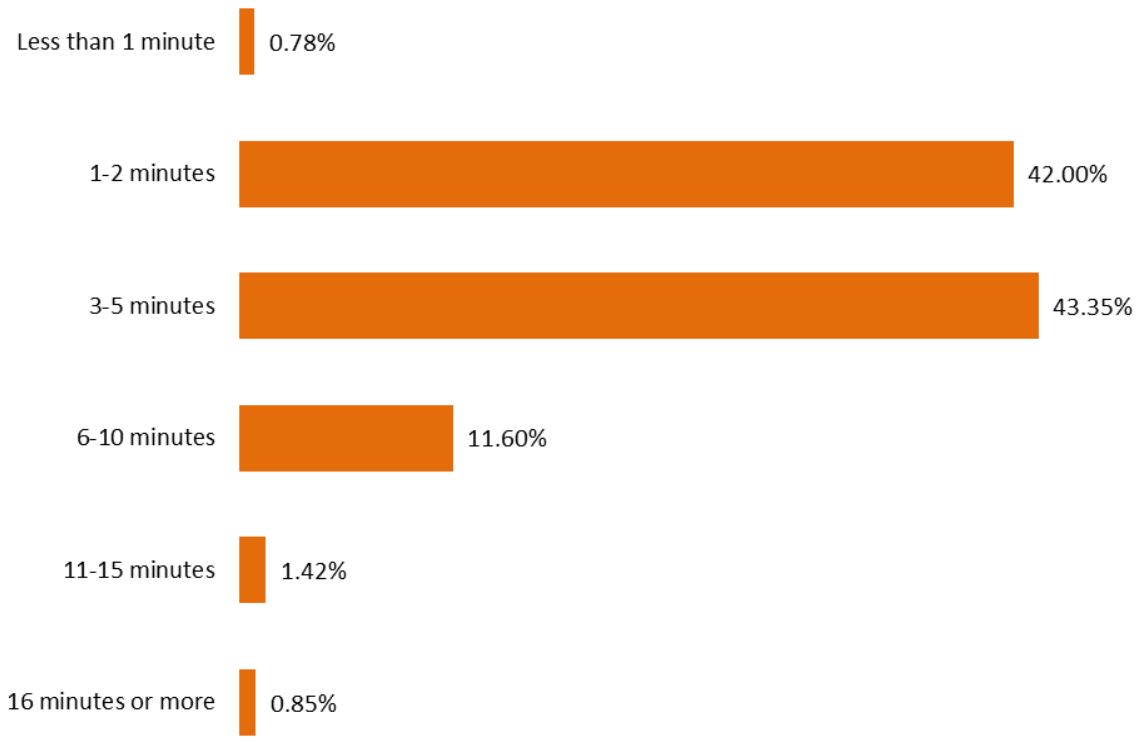
Table 14. Mean Parking Fee by Payment Frequency, All Days (N=40,150)

Payment Frequency	Amount*
Daily	$ 7.84
Weekly	$ 25.33
Monthly	$ 99.69
Annually	$ 100.84
Other (Including unspecified timeframe)	$ 156.07

*Rates are based on respondents' answers. Parking rates and arrangements vary based on station.

Westbound customers who parked also made the point of parking in close proximity to their boarding station. Over 80% of respondents parked within a 5 minute walk from their train, with very few choosing to walk over 10 minutes from their parking location.

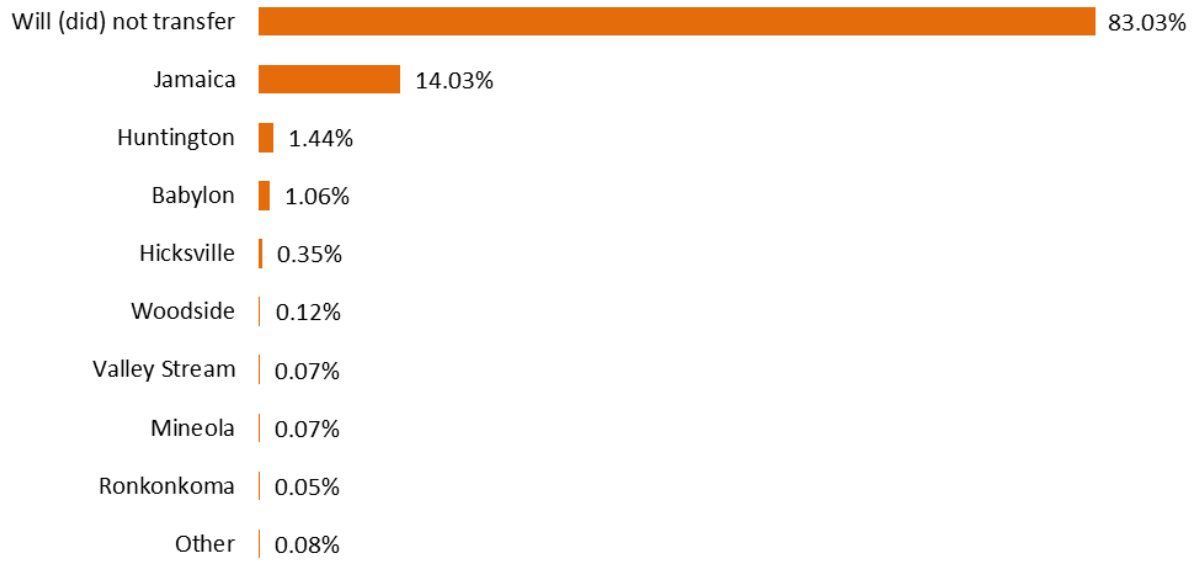
Figure 15. Minutes Walked to Train Platform (N=108,057)



6.2.7 Transfer Stations

Most Westbound customers made single-train trips requiring no transfers. For the rest, Jamaica serviced the bulk of all transfer activity.

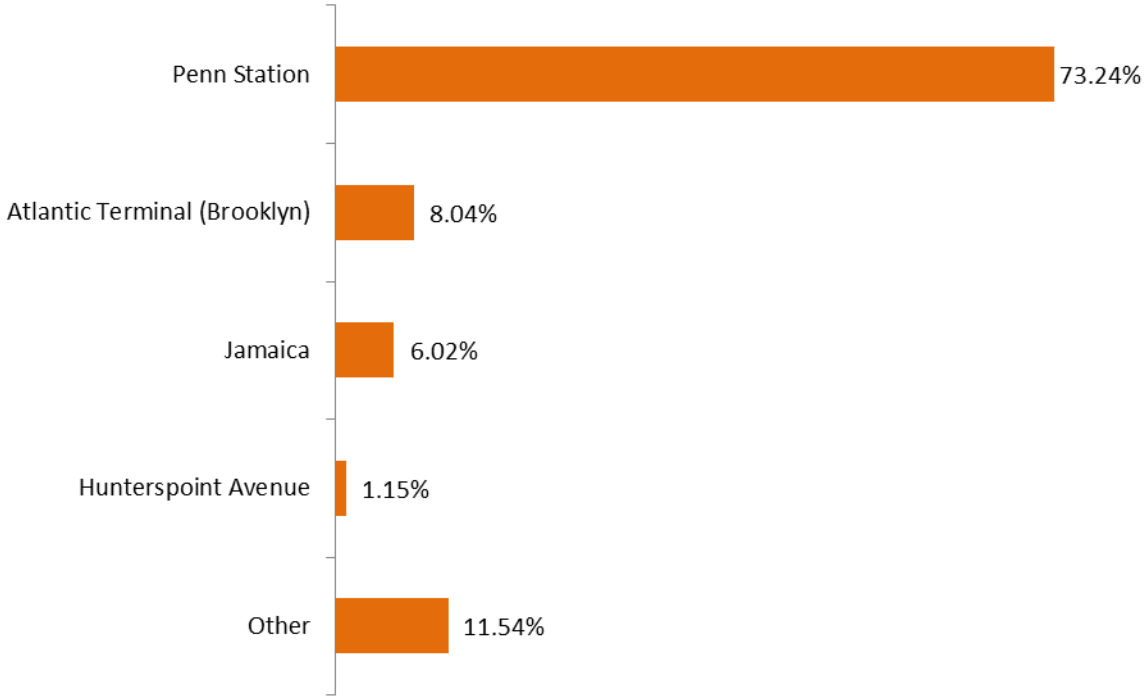
Figure 16. Westbound Transfer Stations, All Days (N=256,966)



6.2.8 Westbound Destination Station

Penn Station was the primary final station for Westbound customers by a large margin. Over 70% of the trips ended in Penn Station. Only about 8% of trips ended in Atlantic Terminal.

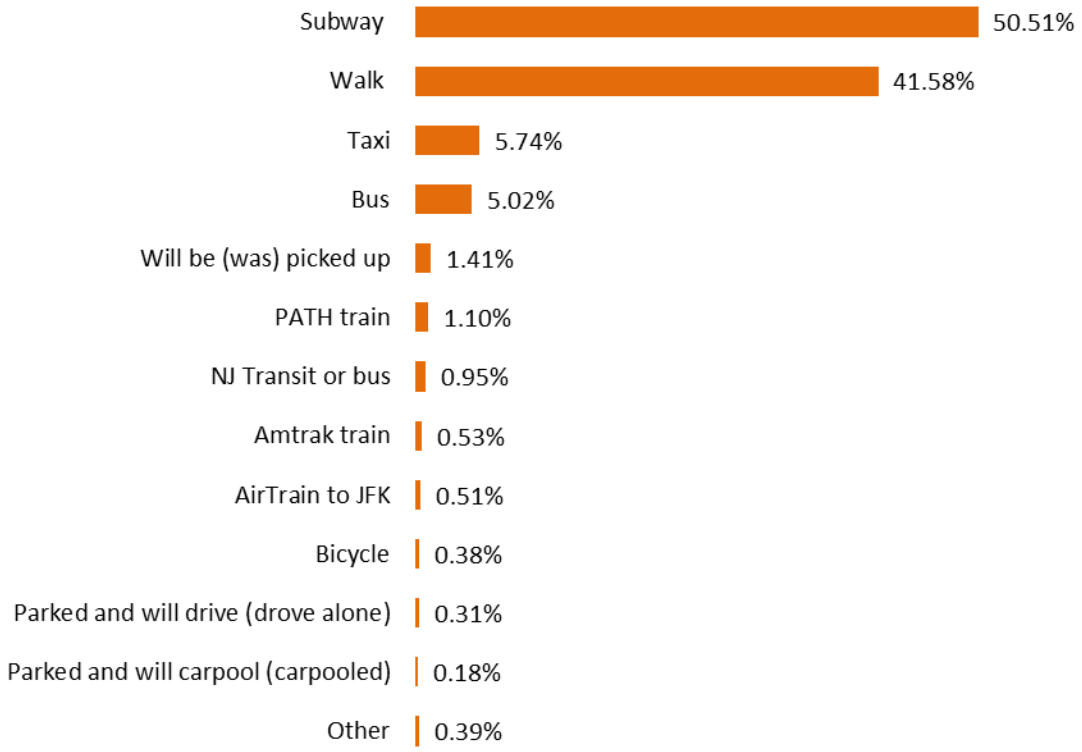
Figure 17. Westbound Destination Station, All Days (N=256,966)



6.2.9 Station Egress Mode

Predominantly, people who exited their train station in the Westbound direction opted for taking the subway or walking. Very few people used a car for their egress mode, contrasting with the emphasis on motor vehicle travel use for access mode, and in line with urban destination stations.

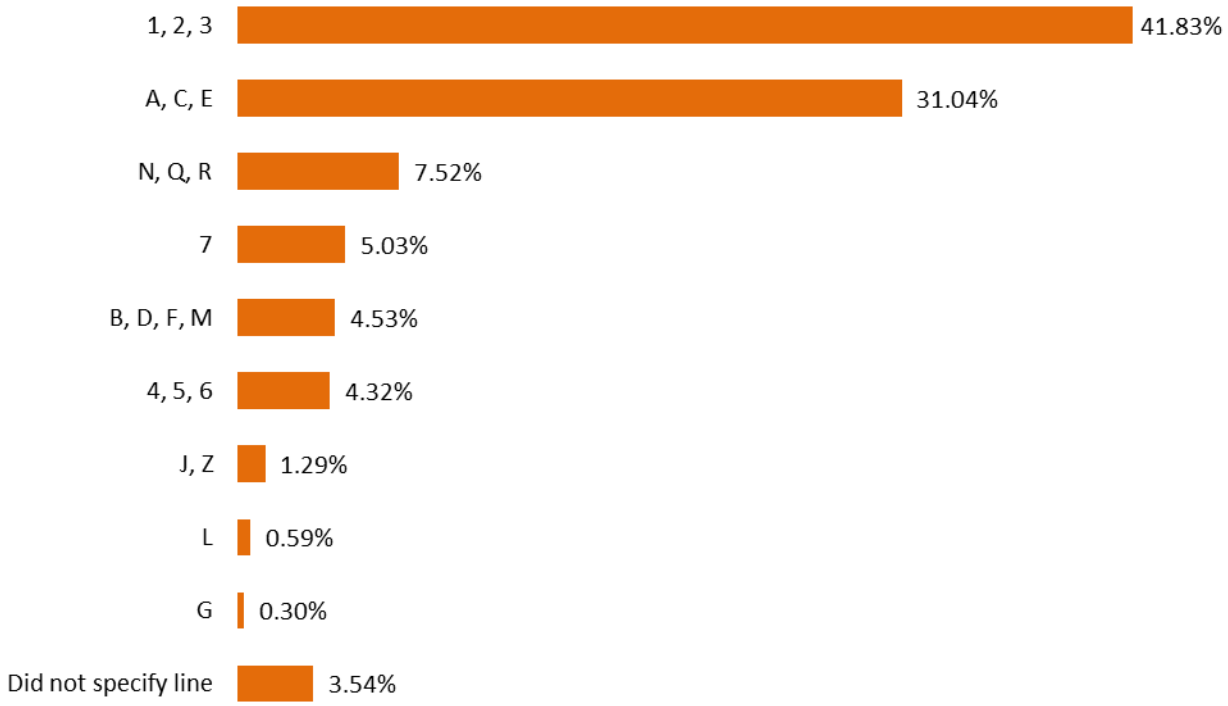
Figure 18. Westbound Egress Mode, All Days (N=254,526)[11]



[11] The percent distributions add up to more than 100% because multiple responses were allowed for this question.

Of the Westbound customers who reported using the subway, the distribution skewed heavily in favor of the 7th Avenue Line (1,2,3) and 8th Avenue Line (A,C,E), which are the two most conveniently accessed lines from Penn Station . Over 70% of the customers who used subway used either of these two lines.

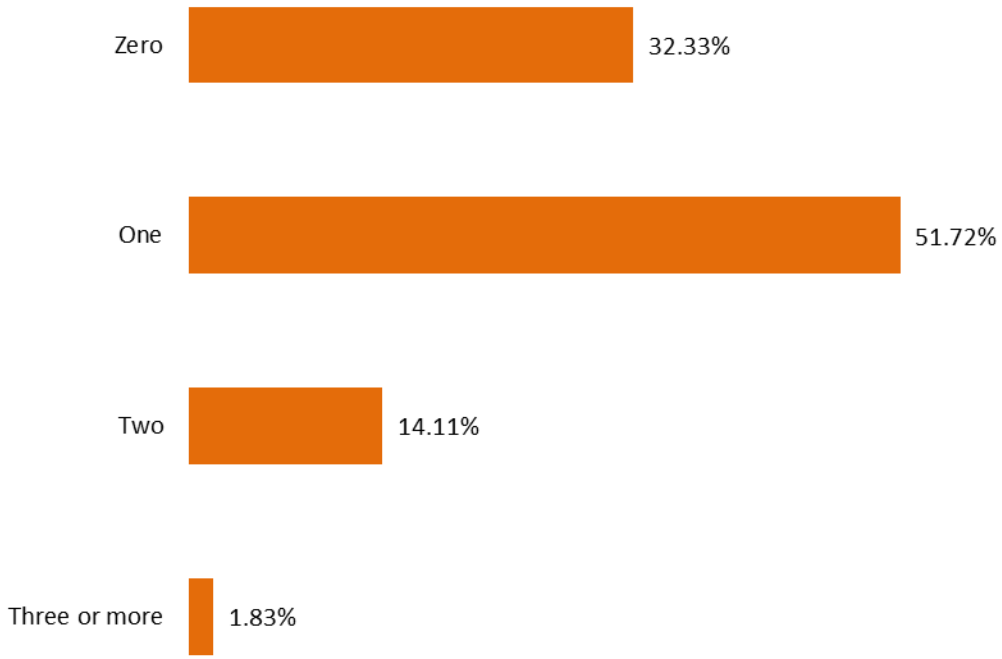
Figure 19. Subway Egress, All Days (N=128,552)



6.2.10 Train/Bus Use

After exiting their final LIRR station, about a third of the Westbound customers did not take any other trains or buses to reach their final destination. Half of the customers took only one train or bus to reach their final destination. However, about 16% of the customers used two or more public transit modes after exiting at their final LIRR station.

Figure 20. Number of Trains/Buses Taken to Final Destination, All Days (N=215,924)



6.2.11 Westbound Final Trip Destination

The majority of reported Westbound destinations were in Manhattan, matching fairly accurately to the amount of customers reporting Penn Station as their egress station. Brooklyn and Queens each accounted for slightly fewer than 10% of destinations each.

About 60% of those who indicated that their destination was Manhattan stayed in the midtown area, and about a quarter ultimately traveled to downtown or lower Manhattan.

Figure 21. Trip Destination, All Days (N=254,258)

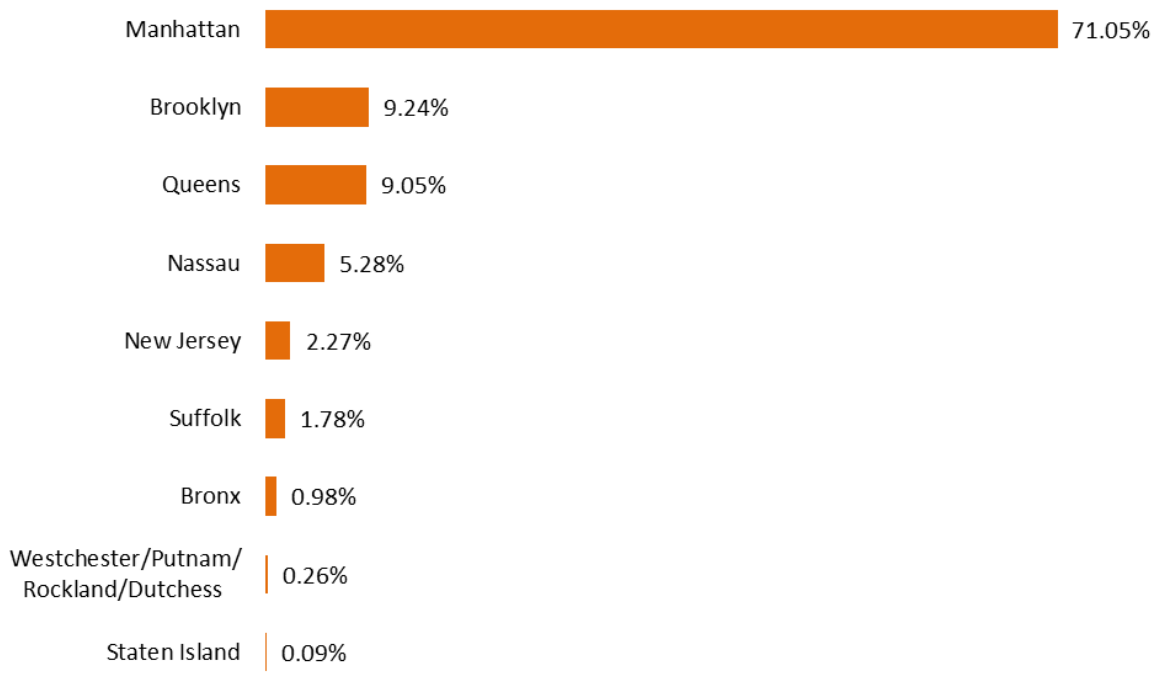
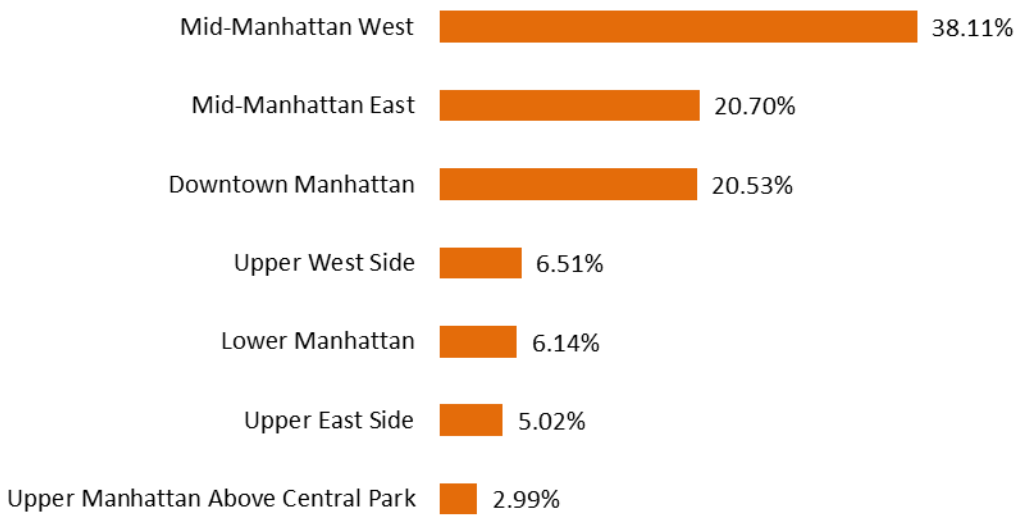


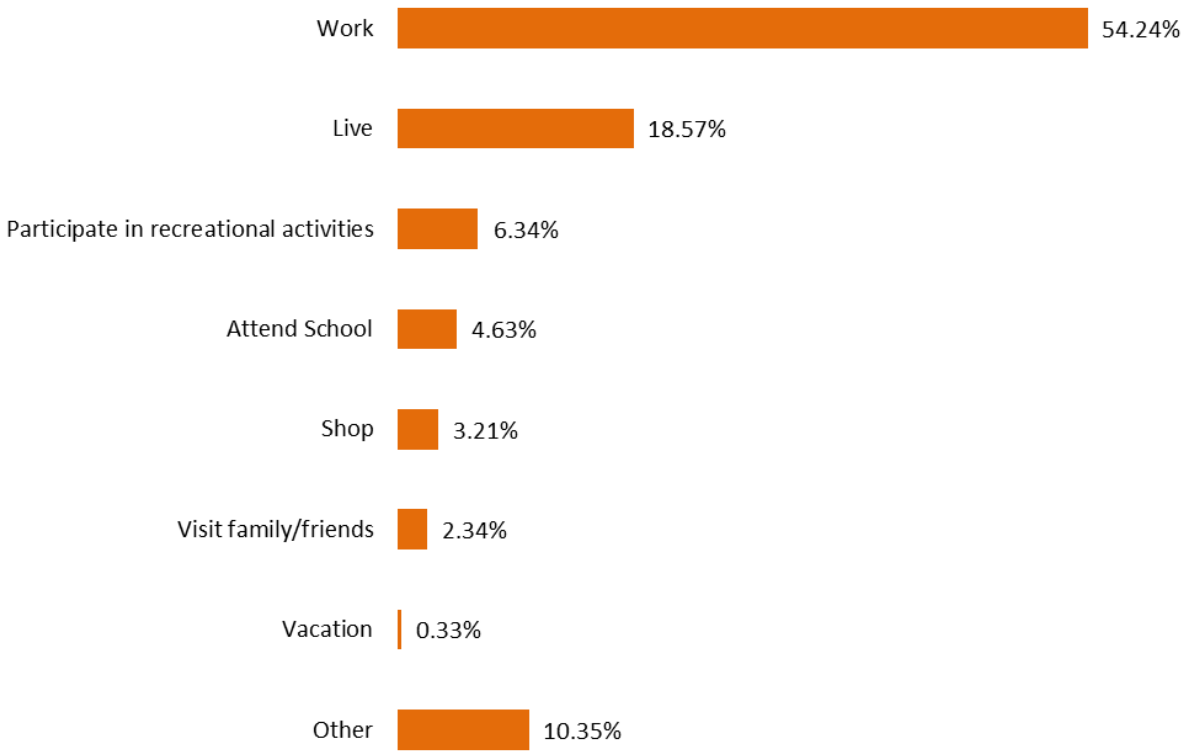
Figure 22. Manhattan Destinations, All Days (N=180,662)[12]



[12] Please see Appendix I for zone maps for Manhattan. A brief definition zones used is given below.
Downtown Manhattan: South of Leonard St
Lower Manhattan: South of Houston St, North of Leonard St
Mid-Manhattan West: West of 5th Ave, South of 59th St, North of 14th St
Mid-Manhattan East: East of 5th Ave, South of 60th St, North of Houston St
Upper West Side: West of Central Park, South of 114th St, North of 59th St
Upper East Side: East of Central Park, South of 116th, North of 60th St
Upper Manhattan: North of 110th St

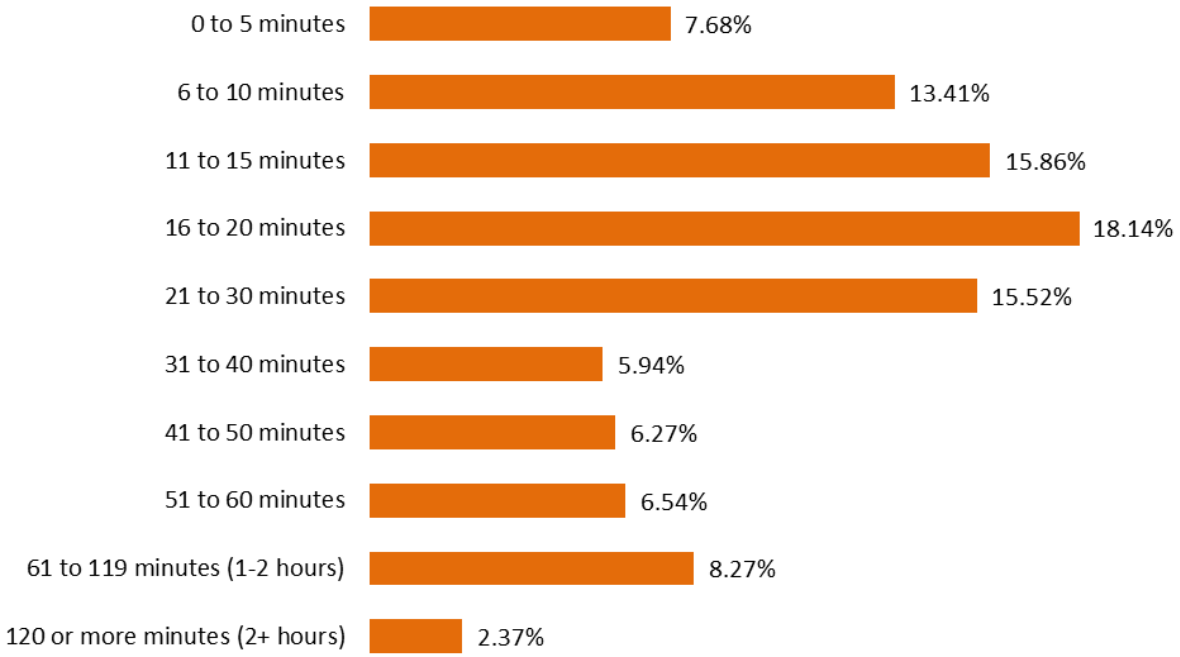
Over half of the Westbound customers using LIRR reported their final destination as their workplace, which is consistent with the reported trip purpose. A fifth reported they were going home. However, about 10% of the customers also took their Westbound trips for personal reasons such as recreational activities, shopping or to visit with family or friends.

Figure 23. Westbound Destination Location Type, All Days (N=256,966)



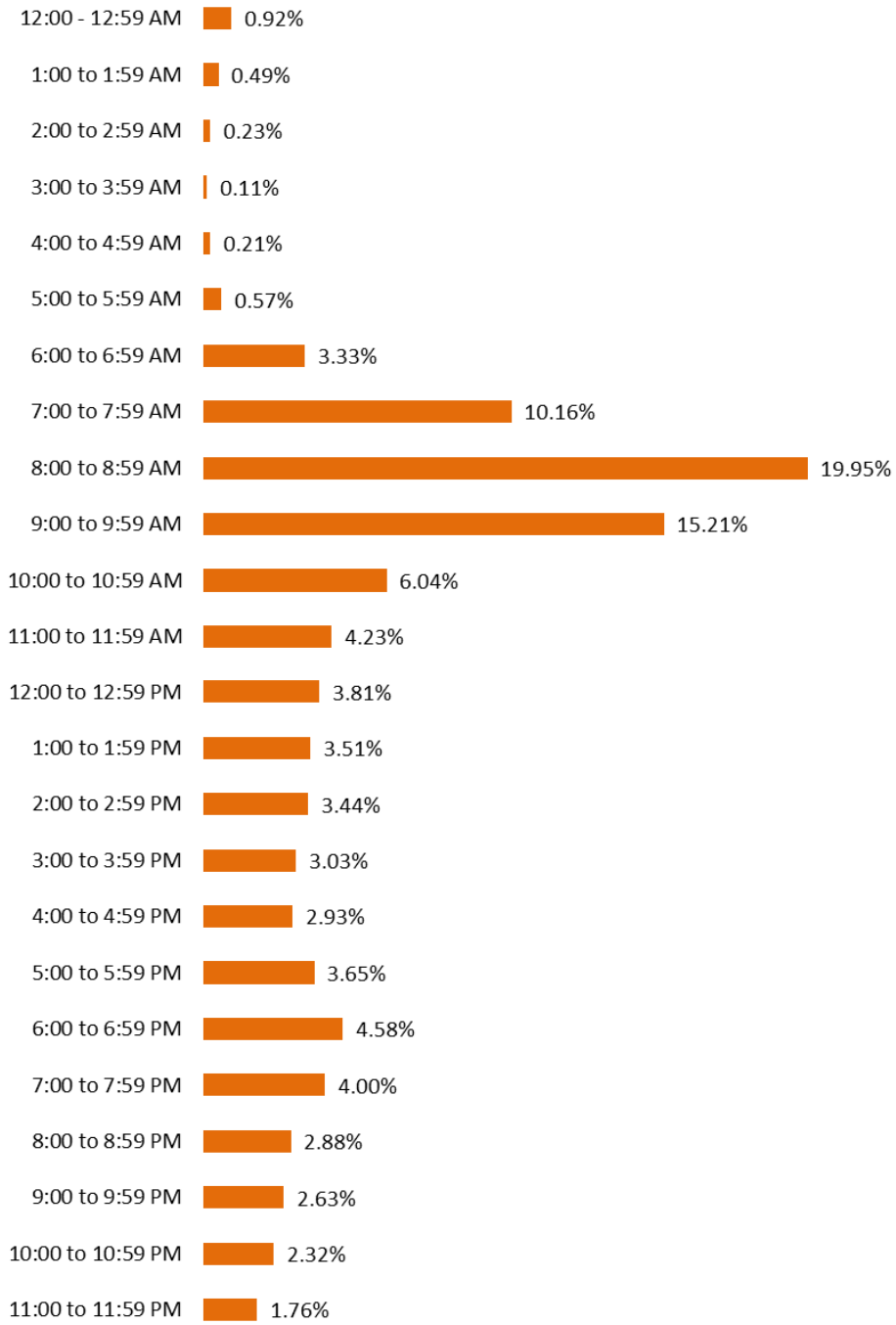
For over a third of the customers, the travel time from their Westbound destination station (where they exited LIRR) to their final destination took 15 minutes or less. A little more than half reported that the travel time was 20 minutes or less. About a fifth of the customers reported requiring half an hour to an hour of additional travel time to reach their final destinations.

Figure 24. Time from last LIRR Station to Final Destination, All Days (N=244,897)



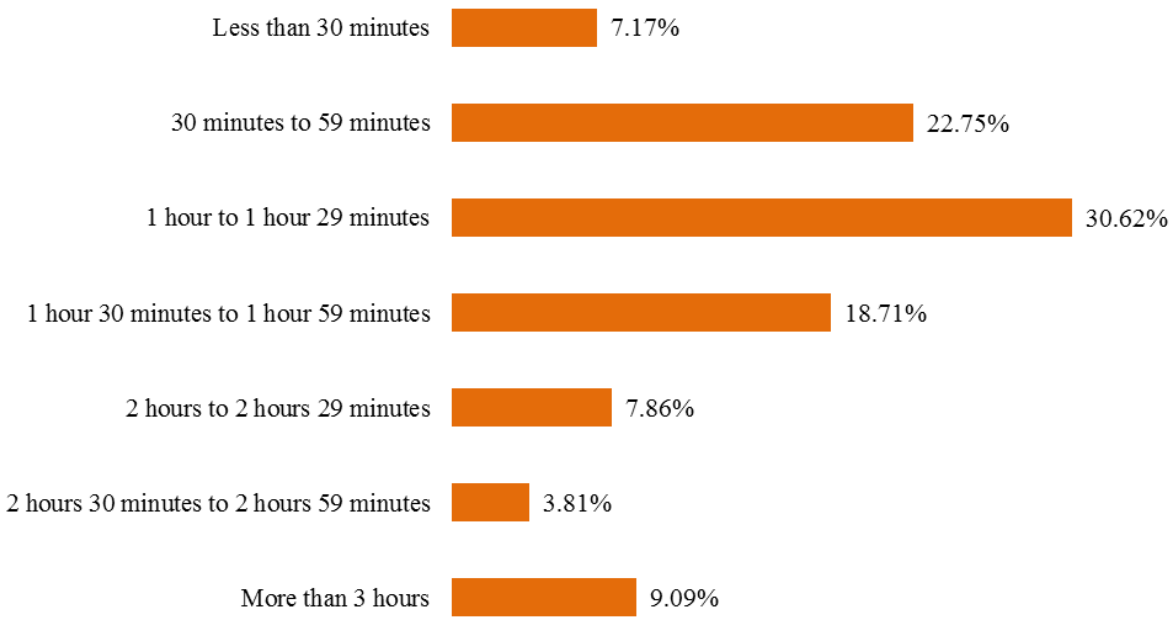
There was a substantial percentage of Westbound customers who reported arriving at their final destination primarily in the AM Peak period between7 AM and 10 AM. This is consistent with responses given regarding when people began their trip, which had responses concentrated primarily between 6 AM and 9 AM. The slight shift in the time frame accounts for the travel time between their origin and their final destination.

Figure 25. Final Destination Arrival Time, All Days (N=220,077)



Over two-thirds of LIRR customers reported needing at least 30 minutes but less than 2 hours to complete their entire trip, from beginning to end.

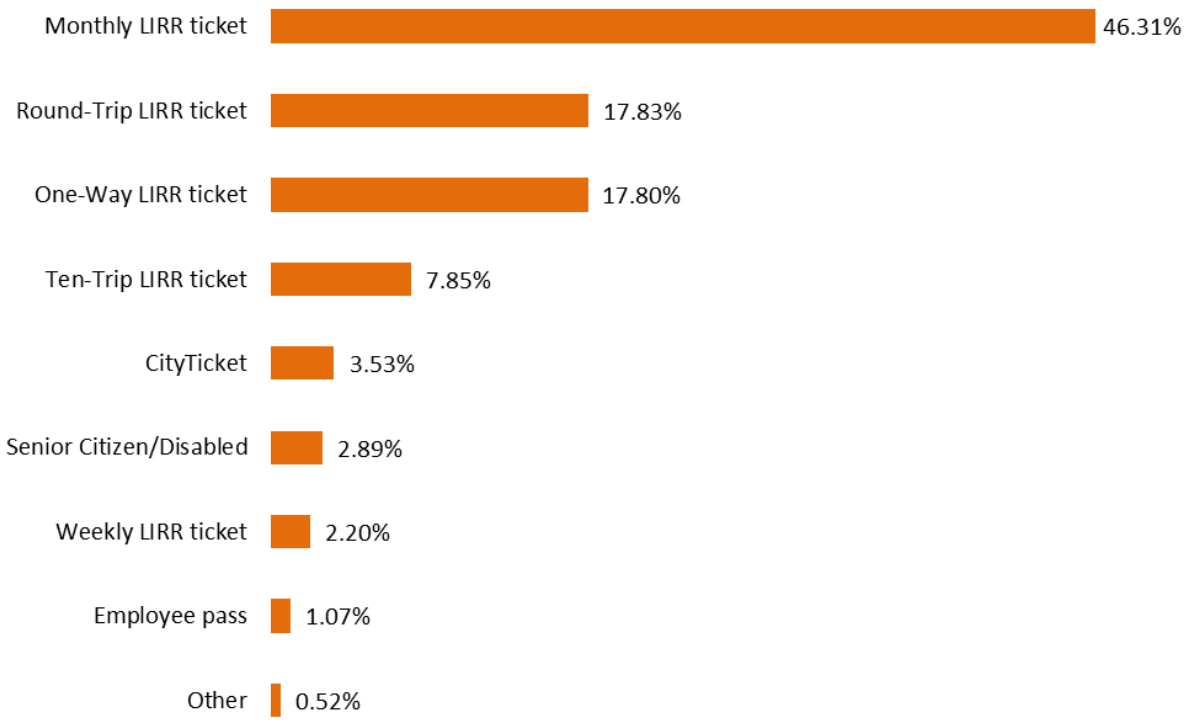
Figure 26. Total Trip Time, All Days (N=66,228)



6.2.12 Ticket Type

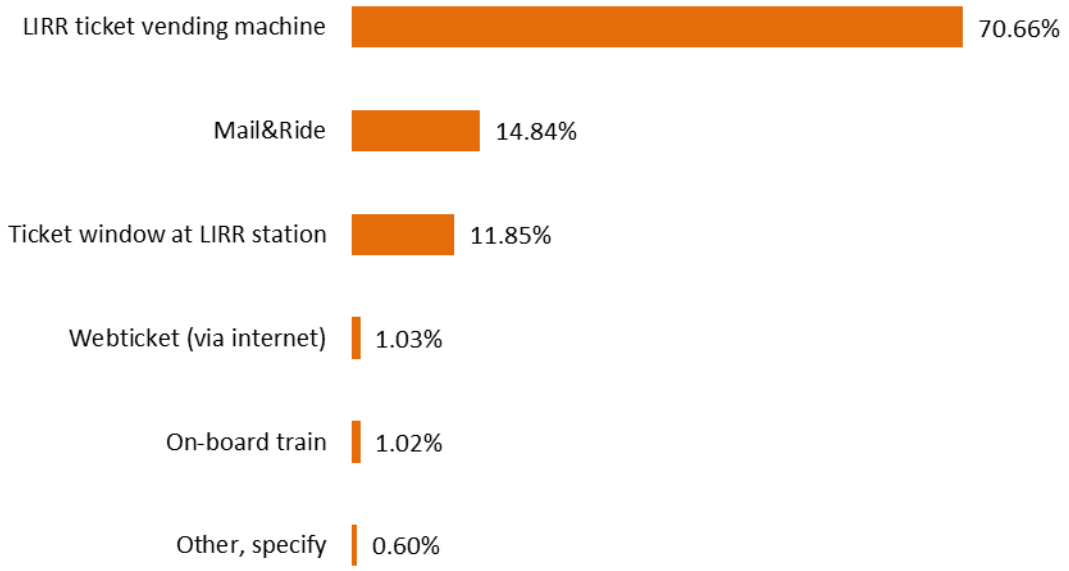
The Monthly ticket was the most predominant ticket type used. This speaks to the trip frequencies reported by customers; with the majority of people reporting traveling at least 5 days per week and the Monthly ticket being the most efficient ticket for such regular and frequent train use. The next most common ticket types used were One Way and Round Trip tickets, which make the most sense for less frequent customers. For a detailed breakdown of MetroCard usage by ticket type, refer to Appendix L.

Figure 27. Ticket Type, All Days (N=251,538)



Seven out of ten customers purchased their tickets at LIRR ticket vending machines. A smaller percentage took advantage of the Mail&Ride option or a ticket window at an LIRR station. Those three responses accounted for almost all ticket purchases, with very few customers purchasing tickets online or onboard trains.

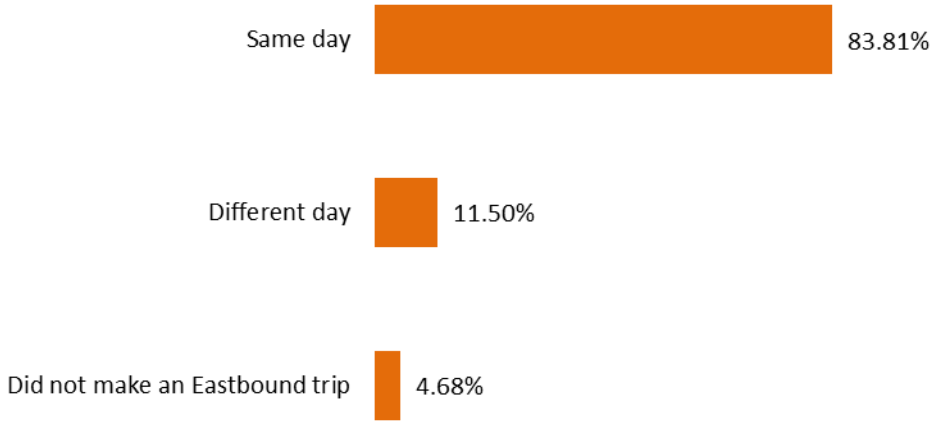
Figure 28. Ticket Purchase Location, All Days (N=248,721)



6.2.13 Timeframe of Eastbound Trip

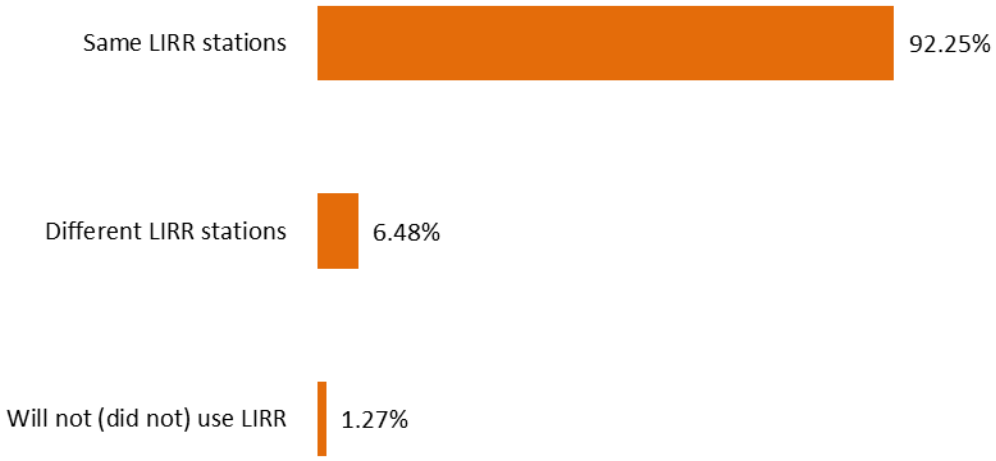
Nearly all Westbound customers indicated that they made a return or round trip. Of those, most traveled both legs of the round trip on the same day.

Figure 29. Timeframe for Eastbound Return Trip, All Days (N=227,778)



A majority of the customers also reported that they used the same LIRR stations for both Westbound and Eastbound portions of their trips. Only 6% of the respondents reported that they used different stations for their Eastbound trips.

Figure 30. Eastbound Trip Station Usage (N=209,743)

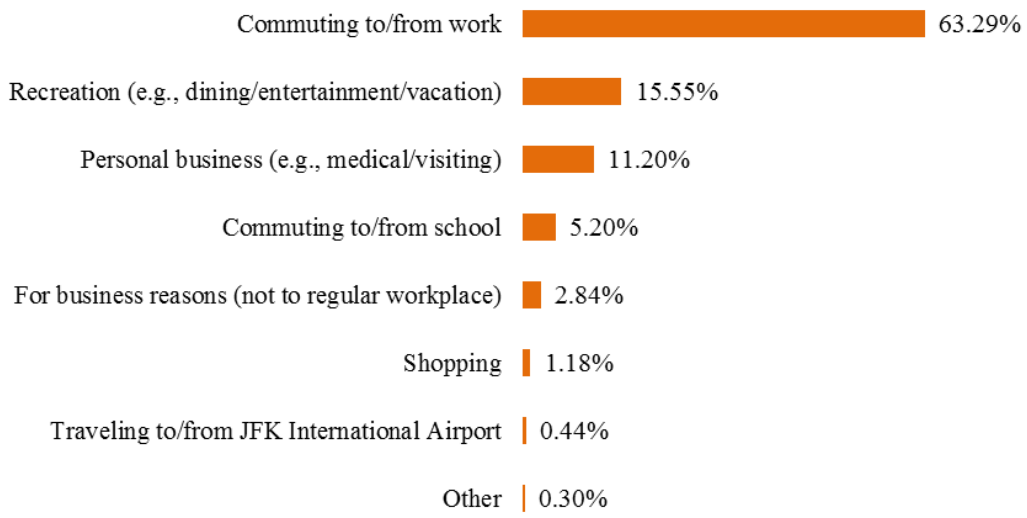


6.3 Travel Information – Weekday and Weekend Eastbound Customers[13] (Survey Data)

6.3.1 Trip Purpose

As with the Westbound trips, the primary reason for Eastbound trips was to travel to or from work. Yet, about a quarter of the customers also reported recreation and personal business as the purpose of their Eastbound trip.

Figure 31. Eastbound Trip Purpose (N=214,140)

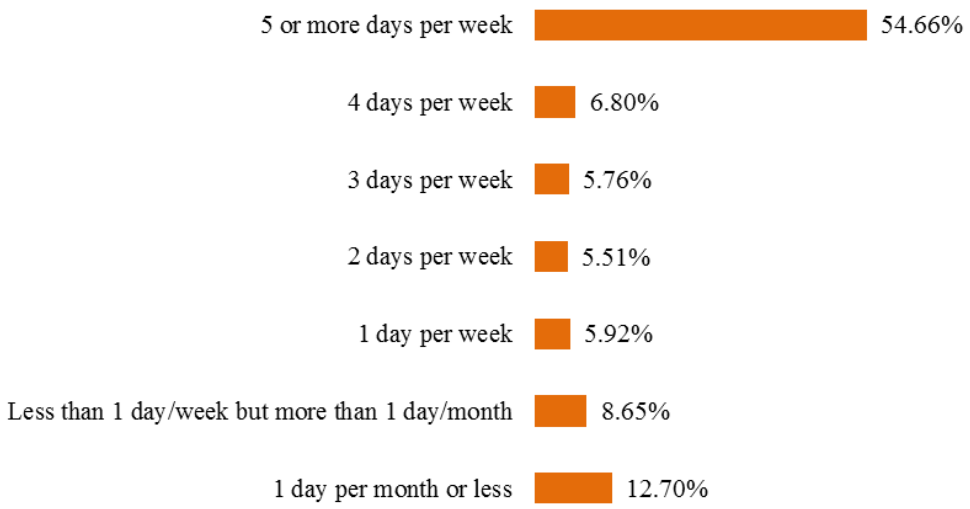


[13] Eastbound trip data was collected from Westbound customers who indicated making a corresponding Eastbound trip.

6.3.2 Trip Frequency

Over half of all Eastbound customers were frequent LIRR users with 5 or more travel days per week. This is consistent with the finding that majority of the customers use LIRR as a means to commute to work or from work. Yet, about a fifth of the customers use the train much less frequently – less than a day weekly and even a day or less in a month.

Figure 32. Eastbound Trip Frequency (N=209,727)



6.3.3 Eastbound Trip Origin – Location and Type

Three-quarters of all Eastbound trips originated in Manhattan. Of those, almost all came from either the midtown areas or from downtown. About 15% of the trips also originated in Queens and Brooklyn.

Figure 33. Eastbound Trip Origin Location (N=190,316)

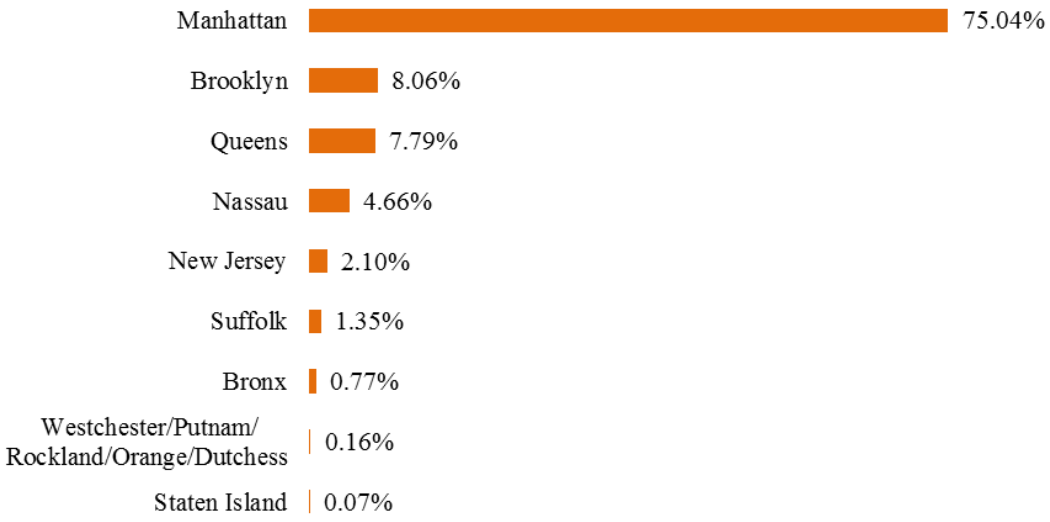
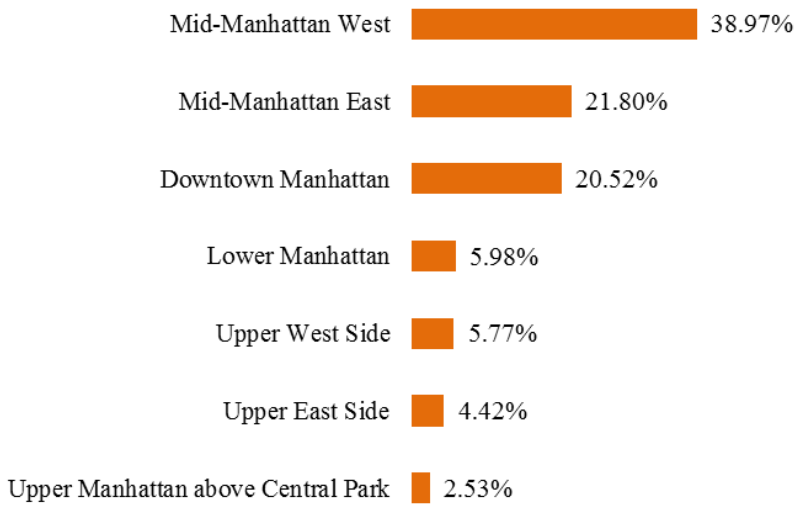


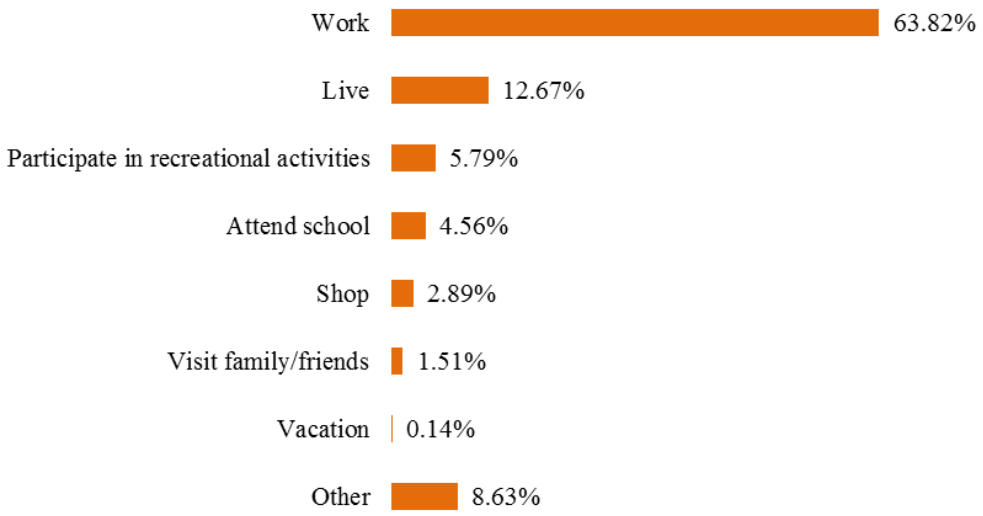
Figure 34. Manhattan Origins (N=142,808)[14]



[14] Please see Appendix I for zone maps for Manhattan. A brief definition zones used is given below.
Downtown Manhattan: South of Leonard St
Lower Manhattan: South of Houston St, North of Leonard St
Mid-Manhattan West: West of 5th Ave, South of 59th St, North of 14th St
Mid-Manhattan East: East of 5th Ave, South of 60th St, North of Houston St
Upper West Side: West of Central Park, South of 114th St, North of 59th St
Upper East Side: East of Central Park, South of 116th, North of 60th St
Upper Manhattan: North of 110th St

Almost two-thirds of the origins for Eastbound trips were people's work places, which is consistent with the emphasis of the most common reported trip purpose of commuting to and from work.

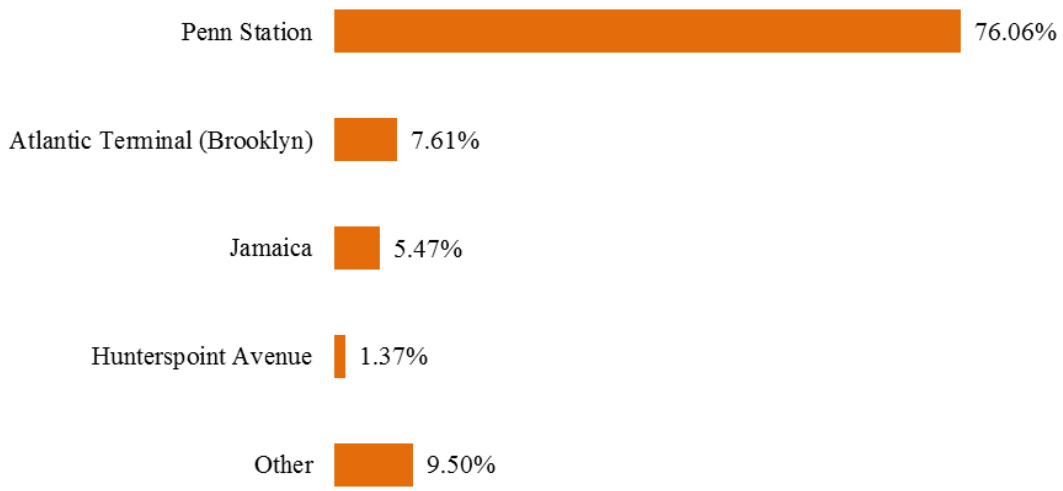
Figure 35. Origin Location Type (N=190,911)



6.3.4 Eastbound Origin Station

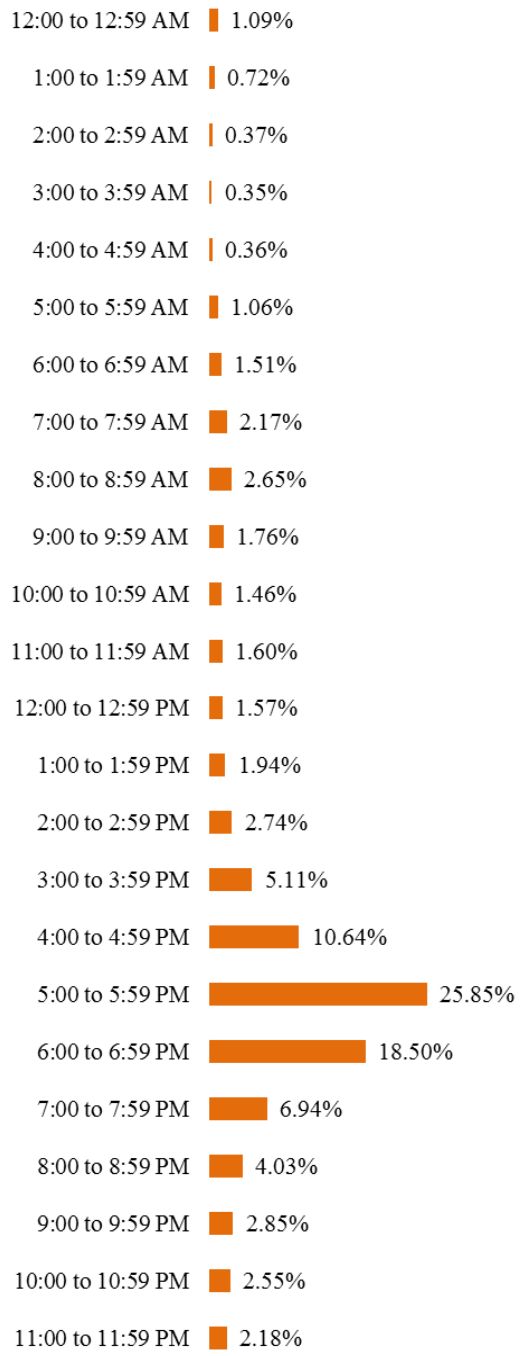
As expected, most Eastbound trips originated at Penn Station. Penn Station was the origin station for over three-quarters of the trips. Only about 8% of the trips originated at Atlantic Terminal.

Figure 36. Eastbound Origin Station (N=204,836)



Most Eastbound trips took place during the afternoon peak hours. About 55% of the Eastbound trips originated between 4 PM and 7 PM, and another 10% between 7 PM and 9 PM. About 25% Eastbound LIRR customers started their trips between 5 PM and 6 PM which was the busiest hour for Eastbound trips.

Figure 37. Eastbound Train Departure Time (N=127,205)

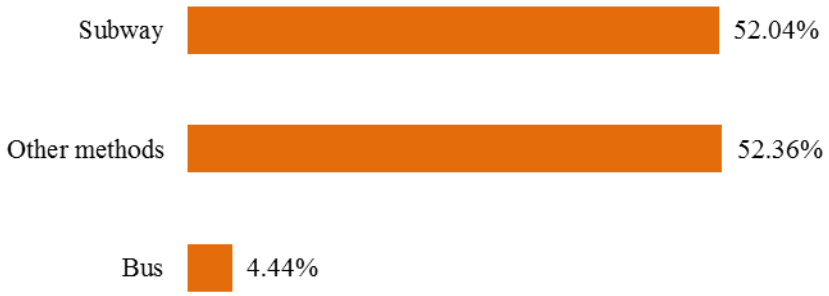


6.3.5 Eastbound Station Access Mode

The most utilized method of accessing Eastbound boarding stations was the NYC subway. Over half of those who made the Eastbound trips on LIRR used subways to reach their origin station. Among those who reported using the subway, the 7th Avenue Line (1,2,3) and 8th Avenue Line (A,C,E) were used most often since the two are the closest trunk lines to Penn Station.

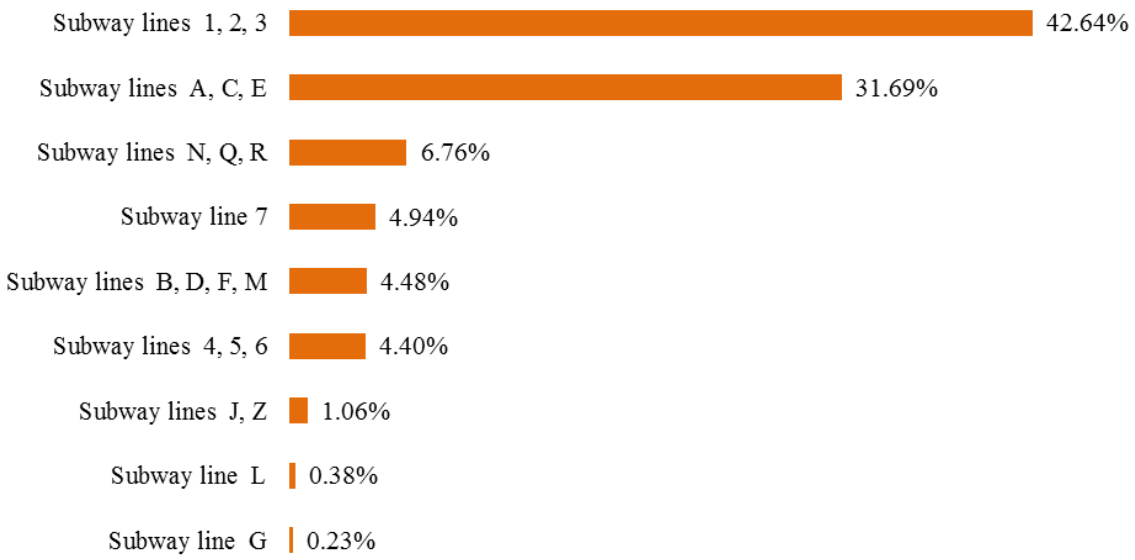
Over half of respondents also reported using methods other than subway or bus to reach their boarding station. Note that for the Eastbound direction, the questionnaire did not ask respondents to elaborate on access modes aside from subway and bus.

Figure 38. Eastbound Station Access (N=189,340)[15]



[15] The percent distributions add up to more than 100% because multiple responses were allowed for this question.

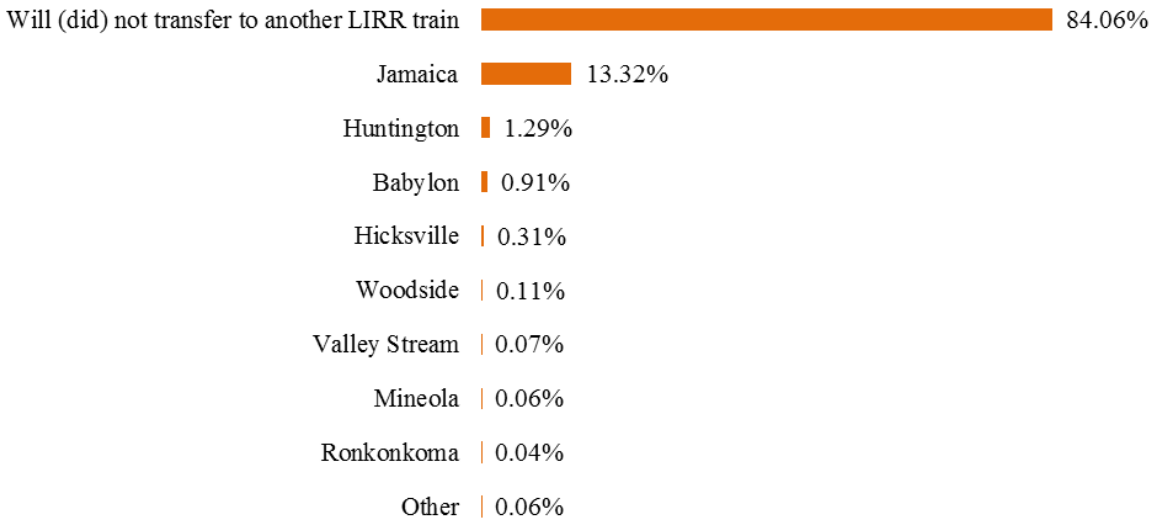
Figure 39. Eastbound Station Access – Subway (N=98,528)



6.3.6 Eastbound Transfer Stations

The overwhelming majority of customers took only one train on their Eastbound trip without transferring. However, those who did transfer were likely to do so at Jamaica station. All other transfer points accounted for less than 3% of responses.

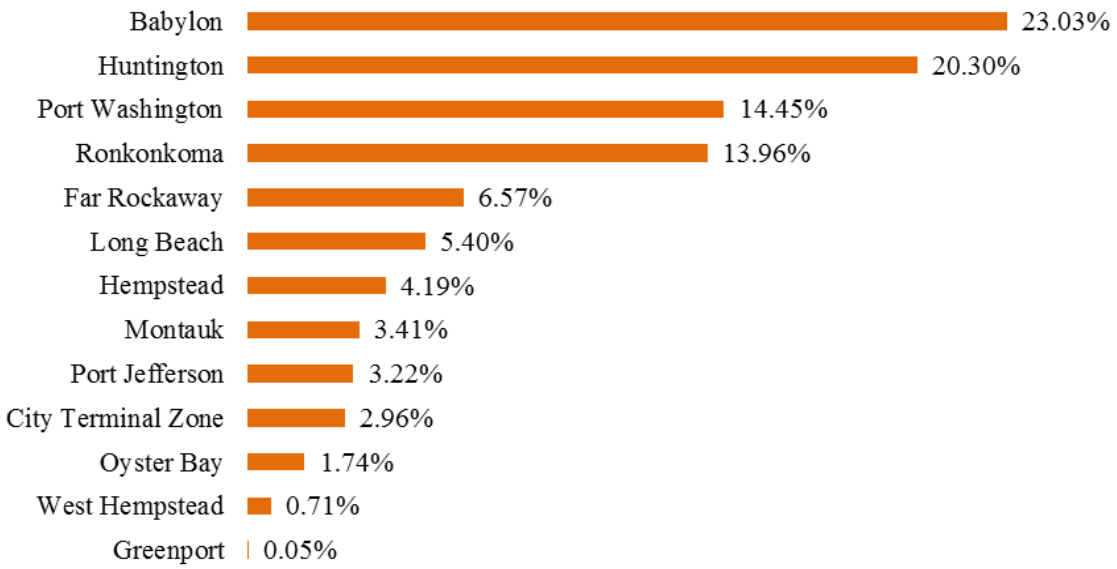
Figure 40. Eastbound Transfer Stations (N=193,497)



6.3.7 Eastbound Destination Branch

Eastbound destination stations were primarily associated with the Babylon, Huntington, Port Washington, and Ronkonkoma branches.

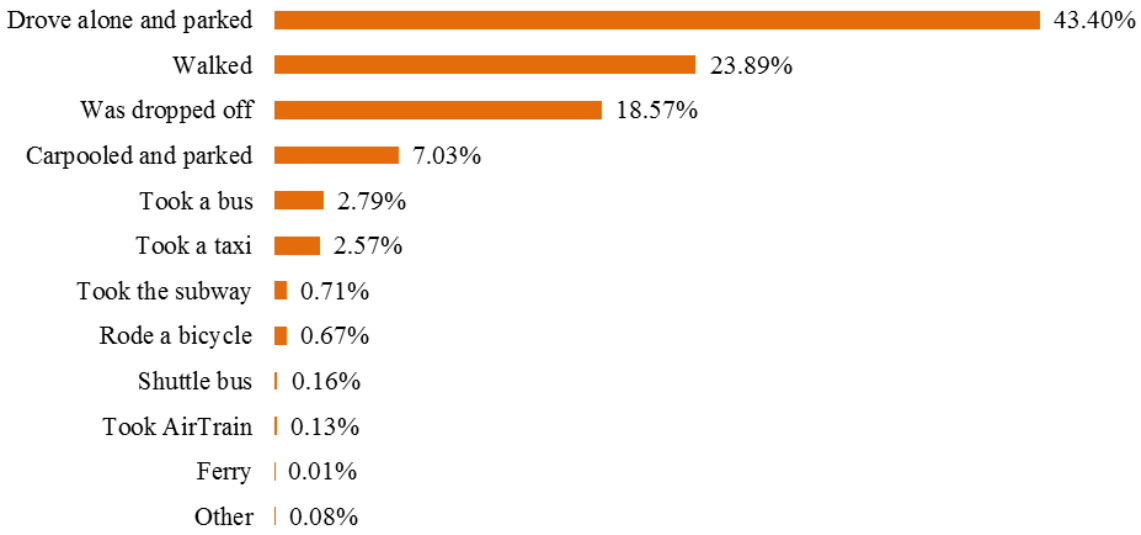
Figure 41. Eastbound Destination Branch (N=204,362)



6.3.8 Eastbound Station Egress Mode

Unlike the access mode, car travel accounted for a significant portion of egress trips from customers' final Eastbound station. Over two-thirds of respondents relied on a motor vehicle to reach their final destination. A substantial amount of people walked.

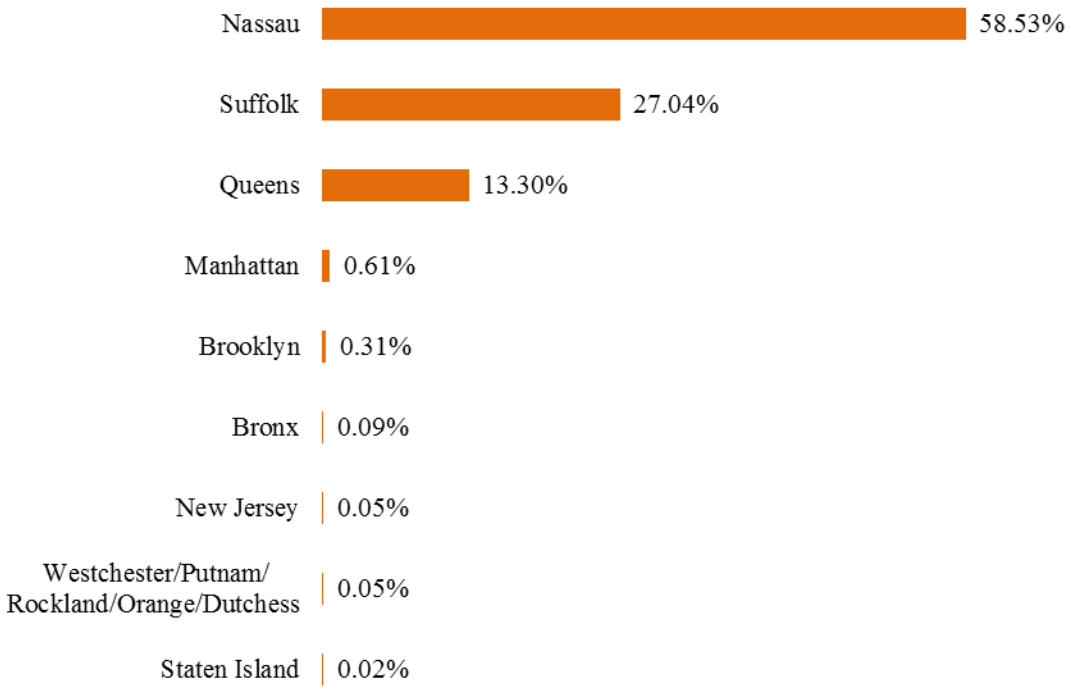
Figure 42. Eastbound Egress Mode (N=188,869)



6.3.9 Eastbound Final Trip Destination

Nassau County was the most frequently reported destination for Eastbound customers. Long Island (Nassau & Suffolk) and Queens encompassed nearly all destinations for Eastbound LIRR customers; other responses are likely errors.

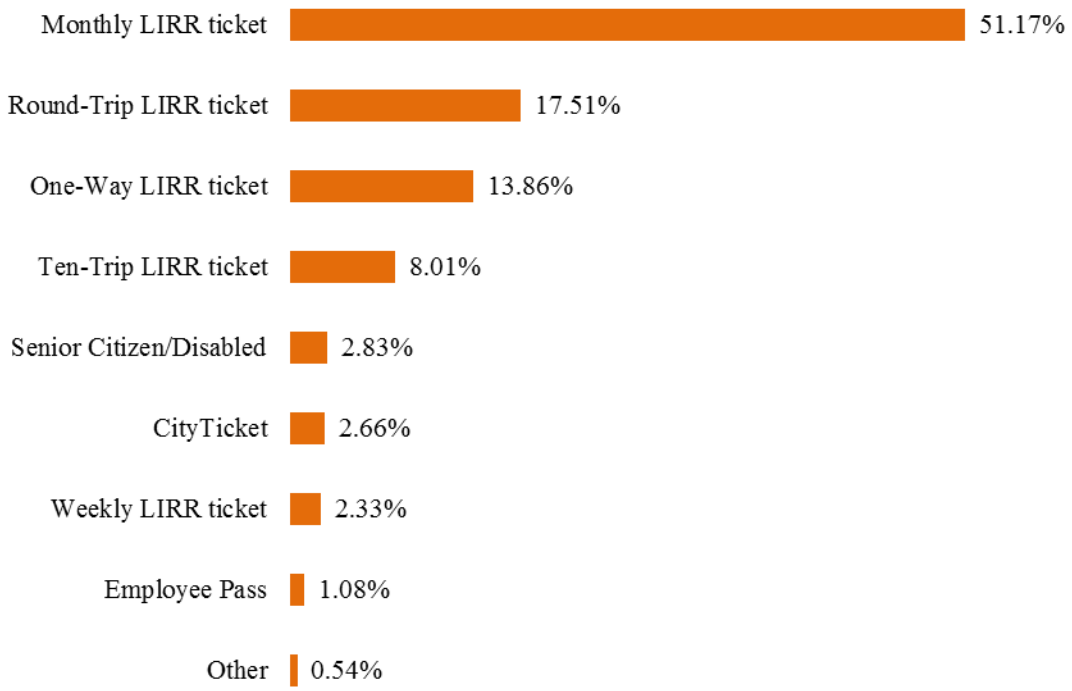
Figure 43. Eastbound Trip Destination (N=190,810)



6.3.10 Ticket Type

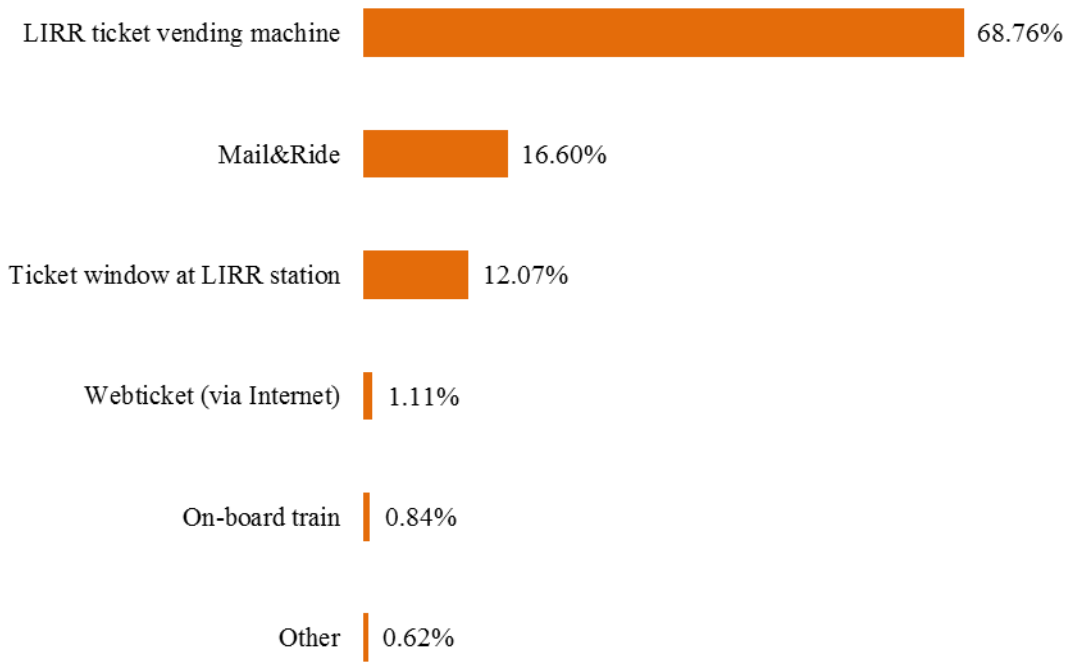
Monthly tickets were the most popular ticket purchases for Eastbound customers. This is consistent with the reported frequency of trips, where most indicated traveling at least 5 days per week.

Figure 44. Ticket Type (N=214,731)



Ticket vending machines were the most popular method of purchasing tickets among Eastbound customers. Along with ticket vending machines, the Mail&Ride option and station ticket windows accounted for almost all ticket purchases.

Figure 45. Eastbound Ticket Purchase Location (N=212,803)

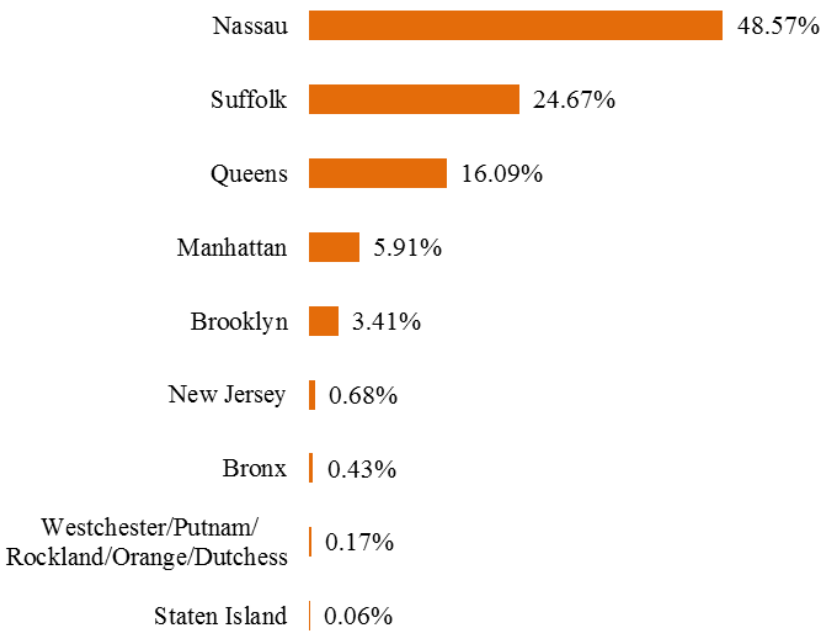


6.4 Demographic Characteristics of LIRR Customers[16]

6.4.1 Home Location

About three-quarters of the customers reported Long Island as their home location. About half of the customers reported living in Nassau and 15% of the reported their home location as Queens.

Figure 46. Home Location (N=240,511)

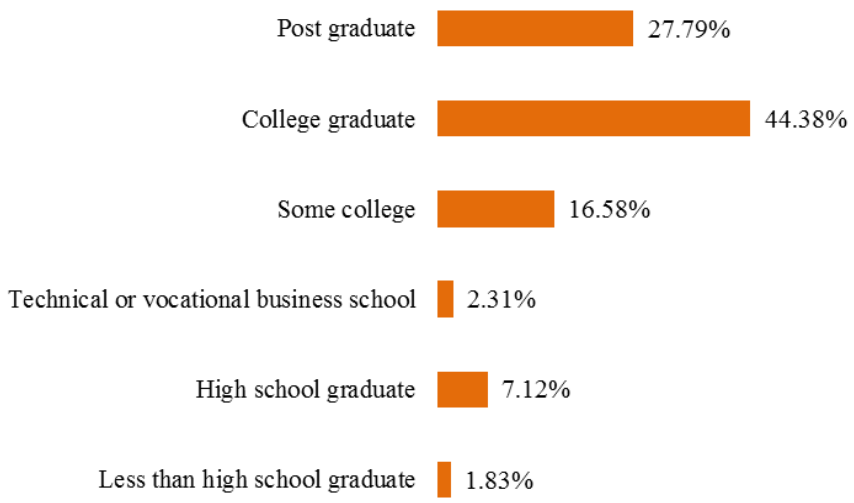


[16] Demographics based on Westbound customers.

6.4.2 Education Level

More than 70% of LIRR customers hold a college degree, with more than a quarter holding a post-graduate degree. An additional 17% have some college education.

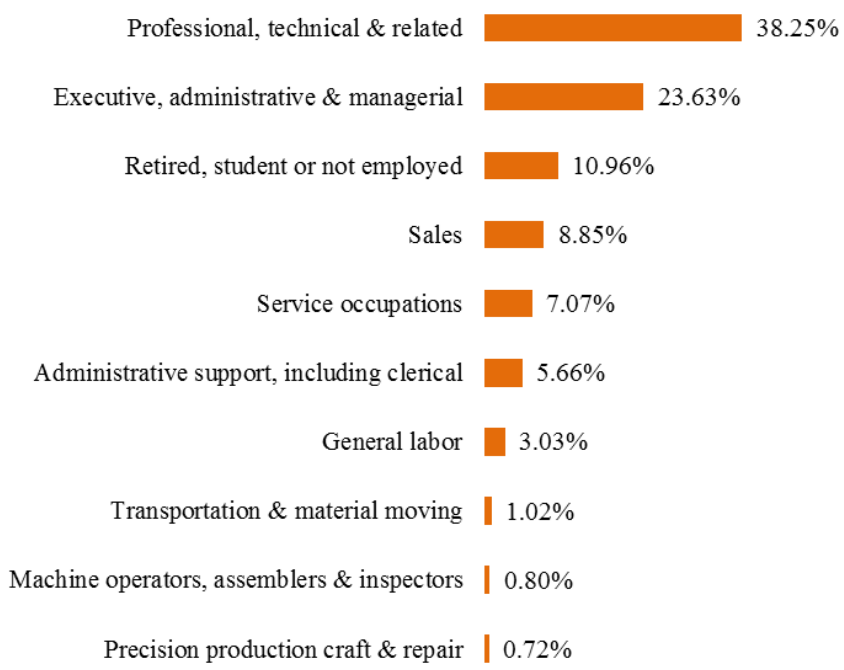
Figure 47. Education Level (N=230,091)



6.4.3 Occupation Type

The most commonly mentioned occupation types were professional or managerial in nature.

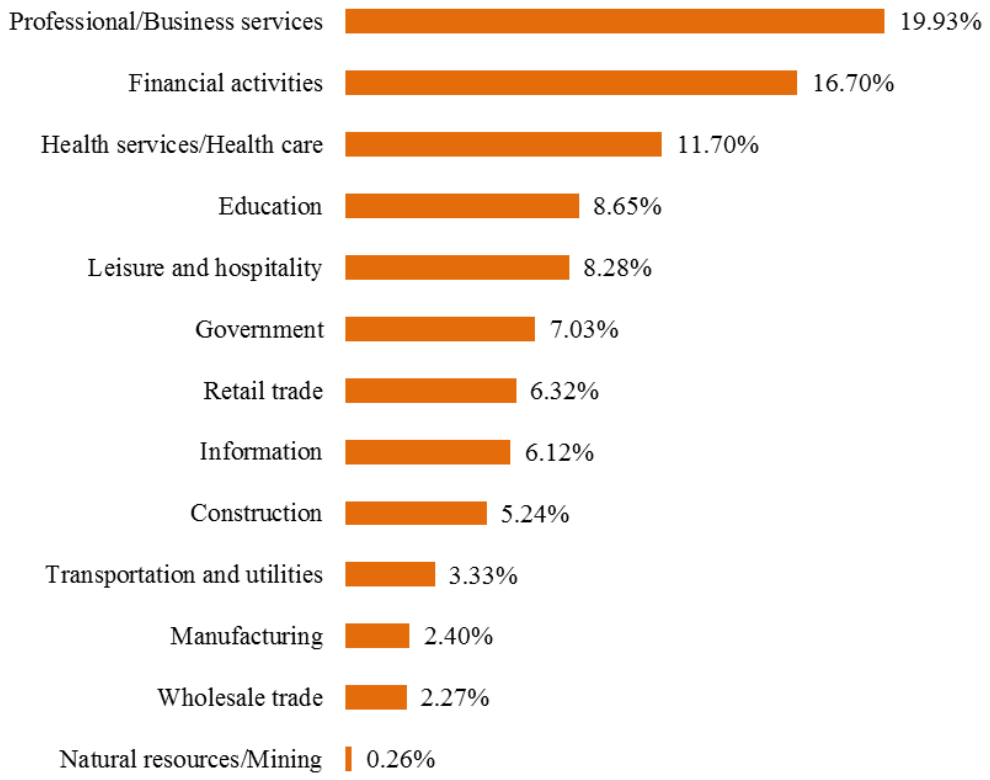
Figure 48. Occupation Type (N=224,088)



6.4.4 Employment by Industry

LIRR customers indicated employment in a range of industries with the most common (almost half) being professional/business services, financial activities, and health services/health care.

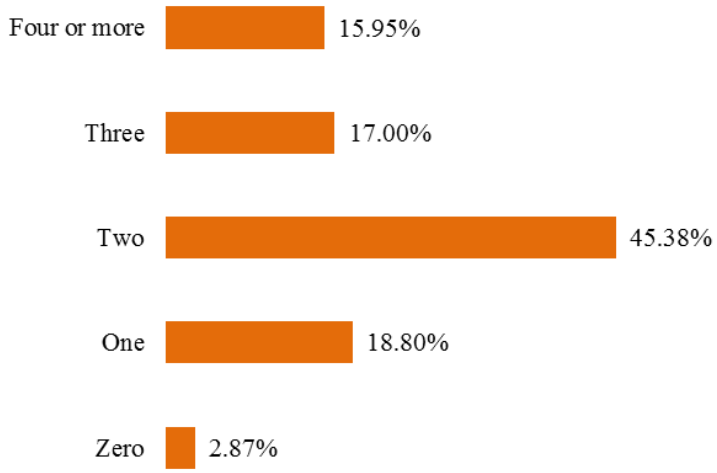
Figure 49. Employment by Industry (N=204,392)



6.4.5 Licensed Drivers

Nearly all LIRR customers reported having at least one licensed driver in their household. Two driver households were the most common.

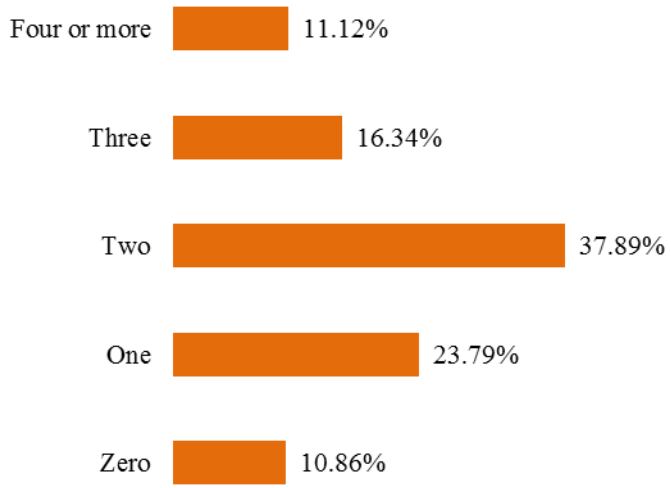
Figure 50. Licensed Drivers in Household (N=225,635)



6.4.6 Motor Vehicle Ownership

Mirroring what was reported for number of licensed drivers, about 90% of LIRR customers reported having at least one motor vehicle in their household. Nearly two-thirds of the households own two or more cars.

Figure 51. Motor Vehicles in Household (N=220,174)



Close to two-thirds of respondents reported having a vehicle available for their trip but chose to take the LIRR instead. However, almost half of the respondents reported making at least one car trip into Manhattan every month.

Figure 52. Motor Vehicles Available for Westbound Trip (N=222,032)

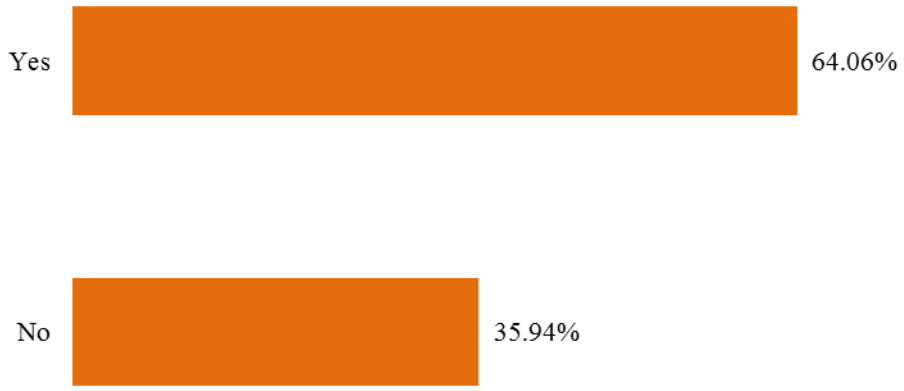
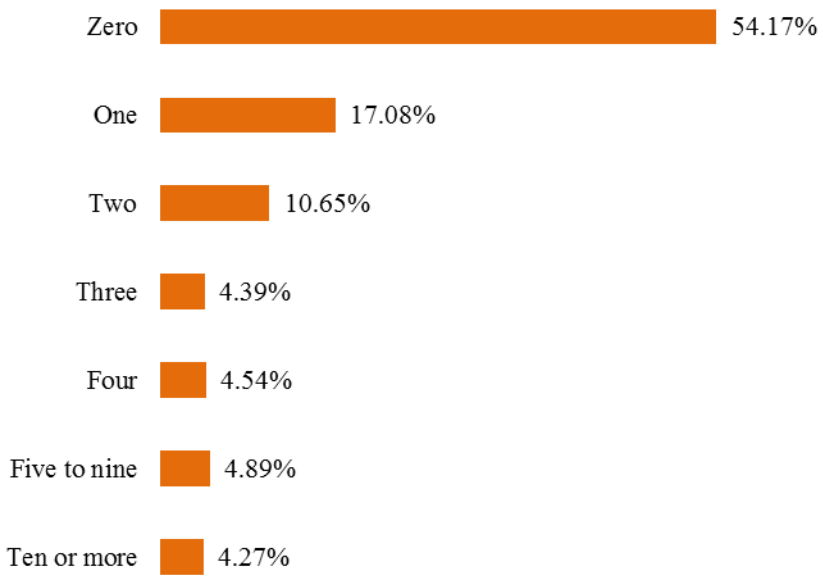


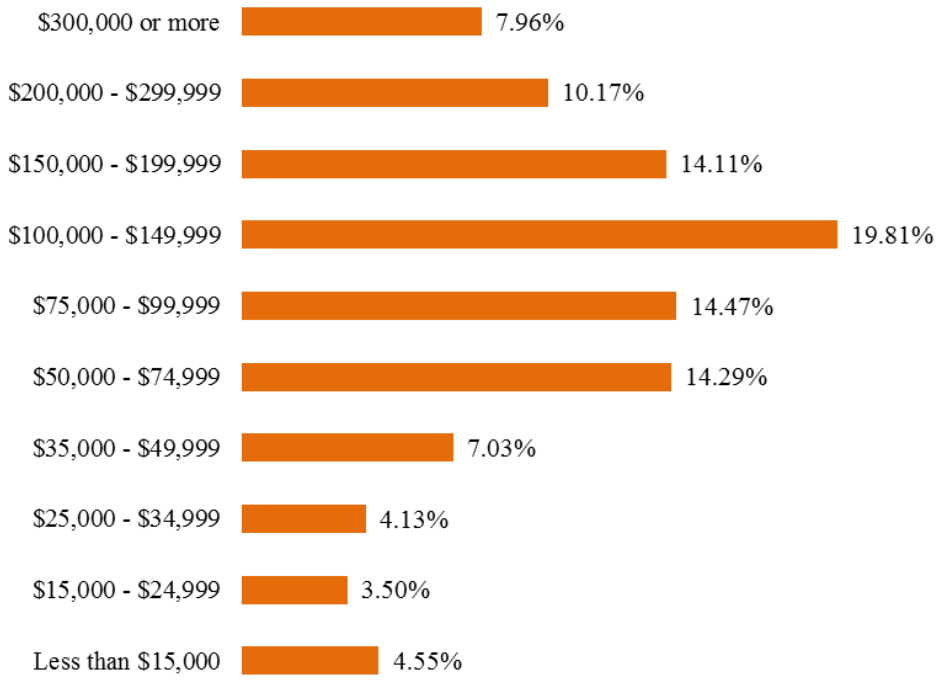
Figure 53. Car Trips into Manhattan per Month (N=193,957)



6.4.7 Household Income

The income distribution of LIRR customers had representation across all categories. Slightly more than half of the customers reported household incomes at or above $100,000. About a fifth of the customers report household incomes less than $50,000 a year. The median reported household income was in the $100,000-$149,000 income range.

Figure 54. Household Income (N=196,153)



6.4.8 Gender

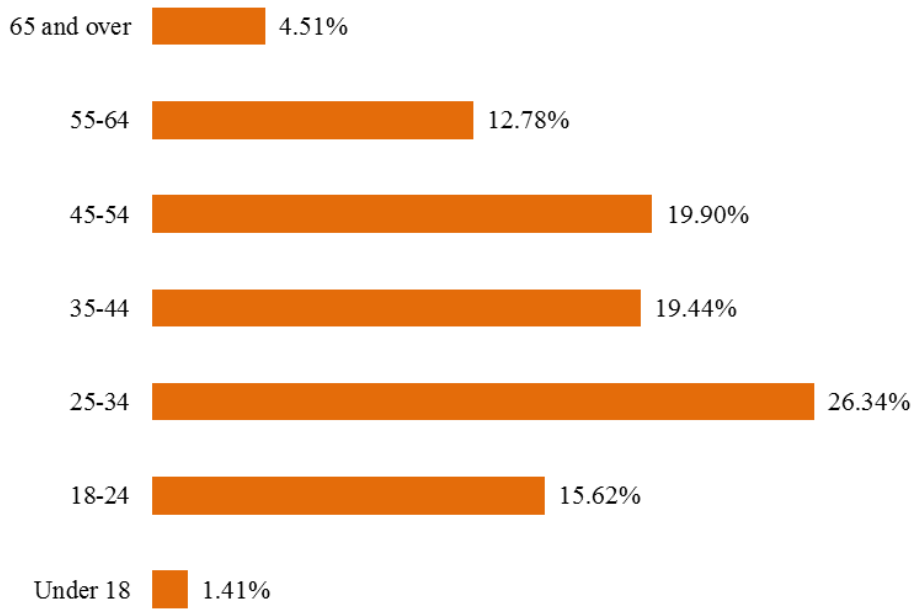
The gender distribution of LIRR customers was relatively equal.

Figure 55. Gender (N=226,125)

6.4.9 Age

Over 75% of the customers are between 25 and 64 years of age. This is consistent with the finding that most LIRR customers use the train for commuting to work. Although children were excluded from survey distribution onboard, the data collected captured a small percent of customers under 18. This is possibly due to some customers who appeared to be over 18 being given a survey to complete when they were actually less than 18 years of age.

Figure 56. Age (N=219,387)

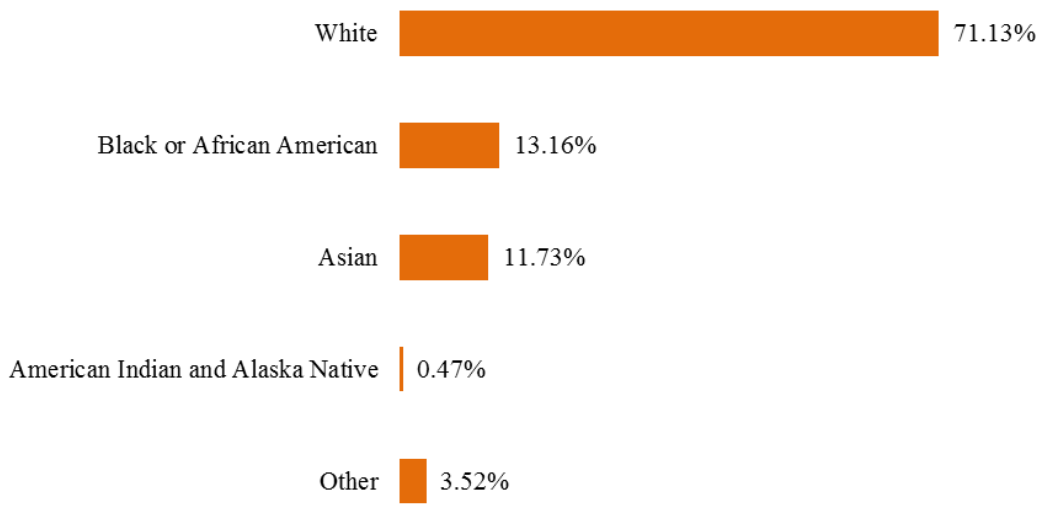


6.4.10 Race/Ethnicity

Most customers were not of Hispanic origin. More than 70% of customers reported their race as white.

Figure 57. Hispanic Origin (N=222,314)

Figure 58. Race/Ethnicity (N=209,755)



7. Appendices

7.1 Appendix A. LIRR Daypart Definitions

WEEKDAY WESTBOUND	
AM Peak	Trains that arrive at their last station (going Westbound) between 6:00 AM and 9:59 AM
Midday Off-Peak	Trains that arrive at their last station (going Westbound) between 10:00 AM and 3:59 PM
PM Reverse Peak	Trains that arrive at their last station (going Westbound) between 4:00 PM and 7:59 PM
Overnight Off-Peak	Trains that arrive at their last station (going Westbound) between 8:00 PM and 5:59 AM
WEEKDAY EASTBOUND	
AM Reverse Peak	Trains that depart from their first station (going Eastbound) between 6:00 AM and 9:59 AM
Midday Off-Peak	Trains that depart from their first station (going Eastbound) between 10:00 AM and 3:59 PM
PM Peak	Trains that depart from their first station (going Eastbound) between 4:00 PM and 7:59 PM
Overnight Off-Peak	Trains that depart from their first station (going Eastbound) between 8:00 PM and 5:59 AM
WEEKEND	
Saturday	Trains that depart from their first station (in either direction) on Saturday between 12:00 AM and 11:59 PM
Sunday	Trains that depart from their first station (in either direction) on Sunday between 12:00 AM and 11:59 PM

7.2 Appendix B. LIRR Branch Definitions

Branch	Stations
Babylon	Babylon, Lindenhurst, Copiague, Amityville, Massapequa Park, Massapequa, Seaford, Wantagh, Bellmore, Merrick, Freeport, Baldwin, Rockville Centre
City Terminal Zone	Penn Station, Atlantic Terminal, Jamaica, Kew Gardens, Forest Hills, Long Island City, Hunterspoint Avenue, Nostrand Avenue, East New York, Woodside, Hillside, Boland's Landing
Far Rockaway	Far Rockaway, Inwood, Lawrence, Cedarhurst, Woodmere, Hewlett, Gibson, Valley Stream, Rosedale, Laurelton, Locust Manor
Greenport	Greenport, Southold, Mattituck, Riverhead, Yaphank, Medford,
Hempstead	Hempstead, Country Life Press, Garden City, Nassau Blvd, Stewart Manor, Floral Park, Bellerose, Belmont, Queens Village, Hollis
Long Beach	Long Beach, Island Park, Oceanside, East Rockaway, Centre Avenue, Lynbrook
Montauk	Montauk, Amagansett, East Hampton, Bridgehampton, Southampton, Hampton Bays, Westhampton, Speonk, Mastic-Shirley, Bellport, Patchogue, Sayville, Oakdale, Great River, Islip, Bay Shore
Oyster Bay	Oyster Bay, Locust Valley, Glen Cove, Glen Street, Sea Cliff, Glen Head, Greenvale, Roslyn, Albertson, East Williston
Port Jefferson	Port Jefferson, Stony Brook, St. James, Smithtown, Kings Park, Northport, Greenlawn
Huntington	Huntington, Cold Spring Harbor, Syosset, Hicksville, Westbury, Carle Place, Mineola, Merillon Avenue, New Hyde Park
Port Washington	Port Washington, Plandome, Manhasset, Great Neck, Little Neck, Douglaston, Bayside, Auburndale, Broadway, Murray Hill, Flushing-Main Street, Mets-Willets Point.
Ronkonkoma	Ronkonkoma, Central Islip, Brentwood, Deer Park, Wyandanch, Pinelawn, Farmingdale, Bethpage
West Hempstead	West Hempstead, Hempstead Gardens, Lakeview, Malverne, Westwood, St. Albans

7.3 Appendix C. Training Manual

Abt SRBI

LIRR Origin & Destination Survey

Field Training Manual

2012-2014
7/12

Long Island Rail Road

Table of Contents

- Overview
- Dress Code
- Field Staff Roles
- On-Board Trains
- How Clicker Works
- Count Sheets
- Behavior
- Significant Service Disruptions
- End of Shift
- Questions ???

Overview

- The LIRR will be conducting a study over the next 2 years.
- This study will collect information on passenger travel:
  - Number of riders getting on and off at each station for each train
  - Passenger profiles (descriptions) based on a survey they will fill out

Dress Code

- Uniform
  - Dress pants – ***NO JEANS***
  - Button down oxford or polo shirts
  - Sweaters and blazers (dependent on the weather)
- Identification Badge - must be visible with name facing out at ALL times
- Fare Waiver - must carry at ALL times

Dress Code (Cont'd)

- Orange Safety Vest
  - Must be worn at ALL times
- Comfortable/Safe Leather Shoes
  - Black/brown dress shoes
  - No open heels, sides, or toes (no sandals)
  - No high heels
- Only Wear What is Necessary
  - Avoid pocketbooks, heavy jackets, valuables etc.

Dress Code (Cont'd)

- **INAPPROPRIATE ATTIRE INCLUDES:**
  - Tee-shirts
  - Baseball caps
  - Sweatshirts/Sweat pants
  - Jeans
  - Skirts/Dresses
  - Shorts
  - Loose clothing
  - Clothing items with large logos
  - Bandanas
  - High heels
  - Sandals

Field Staff Roles

- **Seat Counter:**
  - Count people getting on and off train car
  - Uses a special 'clicker' and a recording sheet
  - Count people on board trains
- **Surveyor:**
  - Count people getting on and off train car
  - Uses a special 'clicker' and a recording sheet
  - Distributes and collects surveys on board train car

- **Your supervisor will assign you a role.**

Field Staff Roles

- **Top Level on Bi-level:**
  - Does NOT count people getting on and off train car
  - Distributes and collects surveys on upper level of train car ONLY
  - Count people on board upper level of train car ONLY
  - Uses a special 'clicker' and a recording sheet

- **Your supervisor will assign you a role.**

Field Staff Roles (Cont'd)

- Supplies for each role:
  - Fare Waiver (you will receive **one** – bring it with you)
  - Identification Badge (you will receive **one** – bring it with you)
  - Safety Vest
  - Clicker (you will receive **one** – bring it with you)
  - Clipboard + Pencil
  - Count Sheet
  - LIRR Timetable
  - Cell Phone (bring your own cell phone with you)
  - *Bag of Surveys + Pencils (if Surveyor or Top Level on Bi-level)*

On-Board Trains

- You will be collecting data on trains
- Reporting to work:
  - Every staff member will be contacted and assigned crew number(s).
  - The crew number is linked to a start location and itinerary.
  - Your supervisor will meet you at the start location at the time you are instructed to report, will assign you a role, and will review the itinerary with you.
  - If you must cancel, it must be **before 48 hours** of assignment or you risk termination.

On-Board Trains (Cont'd)

- Starting work, waiting to board train:
  - Your supervisor will assign you a role and position on the train. Follow instructions carefully.
  - Electric cars: two staff members per car, one at each door – the other staff member working with you in your train car is your **partner**.
  - Bi-level cars (westbound only): there may be a third staffer on the upper level. You will have **two partners.**
  - Begin to fill out the top part of the count sheet before you board the train (see count sheet).
  - ***Surveyors*** will also write down the topmost serial number on their survey deck.

On-Board Trains (Cont'd)

- Boarding the train at first stop:
  - Wait for the car doors to open.
  - Position yourself behind the waiting passengers.
  - Immediately get on board once the crowd is on. Position yourself on the opposite door.
  - Set your counter to zero and get ready for "between station" role.
  - Always remember R – R – R

RESET – RECORD – RESET

On-Board Trains (Cont'd)

- When doors close at first station:
  - The *seat counter* will walk through the car, count all passengers seated and standing, record on sheet, and finally set counter to zero. *Seat counter* will now be at the other door in the car.
  - The *surveyor* will record the topmost serial number of surveys, then walk through car as he/she distributes and collects surveys to passengers in their train car, and finally set their counter to zero. *Surveyor* will now be at the other door in the car.
  - On bi-level trains, the third staffer will act as both *seat counter* and *surveyor* for upper level ONLY.

On-Board Trains (Cont'd)

- First and last stations:
  - NO **ons**, **offs**, and **sum** counts will be taken.

On-Board Trains (Cont'd)

- Repeat at **EVERY** station:
  - Reset counter to zero.
  - Pay close attention to announcements to be sure to be in position to take **ons**, **offs**, and **sum** counts.
  - Stand in area opposite open door to get counts.
  - Record counts on sheet.
  - Reset counter to zero.

Always reset counter to zero before and after taking counts.

On-Board Trains (Cont'd)

- Jamaica station:
  - Reset counter to zero.
  - Pay close attention to announcements to be sure to be in position to take only **offs** count.
  - Stand in area opposite open door to get counts.
  - Record counts on sheet.
  - Be sure to distribute surveys to boarding passengers (Westbound trains)

Reset counter before and after taking counts.

On-Board Trains (Cont'd)

- TRAIN CONFIGURATIONS – Electric Cars

M3

M7

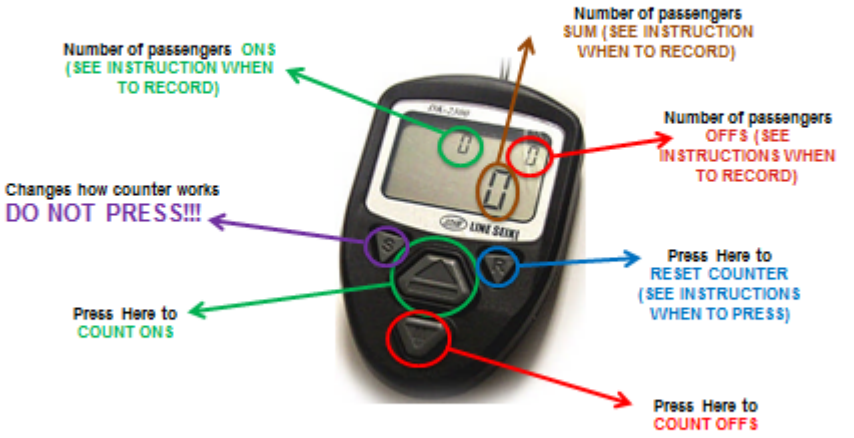
- Single level train with 3 by 2 seating

On-Board Trains (Cont'd)

- TRAIN CONFIGURATIONS – Diesel Car

- Bi-level train with 2 by 2 seating
- Additional seating by door

How Clicker Works



How Clicker Works (Cont'd)

In this example, the interviewer counted 19 passengers on and 15 off. The clicker calculated a sum. The sum is 4.

This information is recorded on the Count Sheet (see sheet).

Press RESET after you have recorded the number on, off and sum onto your Count Sheet.

Count Sheets

What role has the supervisor assigned you to? Notice that the Westbound Count Sheet has a *Surveyor* role.

2012 LIRR Origin & Destination Study 5609
Westbound

Date: _____
Weather: _____

Staff Name: _____ ☐ Surveyor ☐ Seat Counter ☐ Top Level on Bi-level
Partner Name: _____ Car No: _____ Train No: _____ Crew No: _____
Supe Name: _____ Supe Cell No.: _____ ☐ (check if Quiet Car)

Fill out your name, your partner or partners' names (if you are on a bi-level train), and your supervisor's names.

Make sure you get the supervisor's cell phone number before you board the train.

If you are on a quiet car, check this box.

Count Sheets (Cont'd)

Station names

Number of passengers getting on at the station.

Number of passengers getting off at the station.

Sum of counts, center number on counter

Total count of passengers in train car once doors close.

Port Washington	Top Serial No.	No. of Passengers				Remarks
		ONs	OFFs	SUM	On-Board	
Port Washington						
Plandome						
Manhasset						
Great Neck						
Little Neck						
Douglaston						

Topmost survey serial number for WESTBOUND count sheet - Entered after you leave the station. Surveys will be attributed to the specific station they were given out at.

Worth noting – supervisor will go over examples

Count Sheets

NOTE: NO surveyor role going EASTBOUND.

2012 LIRR Origin & Destination Study 5609
Eastbound

Date: _____
Weather: _____

Staff Name: _____ ☐ Seat Counter
PartnerName: _____ Car No: _____ Train No: _____ Crew No: _____
Supe Name: _____ Supervisor Cell No.: _____ ☐ (check if Quiet Car)

Port Washington	No. of Passengers				Remarks
	ONs	OFFs	SUM	On-Board	
Penn Station					
Woodside					
Flushing Main Street					
Murray Hill					
Broadway					

NOTE: NO top serial no. either.

Behavior

- **SMILE** and **BE POLITE ALWAYS!!!**
- Say "Please complete a survey for the Long Island Railroad". **Do not ask if they would like a survey**!!
- If someone says they received a survey earlier that day, do not give them another one.
- If someone says they received a survey on another day then encourage them to take one again.
- Thank passengers for completing the surveys
- Do not disturb sleeping passengers.

Behavior (Cont'd)

- Be mindful in 'quiet cars.'
- Always follow instructions from the train conductor. Do not get in the train conductor's way; always let the conductor pass first.
- Do not engage in conversation with passengers or co-workers
- If questions are asked about survey or LIRR matters, kindly tell them that you do not work directly for the railroad but are employed by the survey distribution firm.

Behavior (Cont'd)

- **INAPPROPRIATE BEHAVIOR WHILE AT STATIONS AND ON TRAINS:**
  - Smoking
  - Eating
  - Drinking
  - Chewing Gum
  - Using a cell phone unless it is used to call your supervisor.
- Note: You may do these activities while on break, but it MUST be away from the station and passengers.

Behavior (Cont'd)

- **ABSOLUTELY PROHIBITED:**
  - Improper use of badge *will cause dismissal from project/employment.*
  - Improper use of fare waiver *will cause dismissal from project/employment.*

Significant Service Disruptions

- If a service disruption should occur:
  - All counting and survey distribution must stop immediately.
  - Report the situation to your supervisor who will provide you with further instructions.

Significant Service Disruptions (Cont'd)

- Examples of significant service disruptions:
  - Trains stop running and passengers must continue their commute by bus
  - Passengers are asked to make an unscheduled train change
  - A scheduled train is delayed by ½ hour or more
  - A medical emergency causes delays or cancellations

End of Shift

- At the end of each day, SRBI Supervisors are to collect all supplies (except badge and fare waivers).
  - *Improper use of badge will cause dismissal from project/employment.*
  - *Improper use of fare waiver will cause dismissal from project/employment.*

Tell us about THIS WESTBOUND LIRR TRIP (towards New York City)

If you are making a round trip today, please describe just the westbound portion first.

1. What is the main purpose of this WESTBOUND trip?
(Select one answer only.)

- ❑ Commuting to/from work
- ❑ Commuting to/from school
- ❑ For business reasons (not to regular workplace)
- ❑ Personal business (e.g., medical/visiting)
- ❑ Shopping
- ❑ Recreation (e.g., dining/entertainment/vacation)
- ❑ Traveling to/from John F. Kennedy (JFK) International Airport
- ❑ Other, *please specify:* _____

2. How often do you make a WESTBOUND trip (towards New York City) on LIRR? *(Select one answer only)*

- ❑ 5 or more days per week
- ❑ 4 days per week
- ❑ 3 days per week
- ❑ 2 days per week
- ❑ 1 day per week
- ❑ Less than 1 day per week but more than 1 day per month
- ❑ 1 day per month or less

3. Where did you begin this WESTBOUND trip?
(NOT the LIRR station. Please print clearly.)

ZIP Code, *if known:* _____
City/Town: _____ State: _____
Address/Nearest Intersection: _____

4. Is this the address where you...? *(Select one answer only)*

- ❑ Live
- ❑ Work
- ❑ Attend School
- ❑ Shop
- ❑ Other: _____

5. What time did you leave this place?

_____ : _____ ❑ AM ❑ PM *(Please check one box)*

6. If you did NOT begin this WESTBOUND trip at home, please tell us where you live.

ZIP Code: _____
City/Town: _____ State: _____
Address/Nearest Intersection: _____

7. At which LIRR station did you begin this WESTBOUND trip?

_____

8. How did you get to your first LIRR station for this WESTBOUND trip?
(Select one - the primary mode.)

- ❑ Drove alone and parked
- ❑ Carpooled and parked, *please indicate the number of people in the car including yourself:* _____
- ❑ Was dropped off
- ❑ Walked
- ❑ Took a bus, *please specify route or bus number:*_____
- ❑ Took the subway, *please specify route:* _____
- ❑ Took a taxi
- ❑ Took Air Train
- ❑ Rode a bicycle
- ❑ Other, *please specify:* _____

If you drove alone or carpooled, answer questions 9-11, otherwise go to question 12.

9. Where did you park your car for this WESTBOUND trip?

- ❑ Parked in a lot or space requiring a permit
- ❑ Parked in a lot or space **not** requiring a permit
- ❑ Parked in a metered space
- ❑ Parked in a non-metered space
  (Please specify type of non-metered space below.)
  - ❑ On street
  - ❑ Private arrangement

10. How much did you pay to park?

❑ Paid $ _____ *(If parking was free, please write in $0.)*
(Select one answer only)

- ❑ Daily
- ❑ Weekly
- ❑ Monthly
- ❑ Annually
- ❑ Other, *please specify:* _____

11. Please indicate how many minutes it took you to get from your parking spot to the train platform: _____ Minutes

12. When was your train scheduled to depart from this LIRR station?

_____ : _____ ❑ AM ❑ PM *(Please check one box)*

13. In the course of this WESTBOUND LIRR trip, will you (did you) transfer between LIRR trains to reach your final destination?

- ❑ No, I will not (did not) transfer to another LIRR train
- ❑ Yes, I will (did) transfer to another LIRR train at:
  (Please specify the stop or stops where you will (did) transfer.)
  - ❑ Jamaica
  - ❑ Babylon
  - ❑ Hicksville
  - ❑ Huntington
  - ❑ Other, *specify:* _____
  - ❑ Mineola
  - ❑ Ronkonkoma
  - ❑ Valley Stream
  - ❑ Woodside

14. At which LIRR station will (did) you complete this WESTBOUND LIRR trip?
This should not be the same as your answer to question 7.

- ❑ Penn Station
- ❑ Atlantic Terminal (Brooklyn)
- ❑ Hunterspoint Avenue
- ❑ Jamaica
- ❑ Other, *specify:* _____ (Please write in station name)

15. At the end of this WESTBOUND trip, how will (did) you get from your last LIRR station to your FINAL destination? *(Please select all that apply.)*

- ❑ Walk
- ❑ Taxi
- ❑ Bus, *please specify the first route or bus number:* _____
- ❑ Subway, *please specify the first subway line:*
  ❑ 1 2 3 ❑ 4 5 6 ❑ 7 ❑ A C E ❑ B D F M ❑ G ❑ J Z ❑ L ❑ N Q R W ❑ S
- ❑ Parked and will drive (drove) alone
- ❑ Parked and will carpool (carpooled), *please specify the number of people in the car including yourself:* _____
- ❑ Will be (was) picked up
- ❑ Air Train to JFK
- ❑ PATH train
- ❑ NJ Transit train or bus
- ❑ Amtrak train
- ❑ Other, *please specify:* _____

16. After exiting your last LIRR train, how many subways and/or buses will (did) you take to reach your final destination?

Number of subways and/or buses _____

17. What is (was) the final destination for this WESTBOUND trip? (Not the LIRR train station, subway station, or bus stop) *(Please print clearly.)*
This should not be the same as your answer to question 3.

ZIP Code, *if known:* _____
City/Town: _____ State: _____
Address/Nearest Intersection: _____

18. Is this the address where you...? *(Select one answer only.)*

- ❑ Live
- ❑ Work
- ❑ Attend School
- ❑ Shop
- ❑ Other: _____

19. How long will (did) it take to get from your last LIRR station to your final destination? _____ Minutes

20. What time will (did) you arrive at your final destination?

_____ : _____ ❑ AM ❑ PM *(Please check one box)*

21. What type of train ticket did you use for this WESTBOUND trip?

- ❑ Monthly LIRR Ticket
  - ❑ *With Unlimited Monthly MetroCard*
  - ❑ *With Pay-Per-Ride MetroCard*
  - ❑ *Without MetroCard*
- ❑ Weekly LIRR Ticket
  - ❑ *With MetroCard Fare Value*
  - ❑ *Without MetroCard*
- ❑ Senior Citizen/People with Disabilities
- ❑ Employee Pass
- ❑ Other, *Please Specify:* _____
- ❑ One Way LIRR Ticket
  - ❑ *With MetroCard Fare Value*
  - ❑ *Without MetroCard*
- ❑ Round Trip LIRR Ticket
  - ❑ *With MetroCard Fare Value*
  - ❑ *Without MetroCard*
- ❑ Ten-Trip LIRR Ticket
  - ❑ *With MetroCard Fare Value*
  - ❑ *Without MetroCard*
- ❑ CityTicket
  - ❑ *With MetroCard Fare Value*
  - ❑ *Without MetroCard*

22. Where did you purchase your ticket for this WESTBOUND trip you are making today?

- ❑ LIRR Ticket Vending Machine
- ❑ Ticket Window at LIRR Station
- ❑ WebTicket (via Internet)
- ❑ Mail&Ride
- ❑ On-board Train
- ❑ Other, *please specify:* _____

Tell us about your EASTBOUND TRIP (towards Long Island)

23. When will (did) you make the other half of this trip going EASTBOUND (towards Long Island) ? *(Select one answer only.)*

- ❑ Same day
- ❑ Different day, *please indicate day/date:* _____
- ❑ I will (did) not make an eastbound trip (go to question 25)

24. How will (did) you make the other half of this trip going eastbound (towards Long Island) ? *(Select one answer only.)*

❑ **I will (did) use the SAME LIRR stations for my eastbound trip.**
The scheduled departure time for my first **eastbound** train:
_____ : _____ ❑ AM ❑ PM *(Please check one box)*

❑ **I will (did) use DIFFERENT LIRR stations for my eastbound trip.**
The scheduled departure time for my first **eastbound** train:
_____ : _____ ❑ AM ❑ PM *(Please check one box)*

First LIRR station where you will get on (got on) going eastbound:
_____

How will (did) you get to your first LIRR station?
(Please select all that apply.)

- ❑ Bus, *please specify the first route or bus number:* _____
- ❑ Subway, *please specify the first subway line:*
  ❑ 1 2 3 ❑ 4 5 6 ❑ 7 ❑ A C E ❑ B D F M ❑ G ❑ J Z ❑ L ❑ N Q R W ❑ S
- ❑ Other Method

Last LIRR station where you will get off (got off):
_____

❑ **I will not (did not) use LIRR for my eastbound trip.**
Please describe how you will make (made) this trip:
_____

Tell us a little more about yourself

25. What is the last grade of school you completed?

- ❑ Less than high school graduate
- ❑ High school graduate
- ❑ Technical or vocational business school
- ❑ Some college
- ❑ College graduate
- ❑ Post graduate

26. Which answer below best describes your job or occupation?
(Select one answer only.)

- ❑ Professional, Technical & Related
- ❑ Executive, Administrative & Managerial
- ❑ Service Occupations
- ❑ Administrative Support, Including Clerical
- ❑ Transportation & Material Moving
- ❑ Machine Operators, Assemblers & Inspectors
- ❑ Precision Production Craft & Repair
- ❑ Sales
- ❑ General Labor
- ❑ Retired, Student or Not Employed

27. In which of the following industries are you employed?
(Select one answer only.)

- ❑ Construction
- ❑ Natural Resources/Mining
- ❑ Education
- ❑ Health Services/Health Care
- ❑ Financial Activities
- ❑ Government
- ❑ Wholesale Trade
- ❑ Other services, *please specify:* _____
- ❑ Information
- ❑ Leisure and Hospitality
- ❑ Manufacturing
- ❑ Professional/Business Services
- ❑ Transportation and Utilities
- ❑ Retail Trade

28. How many licensed drivers *(including yourself)* are in your household: _____

29. How many operable motor vehicles (cars, motorcycles, pickup trucks, SUV's, or vans) are in your household: _____

30. Did you have a vehicle available for your WESTBOUND trip?

❑ Yes ❑ No

31. On average, how many trips do you make into Manhattan BY CAR per month: _____

32. What is your household income? *(Select one answer only.)*

- ❑ Less than $15,000
- ❑ $15,000-$24,999
- ❑ $25,000-$34,999
- ❑ $35,000-$49,999
- ❑ $50,000-$74,999
- ❑ $75,000-$99,999
- ❑ $100,000-$149,999
- ❑ $150,000-$199,999
- ❑ $200,000-$299,999
- ❑ $300,000 or more

33. Are you... ? ❑ Male ❑ Female

34. What is your age? _____Years

35. Are you of Hispanic origin? ❑ Yes ❑ No

36. Are you... ?

- ❑ White
- ❑ Asian
- ❑ Other, *please specify:* _____
- ❑ Black or African American
- ❑ American Indian or Alaska Native

37. How important was LIRR rail service in choosing the location of your home?

❑ Very ❑ Somewhat ❑ Moderately ❑ Slightly ❑ Not at all

Please use the space below to leave comments.

_____
_____

To be eligible for the drawing, please fill in your contact information.

Name: _____
Street: _____
City/Town: _____ State: _____ Zip: _____
Telephone: _____
Email: _____

Have you filled in this exact survey in the past 3 months? ❑ Yes ❑ No
May we contact you to participate in future MTA research? ❑ Yes ❑ No
Do you have an e-mail address that you regularly use? ❑ Yes ❑ No

Thank you for your time!

Long Island Rail Road
TRAVEL SURVEY

Dear Long Island Rail Road Customer,

LIRR would like to know more about how you travel and use our commuter rail system. By taking a few minutes to complete this survey, you will be helping us improve the service we provide to you. As you answer these questions, please think about your entire trip from beginning to end. **If you have already filled out this questionnaire on a previous trip, please complete it again.** All additional information is of great value to us. We ask that you complete this questionnaire as soon as possible and return it to us in one of three ways:

1) By handing it back to survey personnel on board your train,

2) By mailing it back postage-free,

3) By answering the questions online at www.opinionport.com/LIRRSurvey.html Enter the password printed on this page to begin the online survey.

Complete this survey for a chance to win one of **ten $250 cash prizes.** See **www.opinionport.com/LIRRSurvey/rules.html** for more details.

Thank you very much for your cooperation.

Approximately every two months, a random drawing will be held to select the winner of a $250 cash prize. To be eligible, you must complete the survey, and provide specified contact information to be notified in the event that you are a winner; or you may submit a postcard to "Abt SRBI, LIRR Travel Survey, 275 7th Avenue, Suite 2700, New York, NY 10001" including your name, address, and telephone number. The last drawing will be conducted after May 15, 2014. See the complete rules at www.opinionport.com/LIRRSurvey/rules.html No purchase is necessary. Void where prohibited. If you are under 18 years of age, an employee of SRBI, and/or the MTA or any of its agencies, you may complete the survey but will not be eligible for the drawing.

Your Password/Su Contraseña:

Estimado Cliente del Long Island Rail Road,

El LIRR quisiera más información acerca de la manera en la cual hace viajes y usa nuestro sistema de trenes de cercanías. Al tomar unos momentos para completar esta encuesta, nos ayudara a mejorar el servicio que le proporcionamos. Mientres usted contesta estas preguntas, por favor, piense de su viaje entero desde el comienzo hasta el final. **Si ya ha llenado este cuestionario en un viaje anterior, haga el favor de completarlo de nuevo.** Toda la información adicional es de gran valor para nosotros. Le rogamos que complete el cuestionario tan pronto como sea posible y que nos lo devuelva en una de tres maneras:

1) Entregándolo al personal de la encuesta abordo su tren,

2) Enviándolo por correo, franqueo gratis,

3) Contestando las preguntas en línea en www.opinionport.com/LIRRSurvey.html Ingrese la contraseña impresa en esta página para comenzar la encuesta en línea.

Completa esta encuesta para tener la oportunidad de ganar uno de **diez premios de $250 en efectivo.** Vaya al **www.opinionport.com/LIRRSurvey/rules.html** para más detalles.

Muchas gracias por su cooperación.

Aproximadamente cada dos meses, una selección al azar será celebrado para seleccionar el ganador de un premio de $250 en efectivo. Para ser elegible, usted debe completar la encuesta y proveer la información de contacto especificada para ser notificado si usted usted es un ganador; usted puede someter una carta postal a "Abt SRBI, LIRR Travel Survey, 275 7th Avenue, Suite 2700, New York, NY 10001" incluyendo su nombre, dirección, y número de teléfono. La última selección se llevará a cabo después de Mayo 15, 2014. No se requiere compra. Ver reglas completas en www.opinionport.com/LIRRSurvey/rules.html Ninguna compra es necesaria. Inválido donde prohibido. Si usted tiene menos de 18 años de edad, eres un empleado de SRBI, y/o la MTA o algunas de sus agencias, usted puede completar la encuesta pero no será elegible para la selección al azar.

Please complete this important survey for a chance to win a cash prize!

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 6302 NEW YORK NY
POSTAGE WILL BE PAID BY ADDRESSEE

ABT SRBI INC
275 7TH AVE STE 2700
NEW YORK NY 10117-2077

Study #5609

Cuéntenos acerca de ESTE VIAJE HACIA EL OESTE (hacia la Ciudad de Nueva York)

Si está haciendo un viaje de ida y vuelta hoy, por favor, describe solo la parte del viaje hacia el oeste primero.

1. ¿Cuál fue el propósito principal de este viaje HACIA EL OESTE? *(Marque una respuesta solamente.)*
- ☐ Ir/venir del trabajo
- ☐ Ir/venir de la escuela
- ☐ Asuntos de la compañía (no en el sitio regular de trabajo)
- ☐ Asuntos personales (p. ej., ir al médico/visitas)
- ☐ Compras
- ☐ Recreación (p. ej., cenar/entretenimiento/vacaciones)
- ☐ Viajar a/de el Aeropuerto Internacional John F. Kennedy (JFK)
- ☐ Otro, especifique: ________

2. ¿Con qué frecuencia hace un viaje HACIA EL OESTE (hacia la Ciudad de Nueva York) en el LIRR? *(Marque una respuesta solamente.)*
- ☐ 5 o más días por semana
- ☐ 4 días por semana
- ☐ 3 días por semana
- ☐ 2 días por semana
- ☐ 1 día por semana
- ☐ Menos de 1 día por semana pero más de 1 día al mes
- ☐ 1 día al mes o menos

3. ¿Dónde comenzó este viaje HACIA EL OESTE? *(NO la estación del LIRR. Escriba claramente en letra de molde.)*
Código Postal, *si lo sabe*: ________
Ciudad/Pueblo: ________ Estado: ________
Dirección/Intersección Más Cercana: ________

4. ¿Es esta dirección el lugar donde...? *(Marque una sola respuesta.)*
- ☐ Vive
- ☐ Trabaja
- ☐ Asiste a la escuela
- ☐ Va de compras
- ☐ Otro: ________

5. ¿A qué hora salió usted de este lugar?
____ : ____ ☐ AM ☐ PM *(Marque una sola respuesta)*

6. Si usted NO empezó este viaje HACIA EL OESTE de la casa, por favor, díganos donde usted vive.
Código Postal: ________
Ciudad/Pueblo: ________ Estado: ________
Dirección/Intersección Más Cercana: ________

7. ¿En cuál estación del LIRR empezó usted este viaje HACIA EL OESTE?
____

8. ¿Cómo llegó a la estación del LIRR para este viaje HACIA EL OESTE? *(Seleccione uno – el modo principal.)*
- ☐ Manejó solo y estacionó
- ☐ Automóvil colectivo y estacionó, *indique el número de personas en el automóvil, usted incluido:* ________
- ☐ Le llevaron
- ☐ Caminando
- ☐ Tomó un autobús, *especifique la ruta o número de autobús:* ________
- ☐ Tomó el Subterráneo, *especifique la ruta:* ________
- ☐ Tomó un taxi
- ☐ Tomó AirTrain
- ☐ Andó en bicicleta
- ☐ Otro, especifique: ________

Si usted manejó solo o por automóvil colectivo, conteste las preguntas 9-11, si no, vaya a la pregunta 12.

PLEASE SEAL BEFORE MAILING

9. ¿Dónde estacionó su automóvil para este viaje HACIA EL OESTE?
- ☐ Estacionó en un parqueadero o espacio donde se requiere un pase
- ☐ Estacionó en un parqueadero o espacio donde **NO** se requiere un pase
- ☐ Estacionó en un espacio con medidor
- ☐ Estacionó en un espacio **SIN** medidor
  (Por favor, especifique abajo que tipo de espacio SIN medidor.)
  - ☐ En la calle
  - ☐ Arreglo Privado

10. ¿Cuánto pagó usted para estacionar?
☐ Pagó $________ *(Si estacionamiento fue gratis, anote $0.)*
(Marque una respuesta solamente.)
☐ Diario ☐ Semanal ☐ Mensual ☐ Anual
☐ Otro, *sírvase especificar:* ________

11. Indique cuántos minutos le tardó llegar desde su lugar de estacionamiento a la plataforma de tren: ________ Minutos

12. ¿Cuál fue la hora de salida programada de su tren de esta estación del LIRR?
____ : ____ ☐ AM ☐ PM *(Marque una sola casilla.)*

13. En el transcurso de este viaje HACIA EL OESTE del LIRR, ¿cambiará (o cambió) a otro tren del LIRR para llegar a su destino final?
- ☐ No, no cambiaré (cambié) a otro tren del LIRR
- ☐ Sí, cambiaré (cambié) a otro tren del LIRR en:
  (Sírvase especificar la parada o paradas donde cambiará (o cambió) de tren.)
  - ☐ Jamaica
  - ☐ Babylon
  - ☐ Hicksville
  - ☐ Huntington
  - ☐ Mineola
  - ☐ Ronkonkoma
  - ☐ Valley Stream
  - ☐ Woodside
  - ☐ Otro, especifique: ________

14. ¿En cuál estación bajará (o se bajó) usted para completar este viaje HACIA EL OESTE del LIRR?
Esto no debe ser lo mismo que su respuesta a la pregunta 7.
- ☐ Penn Station
- ☐ Atlantic Terminal (Brooklyn)
- ☐ Hunterspoint Avenue
- ☐ Jamaica
- ☐ Otro, especifique: ________ (Por favor, anote el nombre de la estación)

15. Al final de este viaje HACIA EL OESTE, ¿cómo llegará (o llegó) a su destino FINAL de su última estación del LIRR? *(Seleccione todos los aplicables.)*
- ☐ Caminando
- ☐ Taxi
- ☐ Autobús, *especifique la ruta o el número del primer autobús:* ________
- ☐ Subterráneo, *especifique la primera línea del subterráneo:*
  ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
- ☐ Estacionado y manejará (o manejó) solo
- ☐ Estacionado y viajará (o viajó) en automóvil colectivo, *número de personas en el automóvil, usted incluido:* ________
- ☐ Le recogerán (o le recogieron)
- ☐ AirTrain a JFK
- ☐ Tren de PATH
- ☐ Tren o autobús de NJ Transit
- ☐ Tren de Amtrak
- ☐ Otro, especifique: ________

16. Después de bajarse de su último tren del LIRR, ¿cuántos subterráneos y/o autobuses tomará (tomó) para llegar a su destino final?
Número de subterráneos y/o autobuses ________

17. ¿Cuál es (o fue) el destino final de este viaje HACIA EL OESTE? (No la estación de tren del LIRR, estación de subterráneo o parada de autobús.) *(Escribe claramente en letra de molde.)*
Esto no debe ser lo mismo que su respuesta a la pregunta 3.
Código Postal, *si lo sabe*: ________
Ciudad/Pueblo: ________ Estado: ________
Dirección/Intersección Más Cercana: ________

18. ¿Es esta dirección el lugar donde...? *(Marque una sola respuesta.)*
- ☐ Vive
- ☐ Trabaja
- ☐ Asiste a la escuela
- ☐ Va de compras
- ☐ Otro: ________

19. ¿Cuánto tiempo tardará (o tardó) para llegar de su última estación del LIRR hasta su destino final? ________ Minutos

20. ¿A qué hora llegará (llegó) usted a su destino final?
____ : ____ ☐ AM ☐ PM *(Marque una sola casilla)*

21. ¿Qué tipo de boleto de tren usó para este viaje HACIA EL OESTE?

☐ Boleto Mensual del LIRR ☐ *Con MetroCard Ilimitado Mensual* ☐ *Con MetroCard Pay-Per-Ride* ☐ *Sin MetroCard*	☐ Boleto de Ida del LIRR ☐ *Con MetroCard Fare Value* ☐ *Sin MetroCard*
☐ Boleto Semanal del LIRR ☐ *Con MetroCard Fare Value* ☐ *Sin MetroCard*	☐ Boleto de Ida y Vuelta del LIRR ☐ *Con MetroCard Fare Value* ☐ *Sin MetroCard*
☐ Personas de la Tercera Edad/ Personas con Discapacidad ☐ Pase de Empleado ☐ Otro, especifique: ________	☐ Boleto de Diez Viajes del LIRR ☐ *Con MetroCard Fare Value* ☐ *Sin MetroCard* ☐ Boleto de CityTicket ☐ *Con MetroCard Fare Value* ☐ *Sin MetroCard*

22. ¿Dónde compró usted este boleto para este viaje HACIA EL OESTE que usted está haciendo hoy?
- ☐ Maquina de Ventas de Boleto del LIRR
- ☐ Ventanilla en la Estación del LIRR
- ☐ WebTicket (por el Internet)
- ☐ Mail&Ride
- ☐ Comprar Abordo el Tren
- ☐ Otro, especifique ________

Cuéntenos acerca de su VIAJE HACIA EL ESTE (hacia Long Island)

23. ¿Cuándo hará (o hizo) la otra mitad de este viaje de regreso yendo al ESTE (hacia Long Island)? *(Marque una respuesta solamente.)*
- ☐ El mismo día
- ☐ Día distinto *(indique el día/fecha):* ________
- ☐ No hará (no hizo) un viaje hacia el este (pase a la pregunta 25)

24. ¿Cómo hará (o hizo) la otra mitad de este viaje yendo al este (hacia Long Island)? *(Marque una respuesta solamente.)*
- ☐ **Usaré (usé) las MISMAS estaciones del LIRR para mi viaje hacia el este.**
  Hora de salida programada para mi primer tren hacia el este:
  ____ : ____ ☐ AM ☐ PM *(Marque una sola casilla.)*
- ☐ **Usaré (usé) estaciones DIFERENTES del LIRR para mi viaje hacia el este.**
  Hora de salida programada de mi primer tren hacia el este:
  ____ : ____ ☐ AM ☐ PM *(Marque una sola casilla.)*
  Primera Estación del LIRR donde montará (o montó) yendo al este:
  ____
  ¿Cómo llegará (llegó) a su primer estación del LIRR? *(Seleccione todos los aplicables.)*
  - ☐ *Autobús, especifique la ruta o el número del primer autobús:* ________
  - ☐ *Subterráneo, especifique la primera línea del subterráneo:*
    ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
  - ☐ Otro Método

  Última Estación del LIRR donde se bajará (o bajó):
  ____
- ☐ **No usaré (o no usé) el LIRR para mi viaje hacia el este.**
  Describa cómo hará (o hizo) este viaje.
  ____

Díganos algo más acerca de usted

25. ¿Cuál fue el último grado de escuela que usted completó?
- ☐ Menos de graduado de la escuela secundaria
- ☐ Graduado de la escuela secundaria
- ☐ Escuela técnica o vocacional de negocios
- ☐ Algún colegio
- ☐ Graduado de colegio
- ☐ Pos-graduado

26. ¿Qué respuesta mejor describe su trabajo u ocupación? *(Marque una respuesta solamente.)*
- ☐ Profesional, técnico y afines
- ☐ Ejecutivo, administrativo y gerencial
- ☐ Ocupaciones de servicio
- ☐ Apoyo administrativo, incluso de oficina
- ☐ Transporte y movimiento de materiales
- ☐ Operadores de máquinas, montadores e inspectores
- ☐ Producción de precisión, oficio y reparación
- ☐ Ventas
- ☐ Mano de obra general
- ☐ Jubilado, estudiante o desempleado

27. ¿En cuál de las siguientes industrias está empleado? *(Marque una respuesta solamente.)*
- ☐ Construcción
- ☐ Recursos Naturales/Minería
- ☐ Educación
- ☐ Servicios de la Salud/Atención Médica
- ☐ Actividades Financieras
- ☐ Gobierno
- ☐ Comercio Al Por Mayor
- ☐ Otro Servicios, *sírvase especificar:* ________
- ☐ Información
- ☐ Esparcimiento y Hospitalidad
- ☐ Fabricación
- ☐ Servicios Profesionales/ Comerciales
- ☐ Transporte y Servicios Públicos
- ☐ Comercio Al Por Menor

28. ¿Cuántas personas *(usted incluido)* en su hogar tienen licencia de conducir? ________

29. ¿Cuántos vehículos operables (automóviles, motocicletas, camionetas, SUV o furgonetas) hay en su hogar? ________

30. ¿Tuvo un automóvil disponible para su viaje HACIA EL OESTE?
☐ Sí ☐ No

31. En promedio, ¿cuántos viajes hace a Manhattan POR CARRO por mes? ________

32. ¿Cuánto es su ingreso de hogar? *(Marque una respuesta solamente.)*
- ☐ Menos de $15,000
- ☐ $15,000-$24,999
- ☐ $25,000-$34,999
- ☐ $35,000-$49,999
- ☐ $50,000-$74,999
- ☐ $75,000-$99,999
- ☐ $100,000-$149,999
- ☐ $150,000-$199,999
- ☐ $200,000-$299,999
- ☐ $300,000 o más

33. ¿Es usted....? ☐ Hombre ☐ Mujer

34. ¿Qué edad tiene? ________ Años

35. ¿Es usted de origen hispano? ☐ Sí ☐ No

36. ¿Es usted...?
- ☐ Blanco
- ☐ Asiático
- ☐ Otro, *sírvase especificar:* ________
- ☐ Negro
- ☐ Americano Nativo o Nativo de Alaska

37. ¿Cuán importante fue el servicio de tren del LIRR para usted en la selección de su hogar?
☐ Muy ☐ Algo ☐ Moderadamente ☐ Un Poco ☐ No

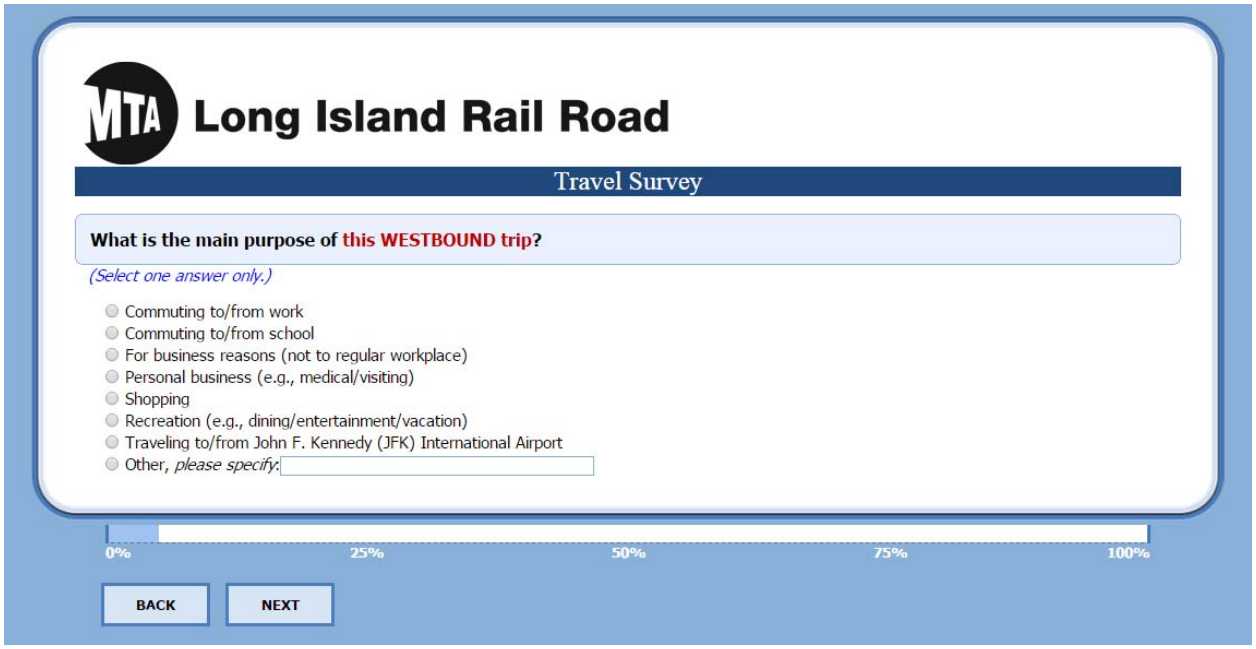
Use el espacio abajo para dejar comentarios.
____
____

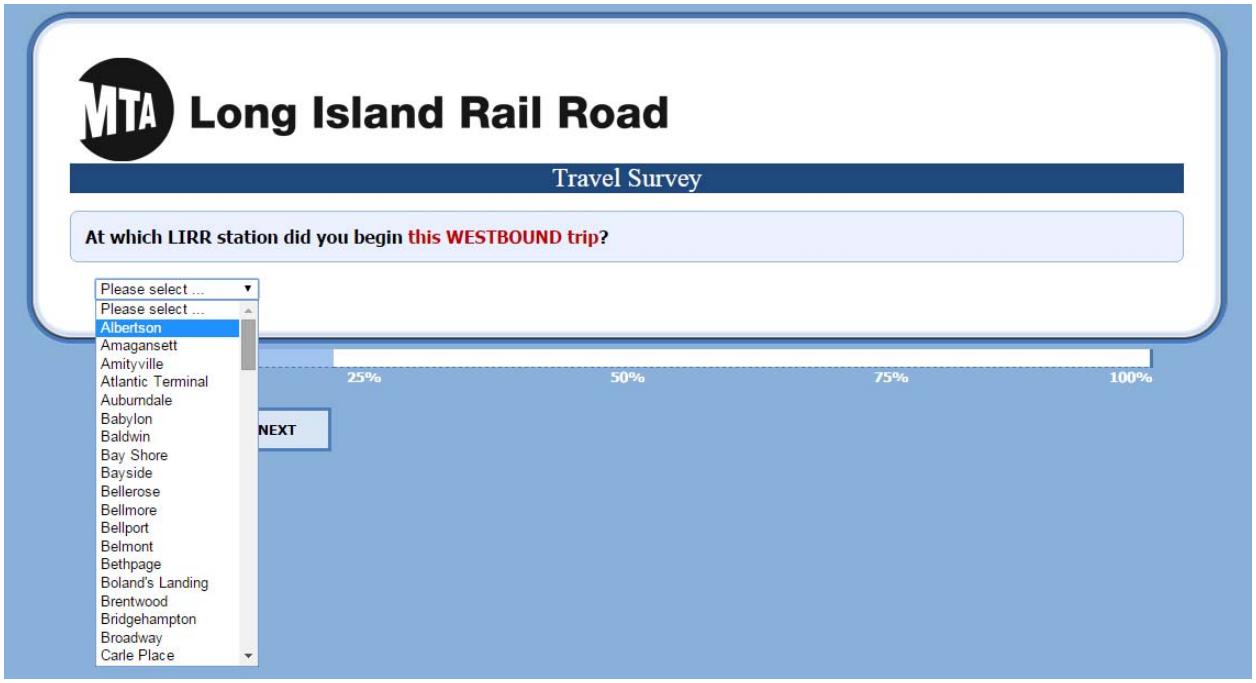
Para ser elegible para la selección al azar, por favor, anote su información de contacto.
Nombre: ________
Calle: ________
Ciudad/Pueblo: ________ Estado: ________ Código Postal: ________
Teléfono: ________
Correo-E: ________

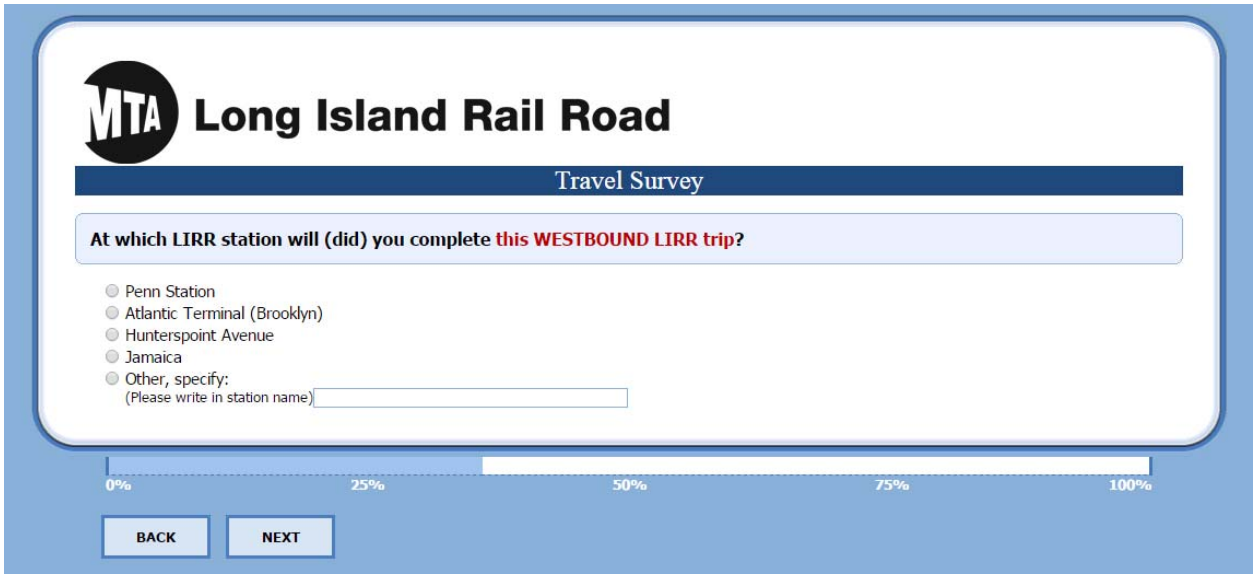
¿Ha llenado usted esta encuesta exacta en los últimos 3 meses? ☐ Sí ☐ No
¿Podemos comunicarnos con usted para investigaciones venideras de la MTA? ☐ Sí ☐ No
¿Tiene usted una dirección de correo electrónico que usted usa regularmente? ☐ Sí ☐ No

¡Gracias por su tiempo!

7.5 Appendix E. Sample Screenshots of Web Survey






Long Island Rail Road
Travel Survey
At which LIRR station will (did) you complete this WESTBOUND LIRR trip?
Penn Station
Atlantic Terminal (Brooklyn)
Hunterspoint Avenue
Jamaica
Other, specify:
(Please write in station name)
0%
25%
50%
75%
100%
BACK
NEXT

7.6 Appendix F. Frequent New York City "Places"

Frequent New York City "places" mentioned in survey responses were standardized and geocoded as follows with QACCU = 3.

Place	City	State	Zip	X	Y
BATTERY PARK CITY	NEW YORK	NY	10280	-74.0160904	40.7108192
BAY RIDGE	BROOKLYN	NY	11209	-74.0296707	40.6271973
BEDFORD-STUYVESANT	BROOKLYN	NY	11221	-73.9405975	40.6878815
BENSONHURST	BROOKLYN	NY	11214	-73.997695	40.611269
BOERUM HILL	BROOKLYN	NY	11217	-73.986626	40.684849
BOROUGH PARK	BROOKLYN	NY	11219	-73.9926224	40.636467
BOWLING GREEN	NEW YORK	NY	10004	-74.01376	40.704557
BROOKLYN HEIGHTS	BROOKLYN	NY	11201	-73.9953384	40.6955376
BROWNSVILLE	BROOKLYN	NY	11212	-73.909528	40.66308
BUSHWICK	BROOKLYN	NY	11221	-73.921286	40.694428
CENTRAL PARK	NEW YORK	NY	10028	-73.953783	40.776645
CHATHAM SQUARE	NEW YORK	NY	10002	-73.9975433	40.7140312
CHELSEA	NEW YORK	NY	10011	-74.0033035	40.7463989
CHINATOWN	NEW YORK	NY	10038	-73.998390	40.713570
CLINTON HILL	BROOKLYN	NY	11205	-73.965538	40.6883583
COBBLE HILL	BROOKLYN	NY	11226	-73.9493866	40.6452217
COLUMBUS CIRCLE	NEW YORK	NY	10019	-73.982325	40.768145
CONEY ISLAND	BROOKLYN	NY	11224	-73.9922256	40.5760384
COOPER SQ	NEW YORK	NY	10003	-73.9910507	40.7284508
CROWN HEIGHTS	BROOKLYN	NY	11213	-73.942337	40.6739693
CYPRESS HILLS	BROOKLYN	NY	11208	-73.88013	40.683612
DOWNTOWN	NEW YORK	NY	10007	-74.006012	40.714379
DOWNTOWN BROOKLYN	BROOKLYN	NY	11201	-73.984518	40.696019
DUMBO	BROOKLYN	NY	10007	-74.006012	40.714379
EAST VILLAGE	NEW YORK	NY	10009	-73.9833755	40.7262573
EXCHANGE PLACE	JERSEY CITY	NJ	07302	-74.0342178	40.7159042
FINANCIAL DISTRICT	NEW YORK	NY	10005	-74.0106888	40.7089691
FLATBUSH	BROOKLYN	NY	11226	-73.962433	40.640922
FLATIRON DISTRICT	NEW YORK	NY	10003	-73.9903488	40.7394218
FORT GREENE	BROOKLYN	NY	11201	-73.974187	40.692064
FORT HAMILTON	BROOKLYN	NY	11252	-74.0315	40.6091
GARMENT DISTRICT	NEW YORK	NY	10018	-73.991086	40.754393
GOVERNORS ISLAND	NEW YORK	NY	10004	-74.01908	40.688678
GRAVESEND	BROOKLYN	NY	11226	-73.9493866	40.6452217
GREENPOINT	BROOKLYN	NY	11222	-73.9458313	40.7244492
GREENWICH VILLAGE	NEW YORK	NY	10011	-73.9966583	40.7318611

Place	City	State	Zip	X	Y
HANOVER SQUARE	NEW YORK	NY	10005	-74.009464	40.70453
HARLEM	NEW YORK	NY	10027	-73.9435959	40.8053551
HELLS KITCHEN	NEW YORK	NY	10036	-73.9932175	40.7624283
INWOOD	NEW YORK	NY	10034	-73.921286	40.867216
KIPS BAY	NEW YORK	NY	10016	-73.980065	40.742329
LINCOLN CENTER	NEW YORK	NY	10023	-73.9834213	40.7714195
LINCOLN SQUARE	NEW YORK	NY	10023	-73.981567	40.773602
LITTLE ITALY	NEW YORK	NY	10013	-73.9967728	40.7192841
LOWER EAST SIDE	NEW YORK	NY	10002	-73.985959	40.713517
LOWER MANHATTAN	NEW YORK	NY	10007	-74.006012	40.714379
MANHATTAN	NEW YORK	NY	10024	-73.969429	40.7830276
MEATPACKING DISTRICT	NEW YORK	NY	10014	-74.007611	40.740987
MIDTOWN	NEW YORK	NY	10017	-73.9790115	40.7524376
MIDTOWN EAST	NEW YORK	NY	10022	-73.9648895	40.75914
MORNINGSIDE HEIGHTS	NEW YORK	NY	10027	-73.962433	40.808956
MORRIS PARK	BRONX	NY	10461	-73.850728	40.852201
MURRAY HILL	NEW YORK	NY	10016	-73.976059	40.7485504
OAKLAND GARDENS	NEW YORK	NY	11364	-73.753418	40.740097
OAKWOOD	STATEN ISLAND	NY	10306	-74.115187	40.558475
OZONE PARK	NEW YORK	NY	11417	-73.846756	40.6740761
PARK SLOPE	BROOKLYN	NY	11215	-73.9802475	40.6713295
PELHAM PARKWAY	BRONX	NY	10461	-73.8543015	40.8541298
PROSPECT HEIGHTS	BROOKLYN	NY	11238	-73.9684677	40.6777763
RANDALLS ISLAND	NEW YORK	NY	10035	-73.922096	40.796799
RIVERDALE	BRONX	NY	10471	-73.9123993	40.8918228
ROOSEVELT ISLAND	NEW YORK	NY	10044	-73.9493027	40.7625999
SHEEPSHEAD BAY	BROOKLYN	NY	11229	-73.953616	40.597585
SOHO	NEW YORK	NY	10013	-74.001681	40.7200813
SOUTH OZONE PARK	NEW YORK	NY	11420	-73.8196335	40.6751137
SPRINGFIELD GARDENS	NEW YORK	NY	11434	-73.7673035	40.661293
SUNNYSIDE	NEW YORK	NY	11104	-73.9259491	40.7375832
SUNSET PARK	BROOKLYN	NY	11220	-74.012385	40.645532
THROGGS NECK	BRONX	NY	10465	-73.821321	40.818399
TIMES SQUARE	NEW YORK	NY	10036	-73.985134	40.758928
TREMONT	BRONX	NY	10457	-73.8929977	40.8460312
TRIBECA	NEW YORK	NY	10013	-74.008606	40.7181358
TUDOR CITY	NEW YORK	NY	10017	-73.9704514	40.7490082
TURTLE BAY	NEW YORK	NY	10022	-73.966917	40.754117
UNION SQUARE	NEW YORK	NY	10003	-73.991076	40.735877
UPPER EAST SIDE	NEW YORK	NY	10075	-73.956577	40.7727966

Place	City	State	Zip	X	Y
UPPER WEST SIDE	NEW YORK	NY	10024	-73.9760284	40.7872047
WASHINGTON HEIGHTS	NEW YORK	NY	10032	-73.938921	40.840145
WASHINGTON SQUARE PARK	NEW YORK	NY	10011	-73.9975662	40.7308846
WEST VILLAGE	NEW YORK	NY	10014	-74.004837	40.7349815
WHITESTONE	NEW YORK	NY	11357	-73.8086243	40.7916183
WILLIAMSBURG	BROOKLYN	NY	11206	-73.9478073	40.7079964
YORKVILLE	NEW YORK	NY	10028	-73.9487839	40.7773628

7.7 Appendix G. City/Town Boundaries with 85% or Greater Coverage

City/Town boundaries with 85% or greater coverage by a single ZIP code were geocoded as QACCU = 3 to the ZIP code accuracy instead of QACCU = 4 to the city accuracy.

Zip	X	Y	City	ST	Muni_Type	% Area
11021	-73.728497	40.786645	RUSSELL GARDENS	NY	Village	100
10940	-74.470733	41.448573	MIDDLETOWN	NY	City	100
11001	-73.707358	40.721376	BELLEROSE	NY	Village	100
11021	-73.728497	40.786645	GREAT NECK PLAZA	NY	Village	100
11030	-73.688801	40.79361	MUNSEY PARK	NY	Village	100
11030	-73.688801	40.79361	PLANDOME	NY	Village	100
11735	-73.430351	40.730031	FARMINGDALE	NY	Village	100
11787	-73.210498	40.853326	VILLAGE OF THE BRANCH	NY	Village	100
07461	-74.606129	41.241006	SUSSEX	NJ	Borough	100
07726	-74.343082	40.282242	ENGLISHTOWN	NJ	Borough	100
07727	-74.165774	40.202967	FARMINGDALE	NJ	Borough	100
07728	-74.283345	40.225993	FREEHOLD	NJ	Borough	100
07826	-74.760001	41.189172	BRANCHVILLE	NJ	Borough	100
07830	-74.795231	40.717415	CALIFON	NJ	Borough	100
07860	-74.81122	41.059708	FREDON	NJ	Township	100
07882	-75.011383	40.753841	WASHINGTON	NJ	Borough	100
07930	-74.682698	40.787286	CHESTER	NJ	Borough	100
08021	-74.999971	39.806003	CLEMENTON	NJ	Borough	100
08055	-74.821058	39.865838	MEDFORD LAKES	NJ	Borough	100
08075	-74.950538	40.028917	RIVERSIDE	NJ	Township	100
08079	-75.442134	39.530935	SALEM CITY	NJ	City	100
08085	-75.328588	39.755577	SWEDESBORO	NJ	Borough	100
08098	-75.328373	39.637359	WOODSTOWN	NJ	Borough	100
08204	-74.913898	38.975103	WEST CAPE MAY	NJ	Borough	100
08215	-74.575393	39.582457	EGG HARBOR CITY	NJ	City	100
08302	-75.266466	39.442165	BRIDGETON CITY	NJ	City	100
08520	-74.531952	40.254059	HIGHTSTOWN	NJ	Borough	100

Zip	X	Y	City	ST	Muni_Type	% Area
08525	-74.782574	40.397842	HOPEWELL	NJ	Borough	100
08534	-74.791289	40.33037	PENNINGTON	NJ	Borough	100
08822	-74.862481	40.52302	FLEMINGTON	NJ	Borough	100
08831	-74.431663	40.328365	JAMESBURG	NJ	Borough	100
08865	-75.149632	40.707563	ALPHA	NJ	Borough	100
07950	-74.483216	40.845149	MORRIS PLAINS	NJ	Borough	99.999512
08069	-75.450594	39.697754	PENNS GROVE	NJ	Borough	99.98726
08833	-74.818743	40.643302	LEBANON	NJ	Borough	99.97576
08204	-74.913898	38.975103	CAPE MAY POINT	NJ	Borough	99.968938
07840	-74.830957	40.862326	HACKETTSTOWNTOWN	NJ	Town	99.966877
07960	-74.501566	40.783781	MORRISTOWNTOWN	NJ	Town	99.963951
08827	-74.972854	40.67271	HAMPTON	NJ	Borough	99.963053
08107	-75.084826	39.907519	WOODLYNNE	NJ	Borough	99.959544
07945	-74.598494	40.781303	MENDHAM	NJ	Borough	99.949931
08037	-74.770806	39.632645	HAMMONTONTOWN	NJ	Town	99.947039
11050	-73.691383	40.838956	BAXTER ESTATES	NY	Village	99.935422
08109	-75.051265	39.949867	MERCHANTVILLE	NJ	Borough	99.927485
08225	-74.542762	39.36125	NORTHFIELD CITY	NJ	City	99.896187
11001	-73.707358	40.721376	FLORAL PARK	NY	Village	99.876089
11937	-72.17841	40.999262	EAST HAMPTON	NY	Village	99.854564
08071	-75.13304	39.732481	PITMAN	NJ	Borough	99.847006
07823	-75.040811	40.828139	BELVIDERETOWN	NJ	Town	99.841959
07675	-74.004394	41.009238	OLD TAPPAN	NJ	Borough	99.835035
08068	-74.654239	39.959964	PEMBERTON	NJ	Borough	99.830702
08270	-74.797952	39.269572	WOODBINE	NJ	Borough	99.812367
07762	-74.036535	40.153583	SPRING LAKE HEIGHTS	NJ	Borough	99.807724
08505	-74.739596	40.102946	FIELDSBORO	NJ	Borough	99.800725
08332	-75.009068	39.352805	MILLVILLE CITY	NJ	City	99.791148
07724	-74.078027	40.293621	SHREWSBURY	NJ	Township	99.776136
08079	-75.442134	39.530935	ELSINBORO	NJ	Township	99.772276
08021	-74.999971	39.806003	LAUREL SPRINGS	NJ	Borough	99.735464
08079	-75.442134	39.530935	LOWER ALLOWAYS CREEK	NJ	Township	99.731843
07405	-74.38351	40.98639	BUTLER	NJ	Borough	99.72753
08107	-75.084826	39.907519	OAKLYN	NJ	Borough	99.725747
08021	-74.999971	39.806003	PINE VALLEY	NJ	Borough	99.714829
07029	-74.154057	40.744133	EAST NEWARK	NJ	Borough	99.704285
07023	-74.385893	40.641762	FANWOOD	NJ	Borough	99.696994
07005	-74.42096	40.928801	BOONTONTOWN	NJ	Town	99.657029
08088	-74.641392	39.816078	TABERNACLE	NJ	Township	99.634869
08052	-74.995014	39.951936	MAPLE SHADE	NJ	Township	99.614071

Zip	X	Y	City	ST	Muni_Type	% Area
08809	-74.924368	40.649927	CLINTONTOWN	NJ	Town	99.609133
08831	-74.431663	40.328365	MONROE	NJ	Township	99.596283
11590	-73.574522	40.755405	WESTBURY	NY	Village	99.57219
11963	-72.305849	40.970058	SAG HARBOR	NY	Village	99.562914
08060	-74.783562	40.010166	EASTAMPTON	NJ	Township	99.543599
11757	-73.373002	40.68899	LINDENHURST	NY	Village	99.534073
08804	-75.095718	40.642545	BLOOMSBURY	NJ	Borough	99.449025
07008	-74.230141	40.584245	CARTERET	NJ	Borough	99.440326
08069	-75.450594	39.697754	CARNEYS POINT	NJ	Township	99.434874
08553	-74.640589	40.400245	ROCKY HILL	NJ	Borough	99.407588
07753	-74.078765	40.213419	NEPTUNE CITY	NJ	Borough	99.404798
07928	-74.412559	40.726737	CHATHAM	NJ	Borough	99.395597
08106	-75.073762	39.891085	AUDUBON	NJ	Borough	99.377452
07508	-74.191308	40.958046	PROSPECT PARK	NJ	Borough	99.37273
07735	-74.199772	40.441149	UNION BEACH	NJ	Borough	99.37218
07036	-74.239303	40.625422	WINFIELD	NJ	Township	99.35334
08318	-75.178069	39.556089	ELMER	NJ	Borough	99.340773
07080	-74.415259	40.574668	SOUTH PLAINFIELD	NJ	Borough	99.340087
07006	-74.281232	40.852171	CALDWELL	NJ	Borough	99.310958
08083	-75.029019	39.840522	HI-NELLA	NJ	Borough	99.30601
07450	-74.112509	40.982127	RIDGEWOOD VILLAGE	NJ	Village	99.300416
07646	-74.019971	40.933384	NEW MILFORD	NJ	Borough	99.283099
10583	-73.792786	40.989352	SCARSDALE	NY	Town	99.24812
08701	-74.202997	40.076476	LAKEWOOD	NJ	Township	99.227208
11963	-72.305849	40.970058	SAGAPONACK	NY	Village	99.2265
07065	-74.280386	40.607679	RAHWAY CITY	NJ	City	99.224767
07712	-74.051243	40.246423	INTERLAKEN	NJ	Borough	99.219459
07936	-74.363916	40.81889	EAST HANOVER	NJ	Township	99.204984
08854	-74.463421	40.546212	PISCATAWAY	NJ	Township	99.201667
07621	-73.998229	40.923564	BERGENFIELD	NJ	Borough	99.194076
11558	-73.652998	40.605375	ISLAND PARK	NY	Village	99.188579
08825	-75.023207	40.513795	FRENCHTOWN	NJ	Borough	99.18157
07940	-74.42035	40.75871	MADISON	NJ	Borough	99.174193
11770	-73.154744	40.645924	OCEAN BEACH	NY	Village	99.171828
07093	-74.01158	40.788033	WEST NEW YORKTOWN	NJ	Town	99.140459
07702	-74.06016	40.325207	SHREWSBURY	NJ	Borough	99.133533
08501	-74.55806	40.154202	ALLENTOWN	NJ	Borough	99.129735
08512	-74.52576	40.320121	CRANBURY	NJ	Township	99.124653
07747	-74.25239	40.413021	MATAWAN	NJ	Borough	99.106532
07204	-74.266582	40.665259	ROSELLE PARK	NJ	Borough	99.100439

Zip	X	Y	City	ST	Muni_Type	% Area
08094	-74.966545	39.649705	MONROE	NJ	Township	99.097507
08090	-75.150781	39.797726	WENONAH	NJ	Borough	99.082271
07733	-74.172766	40.376607	HOLMDEL	NJ	Township	99.079325
07762	-74.036535	40.153583	SPRING LAKE	NJ	Borough	99.077071
07601	-74.046019	40.889117	HACKENSACK CITY	NJ	City	99.060024
07419	-74.565862	41.149338	HAMBURG	NJ	Borough	99.056866
07036	-74.239303	40.625422	LINDEN CITY	NJ	City	99.05551
07626	-73.958803	40.940333	CRESSKILL	NJ	Borough	99.045695
07031	-74.126841	40.787085	NORTH ARLINGTON	NJ	Borough	99.029858
07430	-74.185976	41.081912	MAHWAH	NJ	Township	99.028113
08865	-75.149632	40.707563	PHILLIPSBURGTOWN	NJ	Town	99.020997
07726	-74.343082	40.282242	MANALAPAN	NJ	Township	99.013682
07111	-74.231916	40.724202	IRVINGTON	NJ	Township	99.010965
08088	-74.641392	39.816078	SHAMONG	NJ	Township	99.004953
08848	-75.096289	40.594241	MILFORD	NJ	Borough	99.00463
07716	-74.039299	40.399797	ATLANTIC HIGHLANDS	NJ	Borough	99.000834
07931	-74.664565	40.706046	FAR HILLS	NJ	Borough	98.998298
07728	-74.283345	40.225993	FREEHOLD	NJ	Township	98.987865
08089	-74.821143	39.721795	CHESILHURST	NJ	Borough	98.981024
08049	-75.036824	39.854549	MAGNOLIA	NJ	Borough	98.980202
07439	-74.597552	41.07706	OGDENSBURG	NJ	Borough	98.963121
11550	-73.619753	40.70275	HEMPSTEAD	NY	Village	98.960869
11786	-72.885378	40.943659	SHOREHAM	NY	Village	98.93239
08736	-74.071662	40.121479	MANASQUAN	NJ	Borough	98.927231
07723	-74.001185	40.250324	DEAL	NJ	Borough	98.915772
08302	-75.266466	39.442165	HOPEWELL	NJ	Township	98.908713
07072	-74.060671	40.825003	CARLSTADT	NJ	Borough	98.878239
08021	-74.999971	39.806003	LINDENWOLD	NJ	Borough	98.875167
08884	-74.391164	40.395164	SPOTSWOOD	NJ	Borough	98.871724
08812	-74.480725	40.598921	DUNELLEN	NJ	Borough	98.871204
07203	-74.260025	40.652676	ROSELLE	NJ	Borough	98.859589
07086	-74.020673	40.768346	WEEHAWKEN	NJ	Township	98.85278
07458	-74.096987	41.045978	UPPER SADDLE RIVER	NJ	Borough	98.851045
07675	-74.004394	41.009238	RIVER VALE	NJ	Township	98.849123
08087	-74.38528	39.611707	TUCKERTON	NJ	Borough	98.848834
07087	-74.032306	40.767453	UNION CITY	NJ	City	98.845827
08530	-74.897789	40.374386	LAMBERTVILLE CITY	NJ	City	98.842118
07506	-74.158171	40.957751	HAWTHORNE	NJ	Borough	98.83663
08009	-74.931701	39.75815	BERLIN	NJ	Borough	98.829959
07059	-74.514657	40.631999	WARREN	NJ	Township	98.828345

Zip	X	Y	City	ST	Muni_Type	% Area
07039	-74.329212	40.785564	LIVINGSTON	NJ	Township	98.81921
11570	-73.638778	40.666952	ROCKVILLE CENTRE	NY	Village	98.816843
07508	-74.191308	40.958046	NORTH HALEDON	NJ	Borough	98.802417
08096	-75.127556	39.829439	WOODBURY CITY	NJ	City	98.784659
07866	-74.487394	40.952096	ROCKAWAY	NJ	Borough	98.780523
07004	-74.304311	40.882592	FAIRFIELD	NJ	Township	98.773115
08850	-74.440389	40.448242	MILLTOWN	NJ	Borough	98.762999
07110	-74.156927	40.819305	NUTLEY	NJ	Township	98.762686
07631	-73.973578	40.891733	ENGLEWOOD CITY	NJ	City	98.761865
07452	-74.125047	40.960028	GLEN ROCK	NJ	Borough	98.737234
07901	-74.36533	40.714761	SUMMIT CITY	NJ	City	98.726998
07092	-74.360271	40.681069	MOUNTAINSIDE	NJ	Borough	98.718537
07643	-74.038805	40.846244	LITTLE FERRY	NJ	Borough	98.712627
07436	-74.241037	41.031399	OAKLAND	NJ	Borough	98.711952
08869	-74.641731	40.572213	RARITAN	NJ	Borough	98.70007
08805	-74.540149	40.571767	BOUND BROOK	NJ	Borough	98.697307
08033	-75.038288	39.893706	HADDONFIELD	NJ	Borough	98.690967
11563	-73.673958	40.657415	LYNBROOK	NY	Village	98.690834
07627	-73.956535	40.954965	DEMAREST	NJ	Borough	98.689862
07508	-74.191308	40.958046	HALEDON	NJ	Borough	98.644141
07407	-74.120101	40.904844	ELMWOOD PARK	NJ	Borough	98.635494
08067	-75.411872	39.737587	OLDMANS	NJ	Township	98.611168
07481	-74.167682	40.998726	WYCKOFF	NJ	Township	98.610833
07016	-74.303602	40.65644	CRANFORD	NJ	Township	98.603807
07047	-74.025892	40.793657	NORTH BERGEN	NJ	Township	98.599642
07463	-74.126065	41.013211	WALDWICK	NJ	Borough	98.59167
07827	-74.740367	41.291647	MONTAGUE	NJ	Township	98.590186
08844	-74.672682	40.498273	HILLSBOROUGH	NJ	Township	98.588628
07874	-74.710836	40.924192	STANHOPE	NJ	Borough	98.584955
08054	-74.904476	39.948066	MOUNT LAUREL	NJ	Township	98.57397
07027	-74.323224	40.651367	GARWOOD	NJ	Borough	98.571243
11743	-73.425388	40.877866	HUNTINGTON BAY	NY	Village	98.563351
08559	-74.971998	40.440343	STOCKTON	NJ	Borough	98.56233
08085	-75.328588	39.755577	WOOLWICH	NJ	Township	98.554842
07821	-74.759954	40.961358	ANDOVER	NJ	Borough	98.550344
12550	-74.048291	41.538641	NEWBURGH	NY	City	98.538012
07079	-74.260332	40.749087	SOUTH ORANGE VILLAGE	NJ	Township	98.509254
07423	-74.097276	41.000056	HO-HO-KUS	NJ	Borough	98.50875
07624	-73.960346	40.973341	CLOSTER	NJ	Borough	98.490809
07410	-74.117755	40.935894	FAIR LAWN	NJ	Borough	98.482678

Zip	X	Y	City	ST	Muni_Type	% Area
07608	-74.062189	40.853377	TETERBORO	NJ	Borough	98.466879
11579	-73.644074	40.844039	SEA CLIFF	NY	Village	98.44678
08060	-74.783562	40.010166	MOUNT HOLLY	NJ	Township	98.446307
08077	-74.995153	40.001831	RIVERTON	NJ	Borough	98.44049
08026	-74.964662	39.831891	GIBBSBORO	NJ	Borough	98.429506
07644	-74.082255	40.87908	LODI	NJ	Borough	98.42521
11777	-73.062187	40.949468	PORT JEFFERSON	NY	Village	98.418089
11560	-73.590454	40.88059	LATTINGTOWN	NY	Village	98.41256
07052	-74.262724	40.789225	WEST ORANGE	NJ	Township	98.395655
07656	-74.043039	41.035663	PARK RIDGE	NJ	Borough	98.378025
07860	-74.81122	41.059708	NEWTONTOWN	NJ	Town	98.377766
07885	-74.582534	40.935762	WHARTON	NJ	Borough	98.374696
11733	-73.106405	40.935169	OLD FIELD	NY	Village	98.352988
07022	-74.002339	40.81826	FAIRVIEW	NJ	Borough	98.326257
07416	-74.592931	41.112618	FRANKLIN	NJ	Borough	98.303067
07057	-74.106728	40.853523	WALLINGTON	NJ	Borough	98.266149
07417	-74.208177	41.008844	FRANKLIN LAKES	NJ	Borough	98.257735
08505	-74.739596	40.102946	BORDENTOWN CITY	NJ	City	98.248544
07446	-74.145431	41.059443	RAMSEY	NJ	Borough	98.248095
07003	-74.186931	40.809457	BLOOMFIELD	NJ	Township	98.244923
07076	-74.373463	40.632463	SCOTCH PLAINS	NJ	Township	98.213635
07401	-74.133008	41.033116	ALLENDALE	NJ	Borough	98.204785
11755	-73.117462	40.858014	LAKE GROVE	NY	Village	98.191044
07030	-74.032205	40.745417	HOBOKEN CITY	NJ	City	98.183124
08016	-74.832694	40.071504	BURLINGTON CITY	NJ	City	98.170723
07035	-74.304726	40.925104	LINCOLN PARK	NJ	Borough	98.148999
07647	-73.943457	41.006802	NORTHVALE	NJ	Borough	98.135167
11733	-73.106405	40.935169	POQUOTT	NY	Village	98.109021
08059	-75.093413	39.884773	MOUNT EPHRAIM	NJ	Borough	98.103156
07090	-74.343584	40.651811	WESTFIELDTOWN	NJ	Town	98.087402
07660	-74.019905	40.854302	RIDGEFIELD PARK VILLAGE	NJ	Village	98.082832
07630	-74.027142	40.974314	EMERSON	NJ	Borough	98.08049
08835	-74.589287	40.542091	MANVILLE	NJ	Borough	98.044468
07960	-74.501566	40.783781	MORRIS	NJ	Township	98.030523
07442	-74.285411	41.003985	POMPTON LAKES	NJ	Borough	98.012177
08057	-74.941076	39.979358	MOORESTOWN	NJ	Township	97.984999
07675	-74.004394	41.009238	WESTWOOD	NJ	Borough	97.97316
11030	-73.688801	40.79361	PLANDOME HEIGHTS	NY	Village	97.944861
07461	-74.606129	41.241006	WANTAGE	NJ	Township	97.941346
11576	-73.649009	40.796397	ROSLYN ESTATES	NY	Village	97.91249

Zip	X	Y	City	ST	Muni_Type	% Area
07801	-74.541936	40.932796	DOVERTOWN	NJ	Town	97.876922
08084	-75.015562	39.828924	STRATFORD	NJ	Borough	97.866009
08031	-75.094727	39.866511	BELLMAWR	NJ	Borough	97.863888
07677	-74.060354	41.025232	WOODCLIFF LAKE	NJ	Borough	97.857555
07075	-74.087874	40.851038	WOOD-RIDGE	NJ	Borough	97.855538
10803	-73.806485	40.899962	PELHAM	NY	Town	97.833304
11777	-73.062187	40.949468	BELLE TERRE	NY	Village	97.820287
08730	-74.063795	40.104935	BRIELLE	NJ	Borough	97.817408
08053	-74.895007	39.861151	EVESHAM	NJ	Township	97.815461
07458	-74.096987	41.045978	SADDLE RIVER	NJ	Borough	97.8027
07024	-73.973275	40.850582	FORT LEE	NJ	Borough	97.799396
10560	-73.604072	41.332763	NORTH SALEM	NY	Town	97.786653
07666	-74.010589	40.889955	TEANECK	NJ	Township	97.762361
07512	-74.22166	40.903674	TOTOWA	NJ	Borough	97.752706
07632	-73.950261	40.884791	ENGLEWOOD CLIFFS	NJ	Borough	97.729016
07652	-74.071516	40.945335	PARAMUS	NJ	Borough	97.715789
08722	-74.201425	39.92801	BEACHWOOD	NJ	Borough	97.680341
11762	-73.446387	40.683106	MASSAPEQUA PARK	NY	Village	97.648651
07640	-73.980324	40.989872	HARRINGTON PARK	NJ	Borough	97.637908
07040	-74.271454	40.732847	MAPLEWOOD	NJ	Township	97.61468
08098	-75.328373	39.637359	PILESGROVE	NJ	Township	97.604227
07457	-74.312278	40.992079	RIVERDALE	NJ	Borough	97.577375
08088	-74.641392	39.816078	SOUTHAMPTON	NJ	Township	97.551278
08880	-74.528155	40.553511	SOUTH BOUND BROOK	NJ	Borough	97.533993
07005	-74.42096	40.928801	BOONTON	NJ	Township	97.528993
07006	-74.281232	40.852171	WEST CALDWELL	NJ	Township	97.503009
07405	-74.38351	40.98639	KINNELON	NJ	Borough	97.498243
07628	-73.992046	40.945375	DUMONT	NJ	Borough	97.460363
07711	-74.007913	40.238219	ALLENHURST	NJ	Borough	97.436067
07657	-74.014469	40.831123	RIDGEFIELD	NJ	Borough	97.431953
08882	-74.378297	40.445269	SOUTH RIVER	NJ	Borough	97.425946
07620	-73.923714	40.964981	ALPINE	NJ	Borough	97.37613
08035	-75.064778	39.879149	HADDON HEIGHTS	NJ	Borough	97.33709
07055	-74.128589	40.857537	PASSAIC CITY	NJ	City	97.308214
07006	-74.281232	40.852171	NORTH CALDWELL	NJ	Borough	97.292672
08318	-75.178069	39.556089	PITTSGROVE	NJ	Township	97.286018
11501	-73.639242	40.746538	MINEOLA	NY	Village	97.274774
07046	-74.441211	40.892129	MOUNTAIN LAKES	NJ	Borough	97.265358
07026	-74.108294	40.879193	GARFIELD CITY	NJ	City	97.250675
07050	-74.234734	40.768183	CITY OF ORANGE	NJ	City	97.180512

Zip	X	Y	City	ST	Muni_Type	% Area
07033	-74.289607	40.678252	KENILWORTH	NJ	Borough	97.150367
07670	-73.956681	40.91914	TENAFLY	NJ	Borough	97.144569
08043	-74.954829	39.845655	VOORHEES	NJ	Township	97.119143
08033	-75.038288	39.893706	TAVISTOCK	NJ	Borough	97.100727
07010	-73.98792	40.821953	CLIFFSIDE PARK	NJ	Borough	97.084973
07764	-74.018023	40.288405	WEST LONG BRANCH	NJ	Borough	97.082473
08091	-74.925648	39.805517	BERLIN	NJ	Township	97.071627
07650	-73.996496	40.847086	PALISADES PARK	NJ	Borough	97.069672
08901	-74.443447	40.485449	NEW BRUNSWICK CITY	NJ	City	97.007874
08077	-74.995153	40.001831	CINNAMINSON	NJ	Township	97.003066
08733	-74.430086	40.018575	LAKEHURST	NJ	Borough	96.997032
11040	-73.679664	40.745418	NEW HYDE PARK	NY	Village	96.986823
12508	-73.951676	41.496772	BEACON	NY	City	96.979332
11050	-73.691383	40.838956	PORT WASHINGTON NORTH	NY	Village	96.960157
07722	-74.167887	40.290407	COLTS NECK	NJ	Township	96.90495
07642	-74.044529	41.007125	HILLSDALE	NJ	Borough	96.888344
08060	-74.783562	40.010166	WESTAMPTON	NJ	Township	96.885301
08741	-74.167681	39.934034	PINE BEACH	NJ	Borough	96.867912
07009	-74.228174	40.85641	CEDAR GROVE	NJ	Township	96.854434
07109	-74.161462	40.795217	BELLEVILLE	NJ	Township	96.845944
10549	-73.719433	41.200236	MOUNT KISCO	NY	Town	96.80891
07607	-74.063434	40.902451	MAYWOOD	NJ	Borough	96.759521
11771	-73.527348	40.866788	CENTRE ISLAND	NY	Village	96.75307
11709	-73.562187	40.907595	BAYVILLE	NY	Village	96.736777
07719	-74.07792	40.167167	LAKE COMO	NJ	Borough	96.716322
11965	-72.341844	41.077014	DERING HARBOR	NY	Village	96.655537
07605	-73.989702	40.863798	LEONIA	NJ	Borough	96.639048
07432	-74.140872	40.995234	MIDLAND PARK	NJ	Borough	96.609913
08540	-74.656805	40.365814	PRINCETON	NJ	Borough	96.546894
08010	-74.914998	40.05365	EDGEWATER PARK	NJ	Township	96.534705
08904	-74.42854	40.50118	HIGHLAND PARK	NJ	Borough	96.460595
08829	-74.895366	40.66829	HIGH BRIDGE	NJ	Borough	96.436857
10576	-73.573063	41.21332	POUND RIDGE	NY	Town	96.405884
08055	-74.821058	39.865838	MEDFORD	NJ	Township	96.396149
11565	-73.671565	40.675059	MALVERNE	NY	Village	96.342944
07647	-73.943457	41.006802	ROCKLEIGH	NJ	Borough	96.303667
08846	-74.5007	40.574518	MIDDLESEX	NJ	Borough	96.246746
07649	-74.031874	40.956092	ORADELL	NJ	Borough	96.243268
11520	-73.583185	40.650754	FREEPORT	NY	Village	96.23117
07801	-74.541936	40.932796	VICTORY GARDENS	NJ	Borough	96.161751

Zip	X	Y	City	ST	Muni_Type	% Area
07424	-74.20716	40.88307	LITTLE FALLS	NJ	Township	96.083397
07641	-73.997863	40.962074	HAWORTH	NJ	Borough	96.057496
08062	-75.220544	39.714487	HARRISON	NJ	Township	96.052668
07044	-74.242861	40.832979	VERONA	NJ	Township	96.002203
07073	-74.086269	40.816144	EAST RUTHERFORD	NJ	Borough	95.871956
08302	-75.266466	39.442165	STOW CREEK	NJ	Township	95.764554
07068	-74.308741	40.820827	ROSELAND	NJ	Borough	95.713979
07645	-74.049579	41.053168	MONTVALE	NJ	Borough	95.71221
07066	-74.312725	40.620435	CLARK	NJ	Township	95.689307
11545	-73.589254	40.825885	OLD BROOKVILLE	NY	Village	95.616272
07081	-74.325415	40.699451	SPRINGFIELD	NJ	Township	95.605747
08840	-74.357869	40.543688	METUCHEN	NJ	Borough	95.603956
11978	-72.639521	40.831415	WESTHAMPTON BEACH	NY	Village	95.539767
08826	-74.906189	40.722792	GLEN GARDNER	NJ	Borough	95.494075
07456	-74.274559	41.107618	RINGWOOD	NJ	Borough	95.48966
08828	-74.424735	40.379225	HELMETTA	NJ	Borough	95.421754
11542	-73.628284	40.870599	GLEN COVE	NY	City	95.41387
11021	-73.728497	40.786645	THOMASTON	NY	Village	95.372578
08750	-74.044178	40.133787	SEA GIRT	NJ	Borough	95.365509
07753	-74.078765	40.213419	NEPTUNE	NJ	Township	95.288328
08046	-74.886501	40.027515	WILLINGBORO	NJ	Township	95.256546
07712	-74.051243	40.246423	ASBURY PARK CITY	NJ	City	95.232316
07069	-74.440174	40.64152	WATCHUNG	NJ	Borough	95.153096
07028	-74.204337	40.804425	GLEN RIDGE	NJ	Borough	95.107407
08742	-74.061655	40.08145	POINT PLEASANT	NJ	Borough	95.089438
07648	-73.950669	40.992894	NORWOOD	NJ	Borough	95.034798
08010	-74.914998	40.05365	BEVERLY CITY	NJ	City	95.011549
11557	-73.692681	40.637711	HEWLETT BAY PARK	NY	Village	94.943642
07083	-74.269037	40.694469	UNION	NJ	Township	94.890528
07860	-74.81122	41.059708	HAMPTON	NJ	Township	94.677708
10509	-73.595065	41.411784	SOUTHEAST	NY	Town	94.671364
11021	-73.728497	40.786645	GREAT NECK ESTATES	NY	Village	94.669847
08344	-74.990986	39.565633	NEWFIELD	NJ	Borough	94.646944
08097	-75.15134	39.815611	WOODBURY HEIGHTS	NJ	Borough	94.597446
08742	-74.061655	40.08145	POINT PLEASANT BEACH	NJ	Borough	94.597391
07734	-74.13496	40.443573	KEANSBURG	NJ	Borough	94.515656
11713	-72.943264	40.777552	BELLPORT	NY	Village	94.513751
08241	-74.471026	39.532157	PORT REPUBLIC CITY	NJ	City	94.505374
11576	-73.649009	40.796397	ROSLYN HARBOR	NY	Village	94.451416
11516	-73.727959	40.626495	CEDARHURST	NY	Village	94.417761

Zip	X	Y	City	ST	Muni_Type	% Area
11530	-73.635931	40.727388	GARDEN CITY	NY	Village	94.25095
07205	-74.229028	40.696089	HILLSIDE	NJ	Township	94.229413
07832	-75.008526	41.019191	KNOWLTON	NJ	Township	94.125116
07662	-74.079183	40.907132	ROCHELLE PARK	NJ	Township	94.113796
07021	-74.279362	40.825811	ESSEX FELLS	NJ	Borough	94.107094
11596	-73.642563	40.75995	EAST WILLISTON	NY	Village	94.063082
07403	-74.332778	41.029564	BLOOMINGDALE	NJ	Borough	94.054642
11576	-73.649009	40.796397	ROSLYN	NY	Village	94.041189
07924	-74.591319	40.727928	BERNARDSVILLE	NJ	Borough	93.960878
07974	-74.403385	40.697848	NEW PROVIDENCE	NJ	Borough	93.904087
07860	-74.81122	41.059708	STILLWATER	NJ	Township	93.818014
07603	-74.029622	40.875265	BOGOTA	NJ	Borough	93.693637
07871	-74.624643	41.046776	SPARTA	NJ	Township	93.648946
08757	-74.255833	39.960828	SOUTH TOMS RIVER	NJ	Borough	93.620629
12771	-74.624173	41.374345	PORT JERVIS	NY	City	93.6049
11021	-73.728497	40.786645	KENSINGTON	NY	Village	93.599503
07717	-74.016475	40.191286	AVON-BY-THE-SEA	NJ	Borough	93.438085
07740	-73.991852	40.295054	LONG BRANCH CITY	NJ	City	93.428757
08016	-74.832694	40.071504	BURLINGTON	NJ	Township	93.402247
07071	-74.110793	40.796346	LYNDHURST	NJ	Township	93.398786
11545	-73.589254	40.825885	BROOKVILLE	NY	Village	93.375525
07863	-74.969047	40.818201	OXFORD	NJ	Township	93.238119
07932	-74.395919	40.777514	FLORHAM PARK	NJ	Borough	93.190081
08270	-74.797952	39.269572	CORBIN CITY	NJ	City	93.085155
07724	-74.078027	40.293621	EATONTOWN	NJ	Borough	92.976745
07470	-74.247792	40.946478	WAYNE	NJ	Township	92.97154
07803	-74.600712	40.878026	MINE HILL	NJ	Township	92.950035
07604	-74.074167	40.86225	HASBROUCK HEIGHTS	NJ	Borough	92.833499
10950	-74.201132	41.314755	MONROE	NY	Town	92.803925
11568	-73.596947	40.786607	OLD WESTBURY	NY	Village	92.783247
07029	-74.154057	40.744133	HARRISONTOWN	NJ	Town	92.694463
08876	-74.689578	40.586733	SOMERVILLE	NJ	Borough	92.563415
07020	-73.978349	40.822845	EDGEWATER	NJ	Borough	92.561007
11560	-73.590454	40.88059	MATINECOCK	NY	Village	92.553169
07735	-74.199772	40.441149	KEYPORT	NJ	Borough	92.481569
11598	-73.711916	40.6305	HEWLETT NECK	NY	Village	92.356373
07848	-74.68188	41.101635	LAFAYETTE	NJ	Township	92.241892
07661	-74.039162	40.927233	RIVER EDGE	NJ	Borough	92.168461
08759	-74.375122	39.958394	MANCHESTER	NJ	Township	92.164318
11598	-73.711916	40.6305	WOODSBURGH	NY	Village	92.035143

Zip	X	Y	City	ST	Muni_Type	% Area
11001	-73.707358	40.721376	SOUTH FLORAL PARK	NY	Village	91.725793
08530	-74.897789	40.374386	WEST AMWELL	NJ	Township	91.715197
11772	-72.9675	40.760062	PATCHOGUE	NY	Village	91.595748
07720	-74.012784	40.201523	BRADLEY BEACH	NJ	Borough	91.585211
08075	-74.950538	40.028917	DELRAN	NJ	Township	91.504384
10998	-74.542212	41.330625	MINISINK	NY	Town	91.474423
08902	-74.484771	40.441924	NORTH BRUNSWICK	NJ	Township	91.343812
08083	-75.029019	39.840522	SOMERDALE	NJ	Borough	91.209954
11749	-73.172777	40.806217	ISLANDIA	NY	Village	91.075846
11530	-73.635931	40.727388	STEWART MANOR	NY	Village	90.994753
11596	-73.642563	40.75995	WILLISTON PARK	NY	Village	90.935041
07094	-74.064478	40.781393	SECAUCUSTOWN	NJ	Town	90.875522
07832	-75.008526	41.019191	WALPACK	NJ	Township	90.788846
11768	-73.323846	40.909656	NORTHPORT	NY	Village	90.742621
08848	-75.096289	40.594241	HOLLAND	NJ	Township	90.728541
08036	-74.836528	39.978221	HAINESPORT	NJ	Township	90.722998
07869	-74.579261	40.84504	RANDOLPH	NJ	Township	90.551806
08078	-75.074402	39.85199	RUNNEMEDE	NJ	Borough	90.410927
07857	-74.700355	40.896355	NETCONG	NJ	Borough	90.398063
08030	-75.116837	39.890349	BROOKLAWN	NJ	Borough	90.293891
07676	-74.063751	40.989406	WASHINGTON	NJ	Township	90.261447
08045	-75.029535	39.867103	LAWNSIDE	NJ	Borough	90.246874
07920	-74.558289	40.681953	BERNARDS	NJ	Township	90.173914
12572	-73.868833	41.926296	RHINEBECK	NY	Town	90.126829
08865	-75.149632	40.707563	POHATCONG	NJ	Township	89.93535
08065	-75.035032	40.002395	PALMYRA	NJ	Borough	89.767739
11030	-73.688801	40.79361	PLANDOME MANOR	NY	Village	89.724315
08861	-74.274458	40.52292	PERTH AMBOY CITY	NJ	City	89.620697
10918	-74.256162	41.349979	CHESTER	NY	Town	89.581096
07424	-74.20716	40.88307	WOODLAND PARK	NJ	Borough	89.51744
08260	-74.826655	38.986334	WILDWOOD CITY	NJ	City	89.381287
12590	-73.884631	41.595699	WAPPINGER	NY	Town	89.293449
08302	-75.266466	39.442165	FAIRFIELD	NJ	Township	89.262875
08221	-74.569024	39.340785	LINWOOD CITY	NJ	City	89.23594
11771	-73.527348	40.866788	COVE NECK	NY	Village	89.212941
08844	-74.672682	40.498273	MILLSTONE	NJ	Borough	89.115177
07093	-74.01158	40.788033	GUTTENBERGTOWN	NJ	Town	88.884656
08816	-74.413278	40.432017	EAST BRUNSWICK	NJ	Township	88.839827
08527	-74.353553	40.105507	JACKSON	NJ	Township	88.802926
11557	-73.692681	40.637711	HEWLETT HARBOR	NY	Village	88.752196

Zip	X	Y	City	ST	Muni_Type	% Area
07663	-74.096076	40.904677	SADDLE BROOK	NJ	Township	88.626709
11701	-73.413218	40.685132	AMITYVILLE	NY	Village	88.614317
08075	-74.950538	40.028917	DELANCO	NJ	Township	88.440704
07922	-74.428355	40.674706	BERKELEY HEIGHTS	NJ	Township	88.286261
08742	-74.061655	40.08145	BAY HEAD	NJ	Borough	88.072604
08886	-75.107466	40.69295	GREENWICH	NJ	Township	88.03774
11768	-73.323846	40.909656	ASHAROKEN	NY	Village	87.978315
11968	-72.41236	40.907287	SOUTHAMPTON	NY	Village	87.896887
08106	-75.073762	39.891085	AUDUBON PARK	NJ	Borough	87.886756
08520	-74.531952	40.254059	EAST WINDSOR	NJ	Township	87.784097
07032	-74.122075	40.754516	KEARNYTOWN	NJ	Town	87.627849
08402	-74.506238	39.330391	MARGATE CITY	NJ	City	87.447262
08092	-74.286768	39.658806	EAGLESWOOD	NJ	Township	87.387259
08302	-75.266466	39.442165	UPPER DEERFIELD	NJ	Township	87.376768
11718	-73.264068	40.719151	BRIGHTWATERS	NY	Village	87.374934
08865	-75.149632	40.707563	HARMONY	NJ	Township	87.180725
08070	-75.507562	39.629338	PENNSVILLE	NJ	Township	86.952678
11023	-73.734547	40.799039	SADDLE ROCK	NY	Village	86.858164
07730	-74.176028	40.424822	HAZLET	NJ	Township	86.536229
08037	-74.770806	39.632645	FOLSOM	NJ	Borough	86.505653
11944	-72.373601	41.103719	GREENPORT	NY	Village	86.034664
11561	-73.639515	40.588867	LONG BEACH	NY	City	85.828372
08204	-74.913898	38.975103	CAPE MAY CITY	NJ	City	85.56892
07882	-75.011383	40.753841	WASHINGTON	NJ	Township	85.376851
08030	-75.116837	39.890349	GLOUCESTER CITY	NJ	City	85.252445
11518	-73.666914	40.638585	EAST ROCKAWAY	NY	Village	85.15731

7.8 Appendix H. MTA LIRR Station Locations Used for Geocoding

MTA Long Island Railroad (LIRR) station locations used for geocoding.

Station	QADDGIS	QCITYGIS	QZIPGIS	QSTGIS	QX	QY
Belmont	100-1 CROSS ISLAND PKWY	BELMONT	11003	NY	-73.7281723	40.7172203
Albertson	I.U. WILLETS ROAD & ALBERTSON AVENUE	ALBERTSON	11507	NY	-73.6421093	40.7709534
Amagansett	MAIN STREET & ABRAHMS LANDING ROAD	AMAGANSETT	11930	NY	-72.1320697	40.9796503
Amityville	JOHN STREET & OAK STREET	AMITYVILLE	11701	NY	-73.4195346	40.6792732
Atlantic Terminal	ATLANTIC AVENUE & FLATBUSH AVENUE	BROOKLYN	11217	NY	-73.9774024	40.6840007

Station	QADDGIS	QCITYGIS	QZIPGIS	QSTGIS	QX	QY
Auburndale	192ND STREET & STATION ROAD	AUBURNDALE	11358	NY	-73.7898543	40.7610577
Babylon	RAILROAD AVENUE & DEER PARK AVENUE	BABYLON	11702	NY	-73.32242	40.7002399
Baldwin	SUNRISE HIGHWAY & GRAND AVENUE	BALDWIN	11510	NY	-73.6094398	40.6562302
Bay Shore	RAILROAD PLAZA & PARK AVENUE	BAY SHORE	11706	NY	-73.2539298	40.7249598
Bayside	213TH STREET & 41ST AVENUE	BAYSIDE	11361	NY	-73.7719112	40.7635136
Bellerose	COMMONWEALTH BOULEVARD & SUPERIOR ROAD	BELLEROSE	11001	NY	-73.7168753	40.7226755
Bellport	STATION ROAD & MONTAUK HIGHWAY	NORTH BELLPORT	11976	NY	-72.9430101	40.7741998
Bethpage	RAILROAD AVE & S 2ND ST	BETHPAGE	11714	NY	-73.4836697	40.7433598
Boland's Landing	ATLANTIC AVE & 127TH ST	QUEENS	11418	NY	-73.8210832	40.695807
Brentwood	BRENTWOOD ROAD & SUFFOLK AVENUE	BRENTWOOD	11717	NY	-73.2461585	40.7812237
Bridgehampton	MAPLE & BUTTER LANES	BRIDGEHAMPTON	11932	NY	-72.3106901	40.9382498
Broadway	162ND STREET & NORTHERN BOULEVARD	QUEENS	11358	NY	-73.8037248	40.7621983
Carle Place	CHERRY LANE & ATLANTIC AVENUE	CARLE PLACE	11514	NY	-73.6056599	40.7488999
Cedarhurst	CEDARHURST AVE & CHESTNUT ST	CEDARHURST	11516	NY	-73.7246432	40.6229719
Central Islip	SUFFOLK AVENUE & LOWELL AVENUE	CENTRAL ISLIP	11722	NY	-73.1925353	40.792612
Centre Avenue	CENTRE AVENUE & FOREST AVENUE	EAST ROCKAWAY	11518	NY	-73.6647723	40.6494043
Cold Spring Harbor	WOODBURY ROAD & HARBOR RD	COLD SPRING HARBOR	11724	NY	-73.4542499	40.83601
Copiague	MARCONI BOULEVARD & GREAT NECK ROAD	COPIAGUE	11726	NY	-73.3999875	40.6815341
Country Life Press	ST. JAMES STREET SOUTH & ELM ST	GARDEN CITY	11530	NY	-73.6295834	40.7215982
Douglaston	235TH STREET AND 41ST AVENUE	DOUGLASTON	11363	NY	-73.7490155	40.7687865
East Hampton	RAILROAD AVENUE & NEWTOWN LANE	EAST HAMPTON	11937	NY	-72.1917602	40.9652502
East New York	ATLANTIC AVENUE & HAVENS PLACE	BROOKLYN	11207	NY	-73.9043699	40.6760873
East Rockaway	ATLANTIC AVENUE & OCEAN AVENUE	EAST ROCKAWAY	11518	NY	-73.65964	40.6407901
East Williston	NY 25B & PENNSYLVANIA AVENUE	EAST WILLISTON	11596	NY	-73.6401487	40.7576968
Far Rockaway	NAMEOKE STREET & REDFERN AVENUE	FAR ROCKAWAY	11691	NY	-73.7524311	40.6077824
Farmingdale	EASTERN PARKWAY & DEPOT AVE	FARMINGDALE	11735	NY	-73.4408404	40.7352205

Station	QADDGIS	QCITYGIS	QZIPGIS	QSTGIS	QX	QY
Floral Park	TULIP AVENUE & ATLANTIC AVENUE	FLORAL PARK	11001	NY	-73.7046401	40.7248398
Flushing Main Street	MAIN STREET & 41ST AVENUE	FLUSHING	11355	NY	-73.8294663	40.758207
Forest Hills	71ST AVENUE & QUEENS BLVD	QUEENS	11375	NY	-73.8440812	40.7212616
Freeport	N MAIN ST & HENRY ST	FREEPORT	11520	NY	-73.577416	40.6529985
Garden City	CATHEDRAL AVE AND 7TH ST	GARDEN CITY	11530	NY	-73.6421701	40.7234799
Gibson	GIBSON BOULEVARD & MUNRO BOULEVARD	VALLEY STREAM	11581	NY	-73.7012498	40.6499103
Glen Cove	DUCK POND ROAD & PEARSALL AVENUE	GLEN COVE	11542	NY	-73.6179438	40.8644703
Glen Head	RAILROAD AVE & PROSPECT ST	GLEN HEAD	11545	NY	-73.6257999	40.8319203
Glen Street	GLEN ST & ELM AVE	GLEN COVE	11542	NY	-73.6204898	40.8590998
Great Neck	MIDDLE NECK ROAD & STATION PLAZA	GREAT NECK PLAZA	11021	NY	-73.7276602	40.7872099
Greenlawn	BROADWAY & BOULEVARD AVE	GREENLAWN	11740	NY	-73.365058	40.8691631
Greenport	4TH ST & WIGGINS ST	GREENPORT	11944	NY	-72.3644798	41.10016
Greenvale	GLEN COVE RD & OSBORNE LN	GREENVALE	11548	NY	-73.6258502	40.8163997
Hampton Bays	GOOD GROUND ROAD & SPRINGVILLE ROAD	HAMPTON BAYS	11946	NY	-72.5299333	40.8748793
Hempstead	MAIN ST & BEDELL ST	HEMPSTEAD	11550	NY	-73.6265999	40.7126103
Hempstead Gardens	HEMPSTEAD GARDENS DR & CHESTNUT ST	WEST HEMPSTEAD	11552	NY	-73.6464986	40.694265
Hewlett	FRANKLIN AVE & RAILROAD AVE	HEWLETT	11557	NY	-73.7038703	40.6373897
Hicksville	NEWBRIDGE ROAD & WEST BARCLAY STREET	HICKSVILLE	11801	NY	-73.5277764	40.7681581
Hillside	182ND PL & 93RD AVE	HOLLIS	11423	NY	-73.7783943	40.7080502
Hollis	193RD STREET & WOODHULL AVENUE	HOLLIS	11423	NY	-73.766517	40.710932
Hunterspoint Avenue	49TH AVE & SKILLMAN AVE	LONG ISLAND CITY	11101	NY	-73.94645	40.7419798
Huntington	NEW YORK AVENUE & BROADWAY	HUNTINGTON	11746	NY	-73.4117179	40.8532854
Inwood	NASSAU EXPY & BAYVIEW AVE	INWOOD	11096	NY	-73.7437903	40.61409
Island Park	WARWICK RD & NASSAU LN	ISLAND PARK	11558	NY	-73.6554497	40.6013502
Islip	ISLIP AVE & MOFFITT BLVD	ISLIP	11751	NY	-73.2077858	40.736836
Jamaica	SUTPHIN BOULEVARD & ARCHER AVENUE	QUEENS	11435	NY	-73.8077166	40.7006065
Kew Gardens	AUSTIN STREET & LEFFERTS BOULEVARD	KEW GARDENS	11415	NY	-73.8296904	40.709351
Kings Park	INDIAN HEAD ROAD & MAIN STREET	KINGS PARK	11754	NY	-73.2537587	40.8843758

Station	QADDGIS	QCITYGIS	QZIPGIS	QSTGIS	QX	QY
Lakeview	EAGLE AVENUE & WOODFIELD ROAD	LAKEVIEW	11552	NY	-73.6523206	40.6863488
Laurelton	224TH STREET & 141ST ROAD	LAURELTON	11413	NY	-73.7515734	40.6690137
Lawrence	LAWRENCE AVENUE & BAYVIEW AVENUE	LAWRENCE	11559	NY	-73.7375301	40.6150257
Lindenhurst	WELLWOOD AVENUE & HOFFMAN AVENUE	LINDENHURST	11757	NY	-73.3735301	40.6868403
Little Neck	LITTLE NECK PARKWAY & 39TH ROAD	LITTLE NECK	11363	NY	-73.741854	40.7736871
Locust Manor	FARMER'S BOULEVARD & BEDELL STREET	LOCUST MANOR	11434	NY	-73.7638003	40.6737497
Long Beach	E MARKET ST & PARK PL	LONG BEACH	11561	NY	-73.6642997	40.5901098
Long Island City	BORDEN AVE & 5TH ST	QUEENS	11101	NY	-73.9568853	40.7418214
Lynbrook	SUNRISE HIGHWAY & PENINSULA BOULEVARD	LYNBROOK	11563	NY	-73.6774801	40.6557997
Malverne	HEMPSTEAD AVE & NOTTINGHAM RD	MALVERNE	11565	NY	-73.66965	40.6751297
Manhasset	PLANDOME ROAD & MAPLE PLACE	MANHASSET	11030	NY	-73.6996499	40.7974003
Massapequa	OCEAN AVE & VETERANS BLVD	MASSAPEQUA	11758	NY	-73.4700711	40.6772249
Massapequa Park	SUNSRISE HIGHWAY & PARK BOULEVARD	MASSAPEQUA PARK	11762	NY	-73.45634	40.67725
Mastic Shirley	WILLIAM FLOYD PARKWAY & NORTHERN BOULEVARD	MASTIC	11967	NY	-72.8660161	40.7981697
Mattituck	LOVE LANE & PIKE STREET	MATTITUCK	11952	NY	-72.5351779	40.9921778
Medford	NY 112 & RAILROAD AVENUE	MEDFORD	11763	NY	-73.0061493	40.817131
Merillon Avenue	NASSAU BOULEVARD & MERILLON AVENUE	GARDEN CITY	11530	NY	-73.6607203	40.7350101
Merrick	SUNRISE HWY & HEWLETT AVE	MERRICK	11566	NY	-73.5494111	40.6635249
Mets-Willets Point	PERIMETER ROAD & NEW YORK AVE	QUEENS	11368	NY	-73.8486374	40.7483155
Mineola	MINEOLA BLVD & 3RD ST	MINEOLA	11501	NY	-73.6395153	40.7397075
Montauk	FLAMINGO AVE & EDGEMERE ST	MONTAUK	11954	NY	-71.9523999	41.0500697
Murray Hill	150TH STREET & 41ST AVENUE	MURRAY HILL	11355	NY	-73.8139998	40.7627698
Nassau Boulevard	NASSAU BOULEVARD & SOUTH AVENUE	GARDEN CITY	11530	NY	-73.6607011	40.7228168
New Hyde Park	2ND AVE & HERKOMER ST	NEW HYDE PARK	11040	NY	-73.6807597	40.7309599
Nostrand Avenue	ATLANTIC AVE & NOSTRAND AVE	BROOKLYN	11216	NY	-73.949698	40.6783653
Oakdale	MONTAUK HIGHWAY & OAKDALE-BOHEMIA ROAD	OAKDALE	11769	NY	-73.1312666	40.7420909

Station	QADDGIS	QCITYGIS	QZIPGIS	QSTGIS	QX	QY
Oceanside	LAWSON BLVD & W WINDSOR PKWY	OCEANSIDE	11572	NY	-73.6540646	40.6350467
Oyster Bay	SHORE AVE & MAXWELL AVE	OYSTER BAY	11771	NY	-73.5335702	40.87398
Patchogue	DIVISION ST & CEDAR AVE	PATCHOGUE	11772	NY	-73.0155598	40.7614198
Pinelawn	WELLWOOD AVE & LONG ISLAND AVE	WYANDANCH	11798	NY	-73.4007443	40.7449886
Plandome	STONYTOWN ROAD & ROCKWOOD ROAD	PLANDOME	11030	NY	-73.6949422	40.8095178
Port Jefferson	MAIN ST & WILSON ST	PORT JEFFERSON	11776	NY	-73.0541937	40.9340589
Port Washington	MAIN ST & HAVEN AVE	PORT WASHINGTON	11050	NY	-73.6883303	40.8305497
Queens Village	JAMAICA AVENUE & SPRINGFIELD BOULEVARD	QUEENS VILLAGE	11428	NY	-73.7352734	40.7185155
Riverhead	OSBORN AVE & RAILROAD AVE	RIVERHEAD	11901	NY	-72.6687703	40.9194501
Rockville Centre	NORTH VILLAGE AVENUE & FRONT STREET	ROCKVILLE CENTRE	11570	NY	-73.6478799	40.65849
Ronkonkoma	RAILROAD AVE & EASTON ST	RONKONKOMA	11779	NY	-73.1111945	40.8074963
Rosedale	FRANCIS LEWIS BOULEVARD & SUNRISE HIGHWAY	ROSEDALE	11422	NY	-73.7353833	40.6653061
Roslyn	ROSLYN RD & CHURCH ST	ROSLYN	11577	NY	-73.640713	40.7903325
Sayville	RAILROAD AVE & DEPOT ST	SAYVILLE	11782	NY	-73.0846401	40.7399802
Sea Cliff	SEA CLIFF AVENUE & GLEN KEITH ROAD	GLEN COVE	11542	NY	-73.6265402	40.8515098
Seaford	SUNRISE HIGHWAY & JACKSON AVENUE	SEAFORD	11783	NY	-73.4879758	40.6746876
Smithtown	LANDING AVE & REDWOOD LN	SMITHTOWN	11787	NY	-73.1939703	40.8573101
Southold	YOUNGS AVENUE & TRAVELER STREET	SOUTHOLD	11971	NY	-72.4273299	41.0662897
Speonk	PHILLIPS AVENUE & DEPOT ROAD	SPEONK	11941	NY	-72.704143	40.8209551
St. Albans	LINDEN BLVD & FARMERS BLVD	QUEENS	11412	NY	-73.76238	40.69165
St. James	NORWOOD AVE & WASHINGTON AVE	ST. JAMES	11780	NY	-73.1590299	40.8823002
Stewart Manor	NEW HYDE PARK ROAD & MANOR ROAD	GARDEN CITY	11530	NY	-73.6793378	40.7232121
Stony Brook	NEW YORK STATE ROUTE 25A & CHAPMAN STREET	STONY BROOK	11790	NY	-73.1281201	40.9216301
Syosset	JACKSON AVENUE & UNDERHILL BOULEVARD	SYOSSET	11791	NY	-73.502345	40.8243322
Valley Stream	FRANKLIN AVENUE & SUNRISE HIGHWAY	VALLEY STREAM	11581	NY	-73.7035397	40.66033

Station	QADDGIS	QCITYGIS	QZIPGIS	QSTGIS	QX	QY
Wantagh	WANTAGH AVE & RAILROAD AVE	WANTAGH	11793	NY	-73.5103	40.6726299
West Hempstead	HEMPSTEAD AVE & HEMPSTEAD GARDENS DR	HEMPSTEAD	11552	NY	-73.6406136	40.7034185
Westbury	UNION AVENUE & POST AVENUE	WESTBURY	11590	NY	-73.5878199	40.7538197
Westhampton	DEPOT RD & STATION RD	WESTHAMPTON	11977	NY	-72.6512566	40.8295332
Westwood	FOSTER AVENUE & MOTLEY STREET	MALVERNE	11580	NY	-73.6821842	40.6683057
Woodmere	WOODMERE BOULEVARD & CEDAR LANE	WOODMERE	11598	NY	-73.7125003	40.6320199
Woodside	61ST STREET & ROOSEVELT AVENUE	WOODSIDE	11377	NY	-73.9033942	40.7455918
Wyandanch	STRAIGHT PATH & LONG ISLAND AVENUE	WYANDANCH	11798	NY	-73.3604812	40.7540589
Yaphank	YAPHANK AVE & PARK ST	YAPHANK	11980	NY	-72.9165272	40.8237134

7.9 Appendix I. Regional Zone Numbers

All final QX (Longitude) and QY (Latitude) geocoded coordinates were mapped in ESRI ArcGIS software to assign the zone through a "spatial join" process. The zones GIS layer and list was utilized from pervious LIRR surveys with zone assignments to allow geographic zone comparisons between survey data.

Regional zone numbers assigned to final geocoded locations for QZONE.[17]

NAME	QZONE
Downtown Manhattan	1
Lower Manhattan	2
Mid-Manhattan West	3
Mid-Manhattan East	4
Upper West Side	5
Upper East Side	6
Upper Manhattan Above Central Park	7
Queens	8
Brooklyn	9
Nassau	10
Suffolk	11
Bronx	12
Staten Island	13
Westchester/Putnam/Rockland/Orange/Dutchess	14
New Jersey	15
Outside of region	0

[17] A brief definition zones used is given below.
Downtown Manhattan: South of Leonard St
Lower Manhattan: South of Houston St, North of Leonard St
Mid-Manhattan West: West of 5th Ave, South of 59th St, North of 14th St
Mid-Manhattan East: East of 5th Ave, South of 60th St, North of Houston St
Upper West Side: West of Central Park, South of 114th St, North of 59th St
Upper East Side: East of Central Park, South of 116th, North of 60th St
Upper Manhattan: North of 110th St


14
14
11
12
7
5
6
7
3
4
2
9
8
10
13
8
15


14
12
15
7
7
5
6
6
3
4
2
1
1
10
8
9
13
8

7.10 Appendix J. "ZIP Buildings" List*

QCITYGIS	QSTGIS	QZIPGIS	QADDGIS	QX	QY
NEW YORK	NY	10041	55 WATER ST	-74.00916314	40.70317619
NEW YORK	NY	10043	399 PARK AVENUE	-74.0069944	40.7042494
NEW YORK	NY	10045	33 LIBERTY ST	-74.00867646	40.70838792
NEW YORK	NY	10047	WORLD TRADE CENTER	-73.98631839	40.73950135
NEW YORK	NY	10055	55 E 52ND ST	-73.97366518	40.75912162
NEW YORK	NY	10080	4 WORLD FINANCE CENTER	-74.01211391	40.71064528
NEW YORK	NY	10081	1 CHASE MANHATTAN PLAZA	-74.00897685	40.70785255
NEW YORK	NY	10096	1114 AVE OF THE AMERICAS	-73.98268287	40.75469759
NEW YORK	NY	10103	666 5TH AVE	-73.97766962	40.76077974
NEW YORK	NY	10104	1290 AVENUE OF THE AMERICAS	-73.97887756	40.76047008
NEW YORK	NY	10105	1345 AVENUE OF THE AMERICAS	-73.9790427	40.7629959
NEW YORK	NY	10106	888 FASHION AVE	-73.98087299	40.76537723
NEW YORK	NY	10107	250 W 57TH ST	-73.98253225	40.76627583
NEW YORK	NY	10110	500 5TH AVE	-73.98218319	40.7544644
NEW YORK	NY	10111	630 5TH AVE	-73.97759598	40.75911398
NEW YORK	NY	10112	30 ROCKEFELLER PLAZA	-73.97966815	40.75916749
NEW YORK	NY	10115	475 RIVERSIDE DRIVE	-73.96374367	40.81085197
NEW YORK	NY	10118	350 5TH AVE	-73.98572471	40.74845329
NEW YORK	NY	10119	1 PENN PLAZA	-73.99326505	40.75042869
NEW YORK	NY	10120	112 W 34TH ST	-73.98899906	40.7498045
NEW YORK	NY	10121	2 PENN PLAZA	-73.99212432	40.74995495
NEW YORK	NY	10122	225 W 34TH ST	-73.99170338	40.75187063
NEW YORK	NY	10123	450 FASHION AVE	-73.99075242	40.75146642
NEW YORK	NY	10151	745 5TH AVE	-73.97317816	40.7632392
NEW YORK	NY	10152	375 PARK AVE	-73.97203144	40.7584035
NEW YORK	NY	10153	767 5TH AVE	-73.97243869	40.7636221
NEW YORK	NY	10154	345 PARK AVE	-73.9724875	40.7577785
NEW YORK	NY	10155	150 E 58TH ST	-73.96792849	40.76101886
NEW YORK	NY	10158	605 3RD AVE	-73.97509823	40.74895973
NEW YORK	NY	10162	500 E 77TH ST	-73.94992442	40.76930826
NEW YORK	NY	10165	60 E 42ND ST	-73.97872225	40.75213096
NEW YORK	NY	10166	200 PARK AVE	-73.9766536	40.75351765
NEW YORK	NY	10167	245 PARK AVE	-73.97477101	40.75464849
NEW YORK	NY	10168	122 E 42ND ST	-73.97710321	40.75144841
NEW YORK	NY	10169	230 PARK AVE	-73.97609841	40.75439127
NEW YORK	NY	10170	420 LEXINGTON AVE	-73.97587656	40.75262526
NEW YORK	NY	10171	299 PARK AVE	-73.97385832	40.75589935
NEW YORK	NY	10172	277 PARK AVE	-73.9743148	40.75527332
NEW YORK	NY	10173	342 MADISON AVE	-73.97929036	40.75412503

QCITYGIS	QSTGIS	QZIPGIS	QADDGIS	QX	QY
NEW YORK	NY	10174	405 LEXINGTON AVE	-73.9750035	40.751441
NEW YORK	NY	10175	521 5TH AVE	-73.97981	40.75416429
NEW YORK	NY	10176	551 5TH AVE	-73.97886464	40.75540575
NEW YORK	NY	10177	250 PARK AVE	-73.97593369	40.75513873
NEW YORK	NY	10178	101 PARK AVE	-73.97775251	40.7508838
NEW YORK	NY	10203	1 WALL ST	-74.01178756	40.70714138
NEW YORK	NY	10259	140 BROADWAY	-74.01001808	40.70861788
NEW YORK	NY	10260	60 WALL ST	-74.00849712	40.7062374
NEW YORK	NY	10265	BARCLAY BANK	-74.00797733	40.70514297
NEW YORK	NY	10270	70 PINE ST	-74.00772628	40.7064697
NEW YORK	NY	10271	120 BROADWAY	-74.01054139	40.70823558
NEW YORK	NY	10275	26 BROADWAY	-74.01400603	40.70576278560
NEW YORK	NY	10278	26 FEDERAL PLAZA	-74.00371745	40.71513832
NEW YORK	NY	10279	233 BROADWAY	-74.00866884	40.71262621
NEW YORK	NY	10285	SHEARSON AMERICAN EXPRESS	-74.01485782	40.71356453
NEW YORK	NY	10286	BANK OF NEW YORK	-74.0091019	40.70647288

*The ZIP code list reflects ZIP designations from 2014.

7.11 Appendix K. Detailed Count Tables

7.11.1 Notes

Passenger count summaries from head counts, or "ons" and "offs" (not survey results) are shown here but are to be used with caution. The figures may overstate actual ridership due to customers transferring from one train to another. This occurs mostly at Jamaica Station but also at Babylon, Hicksville, Huntington, Mineola, Ronkonkoma, Valley Stream and Woodside.

7.11.2 Travel Patterns by Daypart: Weekdays

TRAVEL PATTERNS BY DAY PART: WEEKDAYS

	Passenger Counts	Proportions
	Weekday	Weekday
	2012-14	2012-14
	(330,535)	(330,535)
	Number	Percent
Westbound	**163,020**	**49**
AM Peak	111,328	68
Midday Off-Peak	23,609	14
PM Reverse Peak	17,604	11
Overnight	10,479	6
Eastbound	**167,515**	**51**
AM Reverse Peak	11,935	7
Midday Off-Peak	31,041	19
PM Peak	96,233	57
Overnight	28,306	17

7.11.3 Travel Patterns by Daypart: Weekends

TRAVEL PATTERNS BY DAY PART: WEEKENDS

	Passenger Counts	Proportions
	Weekend	Weekend
	2012-14	2012-14
	(277,187)	(277,187)
	Number	Percent
Westbound	**135,060**	**49**
Saturday	76,394	57
Sunday	58,666	43
Eastbound	**142,127**	**51**
Saturday	77,923	55
Sunday	64,204	45

7.11.4 Branch Ridership by Dayparts: Weekday Westbound

BRANCH RIDERSHIP COMPARISON WEEKDAY: WESTBOUND

	AM Peak		Midday Off-Peak		PM Reverse Peak		Overnight Off-Peak	
	Passenger Counts	Proportion	Passenger Counts	Proportion	Passenger Counts	Proportion	Passenger Counts	Proportion
	2012-14 (111,328) Number	2012-14 (111,328) Percent	2012-14 (23,609) Number	2012-14 (23,609) Percent	2012-14 (17,604) Number	2012-14 (17,604) Percent	2012-14 (10,479) Number	2012-14 (10,479) Percent
Departure Branch								
Babylon	23,637	21	4,387	19	3,207	18	2,287	22
Huntington	19,404	17	3,962	17	3,529	20	2,057	20
Port Washington	15,079	14	3,671	16	2,271	13	940	9
City Terminal Zone	13,959	13	3,948	17	3,264	19	1,599	15
Ronkonkoma	13,390	12	2,520	11	1,575	9	1,530	15
Far Rockaway	7,049	6	1,576	7	1,056	6	437	4
Long Beach	5,370	5	1,105	5	746	4	255	2
Hempstead	4,707	4	776	3	783	4	490	5
Port Jefferson	3,443	3	655	3	473	3	344	3
Montauk	2,101	2	476	2	354	2	278	3
Oyster Bay	1,874	2	387	2	279	2	155	1
West Hempstead	1,257	1	109	*	59	*	99	1
Greenport	58	*	37	*	8	*	8	*

Note: This table reflects boardings (ONS) in the Westbound direction
* Less than 0.5 percent

7.11.5 Branch Ridership by Dayparts: Weekday Eastbound

BRANCH RIDERSHIP COMPARISON WEEKDAY: EASTBOUND

	AM Reverse Peak		Midday Off-Peak		PM Peak		Overnight Off-Peak	
	Passenger Counts	Proportion	Passenger Counts	Proportion	Passenger Counts	Proportion	Passenger Counts	Proportion
	2012-14 (11,935) Number	2012-14 (11,935) Percent	2012-14 (31,041) Number	2012-14 (31,041) Percent	2012-14 (96,233) Number	2012-14 (96,233) Percent	2012-14 (28,306) Number	2012-14 (28,306) Percent
Departure Branch								
City Terminal Zone	9,888	83	27,466	88	92,335	96	25,508	90
Babylon	688	6	763	2	1,140	1	954	3
Huntington	601	5	1,750	6	1,588	2	1,107	4
Port Washington	343	3	265	1	369	*	163	1
Far Rockaway	92	1	212	1	183	*	182	1
Ronkonkoma	88	1	294	1	292	*	146	1
Long Beach	79	1	100	*	110	*	69	*
Port Jefferson	54	*	87	*	77	*	53	*
Hempstead	52	*	48	*	21	*	20	*
Montauk	27	*	27	*	76	*	78	*
Oyster Bay	12	*	23	*	32	*	19	*
West Hempstead	10	*	5	*	10	*	7	*
Greenport	1	*	1	*	0	*	0	*

Note: This table reflects boardings (ONS) in the Eastbound direction
* Less than 0.5 percent

7.11.6 Branch Ridership by Dayparts: Weekend Westbound

BRANCH RIDERSHIP COMPARISON WEEKEND: WESTBOUND

	Saturday		Sunday		Total	
	Passenger Counts	Proportion	Passenger Counts	Proportion	Passenger Counts	Proportion
	2012-14	2012-14	2012-14	2012-14	2012-14	2012-14
	(76,394)	(76,394)	(58,666)	(58,666)	(135,060)	(135,060)
	Number	Percent	Number	Percent	Number	Percent
Departure Branch						
Babylon	15,756	21	10,258	17	26,014	19
Huntington	14,971	20	11,030	19	26,001	19
City Terminal Zone	13,156	17	11,633	20	24,789	18
Ronkonkoma	9,315	12	6,649	11	15,964	12
Port Washington	9,086	12	6,528	11	15,614	12
Far Rockaway	4,096	5	3,652	6	7,748	6
Long Beach	3,324	4	2,394	4	5,718	4
Montauk	1,982	3	2,470	4	4,452	3
Hempstead	1,968	3	1,723	3	3,691	3
Port Jefferson	1,696	2	1,564	3	3,260	2
Oyster Bay	991	1	713	1	1,704	1
West Hempstead**	53	*	52	*	105	*
Greenport	0	*	0	*	0	*

Note: This table reflects boardings (ONS) in the Westbound direction

* Less than 0.5 percent

** There was no weekend service on West Hempstead branch during the period that the counts were performed. Weekend West Hempstead counts represent ridership at St Albans station serviced by Babylon branch.

7.11.7 Branch Ridership by Dayparts: Weekend Eastbound

BRANCH RIDERSHIP COMPARISON WEEKEND: EASTBOUND

	Saturday		Sunday		Total	
	Passenger Counts	Proportion	Passenger Counts	Proportion	Passenger Counts	Proportion
	2012-14	2012-14	2012-14	2012-14	2012-14	2012-14
	(77,923)	(77,923)	(64,204)	(64,204)	(142,127)	(142,127)
	Number	Percent	Number	Percent	Number	Percent
Departure Branch						
City Terminal Zone	69,477	89	56,974	89	126,451	89
Babylon	2,987	4	2,160	3	5,147	4
Huntington	2,890	4	2,761	4	5,651	4
Port Washington	792	1	757	1	1,549	1
Ronkonkoma	560	1	432	1	992	1
Far Rockaway	351	*	365	1	716	1
Long Beach	343	*	218	*	561	*
Montauk	204	*	264	*	468	*
Port Jefferson	156	*	112	*	268	*
Hempstead	79	*	78	*	157	*
Oyster Bay	63	*	58	*	121	*
West Hempstead**	21	*	25	*	46	*
Greenport	0	*	0	*	0	*

Note: This table reflects boardings (ONS) in the Eastbound direction

* Less than 0.5 percent

** There was no weekend service on West Hempstead branch during the period that the counts were performed. Weekend West Hempstead counts represent ridership at St Albans station serviced by Babylon branch.

7.12 Appendix L. Detailed Survey Tables

7.12.1 Notes

The tables presented in this Appendix show data from weekdays and weekends and cover all dayparts, unless otherwise specified. All tables report data based on "Level 1" linked trip weights.

Each table in this appendix presents several figures:

Unweighted Base – The total number of respondent records that qualified for the analysis, regardless of whether there are responses in the question. These figures have no weights applied.

Weighted Base – The total number of records in the Unweighted Base, with the Level 1expansion weights applied. Weights adjust the survey records to reflect the total population of LIRR customers. This represents the total number of riders in the LIRR system that conform to the attributes being analyzed.

No Response – The portion of the Weighted Base that had no response to the question being analyzed, whose behavior cannot be reported on.

Total Answering – The portion of the Weighted Base that responded to the question being analyzed. Each table's percentage values are based on this figure. This figure is obtained by withdrawing the No Response from the Weighted Base.

7.12.2 Trip Purpose

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**56,511**
Weighted Base	**256,966**	**217,112**
No Response	**3,465**	**2,973**
Total Answering	**253,501**	**214,140**
	Percent	Percent
Commuting (Total)	64.31	68.49
Commuting to/from work	58.94	63.29
Commuting to/from school	5.37	5.20
Recreation (e.g., dining/entertainment/vacation)	17.33	15.55
Personal business (e.g., medical/visiting)	12.69	11.20
For business reasons (not to regular workplace)	3.08	2.84
Shopping	1.41	1.18
Traveling to/from John F. Kennedy (JFK) International Airport	0.82	0.44
Other	0.37	0.30

7.12.3 Trip Frequency

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**56,511**
Weighted Base	**256,966**	**217,112**
No Response	**8,206**	**7,385**
Total Answering	**248,760**	**209,727**
	Percent	Percent
5 or more days per week	49.98	54.66
1 to 4 days per week (Total)	24.81	23.99
4 days per week	6.58	6.80
3 days per week	5.93	5.76
2 days per week	5.86	5.51
1 day per week	6.44	5.92
Less than 1 day per week (Total)	25.21	21.35
Less than 1 day per week but more than 1 day per month	9.99	8.65
1 day per month or less	15.23	12.70

7.12.4 Trip Origin Location

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**50,223**
Weighted Base	**256,966**	**190,911**
No response	**347**	**595**
Total Answering	**256,619**	**190,316**
	Percent	Percent
Nassau	55.48	4.66
Suffolk	28.72	1.35
Queens	14.47	7.79
Manhattan (Total)	0.74	75.04
Mid-Manhattan West	0.27	29.24
Downtown Manhattan	0.16	15.40
Mid-Manhattan East	0.13	16.36
Upper West Side	0.06	4.33
Upper Manhattan above Central Park	0.05	1.90
Upper East Side	0.04	3.32
Lower Manhattan	0.02	4.49
Brooklyn	0.39	8.06
Bronx	0.09	0.77
Westchester/Putnam/Rockland/Orange/Dutchess	0.05	0.16
New Jersey	0.05	2.10
Staten Island	0.02	0.07
Other areas		

7.12.5 Trip Origin Location Type

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**50,223**
Weighted Base	**256,966**	**190,911**
No response	**0**	**0**
Total Answering	**256,966**	**190,911**
	Percent	Percent
Live	76.20	12.67
Work	7.07	63.82
Visit family/friends	6.39	1.51
Attend school	1.38	4.56
Shop	0.75	2.89
Participate in recreational activities	0.70	5.79
Vacation/Have summer home	0.53	0.14
Other	6.96	8.63

7.12.6 Trip Origin Time

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**13,298**
Total Answering	**243,668**
	Percent
12:00 to 12:59 AM	0.41
1:00 to 1:59 AM	0.20
2:00 to 2:59 AM	0.09
3:00 to 3:59 AM	0.34
4:00 to 4:59 AM	1.20
5:00 to 5:59 AM	4.78
6:00 to 6:59 AM	13.23
7:00 to 7:59 AM	19.08
8:00 to 8:59 AM	11.32
9:00 to 9:59 AM	5.61
10:00 to 10:59 AM	4.67
11:00 to 11:59 AM	3.94
12:00 to 12:59 PM	3.64
1:00 to 1:59 PM	3.28
2:00 to 2:59 PM	3.39
3:00 to 3:59 PM	3.54
4:00 to 4:59 PM	4.44
5:00 to 5:59 PM	4.32
6:00 to 6:59 PM	3.66
7:00 to 7:59 PM	2.64
8:00 to 8:59 PM	2.29
9:00 to 9:59 PM	1.94
10:00 to 10:59 PM	1.25
11:00 to 11:59 PM	0.75

7.12.7 Home Location

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**56,511**
Weighted Base	**256,966**	**217,112**
No response	**16,455**	**11,742**
Total Answering	**240,511**	**205,370**
	Percent	Percent
Nassau	48.57	50.46
Suffolk	24.67	25.32
Queens	16.09	14.45
Manhattan (Total)	5.91	5.38
Mid-Manhattan East	1.19	1.13
Downtown Manhattan	1.05	0.92
Mid-Manhattan West	1.02	0.93
Upper West Side	0.83	0.72
Upper East Side	0.80	0.74
Upper Manhattan above Central Park	0.65	0.58
Lower Manhattan	0.37	0.36
Brooklyn	3.41	3.15
New Jersey	0.68	0.62
Bronx	0.43	0.39
Westchester/Putnam/Rockland/Orange/Dutchess	0.17	0.16
Staten Island	0.06	0.06

7.12.8 Origin Station: Westbound

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**0**
Total Answering	**256,966**
	Percent
Babylon Branch	**22.27**
Babylon	3.29
Rockville Centre	2.41
Merrick	2.23
Baldwin	2.19
Bellmore	2.17
Wantagh	1.81
Freeport	1.66
Massapequa	1.45
Massapequa Park	1.23
Lindenhurst	1.06
Seaford	1.05
Amityville	0.86
Copiague	0.86
Huntington Branch	**19.77**
Hicksville	6.17
Mineola	4.09
Huntington	3.33
Syosset	1.94
New Hyde Park	1.25
Westbury	1.16
Cold Spring Harbor	0.92
Merillon Ave	0.58
Carle Place	0.32
Port Washington Branch	**14.60**
Great Neck	2.84
Bayside	2.50
Port Washington	2.42
Manhasset	1.75
Little Neck	1.09
Auburndale	1.00
Broadway	0.88
Douglaston	0.78
Flushing Main Street	0.52

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**0**
Total Answering	**256,966**
Murray Hill	0.46
Plandome	0.34
Mets-Willets Point	0.01
Ronkonkoma Branch	**13.55**
Ronkonkoma	5.62
Deer Park	1.95
Central Islip	1.27
Farmingdale	1.23
Wyandanch	1.22
Brentwood	1.14
Bethpage	1.10
Pinelawn	0.01
Far Rockaway Branch	6.65
Valley Stream	2.11
Rosedale	0.78
Laurelton	0.59
Locust Manor	0.54
Woodmere	0.53
Hewlett	0.52
Cedarhurst	0.50
Gibson	0.34
Lawrence	0.26
Far Rockaway	0.25
Inwood	0.23
Long Beach Branch	**5.14**
Long Beach	1.89
Lynbrook	1.46
Oceanside	0.68
Island Park	0.57
East Rockaway	0.29
Centre Avenue	0.26
City Terminal Zone	**4.49**
Jamaica	**2.59**
Kew Gardens	0.73
Woodside	**0.59**
Forest Hills	0.56
East New York	0.01

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**0**
Total Answering	**256,966**
Hempstead Branch	**4.21**
Floral Park	0.88
Hempstead	0.80
Queens Village	**0.57**
Nassau Blvd	0.46
Stewart Manor	0.44
Garden City	0.36
Bellerose	0.36
Country Life Press	0.19
Hollis	0.16
Belmont	0.01
Montauk Branch	**3.79**
Bay Shore	0.56
Patchogue	0.51
Sayville	0.49
Mastic-Shirley	0.32
Islip	0.32
Montauk	0.27
East Hampton	0.25
Southampton	0.17
Bridgehampton	0.15
Oakdale	0.15
Hampton Bays	0.14
Great River	0.11
Speonk	0.11
Amagansett	0.10
Westhampton	0.08
Bellport	0.05
Port Jefferson Branch	**3.15**
Stony Brook	1.01
Northport	0.64
Port Jefferson	0.44
Kings Park	0.39
Smithtown	0.23
Greenlawn	0.22
St. James	0.21

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**0**
Total Answering	**256,966**
Oyster Bay Branch	**1.70**
Roslyn	0.28
Glen Head	0.21
Locust Valley	0.21
Glen Cove	0.20
East Williston	0.17
Sea Cliff	0.17
Glen Street	0.17
Albertson	0.14
Oyster Bay	0.09
Greenvale	0.07
West Hempstead Branch	**0.64**
Malverne	0.17
St. Albans	0.14
Lakeview	0.11
Westwood	0.10
Hempstead Gardens	0.07
West Hempstead	0.05
Greenport Branch	**0.05**
Riverhead	0.02
Medford	0.01
Greenport	0.01
Yaphank	0.01
Mattituck	*
Southold	*
Employee Stations	*****
Boland's Landing	*
Hillside	0.00

7.12.9 Origin Station: Eastbound

	2012-14 Eastbound
Unweighted Base	**54,365**
Weighted Base	**207,085**
No response	**2,249**
Total Answering	**204,836**
	Percent
Penn Station	76.06
Atlantic Terminal (Brooklyn)	7.61
Jamaica	5.47
Hunterspoint Avenue	1.37
Other	9.50

7.12.10 Station Access Mode: Westbound

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**3,085**
Total Answering	**253,881**
	Percent
Drove alone and parked	37.02
Walked	23.72
Was dropped off	23.26
Carpooled and parked	6.92
Took a taxi	3.42
Took a bus	3.21
Took the subway	0.87
Rode a bicycle	0.66
Took AirTrain	0.61
Shuttle bus	0.20
Ferry	0.02
Other	0.09

7.12.11 Station Access Mode: Eastbound

	2012-14 Eastbound
Unweighted Base	**50,223**
Weighted Base	**190,911**
No response	**1,571**
Total Answering	**189,340**
	Percent
Walk	43.64
Taxi	4.35
Bus (Route)	4.44
Subway (Line)	52.04
Parked and will drive (drove) alone	0.30
Parked and will carpool (carpooled)	0.15
Will be (Was) picked up	0.98
AirTrain to JFK	0.24
PATH train	1.14
NJ Transit train or bus	0.70
Amtrak train	0.12
Bicycle	0.40
Other	0.34

7.12.12 Parking Location

	2012-14 Westbound
Unweighted Base	**31,027**
Weighted Base	**111,555**
No response	**3,589**
Total Answering	**107,965**
	Percent
Parked in a lot or space requiring a permit	38.71
Parked in a lot or space not requiring a permit	40.65
Parked in a metered space	6.12
Parked in a non-metered space	14.52
On street	8.77
Private arrangement	2.82
Did not report what type of non-metered space	2.94

7.12.13 Paid Parking Characteristics

	2012-14 Westbound
Unweighted Base	**11,578**
Weighted Base	**40,150**
Total Answering	**40,150**
Daily	**22.22**
$0.01 to $2.99	4.39
$3.00 to $4.99	7.39
$5.00 to $9.99	9.27
$10.00 to $49.99	1.02
$50.00 or more	0.14
Mean	7.84
Weekly	**0.75**
$0.01 to $9.99	0.34
$10.00 to $24.99	0.16
$25.00 to $49.99	0.12
$50.00 to $99.99	0.09
$100.00 or more	0.04
Mean	25.33
Monthly	**7.65**
$0.01 to $49.99	1.36
$50.00 to $99.99	3.39
$100.00 to $149.99	1.25
$150.00 to $199.99	0.66
$200.00 to $249.99	0.26
$250.00 or more	0.73
Mean	99.69
Annually	**58.82**
$0.01 to $49.99	23.71
$50.00 to $99.99	18.93
$100.00 to $149.99	2.54
$150.00 to $199.99	3.35
$200.00 to $299.99	6.45
$300.00 or more	3.84
Mean	100.84
Other (including unspecified timeframe)	**10.56**
$0.01 to $9.99	5.41
$10.00 to $24.99	2.60
$25.00 to $49.99	0.85
$50.00 to $99.99	0.87
$100.00 to $149.99	0.27
$150.00 or more	0.56
Mean	156.07

7.12.14 Minutes Walked to Train Platform

	2012-14 Westbound
Unweighted Base	**31,027**
Weighted Base	**111,555**
No response	**3,498**
Total Answering	**108,057**
	Percent
Less than 1 minute	0.78
1-2	42.00
3-5	43.35
6-10	11.60
11-15	1.42
16-20	0.42
21-30	0.28
31-45	0.07
46-59	0.02
60 or more	0.06

7.12.15 Scheduled Departure Time

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**18,641**
Total Answering	**238,325**
	Percent
12:00 to 12:59 AM	0.44
1:00 to 1:59 AM	0.21
2:00 to 2:59 AM	0.11
3:00 to 3:59 AM	0.17
4:00 to 4:59 AM	0.96
5:00 to 5:59 AM	3.96
6:00 to 6:59 AM	11.65
7:00 to 7:59 AM	19.44
8:00 to 8:59 AM	12.36
9:00 to 9:59 AM	5.96
10:00 to 10:59 AM	4.83
11:00 to 11:59 AM	4.10
12:00 to 12:59 PM	3.78
1:00 to 1:59 PM	3.39
2:00 to 2:59 PM	3.32
3:00 to 3:59 PM	3.47
4:00 to 4:59 PM	4.49
5:00 to 5:59 PM	4.36
6:00 to 6:59 PM	3.71
7:00 to 7:59 PM	2.87
8:00 to 8:59 PM	2.28
9:00 to 9:59 PM	2.12
10:00 to 10:59 PM	1.23
11:00 to 11:59 PM	0.79

7.12.16 Transfer Station

	2012-14		
	Westbound	**Eastbound**	**AM Peak (Westbound)**
Unweighted Base	**65,156**	**50,797**	**29,238**
Weighted Base	**256,966**	**193,497**	**98,622**
No response			
Total Answering	**256,966**	**193,497**	**98,622**
	Percent	Percent	
No, I will (did) not transfer to another LIRR train	83.03	84.06	87.04
Yes, I will (did) transfer to another LIRR train	16.97	15.94	12.95
Jamaica	14.03	13.32	12.02
Babylon	1.06	0.91	0.37
Hicksville	0.35	0.31	0.22
Huntington	1.44	1.29	0.15
Mineola	0.07	0.06	0.05
Ronkonkoma	0.05	0.04	0.04
Valley Stream	0.07	0.07	0.03
Woodside	0.12	0.11	0.05
Other	0.08	0.06	0.04

7.12.17 Final Destination Station: Westbound

	2012-14 Daily Westbound*		2012-14 AM Peak Westbound**		2012-14 Saturday Westbound***		2012-14 Sunday Westbound****	
Unweighted Base	**63,334**		**41,921**		**28,054**		**22,781**	
Weighted Base	**141,214**		**98,622**		**65,922**		**49,832**	
No response								
Total Answering	**141,214**		**98,622**		**65,922**		**49,832**	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Penn Station	106,997	75.77	79,096	80.2	47,025	71.34	34,177	68.59
Atlantic Terminal (Brooklyn)	11,842	8.39	8,575	8.69	4,264	6.47	4,562	9.15
Jamaica	7,346	5.2	3,282	3.33	4,719	7.16	3,418	6.86
Hunterspoint Avenue	2,935	2.08	2,908	2.95	18	0.03	12	0.02
Other, specify	12,094	8.56	4,761	4.83	9,896	15.01	7,663	15.38

*Includes AM Peak. Midday Off-Peak, PM Reverse Peak, and Overnight Off-Peak dayparts

**Includes AM Peak daypart only

***Includes Saturday daypart only

****Includes Sunday daypart only

7.12.18 Final Destination Station: Eastbound

	2012-14 Eastbound
Unweighted Base	**54,365**
Weighted Base	**207,085**
No response	**2,723**
Total Answering	**204,362**
	Percent
Babylon Branch	**23.03**
Babylon	3.26
Rockville Centre	2.40
Merrick	2.39
Bellmore	2.38
Baldwin	2.27
Wantagh	1.86
Freeport	1.74
Massapequa	1.55
Massapequa Park	1.30
Seaford	1.16
Lindenhurst	1.06
Copiague	0.83
Amityville	0.82
Huntington Branch	**20.30**
Hicksville	6.42
Mineola	3.96
Huntington	3.44
Syosset	2.03
New Hyde Park	1.35
Westbury	1.19
Cold Spring Harbor	0.98
Merillon Ave	0.62
Carle Place	0.31
Port Washington Branch	**14.45**
Great Neck	2.89
Port Washington	2.51
Bayside	2.48
Manhasset	1.70
Little Neck	1.14
Auburndale	0.98
Douglaston	0.81
Broadway	0.80
Flushing Main Street	0.41

	2012-14 Eastbound
Unweighted Base	**54,365**
Weighted Base	**207,085**
No response	**2,723**
Total Answering	**204,362**
Murray Hill	0.38
Plandome	0.36
Mets-Willets Point	*
Ronkonkoma Branch	**13.96**
Ronkonkoma	5.85
Deer Park	2.08
Wyandanch	1.26
Farmingdale	1.24
Central Islip	1.22
Bethpage	1.18
Brentwood	1.11
Pinelawn	0.02
Far Rockaway Branch	**6.57**
Valley Stream	2.14
Rosedale	0.78
Laurelton	0.58
Woodmere	0.56
Hewlett	0.55
Cedarhurst	0.49
Locust Manor	0.49
Gibson	0.37
Lawrence	0.23
Inwood	0.21
Far Rockaway	0.18
Long Beach Branch	**5.40**
Long Beach	1.96
Lynbrook	1.53
Oceanside	0.74
Island Park	0.59
East Rockaway	0.31
Centre Avenue	0.27
Hempstead Branch	**4.19**
Floral Park	0.93
Hempstead	0.75
Queens Village	0.52
Nassau Blvd	0.47
Stewart Manor	0.45

	2012-14 Eastbound
Unweighted Base	**54,365**
Weighted Base	**207,085**
No response	**2,723**
Total Answering	**204,362**
Garden City	0.39
Bellerose	0.35
Country Life Press	0.22
Hollis	0.11
Belmont	0.01
Montauk Branch	**3.41**
Bay Shore	0.56
Patchogue	0.52
Sayville	0.49
Islip	0.33
Mastic-Shirley	0.30
East Hampton	0.21
Montauk	0.19
Oakdale	0.16
Southampton	0.14
Great River	0.11
Bridgehampton	0.10
Speonk	0.10
Hampton Bays	0.09
Amagansett	0.05
Bellport	0.05
Westhampton	0.02
Port Jefferson Branch	**3.22**
Stony Brook	0.98
Northport	0.66
Port Jefferson	0.45
Kings Park	0.44
Smithtown	0.25
Greenlawn	0.24
St. James	0.21
City Terminal Zone	**2.96**
Jamaica	1.47
Kew Gardens	0.61
Forest Hills	0.42
Woodside	0.34
Hunterspoint Avenue	0.02
Nostrand Avenue	0.01

	2012-14 Eastbound
Unweighted Base	**54,365**
Weighted Base	**207,085**
No response	**2,723**
Total Answering	**204,362**
Long Island City	0.01
Penn Station	0.07
Atlantic Terminal	0.02
Oyster Bay Branch	**1.74**
Roslyn	0.28
Locust Valley	0.23
Glen Head	0.20
Glen Cove	0.20
East Williston	0.20
Sea Cliff	0.17
Glen Street	0.17
Albertson	0.14
Oyster Bay	0.08
Greenvale	0.08
West Hempstead Branch	**0.71**
Malverne	0.18
Lakeview	0.14
St. Albans	0.12
Westwood	0.12
Hempstead Gardens	0.08
West Hempstead	0.07
Greenport Branch	**0.05**
Riverhead	0.02
Medford	0.02
Yaphank	0.01
Greenport	0.01
Mattituck	*
Southold	*

7.12.19 Station Egress Mode: Westbound

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**2,440**
Total Answering	**254,526**
	Percent
Walk	41.58
Taxi	5.74
Bus (Route)	5.02
Subway (Line)	50.51
1, 2, 3	21.13
4, 5, 6	2.18
7	2.54
N, Q, R	3.80
B, D, F, M	2.29
A, C, E	15.68
J, Z	0.65
L	0.30
G	0.15
Did not specify line	1.79
Parked and will drive (drove) alone	0.31
Parked and will carpool (carpooled)	0.18
One	*
Two	0.06
Three	0.02
Four	0.02
Five or more	0.01
Did not specify number of people in carpool	0.07
Will be (Was) picked up	1.41
AirTrain to JFK	0.51
PATH train	1.10
NJ Transit train or bus	0.95
Amtrak train	0.53
Bicycle	0.38
Other	0.39

7.12.20 Station Egress Mode: Eastbound

	2012-14 Eastbound
Unweighted Base	**50,223**
Weighted Base	**190,911**
No response	**2,042**
Total Answering	**188,869**
	Percent
Drove alone and parked	43.40
Walked	23.89
Was dropped off	18.57
Carpooled and parked	7.03
Took a taxi	2.57
Took a bus	2.79
Took the subway	0.71
Rode a bicycle	0.67
Took AirTrain	0.13
Shuttle bus	0.16
Ferry	*
Other	0.08

7.12.21 Number of Trains or Buses used to Reach Final Destination

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**50,223**
Weighted Base	**256,966**	**190,911**
No response	**41,042**	**29,205**
Total Answering	**215,924**	**161,706**
	Percent	Percent
Zero	32.33	32.27
One	51.72	52.28
Two	14.11	13.75
Three	1.39	1.29
Four	0.21	0.19
Five or more	0.23	0.21

7.12.22 Final Trip Destination

	2012-14 Daily Westbound*		2012-14 AM Peak Westbound**		2012-14 Saturday Westbound***		2012-14 Sunday Westbound****	
Unweighted Base	**49,791**		**35,267**		**17,713**		**14,572**	
Weighted Base	**141,165**		**98,603**		**65,863**		**49,770**	
No response	**567**		**195**		**728**		**1,249**	
Total Answering	**140,598**		**98,408**		**65,135**		**48,521**	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Manhattan (Total)								
Mid-Manhattan West	41,316	29.39	31,089	31.59	16,733	25.69	10,805	22.27
Mid-Manhattan East	26,158	18.60	21,387	21.73	6,262	9.61	4,980	10.26
Downtown Manhattan	23,103	16.43	18,448	18.75	8,458	12.99	5,528	11.39
Lower Manhattan	6,320	4.50	4,605	4.68	2,875	4.41	1,890	3.90
Upper West Side	4,342	3.09	2,352	2.39	4,212	6.47	3,203	6.60
Upper East Side	3,984	2.83	2,414	2.45	2,778	4.26	2,309	4.76
Upper Manhattan above Central Park	2,335	1.66	1,311	1.33	1,539	2.36	1,529	3.15
Queens	10,656	7.58	4,811	4.89	6,845	10.51	5,510	11.36
Brooklyn	10,505	7.47	6,045	6.14	6,558	10.07	6,435	13.26
Nassau	5,648	4.02	2,268	2.30	4,879	7.49	2,890	5.96
New Jersey	3,355	2.39	2,481	2.52	1,298	1.99	1,107	2.28
Suffolk	1,661	1.18	659	0.67	1,431	2.20	1,425	2.94
Bronx	926	0.66	412	0.42	942	1.45	634	1.31
Westchester/Putnam/Rockland/Orange/Dutchess	207	0.15	86	0.09	233	0.36	212	0.44
Staten Island	82	0.06	40	0.04	92	0.14	64	0.13

*Includes AM Peak. Midday Off-Peak, PM Reverse Peak, and Overnight Off-Peak dayparts

**Includes AM Peak daypart only

***Includes Saturday daypart only

****Includes Sunday daypart only

7.12.23 Final Destination Location Type

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**50,223**
Weighted Base	**256,966**	**190,911**
No response		
Total Answering	**256,966**	**190,911**
	Percent	Percent
Work	54.24	6.08
Live	18.57	82.66
Participate in recreational activities	6.34	0.57
Attend school	4.63	1.01
Shop	3.21	0.60
Visit family/friends	2.34	3.63
Vacation	0.33	0.13
Other	10.35	5.33

7.12.24 Time from LIRR Station to Final Destination

	2012-14
	Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**12,069**
Total Answering	**244,897**
	Percent
0 to 5 minutes	7.68
6 to 10 minutes	13.41
11 to 15 minutes	15.86
16 to 20 minutes	18.14
21 to 30 minutes	15.52
31 to 40 minutes	5.94
41 to 50 minutes	6.27
51 to 60 minutes	6.54
61 to 119 minutes (1-2 hours)	8.27
120 or more minutes (2+ hours)	2.37

7.12.25 Destination Arrival Time

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**36,889**
Total Answering	**220,077**
12:00 to 12:59 AM	0.92
1:00 to 1:59 AM	0.49
2:00 to 2:59 AM	0.23
3:00 to 3:59 AM	0.11
4:00 to 4:59 AM	0.21
5:00 to 5:59 AM	0.57
6:00 to 6:59 AM	3.33
7:00 to 7:59 AM	10.16
8:00 to 8:59 AM	19.95
9:00 to 9:59 AM	15.21
10:00 to 10:59 AM	6.04
11:00 to 11:59 AM	4.23
12:00 to 12:59 PM	3.81
1:00 to 1:59 PM	3.51
2:00 to 2:59 PM	3.44
3:00 to 3:59 PM	3.03
4:00 to 4:59 PM	2.93
5:00 to 5:59 PM	3.65
6:00 to 6:59 PM	4.58
7:00 to 7:59 PM	4.00
8:00 to 8:59 PM	2.88
9:00 to 9:59 PM	2.63
10:00 to 10:59 PM	2.32
11:00 to 11:59 PM	1.76

7.12.26 Total Trip Time

	2012 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**190,738**
Total Answering	**66,228**
	Percent
Less than 30 minutes	7.17
30 minutes to 59 minutes	22.75
1 hour to 1 hour 29 minutes	30.62
1 hour 30 minutes to 1 hour 59 minutes	18.71
2 hours to 2 hours 29 minutes	7.86
2 hours 30 minutes to 2 hours 59 minutes	3.81
More than 3 hours	9.09

7.12.27 Ticket Type

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**56,511**
Weighted Base	**256,966**	**217,112**
No response	**5,428**	**2,381**
Total Answering	**251,538**	**214,731**
	Percent	Percent
Monthly LIRR ticket	46.31	51.17
With unlimited monthly MetroCard	6.60	7.32
With Pay-Per-Ride MetroCard	4.17	4.65
Without MetroCard	22.92	25.47
Not reported	12.63	13.74
Weekly LIRR ticket	2.20	2.33
With MetroCard fare value	0.26	0.28
Without MetroCard	1.25	1.35
Not reported	0.68	0.70
One-Way LIRR ticket	17.80	13.86
With MetroCard fare value	0.65	0.52
Without MetroCard	11.89	9.17
Not reported	5.27	4.17
Round-Trip LIRR ticket	17.83	17.51
With MetroCard fare value	1.61	1.60
Without MetroCard	12.71	12.58
Not reported	3.51	3.33
Ten-Trip LIRR ticket	7.85	8.01
With MetroCard fare value	0.45	0.46
Without MetroCard	6.36	6.56
Not reported	1.04	1.00
CityTicket	3.53	2.66
With MetroCard fare value	0.17	0.12
Without MetroCard	2.73	2.07
Not reported	0.63	0.47
Senior Citizen/People with Disabilities	2.89	2.83
Employee Pass	1.07	1.08
Other	0.52	0.54

7.12.28 Ticket Purchase Location

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**56,511**
Weighted Base	**256,966**	**217,112**
No response	**8,245**	**4,310**
Total Answering	**248,721**	**212,803**
	Percent	Percent
LIRR ticket vending machine	70.66	68.76
Mail&Ride	14.84	16.60
Ticket window at LIRR station	11.85	12.07
Webticket (via Internet)	1.03	1.11
Onboard train	1.02	0.84
Other	0.60	0.62

7.12.29 Timeframe of Eastbound Trip

	2012-14	
	Westbound	**Eastbound**
Unweighted Base	**65,156**	**56,511**
Weighted Base	**256,966**	**217,112**
No response	**29,188**	
Total Answering	**227,778**	**217,112**
	Percent	Percent
Same day	83.81	87.93
Different day, please indicate day/date	11.50	12.07
I will (did) not make an eastbound trip	4.68	-

7.12.30 LIRR Stations Used for Eastbound Trip

	2012-14
	Eastbound
Unweighted Base	**56,511**
Weighted Base	**217,112**
No response	**7,369**
Total Answering	**209,743**
	Percent
I will (did) use the same LIRR stations for my eastbound trip	92.25
I will (did) use different LIRR stations for my eastbound trip	6.48
I will not (did not) use LIRR for my eastbound trip	1.27

7.12.31 Scheduled Departure Time of First Eastbound Train

	2012-14 Eastbound
Unweighted Base	**54,365**
Weighted Base	**207,085**
No response	**79,880**
Total Answering	**127,205**
	Percent
12:00 - 12:59 AM	1.09
1:00 to 1:59 AM	0.72
2:00 to 2:59 AM	0.37
3:00 to 3:59 AM	0.35
4:00 to 4:59 AM	0.36
5:00 to 5:59 AM	1.06
6:00 to 6:59 AM	1.51
7:00 to 7:59 AM	2.17
8:00 to 8:59 AM	2.65
9:00 to 9:59 AM	1.76
10:00 to 10:59 AM	1.46
11:00 to 11:59 AM	1.60
12:00 to 12:59 PM	1.57
1:00 to 1:59 PM	1.94
2:00 to 2:59 PM	2.74
3:00 to 3:59 PM	5.11
4:00 to 4:59 PM	10.64
5:00 to 5:59 PM	25.85
6:00 to 6:59 PM	18.50
7:00 to 7:59 PM	6.94
8:00 to 8:59 PM	4.03
9:00 to 9:59 PM	2.85
10:00 to 10:59 PM	2.55
11:00 to 11:59 PM	2.18

7.12.32 Eastbound Trip – Subway Access

	2012-14 Eastbound
Unweighted Base	**3,568**
Weighted Base	**13,588**
No response	**1,812**
Total Answering	**11,776**
	Percent
Bus	5.87
Subway	68.87
Subway lines 1, 2, 3	26.16
Subway lines A, C, E	13.54
Subway line 7	8.44
Subway lines 4, 5, 6	6.78
Subway lines N, Q, R	6.15
Subway lines B, D, F, M	3.62
Subway lines J, Z	1.15
Subway line L	0.82
Subway line G	0.12
Other method	26.46

7.12.33 Education

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**26,875**
Total Answering	**230,091**
	Percent
High school or less (Total)	8.95
Less than high school graduate	1.83
High school graduate	7.12
Technical/Vocational business school/Some college (Total)	18.89
Technical or vocational business school	2.31
Some college	16.58
College graduate or more (Total)	72.16
College graduate	44.38
Post graduate	27.79

7.12.34 Occupation

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**32,878**
Total Answering	**224,088**
	Percent
Professional, technical & related	38.25
Executive, administrative & managerial	23.63
Retired, student or not employed	10.96
Sales	8.85
Service occupations	7.07
Administrative support, including clerical	5.66
General labor	3.03
Transportation & material moving	1.02
Machine operators, assemblers & inspectors	0.80
Precision production craft & repair	0.72

7.12.35 Industry

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**52,574**
Total Answering	**204,392**
	Percent
Professional/Business services	19.93
Financial activities	16.70
Health services/Health care	11.70
Education	8.65
Leisure and hospitality	8.28
Government	7.03
Retail trade	6.32
Information	6.12
Construction	5.24
Transportation and utilities	3.33
Manufacturing	2.40
Wholesale trade	2.27
Natural resources/Mining	0.26
Other services	1.77

7.12.36 Number of Licensed Drivers in Household

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**31,332**
Total Answering	**225,635**
	Percent
Zero	2.87
One	18.8
Two	45.38
Three	17.00
Four or more	15.95

7.12.37 Number of Vehicles in Household

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**36,792**
Total Answering	**220,174**
	Percent
Zero	10.86
One	23.79
Two	37.89
Three	16.34
Four or more	11.12

7.12.38 Vehicle Availability for Westbound Trip

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**34,934**
Total Answering	**222,032**
	Percent
Yes	64.06
No	35.94

7.12.39 Number of Car Trips into Manhattan per Month

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**63,009**
Total Answering	**193,957**
	Percent
Zero	54.17
One or more (Total)	45.83
One	17.08
Two	10.65
Three	4.39
Four	4.54
Five to nine	4.89
Ten or more	4.27

7.12.40 Household Income

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**60,813**
Total Answering	**196,153**
	Percent
Less than $50,000 (Total)	19.20
Less than $15,000	4.55
$15,000 - $24,999	3.50
$25,000 - $34,999	4.13
$35,000 - $49,999	7.03
$50,000 - $99,999 (Total)	28.75
$50,000 - $74,999	14.29
$75,000 - $99,999	14.47
$100,000 - $199,999 (Total)	33.92
$100,000 - $149,999	19.81
$150,000 - $199,999	14.11
$200,000 or more (Total)	18.12
$200,000 - $299,999	10.17
$300,000 or more	7.96

7.12.41 Gender

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**30,841**
Total Answering	**226,125**
	Percent
Male	49.85
Female	50.15

7.12.42 Age

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**37,579**
Total Answering	**219,387**
	Percent
Under 18	1.41
18-24	15.62
25-34	26.34
35-44	19.44
45-54	19.90
55-64	12.78
65 and over	4.51

7.12.43 Hispanic Origin

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**34,652**
Total Answering	**222,314**
	Percent
Yes	12.23
No	87.77

7.12.44 Race/Ethnicity

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**47,211**
Total Answering	**209,755**
	Percent
White	71.13
Black or African American	13.16
Asian	11.73
American Indian and Alaska Native	0.47
Other	3.52

7.12.45 Importance of LIRR Service in Choosing Home Location

	2012-14 Westbound
Unweighted Base	**65,156**
Weighted Base	**256,966**
No response	**32,386**
Total Answering	**224,580**
	Percent
Very	40.76
Somewhat/Moderately/Slightly (Total)	33.60
Somewhat	18.35
Moderately	9.57
Slightly	5.68
Not at all	25.63

7.13 Appendix M. Complete Count Summary Tables

The following pages contain the complete count summary tables, broken down by branch, station, direction, and daypart.

2012-2014 LIRR OD COUNTS: SUMMARY BY BRANCH

Westbound Total By Branch in Numerical Order / Eastbound Total By Branch in Numerical Order

	WESTBOUND																				
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**111,328**	**111,915**	**23,609**	**23,654**	**17,604**	**17,589**	**10,479**	**10,335**	**163,020**	**163,493**	**326,513**	**76,394**	**76,433**	**58,666**	**58,351**	**135,060**	**134,784**	**269,844**	**298,080**	**298,277**	**596,357**
*City Terminal**	13,959	108,499	3,948	21,047	3,264	15,148	1,599	8,292	22,770	152,986	175,756	13,156	67,142	11,633	51,495	24,789	118,637	143,426	47,559	271,623	319,182
*Babylon****	23,637	698	4,387	668	3,207	719	2,287	557	33,518	2,642	36,160	15,756	3,448	10,258	2,069	26,014	5,517	31,531	59,532	8,159	67,691
*Huntington****	19,404	1,787	3,962	1,019	3,529	830	2,057	796	28,952	4,432	33,384	14,971	3,131	11,030	2,487	26,001	5,618	31,619	54,953	10,050	65,003
*Port Washington***	15,079	195	3,671	303	2,271	357	940	194	21,961	1,049	23,010	9,086	898	6,528	746	15,614	1,644	17,258	37,575	2,693	40,268
*Ronkonkoma****	13,390	287	2,520	186	1,575	141	1,530	169	19,015	783	19,798	9,315	557	6,649	430	15,964	987	16,951	34,979	1,770	36,749
Far Rockaway	7,049	152	1,576	183	1,056	152	437	150	10,118	637	10,755	4,096	310	3,652	315	7,748	625	8,373	17,866	1,262	19,128
Long Beach	5,370	97	1,105	56	746	88	255	43	7,476	284	7,760	3,324	443	2,394	228	5,718	671	6,389	13,194	955	14,149
Hempstead	4,707	27	776	40	783	54	490	37	6,756	158	6,914	1,968	82	1,723	85	3,691	167	3,858	10,447	325	10,772
Port Jefferson	3,443	73	655	89	473	39	344	37	4,915	238	5,153	1,696	138	1,564	133	3,260	271	3,531	8,175	509	8,684
Montauk	2,101	56	476	32	354	33	278	47	3,209	168	3,377	1,982	228	2,470	308	4,452	536	4,988	7,661	704	8,365
Oyster Bay	1,874	42	387	21	279	13	155	8	2,695	84	2,779	991	50	713	44	1,704	94	1,798	4,399	178	4,577
West Hempstead	1,257	2	109	9	59	14	99	4	1,524	29	1,553	53	6	52	11	105	17	122	1,629	46	1,675
Greenport	58	0	37	1	8	1	8	1	111	3	114	0	0	0	0	0	0	0	111	3	114

	EASTBOUND																				
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**11,935**	**11,951**	**31,041**	**31,000**	**96,233**	**95,470**	**28,306**	**28,303**	**167,515**	**166,724**	**334,239**	**77,923**	**77,627**	**64,204**	**63,878**	**142,127**	**141,505**	**283,632**	**309,642**	**308,229**	**617,871**
*City Terminal**	9,888	2,520	27,466	5,410	92,335	12,274	25,508	4,549	155,197	24,753	179,950	69,477	13,048	56,974	11,075	126,451	24,123	150,574	281,648	48,876	330,524
*Babylon****	688	1,828	763	6,181	1,140	20,249	954	6,220	3,545	34,478	38,023	2,987	15,419	2,160	12,259	5,147	27,678	32,825	8,692	62,156	70,848
*Huntington****	601	2,312	1,750	5,605	1,588	17,314	1,107	4,816	5,046	30,047	35,093	2,890	15,888	2,761	12,727	5,651	28,615	34,266	10,697	58,662	69,359
*Port Washington***	343	1,477	265	2,916	369	13,513	163	3,898	1,140	21,804	22,944	792	8,332	757	7,795	1,549	16,127	17,676	2,689	37,931	40,620
*Ronkonkoma****	88	1,134	294	4,698	292	10,346	146	2,651	820	18,829	19,649	560	9,816	432	7,492	992	17,308	18,300	1,812	36,137	37,949
Far Rockaway	92	609	212	1,698	183	6,360	182	1,667	669	10,334	11,003	351	4,593	365	4,024	716	8,617	9,333	1,385	18,951	20,336
Long Beach	79	444	100	1,411	110	4,277	69	1,273	358	7,405	7,763	343	3,710	218	2,641	561	6,351	6,912	919	13,756	14,675
Hempstead	52	585	48	1,097	21	4,378	20	834	141	6,894	7,035	79	2,224	78	1,882	157	4,106	4,263	298	11,000	11,298
Port Jefferson	54	457	87	1,112	77	2,581	53	614	271	4,764	5,035	156	1,520	112	1,727	268	3,247	3,515	539	8,011	8,550
Montauk	27	319	27	410	76	1,294	78	1,223	208	3,246	3,454	204	2,105	264	1,483	468	3,588	4,056	676	6,834	7,510
Oyster Bay	12	235	23	344	32	1,540	19	406	86	2,525	2,611	63	894	58	712	121	1,606	1,727	207	4,131	4,338
West Hempstead	10	25	5	100	10	1,291	7	152	32	1,568	1,600	21	78	25	61	46	139	185	78	1,707	1,785
Greenport	1	6	1	18	0	53	0	0	2	77	79	0	0	0	0	0	0	0	2	77	79

2012-2014 LIRR OD COUNTS: BABYLON BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**23,637**	**698**	**4,387**	**668**	**3,207**	**719**	**2,287**	**557**	**33,518**	**2,642**	**36,160**	**15,756**	**3,448**	**10,258**	**2,069**	**26,014**	**5,517**	**31,531**	**59,532**	**8,159**	**67,691**
Babylon	2,903	371	866	318	691	231	425	191	4,885	1,111	5,996	3,649	1,056	2,318	873	5,967	1,929	7,896	10,852	3,040	13,892
Rockville Centre	2,409	74	449	74	334	79	147	59	3,339	286	3,625	1,581	1,021	1,175	161	2,756	1,182	3,938	6,095	1,468	7,563
Merrick	2,718	38	399	24	317	14	151	15	3,585	91	3,676	1,235	116	865	42	2,100	158	2,258	5,685	249	5,934
Baldwin	2,428	20	420	29	249	57	223	33	3,320	139	3,459	1,302	120	919	94	2,221	214	2,435	5,541	353	5,894
Bellmore	2,628	22	333	19	287	22	173	14	3,421	77	3,498	1,321	119	831	55	2,152	174	2,326	5,573	251	5,824
Freeport	1,368	73	404	102	250	161	170	164	2,192	500	2,692	1,171	447	827	450	1,998	897	2,895	4,190	1,397	5,587
Wantagh	2,089	14	311	24	214	20	210	9	2,824	67	2,891	1,220	144	614	76	1,834	220	2,054	4,658	287	4,945
Massapequa	1,737	14	232	9	159	21	207	8	2,335	52	2,387	891	49	550	39	1,441	88	1,529	3,776	140	3,916
Massapequa Park	1,386	12	216	9	144	12	127	11	1,873	44	1,917	840	89	535	67	1,375	156	1,531	3,248	200	3,448
Lindenhurst	1,057	8	201	9	133	22	121	12	1,512	51	1,563	791	47	455	35	1,246	82	1,328	2,758	133	2,891
Seaford	1,433	3	158	11	133	15	130	2	1,854	31	1,885	535	34	327	27	862	61	923	2,716	92	2,808
Copiague	819	15	188	14	110	29	96	26	1,213	84	1,297	635	84	395	85	1,030	169	1,199	2,243	253	2,496
Amityville	662	34	210	26	186	36	107	13	1,165	109	1,274	585	122	447	65	1,032	187	1,219	2,197	296	2,493

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**688**	**1,828**	**763**	**6,181**	**1,140**	**20,249**	**954**	**6,220**	**3,545**	**34,478**	**38,023**	**2,987**	**15,419**	**2,160**	**12,259**	**5,147**	**27,678**	**32,825**	**8,692**	**62,156**	**70,848**
Babylon	210	423	165	1,228	605	2,887	628	1,224	1,608	5,762	7,370	839	3,437	563	2,527	1,402	5,964	7,366	3,010	11,726	14,736
Rockville Centre	83	161	92	437	132	2,134	56	810	363	3,542	3,905	794	1,624	589	1,285	1,383	2,909	4,292	1,746	6,451	8,197
Baldwin	56	97	35	490	43	2,090	34	624	168	3,301	3,469	183	1,309	123	1,167	306	2,476	2,782	474	5,777	6,251
Merrick	16	149	29	485	31	2,296	12	541	88	3,471	3,559	125	1,312	64	1,061	189	2,373	2,562	277	5,844	6,121
Freeport	208	207	187	405	118	1,257	86	469	599	2,338	2,937	475	1,197	417	1,002	892	2,199	3,091	1,491	4,537	6,028
Bellmore	12	149	16	527	24	2,156	25	557	77	3,389	3,466	82	1,270	64	956	146	2,226	2,372	223	5,615	5,838
Wantagh	13	101	55	608	29	1,550	20	459	117	2,718	2,835	165	1,181	97	879	262	2,060	2,322	379	4,778	5,157
Massapequa	6	85	24	478	23	1,411	42	312	95	2,286	2,381	38	840	32	659	70	1,499	1,569	165	3,785	3,950
Massapequa Park	7	69	39	370	35	1,018	11	361	92	1,818	1,910	58	790	53	712	111	1,502	1,613	203	3,320	3,523
Seaford	6	67	10	252	30	1,293	4	249	50	1,861	1,911	44	532	32	394	76	926	1,002	126	2,787	2,913
Lindenhurst	13	88	23	355	12	889	5	230	53	1,562	1,615	33	680	22	539	55	1,219	1,274	108	2,781	2,889
Amityville	28	156	40	244	38	621	17	189	123	1,210	1,333	81	620	51	551	132	1,171	1,303	255	2,381	2,636
Copiague	30	76	48	302	20	647	14	195	112	1,220	1,332	70	627	53	527	123	1,154	1,277	235	2,374	2,609

2012-2014 LIRR OD COUNTS: CITY TERMINAL BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																				
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**13,959**	**108,499**	**3,948**	**21,047**	**3,264**	**15,148**	**1,599**	**8,292**	**22,770**	**152,986**	**175,756**	**13,156**	**67,142**	**11,633**	**51,495**	**24,789**	**118,637**	**143,426**	**47,559**	**271,623**	**319,182**
Penn Station	0	79,307	0	14,988	0	8,025	0	4,759	0	107,079	107,079	0	46,746	0	32,770	0	79,516	79,516	0	186,595	186,595
Jamaica	12,689	15,426	3,346	4,056	2,877	4,745	1,470	2,154	20,382	26,381	46,763	11,436	13,152	10,309	11,344	21,745	24,496	46,241	42,127	50,877	93,004
Atlantic Terminal	0	8,425	0	1,145	0	1,161	0	651	0	11,382	11,382	0	3,852	0	4,252	0	8,104	8,104	0	19,486	19,486
Woodside	310	1,450	236	559	96	695	34	391	676	3,095	3,771	496	1,802	384	1,705	880	3,507	4,387	1,556	6,602	8,158
Hunterspoint Avenue	0	2,930	0	0	0	0	0	0	0	2,930	2,930	0	0	0	0	0	0	0	0	2,930	2,930
Forest Hills	392	127	84	45	40	104	27	45	543	321	864	482	329	425	266	907	595	1,502	1,450	916	2,366
Kew Gardens	539	37	120	16	69	48	38	30	766	131	897	667	115	435	94	1,102	209	1,311	1,868	340	2,208
Nostrand Avenue	0	158	8	89	7	194	5	111	20	552	572	16	591	25	569	41	1,160	1,201	61	1,712	1,773
East New York	9	244	9	97	5	172	7	106	30	619	649	22	531	32	450	54	981	1,035	84	1,600	1,684
Hillside	18	136	141	41	170	4	18	38	347	219	566	37	22	23	45	60	67	127	407	286	693
Boland's Landing	2	179	4	11	0	0	0	7	6	197	203	0	2	0	0	0	2	2	6	199	205
Long Island City	0	80	0	0	0	0	0	0	0	80	80	0	0	0	0	0	0	0	0	80	80

	EASTBOUND																				
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**9,888**	**2,520**	**27,466**	**5,410**	**92,335**	**12,274**	**25,508**	**4,549**	**155,197**	**24,753**	**179,950**	**69,477**	**13,048**	**56,974**	**11,075**	**126,451**	**24,123**	**150,574**	**281,648**	**48,876**	**330,524**
Penn Station	3,676	0	16,677	0	68,765	0	18,955	0	108,073	0	108,073	46,812	0	38,275	0	85,087	0	85,087	193,160	0	193,160
Jamaica	3,870	2,212	6,872	5,027	13,631	11,229	4,815	3,802	29,188	22,270	51,458	15,127	11,377	12,528	9,734	27,655	21,111	48,766	56,843	43,381	100,224
Atlantic Terminal	1,116	0	2,046	0	6,277	0	1,008	0	10,447	0	10,447	3,790	0	3,178	0	6,968	0	6,968	17,415	0	17,415
Woodside	709	44	775	102	960	231	391	189	2,835	566	3,401	2,173	476	1,788	414	3,961	890	4,851	6,796	1,456	8,252
Forest Hills	66	7	99	65	133	407	67	259	365	738	1,103	370	582	273	391	643	973	1,616	1,008	1,711	2,719
Hunterspoint Avenue	0	0	120	0	2,174	0	0	0	2,294	0	2,294	0	0	0	0	0	0	0	2,294	0	2,294
Kew Gardens	46	11	26	88	36	388	22	264	130	751	881	89	551	65	452	154	1,003	1,157	284	1,754	2,038
East New York	185	3	224	6	167	12	103	9	679	30	709	583	23	458	35	1,041	58	1,099	1,720	88	1,808
Nostrand Avenue	195	2	170	4	155	5	110	4	630	15	645	502	12	390	4	892	16	908	1,522	31	1,553
Hillside	25	240	326	116	23	2	37	22	411	380	791	31	27	19	45	50	72	122	461	452	913
Boland's Landing	0	1	124	2	0	0	0	0	124	3	127	0	0	0	0	0	0	0	124	3	127
Long Island City	0	0	7	0	14	0	0	0	21	0	21	0	0	0	0	0	0	0	21	0	21

2012-2014 LIRR OD COUNTS: FAR ROCKAWAY BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**7,049**	**152**	**1,576**	**183**	**1,056**	**152**	**437**	**150**	**10,118**	**637**	**10,755**	**4,096**	**310**	**3,652**	**315**	**7,748**	**625**	**8,373**	**17,866**	**1,262**	**19,128**
Valley Stream	2,189	85	600	136	363	93	185	119	3,337	433	3,770	1,413	228	1,076	231	2,489	459	2,948	5,826	892	6,718
Rosedale	931	3	156	0	61	11	28	4	1,176	18	1,194	507	10	354	3	861	13	874	2,037	31	2,068
Hewlett	661	18	91	10	104	6	31	2	887	36	923	315	11	309	16	624	27	651	1,511	63	1,574
Laurelton	705	4	98	2	60	4	25	4	888	14	902	352	7	228	5	580	12	592	1,468	26	1,494
Woodmere	632	19	128	6	121	9	24	3	905	37	942	210	17	313	8	523	25	548	1,428	62	1,490
Cedarhurst	439	4	118	10	132	10	32	0	721	24	745	233	3	442	12	675	15	690	1,396	39	1,435
Locust Manor	433	9	112	14	47	6	36	11	628	40	668	381	8	266	12	647	20	667	1,275	60	1,335
Gibson	466	10	83	3	29	13	17	5	595	31	626	169	26	141	22	310	48	358	905	79	984
Lawrence	215	0	63	2	53	0	25	0	356	2	358	167	0	195	4	362	4	366	718	6	724
Far Rockaway	120	0	68	0	51	0	23	0	262	0	262	229	0	189	0	418	0	418	680	0	680
Inwood	258	0	59	0	35	0	11	2	363	2	365	120	0	139	2	259	2	261	622	4	626

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**92**	**609**	**212**	**1,698**	**183**	**6,360**	**182**	**1,667**	**669**	**10,334**	**11,003**	**351**	**4,593**	**365**	**4,024**	**716**	**8,617**	**9,333**	**1,385**	**18,951**	**20,336**
Valley Stream	58	170	159	643	103	2,017	162	734	482	3,564	4,046	249	1,742	253	1,436	502	3,178	3,680	984	6,742	7,726
Rosedale	5	37	2	171	5	857	5	200	17	1,265	1,282	17	621	17	423	34	1,044	1,078	51	2,309	2,360
Laurelton	6	23	3	133	8	618	0	139	17	913	930	7	390	9	234	16	624	640	33	1,537	1,570
Hewlett	2	75	14	152	16	560	8	88	40	875	915	28	297	31	263	59	560	619	99	1,435	1,534
Locust Manor	11	21	3	113	4	409	3	157	21	700	721	5	395	18	328	23	723	746	44	1,423	1,467
Woodmere	3	87	8	99	20	523	1	84	32	793	825	20	253	7	307	27	560	587	59	1,353	1,412
Cedarhurst	1	104	11	115	12	399	3	63	27	681	708	11	215	7	373	18	588	606	45	1,269	1,314
Gibson	6	15	11	60	13	381	0	34	30	490	520	12	166	16	133	28	299	327	58	789	847
Far Rockaway	0	22	0	76	0	128	0	72	0	298	298	0	233	0	219	0	452	452	0	750	750
Lawrence	0	34	1	78	2	213	0	40	3	365	368	2	165	5	168	7	333	340	10	698	708
Inwood	0	21	0	58	0	255	0	56	0	390	390	0	116	2	140	2	256	258	2	646	648

2012-2014 LIRR OD COUNTS: GREENPORT BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																				
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**58**	**0**	**37**	**1**	**8**	**1**	**8**	**1**	**111**	**3**	**114**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**111**	**3**	**114**
Riverhead	20	0	26	0	5	0	2	0	53	0	53	0	0	0	0	0	0	0	53	0	53
Yaphank	16	0	0	1	1	0	0	0	17	1	18	0	0	0	0	0	0	0	17	1	18
Medford	10	0	2	0	2	1	2	0	16	1	17	0	0	0	0	0	0	0	16	1	17
Mattituck	8	0	2	0	0	0	0	0	10	0	10	0	0	0	0	0	0	0	10	0	10
Greenport	0	0	4	0	0	0	4	0	8	0	8	0	0	0	0	0	0	0	8	0	8
Southold	4	0	3	0	0	0	0	1	7	1	8	0	0	0	0	0	0	0	7	1	8

	EASTBOUND																				
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1**	**6**	**1**	**18**	**0**	**53**	**0**	**0**	**2**	**77**	**79**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**77**	**79**
Medford	0	2	0	3	0	20	0	0	0	25	25	0	0	0	0	0	0	0	0	25	25
Riverhead	0	4	1	4	0	13	0	0	1	21	22	0	0	0	0	0	0	0	1	21	22
Greenport	0	0	0	8	0	5	0	0	0	13	13	0	0	0	0	0	0	0	0	13	13
Yaphank	1	0	0	1	0	10	0	0	1	11	12	0	0	0	0	0	0	0	1	11	12
Mattituck	0	0	0	1	0	4	0	0	0	5	5	0	0	0	0	0	0	0	0	5	5
Southold	0	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2

2012-2014 LIRR OD COUNTS: HEMPSTEAD BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**4,707**	**27**	**776**	**40**	**783**	**54**	**490**	**37**	**6,756**	**158**	**6,914**	**1,968**	**82**	**1,723**	**85**	**3,691**	**167**	**3,858**	**10,447**	**325**	**10,772**
Floral Park	1,088	8	128	12	103	11	70	11	1,389	42	1,431	421	26	348	36	769	62	831	2,158	104	2,262
Hempstead	515	0	245	0	183	0	147	0	1,090	0	1,090	567	0	456	0	1,023	0	1,023	2,113	0	2,113
Queens Village	606	0	87	5	69	18	56	8	818	31	849	252	12	263	14	515	26	541	1,333	57	1,390
Stewart Manor	676	4	65	8	63	9	49	5	853	26	879	165	14	124	15	289	29	318	1,142	55	1,197
Nassau Boulevard	513	6	107	6	164	5	77	0	861	17	878	168	6	124	1	292	7	299	1,153	24	1,177
Bellerose	469	2	48	6	50	8	35	6	602	22	624	138	10	176	4	314	14	328	916	36	952
Garden City	408	2	55	2	89	0	24	2	576	6	582	106	4	114	2	220	6	226	796	12	808
Country Life Press	287	1	23	0	45	0	20	2	375	3	378	57	1	48	1	105	2	107	480	5	485
Hollis	145	4	18	1	17	3	12	3	192	11	203	94	9	70	12	164	21	185	356	32	388

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**52**	**585**	**48**	**1,097**	**21**	**4,378**	**20**	**834**	**141**	**6,894**	**7,035**	**79**	**2,224**	**78**	**1,882**	**157**	**4,106**	**4,263**	**298**	**11,000**	**11,298**
Hempstead	0	190	0	351	0	550	0	186	0	1,277	1,277	0	651	0	596	0	1,247	1,247	0	2,524	2,524
Floral Park	24	62	9	186	4	1,018	16	172	53	1,438	1,491	34	428	30	320	64	748	812	117	2,186	2,303
Queens Village	11	41	10	134	2	579	0	130	23	884	907	15	303	13	270	28	573	601	51	1,457	1,508
Nassau Boulevard	1	152	8	148	3	455	1	63	13	818	831	6	212	1	154	7	366	373	20	1,184	1,204
Stewart Manor	5	37	6	77	5	576	1	68	17	758	775	12	152	13	139	25	291	316	42	1,049	1,091
Bellerose	6	10	4	65	5	471	1	92	16	638	654	6	196	12	154	18	350	368	34	988	1,022
Garden City	0	60	1	68	1	377	1	43	3	548	551	0	130	1	90	1	220	221	4	768	772
Country Life Press	0	28	2	39	0	239	0	31	2	337	339	1	70	0	58	1	128	129	3	465	468
Hollis	5	5	8	29	1	113	0	49	14	196	210	5	82	8	101	13	183	196	27	379	406

2012-2014 LIRR OD COUNTS: HUNTINGTON BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**19,404**	**1,787**	**3,962**	**1,019**	**3,529**	**830**	**2,057**	**796**	**28,952**	**4,432**	**33,384**	**14,971**	**3,131**	**11,030**	**2,487**	**26,001**	**5,618**	**31,619**	**54,953**	**10,050**	**65,003**
Hicksville	5,854	718	1,370	314	1,047	191	692	229	8,963	1,452	10,415	4,733	930	3,164	580	7,897	1,510	9,407	16,860	2,962	19,822
Huntington	3,725	196	915	456	598	261	482	254	5,720	1,167	6,887	3,499	1,499	2,712	1,396	6,211	2,895	9,106	11,931	4,062	15,993
Mineola	3,039	674	805	171	980	225	424	218	5,248	1,288	6,536	2,995	420	2,181	317	5,176	737	5,913	10,424	2,025	12,449
Syosset	2,139	36	358	24	335	21	137	21	2,969	102	3,071	1,115	53	941	40	2,056	93	2,149	5,025	195	5,220
New Hyde Park	1,333	52	150	16	169	53	79	25	1,731	146	1,877	766	89	570	47	1,336	136	1,472	3,067	282	3,349
Westbury	1,149	54	136	30	193	45	126	38	1,604	167	1,771	744	107	615	87	1,359	194	1,553	2,963	361	3,324
Cold Spring Harbor	1,230	39	95	3	80	1	22	3	1,427	46	1,473	496	4	421	7	917	11	928	2,344	57	2,401
Merillon Avenue	636	13	74	0	79	21	83	3	872	37	909	361	13	286	2	647	15	662	1,519	52	1,571
Carle Place	299	5	59	5	48	12	12	5	418	27	445	262	16	140	11	402	27	429	820	54	874

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**601**	**2,312**	**1,750**	**5,605**	**1,588**	**17,314**	**1,107**	**4,816**	**5,046**	**30,047**	**35,093**	**2,890**	**15,888**	**2,761**	**12,727**	**5,651**	**28,615**	**34,266**	**10,697**	**58,662**	**69,359**
Hicksville	185	745	667	1,962	673	5,419	333	1,525	1,858	9,651	11,509	830	4,849	630	3,677	1,460	8,526	9,986	3,318	18,177	21,495
Huntington	199	164	492	1,325	128	3,229	484	1,062	1,303	5,780	7,083	1,321	4,049	1,532	3,473	2,853	7,522	10,375	4,156	13,302	17,458
Mineola	145	744	463	999	604	2,420	167	1,007	1,379	5,170	6,549	454	3,111	340	2,537	794	5,648	6,442	2,173	10,818	12,991
Syosset	13	229	25	389	31	1,925	21	337	90	2,880	2,970	50	1,118	42	887	92	2,005	2,097	182	4,885	5,067
Westbury	25	248	54	312	47	1,103	41	260	167	1,923	2,090	99	844	100	627	199	1,471	1,670	366	3,394	3,760
New Hyde Park	25	95	26	239	63	1,325	39	295	153	1,954	2,107	84	803	74	666	158	1,469	1,627	311	3,423	3,734
Cold Spring Harbor	1	23	3	161	11	996	2	139	17	1,319	1,336	10	473	12	363	22	836	858	39	2,155	2,194
Merillon Avenue	5	33	9	133	21	636	8	128	43	930	973	17	433	10	313	27	746	773	70	1,676	1,746
Carle Place	3	31	11	85	10	261	12	63	36	440	476	25	208	21	184	46	392	438	82	832	914

2012-2014 LIRR OD COUNTS: LONG BEACH BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**5,370**	**97**	**1,105**	**56**	**746**	**88**	**255**	**43**	**7,476**	**284**	**7,760**	**3,324**	**443**	**2,394**	**228**	**5,718**	**671**	**6,389**	**13,194**	**955**	**14,149**
Long Beach	1,579	0	428	0	276	0	56	0	2,339	0	2,339	1,411	0	966	0	2,377	0	2,377	4,716	0	4,716
Lynbrook	1,286	58	309	43	249	70	144	37	1,988	208	2,196	1,031	347	713	176	1,744	523	2,267	3,732	731	4,463
Oceanside	1,014	20	129	3	82	6	21	1	1,246	30	1,276	297	35	234	16	531	51	582	1,777	81	1,858
Island Park	717	3	138	1	59	7	17	2	931	13	944	305	7	269	5	574	12	586	1,505	25	1,530
East Rockaway	394	15	51	6	55	2	14	2	514	25	539	141	26	114	21	255	47	302	769	72	841
Centre Avenue	380	1	50	3	25	3	3	1	458	8	466	139	28	98	10	237	38	275	695	46	741

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**79**	**444**	**100**	**1,411**	**110**	**4,277**	**69**	**1,273**	**358**	**7,405**	**7,763**	**343**	**3,710**	**218**	**2,641**	**561**	**6,351**	**6,912**	**919**	**13,756**	**14,675**
Lynbrook	72	168	68	468	78	1,088	60	456	278	2,180	2,458	257	1,251	172	935	429	2,186	2,615	707	4,366	5,073
Long Beach	0	150	0	429	0	1,199	0	444	0	2,222	2,222	0	1,480	0	979	0	2,459	2,459	0	4,681	4,681
Oceanside	5	54	11	182	12	827	2	137	30	1,200	1,230	26	344	16	241	42	585	627	72	1,785	1,857
Island Park	1	33	1	166	5	556	3	129	10	884	894	8	351	6	273	14	624	638	24	1,508	1,532
East Rockaway	1	25	11	95	12	269	2	49	26	438	464	31	170	14	134	45	304	349	71	742	813
Centre Avenue	0	14	9	71	3	338	2	58	14	481	495	21	114	10	79	31	193	224	45	674	719

2012-2014 LIRR OD COUNTS: MONTAUK BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

WESTBOUND

	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**2,101**	**56**	**476**	**32**	**354**	**33**	**278**	**47**	**3,209**	**168**	**3,377**	**1,982**	**228**	**2,470**	**308**	**4,452**	**536**	**4,988**	**7,661**	**704**	**8,365**
Patchogue	290	15	119	1	76	3	70	7	555	26	581	433	57	375	121	808	178	986	1,363	204	1,567
Bay Shore	474	11	76	13	65	13	41	19	656	56	712	302	70	261	63	563	133	696	1,219	189	1,408
Sayville	379	6	83	5	50	2	42	2	554	15	569	215	15	397	16	612	31	643	1,166	46	1,212
Islip	379	16	50	2	40	3	30	4	499	25	524	179	20	117	19	296	39	335	795	64	859
Mastic-Shirley	200	0	29	1	14	6	36	8	279	15	294	219	11	248	35	467	46	513	746	61	807
Oakdale	139	2	45	6	32	2	21	0	237	10	247	63	11	67	7	130	18	148	367	28	395
Montauk	5	0	4	0	4	0	3	0	16	0	16	147	0	186	0	333	0	333	349	0	349
Speonk	49	1	9	0	7	1	11	0	76	2	78	79	1	151	3	230	4	234	306	6	312
Great River	104	0	23	3	17	0	9	3	153	6	159	76	3	37	12	113	15	128	266	21	287
East Hampton	15	1	13	0	7	1	4	0	39	2	41	63	4	167	7	230	11	241	269	13	282
Hampton Bays	23	1	5	0	12	0	0	2	40	3	43	45	10	142	5	187	15	202	227	18	245
Southampton	7	0	5	1	14	0	5	1	31	2	33	45	13	117	6	162	19	181	193	21	214
Bridgehampton	12	1	6	0	5	0	2	0	25	1	26	37	4	94	2	131	6	137	156	7	163
Bellport	18	1	6	0	1	1	4	1	29	3	32	49	6	26	6	75	12	87	104	15	119
Westhampton	2	1	2	0	10	1	0	0	14	2	16	22	3	43	4	65	7	72	79	9	88
Amagansett	5	0	1	0	0	0	0	0	6	0	6	8	0	42	2	50	2	52	56	2	58

EASTBOUND

	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**27**	**319**	**27**	**410**	**76**	**1,294**	**78**	**1,223**	**208**	**3,246**	**3,454**	**204**	**2,105**	**264**	**1,483**	**468**	**3,588**	**4,056**	**676**	**6,834**	**7,510**
Patchogue	2	66	8	104	18	193	21	198	49	561	610	33	563	50	383	83	946	1,029	132	1,507	1,639
Bay Shore	9	62	8	74	27	250	30	259	74	645	719	80	249	95	198	175	447	622	249	1,092	1,341
Sayville	7	37	2	56	7	225	6	169	22	487	509	16	302	16	188	32	490	522	54	977	1,031
Islip	3	26	5	54	8	175	7	226	23	481	504	21	117	29	92	50	209	259	73	690	763
Mastic-Shirley	2	11	1	6	2	139	0	150	5	306	311	6	140	12	195	18	335	353	23	641	664
Oakdale	2	35	2	36	5	111	4	56	13	238	251	9	60	12	59	21	119	140	34	357	391
Speonk	0	9	0	4	0	43	1	45	1	101	102	8	108	12	71	20	179	199	21	280	301
East Hampton	0	10	0	24	5	36	1	6	6	76	82	5	113	5	64	10	177	187	16	253	269
Great River	0	21	0	19	0	44	3	64	3	148	151	4	47	9	35	13	82	95	16	230	246
Montauk	0	10	0	12	0	11	0	6	0	39	39	0	89	0	54	0	143	143	0	182	182
Southampton	1	11	1	8	0	11	2	5	4	35	39	3	89	5	32	8	121	129	12	156	168
Bridgehampton	0	6	0	4	1	15	1	4	2	29	31	1	88	2	32	3	120	123	5	149	154
Hampton Bays	0	4	0	4	2	15	1	9	3	32	35	10	43	11	53	21	96	117	24	128	152
Bellport	0	2	0	1	1	15	1	26	2	44	46	5	20	5	8	10	28	38	12	72	84
Westhampton	1	4	0	1	0	5	0	0	1	10	11	2	46	1	11	3	57	60	4	67	71
Amagansett	0	5	0	3	0	6	0	0	0	14	14	1	31	0	8	1	39	40	1	53	54

2012-2014 LIRR OD COUNTS: OYSTER BAY BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1,874**	**42**	**387**	**21**	**279**	**13**	**155**	**8**	**2,695**	**84**	**2,779**	**991**	**50**	**713**	**44**	**1,704**	**94**	**1,798**	**4,399**	**178**	**4,577**
Roslyn	352	6	52	3	75	2	19	1	498	12	510	167	10	122	16	289	26	315	787	38	825
Glen Head	261	7	42	3	20	1	20	1	343	12	355	112	3	62	7	174	10	184	517	22	539
Glen Street	165	0	28	3	23	3	23	2	239	8	247	168	8	99	4	267	12	279	506	20	526
Locust Valley	201	3	77	3	27	1	16	2	321	9	330	89	6	96	4	185	10	195	506	19	525
East Williston	252	11	29	0	22	1	24	1	327	13	340	59	5	39	3	98	8	106	425	21	446
Sea Cliff	190	3	47	1	17	1	9	0	263	5	268	103	0	64	4	167	4	171	430	9	439
Glen Cove	148	4	26	3	13	4	10	1	197	12	209	100	11	88	0	188	11	199	385	23	408
Albertson	192	5	27	0	30	0	10	0	259	5	264	64	4	32	2	96	6	102	355	11	366
Oyster Bay	47	0	46	0	22	0	15	0	130	0	130	71	0	60	0	131	0	131	261	0	261
Greenvale	66	3	13	5	30	0	9	0	118	8	126	58	3	51	4	109	7	116	227	15	242

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**12**	**235**	**23**	**344**	**32**	**1,540**	**19**	**406**	**86**	**2,525**	**2,611**	**63**	**894**	**58**	**712**	**121**	**1,606**	**1,727**	**207**	**4,131**	**4,338**
Roslyn	3	65	2	52	4	252	4	76	13	445	458	12	125	15	124	27	249	276	40	694	734
East Williston	2	14	3	23	8	291	1	42	14	370	384	14	47	7	29	21	76	97	35	446	481
Glen Street	4	29	4	30	4	104	4	50	16	213	229	6	139	7	99	13	238	251	29	451	480
Glen Head	0	17	2	42	4	186	2	49	8	294	302	3	82	7	78	10	160	170	18	454	472
Sea Cliff	1	13	2	38	3	149	2	43	8	243	251	2	125	8	77	10	202	212	18	445	463
Locust Valley	0	22	1	37	2	148	3	33	6	240	246	3	119	2	74	5	193	198	11	433	444
Glen Cove	1	11	6	46	1	129	0	32	8	218	226	4	95	3	79	7	174	181	15	392	407
Albertson	0	19	1	25	1	164	2	36	4	244	248	2	45	4	56	6	101	107	10	345	355
Oyster Bay	0	22	0	39	0	63	0	32	0	156	156	0	77	0	62	0	139	139	0	295	295
Greenvale	1	23	2	12	5	54	1	13	9	102	111	17	40	5	34	22	74	96	31	176	207

2012-2014 LIRR OD COUNTS: PORT JEFFERSON BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**3,443**	**73**	**655**	**89**	**473**	**39**	**344**	**37**	**4,915**	**238**	**5,153**	**1,696**	**138**	**1,564**	**133**	**3,260**	**271**	**3,531**	**8,175**	**509**	**8,684**
Stony Brook	408	17	243	42	322	3	172	2	1,145	64	1,209	662	26	501	36	1,163	62	1,225	2,308	126	2,434
Northport	954	15	104	16	47	3	39	6	1,144	40	1,184	225	36	240	28	465	64	529	1,609	104	1,713
Port Jefferson	434	0	144	0	30	0	49	0	657	0	657	351	0	427	0	778	0	778	1,435	0	1,435
Kings Park	633	8	49	2	17	10	41	8	740	28	768	169	18	170	18	339	36	375	1,079	64	1,143
Smithtown	307	9	50	8	21	8	25	10	403	35	438	124	22	101	24	225	46	271	628	81	709
Greenlawn	406	19	27	12	16	10	5	7	454	48	502	55	22	34	15	89	37	126	543	85	628
St. James	301	5	38	9	20	5	13	4	372	23	395	110	14	91	12	201	26	227	573	49	622

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**54**	**457**	**87**	**1,112**	**77**	**2,581**	**53**	**614**	**271**	**4,764**	**5,035**	**156**	**1,520**	**112**	**1,727**	**268**	**3,247**	**3,515**	**539**	**8,011**	**8,550**
Stony Brook	3	311	17	337	22	305	21	105	63	1,058	1,121	26	508	34	735	60	1,243	1,303	123	2,301	2,424
Northport	21	49	22	209	21	675	6	148	70	1,081	1,151	27	185	23	240	50	425	475	120	1,506	1,626
Port Jefferson	0	33	0	204	0	376	0	105	0	718	718	0	428	0	373	0	801	801	0	1,519	1,519
Kings Park	8	8	9	119	1	466	4	101	22	694	716	19	149	15	147	34	296	330	56	990	1,046
Smithtown	3	38	16	94	7	241	17	50	43	423	466	38	133	10	109	48	242	290	91	665	756
Greenlawn	13	12	19	67	19	323	3	52	54	454	508	26	37	18	43	44	80	124	98	534	632
St. James	6	6	4	82	7	195	2	53	19	336	355	20	80	12	80	32	160	192	51	496	547

2012-2014 LIRR OD COUNTS: PORT WASHINGTON BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**15,079**	**195**	**3,671**	**303**	**2,271**	**357**	**940**	**194**	**21,961**	**1,049**	**23,010**	**9,086**	**898**	**6,528**	**746**	**15,614**	**1,644**	**17,258**	**37,575**	**2,693**	**40,268**
Great Neck	2,909	78	913	39	607	64	199	7	4,628	188	4,816	1,459	102	1,253	72	2,712	174	2,886	7,340	362	7,702
Bayside	2,722	12	606	34	291	27	158	13	3,777	86	3,863	1,590	87	1,059	48	2,649	135	2,784	6,426	221	6,647
Port Washington	2,664	0	473	0	489	0	171	0	3,797	0	3,797	1,389	0	1,016	0	2,405	0	2,405	6,202	0	6,202
Manhasset	1,844	24	369	25	313	5	99	10	2,625	64	2,689	1,049	56	839	32	1,888	88	1,976	4,513	152	4,665
Little Neck	1,138	2	331	10	101	15	53	6	1,623	33	1,656	719	27	460	16	1,179	43	1,222	2,802	76	2,878
Flushing Main Street	214	61	163	154	111	195	26	98	514	508	1,022	509	481	358	436	867	917	1,784	1,381	1,425	2,806
Auburndale	1,062	3	229	10	81	17	66	12	1,438	42	1,480	729	33	409	25	1,138	58	1,196	2,576	100	2,676
Broadway	797	5	206	9	104	17	65	22	1,172	53	1,225	671	62	430	58	1,101	120	1,221	2,273	173	2,446
Douglaston	887	4	209	9	101	7	62	2	1,259	22	1,281	444	10	315	8	759	18	777	2,018	40	2,058
Murray Hill	356	1	120	9	37	9	27	23	540	42	582	384	32	252	47	636	79	715	1,176	121	1,297
Plandome	486	5	52	4	36	1	14	1	588	11	599	143	8	137	4	280	12	292	868	23	891
Mets-Willets Point	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*	*	0	0	0

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**343**	**1,477**	**265**	**2,916**	**369**	**13,513**	**163**	**3,898**	**1,140**	**21,804**	**22,944**	**792**	**8,332**	**757**	**7,795**	**1,549**	**16,127**	**17,676**	**2,689**	**37,931**	**40,620**
Great Neck	31	534	37	576	160	2,946	33	639	261	4,695	4,956	91	1,195	108	1,419	199	2,614	2,813	460	7,309	7,769
Bayside	42	142	30	573	22	2,439	20	774	114	3,928	4,042	78	1,495	64	1,280	142	2,775	2,917	256	6,703	6,959
Port Washington	0	343	0	470	0	2,287	0	562	0	3,662	3,662	0	1,360	0	1,277	0	2,637	2,637	0	6,299	6,299
Manhasset	3	194	35	317	18	1,485	6	370	62	2,366	2,428	43	954	24	969	67	1,923	1,990	129	4,289	4,418
Flushing Main Street	184	58	124	153	132	320	67	164	507	695	1,202	422	573	418	517	840	1,090	1,930	1,347	1,785	3,132
Little Neck	7	55	2	219	5	1,094	9	307	23	1,675	1,698	18	592	18	540	36	1,132	1,168	59	2,807	2,866
Auburndale	18	24	14	155	3	866	2	345	37	1,390	1,427	31	630	32	476	63	1,106	1,169	100	2,496	2,596
Broadway	26	38	10	160	10	611	7	313	53	1,122	1,175	42	673	43	581	85	1,254	1,339	138	2,376	2,514
Douglaston	3	48	0	170	5	769	6	196	14	1,183	1,197	19	368	6	332	25	700	725	39	1,883	1,922
Murray Hill	28	21	9	71	11	304	13	164	61	560	621	44	377	44	282	88	659	747	149	1,219	1,368
Plandome	1	20	4	52	3	392	0	64	8	528	536	4	115	0	122	4	237	241	12	765	777
Mets-Willets Point	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*	*	0	0	0

**Mets-Willets Point counts were removed at the request of LIRR.*

2012-2014 LIRR OD COUNTS: RONKONKOMA BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																			
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**13,390**	**287**	**2,520**	**186**	**1,575**	**141**	**1,530**	**169**	**19,015**	**783**	**19,798**	**9,315**	**557**	**6,649**	**430**	**15,964**	**987**	**16,951**	**34,979**	**1,770**	**36,749**
Ronkonkoma	5,510	40	1,019	35	530	7	594	5	7,653	87	7,740	3,987	0	2,862	0	6,849	0	6,849	14,502	87	14,589
Deer Park	2,108	57	319	32	236	45	265	17	2,928	151	3,079	1,254	88	828	49	2,082	137	2,219	5,010	288	5,298
Wyandanch	1,427	47	227	50	80	42	106	65	1,840	204	2,044	781	199	544	168	1,325	367	1,692	3,165	571	3,736
Farmingdale	956	76	242	25	356	20	175	31	1,729	152	1,881	874	108	604	68	1,478	176	1,654	3,207	328	3,535
Central Islip	1,235	8	248	7	148	9	155	14	1,786	38	1,824	809	41	654	36	1,463	77	1,540	3,249	115	3,364
Brentwood	816	20	279	22	99	9	154	28	1,348	79	1,427	941	67	713	63	1,654	130	1,784	3,002	209	3,211
Bethpage	1,338	39	170	13	125	9	81	9	1,714	70	1,784	652	53	419	43	1,071	96	1,167	2,785	166	2,951
Pinelawn	0	0	16	2	1	0	0	0	17	2	19	17	1	25	3	42	4	46	59	6	65

	EASTBOUND																			
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**88**	**1,134**	**294**	**4,698**	**292**	**10,346**	**146**	**2,651**	**820**	**18,829**	**19,649**	**560**	**9,816**	**432**	**7,492**	**992**	**17,308**	**18,300**	**1,812**	**36,137**	**37,949**
Ronkonkoma	1	277	17	2,043	53	3,938	0	952	71	7,210	7,281	0	4,155	0	3,298	0	7,453	7,453	71	14,663	14,734
Deer Park	13	175	63	626	71	1,678	23	461	170	2,940	3,110	92	1,287	65	1,012	157	2,299	2,456	327	5,239	5,566
Wyandanch	31	53	77	444	58	1,162	51	297	217	1,956	2,173	195	818	123	615	318	1,433	1,751	535	3,389	3,924
Farmingdale	14	333	46	369	42	866	29	240	131	1,808	1,939	106	968	93	646	199	1,614	1,813	330	3,422	3,752
Brentwood	11	87	30	431	30	623	17	250	88	1,391	1,479	61	1,070	68	766	129	1,836	1,965	217	3,227	3,444
Central Islip	12	135	18	395	8	986	10	239	48	1,755	1,803	45	886	30	644	75	1,530	1,605	123	3,285	3,408
Bethpage	6	72	40	378	30	1,093	16	212	92	1,755	1,847	58	611	42	479	100	1,090	1,190	192	2,845	3,037
Pinelawn	0	2	3	12	0	0	0	0	3	14	17	3	21	11	32	14	53	67	17	67	84

2012-2014 LIRR OD COUNTS: WEST HEMPSTEAD BRANCH

Westbound Total By Station in Numerical Order / Eastbound Total By Station in Numerical Order

	WESTBOUND																				
	AM Peak		Midday Off Peak		PM Reverse Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Westbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1,257**	**2**	**109**	**9**	**59**	**14**	**99**	**4**	**1,524**	**29**	**1,553**	**53**	**6**	**52**	**11**	**105**	**17**	**122**	**1,629**	**46**	**1,675**
Malverne	362	1	28	0	10	0	30	0	430	1	431	0	0	0	0	0	0	0	430	1	431
St. Albans	136	1	28	9	17	13	0	4	181	27	208	53	6	52	11	105	17	122	286	44	330
Lakeview	244	0	19	0	5	0	28	0	296	0	296	0	0	0	0	0	0	0	296	0	296
Westwood	243	0	15	0	4	1	25	0	287	1	288	0	0	0	0	0	0	0	287	1	288
Hempstead Gardens	157	0	10	0	9	0	4	0	180	0	180	0	0	0	0	0	0	0	180	0	180
West Hempstead	115	0	9	0	14	0	12	0	150	0	150	0	0	0	0	0	0	0	150	0	150

	EASTBOUND																				
	AM Reverse Peak		Midday Off Peak		PM Peak		OVERNIGHT		Weekday Total			Saturday		Sunday		Weekend Total			Eastbound Total		
	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**10**	**25**	**5**	**100**	**10**	**1,291**	**7**	**152**	**32**	**1,568**	**1,600**	**21**	**78**	**25**	**61**	**46**	**139**	**185**	**78**	**1,707**	**1,785**
St. Albans	9	9	5	22	7	168	4	29	25	228	253	21	78	25	61	46	139	185	71	367	438
Malverne	1	0	0	17	1	343	1	31	3	391	394	0	0	0	0	0	0	0	3	391	394
Westwood	0	1	0	19	1	275	0	26	1	321	322	0	0	0	0	0	0	0	1	321	322
Lakeview	0	4	0	18	1	245	1	27	2	294	296	0	0	0	0	0	0	0	2	294	296
Hempstead Gardens	0	4	0	15	0	145	1	23	1	187	188	0	0	0	0	0	0	0	1	187	188
West Hempstead	0	7	0	9	0	115	0	16	0	147	147	0	0	0	0	0	0	0	0	147	147

2012-2014 LIRR OD COUNTS: WEEKDAY

East/West Total By Station in Numerical Order

	Weekday East/West Total On/Off	WESTBOUND											EASTBOUND										
		AM Peak		Midday Off Peak		PM Reverse Peak		Overnight		Weekday Total			AM Reverse Peak		Midday Off Peak		PM Peak		Overnight		Weekday Total		
		On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**660,752**	**111,328**	**111,915**	**23,609**	**23,654**	**17,604**	**17,589**	**10,479**	**10,335**	**163,020**	**163,493**	**326,513**	**11,935**	**11,951**	**31,041**	**31,000**	**96,233**	**95,470**	**28,306**	**28,303**	**167,515**	**166,724**	**334,239**
Penn Station	215,152	0	79,307	0	14,988	0	8,025	0	4,759	0	107,079	107,079	3,676	0	16,677	0	68,765	0	18,955	0	108,073	0	108,073
Jamaica	98,221	12,689	15,426	3,346	4,056	2,877	4,745	1,470	2,154	20,382	26,381	46,763	3,870	2,212	6,872	5,027	13,631	11,229	4,815	3,802	29,188	22,270	51,458
Hicksville	21,924	5,854	718	1,370	314	1,047	191	692	229	8,963	1,452	10,415	185	745	667	1,962	673	5,419	333	1,525	1,858	9,651	11,509
Atlantic Terminal	21,829	0	8,425	0	1,145	0	1,161	0	651	0	11,382	11,382	1,116	0	2,046	0	6,277	0	1,008	0	10,447	0	10,447
Ronkonkoma	15,021	5,510	40	1,019	35	530	7	594	5	7,653	87	7,740	1	277	17	2,043	53	3,938	0	952	71	7,210	7,281
Huntington	13,970	3,725	196	915	456	598	261	482	254	5,720	1,167	6,887	199	164	492	1,325	128	3,229	484	1,062	1,303	5,780	7,083
Babylon	13,366	2,903	371	866	318	691	231	425	191	4,885	1,111	5,996	210	423	165	1,228	605	2,887	628	1,224	1,608	5,762	7,370
Mineola	13,085	3,039	674	805	171	980	225	424	218	5,248	1,288	6,536	145	744	463	999	604	2,420	167	1,007	1,379	5,170	6,549
Great Neck	9,772	2,909	78	913	39	607	64	199	7	4,628	188	4,816	31	534	37	576	160	2,946	33	639	261	4,695	4,956
Bayside	7,905	2,722	12	606	34	291	27	158	13	3,777	86	3,863	42	142	30	573	22	2,439	20	774	114	3,928	4,042
Valley Stream	7,816	2,189	85	600	136	363	93	185	119	3,337	433	3,770	58	170	159	643	103	2,017	162	734	482	3,564	4,046
Rockville Centre	7,530	2,409	74	449	74	334	79	147	59	3,339	286	3,625	83	161	92	437	132	2,134	56	810	363	3,542	3,905
Port Washington	7,459	2,664	0	473	0	489	0	171	0	3,797	0	3,797	0	343	0	470	0	2,287	0	562	0	3,662	3,662
Merrick	7,235	2,718	38	399	24	317	14	151	15	3,585	91	3,676	16	149	29	485	31	2,296	12	541	88	3,471	3,559
Woodside	7,172	310	1,450	236	559	96	695	34	391	676	3,095	3,771	709	44	775	102	960	231	391	189	2,835	566	3,401
Bellmore	6,964	2,628	22	333	19	287	22	173	14	3,421	77	3,498	12	149	16	527	24	2,156	25	557	77	3,389	3,466
Baldwin	6,928	2,428	20	420	29	249	57	223	33	3,320	139	3,459	56	97	35	490	43	2,090	34	624	168	3,301	3,469
Deer Park	6,189	2,108	57	319	32	236	45	265	17	2,928	151	3,079	13	175	63	626	71	1,678	23	461	170	2,940	3,110
Syosset	6,041	2,139	36	358	24	335	21	137	21	2,969	102	3,071	13	229	25	389	31	1,925	21	337	90	2,880	2,970
Wantagh	5,726	2,089	14	311	24	214	20	210	9	2,824	67	2,891	13	101	55	608	29	1,550	20	459	117	2,718	2,835
Freeport	5,629	1,368	73	404	102	250	161	170	164	2,192	500	2,692	208	207	187	405	118	1,257	86	469	599	2,338	2,937
Hunterspoint Avenue	5,224	0	2,930	0	0	0	0	0	0	0	2,930	2,930	0	0	120	0	2,174	0	0	0	2,294	0	2,294
Manhasset	5,117	1,844	24	369	25	313	5	99	10	2,625	64	2,689	3	194	35	317	18	1,485	6	370	62	2,366	2,428
Massapequa	4,768	1,737	14	232	9	159	21	207	8	2,335	52	2,387	6	85	24	478	23	1,411	42	312	95	2,286	2,381
Lynbrook	4,654	1,286	58	309	43	249	70	144	37	1,988	208	2,196	72	168	68	468	78	1,088	60	456	278	2,180	2,458
Long Beach	4,561	1,579	0	428	0	276	0	56	0	2,339	0	2,339	0	150	0	429	0	1,199	0	444	0	2,222	2,222
Wyandanch	4,217	1,427	47	227	50	80	42	106	65	1,840	204	2,044	31	53	77	444	58	1,162	51	297	217	1,956	2,173
New Hyde Park	3,984	1,333	52	150	16	169	53	79	25	1,731	146	1,877	25	95	26	239	63	1,325	39	295	153	1,954	2,107
Westbury	3,861	1,149	54	136	30	193	45	126	38	1,604	167	1,771	25	248	54	312	47	1,103	41	260	167	1,923	2,090
Massapequa Park	3,827	1,386	12	216	9	144	12	127	11	1,873	44	1,917	7	69	39	370	35	1,018	11	361	92	1,818	1,910
Farmingdale	3,820	956	76	242	25	356	20	175	31	1,729	152	1,881	14	333	46	369	42	866	29	240	131	1,808	1,939
Seaford	3,796	1,433	3	158	11	133	15	130	2	1,854	31	1,885	6	67	10	252	30	1,293	4	249	50	1,861	1,911
Bethpage	3,631	1,338	39	170	13	125	9	81	9	1,714	70	1,784	6	72	40	378	30	1,093	16	212	92	1,755	1,847
Central Islip	3,627	1,235	8	248	7	148	9	155	14	1,786	38	1,824	12	135	18	395	8	986	10	239	48	1,755	1,803
Little Neck	3,354	1,138	2	331	10	101	15	53	6	1,623	33	1,656	7	55	2	219	5	1,094	9	307	23	1,675	1,698
Lindenhurst	3,178	1,057	8	201	9	133	22	121	12	1,512	51	1,563	13	88	23	355	12	889	5	230	53	1,562	1,615
Floral Park	2,922	1,088	8	128	12	103	11	70	11	1,389	42	1,431	24	62	9	186	4	1,018	16	172	53	1,438	1,491
Auburndale	2,907	1,062	3	229	10	81	17	66	12	1,438	42	1,480	18	24	14	155	3	866	2	345	37	1,390	1,427
Brentwood	2,906	816	20	279	22	99	9	154	28	1,348	79	1,427	11	87	30	431	30	623	17	250	88	1,391	1,479
Cold Spring Harbor	2,809	1,230	39	95	3	80	1	22	3	1,427	46	1,473	1	23	3	161	11	996	2	139	17	1,319	1,336
Copiague	2,629	819	15	188	14	110	29	96	26	1,213	84	1,297	30	76	48	302	20	647	14	195	112	1,220	1,332

2012-2014 LIRR OD COUNTS: WEEKDAY

East/West Total By Station in Numerical Order

	Weekday East/West Total On/Off	WESTBOUND											EASTBOUND										
		AM Peak		Midday Off Peak		PM Reverse Peak		Overnight		Weekday Total			AM Reverse Peak		Midday Off Peak		PM Peak		Overnight		Weekday Total		
		On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**660,752**	**111,328**	**111,915**	**23,609**	**23,654**	**17,604**	**17,589**	**10,479**	**10,335**	**163,020**	**163,493**	**326,513**	**11,935**	**11,951**	**31,041**	**31,000**	**96,233**	**95,470**	**28,306**	**28,303**	**167,515**	**166,724**	**334,239**
Amityville	2,607	662	34	210	26	186	36	107	13	1,165	109	1,274	28	156	40	244	38	621	17	189	123	1,210	1,333
Oceanside	2,506	1,014	20	129	3	82	6	21	1	1,246	30	1,276	5	54	11	182	12	827	2	137	30	1,200	1,230
Douglaston	2,478	887	4	209	9	101	7	62	2	1,259	22	1,281	3	48	0	170	5	769	6	196	14	1,183	1,197
Rosedale	2,476	931	3	156	0	61	11	28	4	1,176	18	1,194	5	37	2	171	5	857	5	200	17	1,265	1,282
Broadway	2,400	797	5	206	9	104	17	65	22	1,172	53	1,225	26	38	10	160	10	611	7	313	53	1,122	1,175
Hempstead	2,367	515	0	245	0	183	0	147	0	1,090	0	1,090	0	190	0	351	0	550	0	186	0	1,277	1,277
Northport	2,335	954	15	104	16	47	3	39	6	1,144	40	1,184	21	49	22	209	21	675	6	148	70	1,081	1,151
Stony Brook	2,330	408	17	243	42	322	3	172	2	1,145	64	1,209	3	311	17	337	22	305	21	105	63	1,058	1,121
Flushing Main Street	2,224	214	61	163	154	111	195	26	98	514	508	1,022	184	58	124	153	132	320	67	164	507	695	1,202
Forest Hills	1,967	392	127	84	45	40	104	27	45	543	321	864	66	7	99	65	133	407	67	259	365	738	1,103
Merillon Avenue	1,882	636	13	74	0	79	21	83	3	872	37	909	5	33	9	133	21	636	8	128	43	930	973
Hewlett	1,838	661	18	91	10	104	6	31	2	887	36	923	2	75	14	152	16	560	8	88	40	875	915
Island Park	1,838	717	3	138	1	59	7	17	2	931	13	944	1	33	1	166	5	556	3	129	10	884	894
Laurelton	1,832	705	4	98	2	60	4	25	4	888	14	902	6	23	3	133	8	618	0	139	17	913	930
Kew Gardens	1,778	539	37	120	16	69	48	38	30	766	131	897	46	11	26	88	36	388	22	264	130	751	881
Woodmere	1,767	632	19	128	6	121	9	24	3	905	37	942	3	87	8	99	20	523	1	84	32	793	825
Queens Village	1,756	606	0	87	5	69	18	56	8	818	31	849	11	41	10	134	2	579	0	130	23	884	907
Nassau Boulevard	1,709	513	6	107	6	164	5	77	0	861	17	878	1	152	8	148	3	455	1	63	13	818	831
Stewart Manor	1,654	676	4	65	8	63	9	49	5	853	26	879	5	37	6	77	5	576	1	68	17	758	775
Kings Park	1,484	633	8	49	2	17	10	41	8	740	28	768	8	8	9	119	1	466	4	101	22	694	716
Cedarhurst	1,453	439	4	118	10	132	10	32	0	721	24	745	1	104	11	115	12	399	3	63	27	681	708
Bay Shore	1,431	474	11	76	13	65	13	41	19	656	56	712	9	62	8	74	27	250	30	259	74	645	719
Locust Manor	1,389	433	9	112	14	47	6	36	11	628	40	668	11	21	3	113	4	409	3	157	21	700	721
Port Jefferson	1,375	434	0	144	0	30	0	49	0	657	0	657	0	33	0	204	0	376	0	105	0	718	718
East New York	1,358	9	244	9	97	5	172	7	106	30	619	649	185	3	224	6	167	12	103	9	679	30	709
Hillside	1,357	18	136	141	41	170	4	18	38	347	219	566	25	240	326	116	23	2	37	22	411	380	791
Bellerose	1,278	469	2	48	6	50	8	35	6	602	22	624	6	10	4	65	5	471	1	92	16	638	654
Nostrand Avenue	1,217	0	158	8	89	7	194	5	111	20	552	572	195	2	170	4	155	5	110	4	630	15	645
Murray Hill	1,203	356	1	120	9	37	9	27	23	540	42	582	28	21	9	71	11	304	13	164	61	560	621
Patchogue	1,191	290	15	119	1	76	3	70	7	555	26	581	2	66	8	104	18	193	21	198	49	561	610
Gibson	1,146	466	10	83	3	29	13	17	5	595	31	626	6	15	11	60	13	381	0	34	30	490	520
Plandome	1,135	486	5	52	4	36	1	14	1	588	11	599	1	20	4	52	3	392	0	64	8	528	536
Garden City	1,133	408	2	55	2	89	0	24	2	576	6	582	0	60	1	68	1	377	1	43	3	548	551
Sayville	1,078	379	6	83	5	50	2	42	2	554	15	569	7	37	2	56	7	225	6	169	22	487	509
Islip	1,028	379	16	50	2	40	3	30	4	499	25	524	3	26	5	54	8	175	7	226	23	481	504
Greenlawn	1,010	406	19	27	12	16	10	5	7	454	48	502	13	12	19	67	19	323	3	52	54	454	508
East Rockaway	1,003	394	15	51	6	55	2	14	2	514	25	539	1	25	11	95	12	269	2	49	26	438	464
Roslyn	968	352	6	52	3	75	2	19	1	498	12	510	3	65	2	52	4	252	4	76	13	445	458
Centre Avenue	961	380	1	50	3	25	3	3	1	458	8	466	0	14	9	71	3	338	2	58	14	481	495
Carle Place	921	299	5	59	5	48	12	12	5	418	27	445	3	31	11	85	10	261	12	63	36	440	476
Smithtown	904	307	9	50	8	21	8	25	10	403	35	438	3	38	16	94	7	241	17	50	43	423	466
Malverne	825	362	1	28	0	10	0	30	0	430	1	431	1	0	0	17	1	343	1	31	3	391	394

2012-2014 LIRR OD COUNTS: WEEKDAY

East/West Total By Station in Numerical Order

	Weekday East/West Total On/Off	WESTBOUND											EASTBOUND										
		AM Peak		Midday Off Peak		PM Reverse Peak		Overnight		Weekday Total			AM Reverse Peak		Midday Off Peak		PM Peak		Overnight		Weekday Total		
		On	Off	On	Off	On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**660,752**	**111,328**	**111,915**	**23,609**	**23,654**	**17,604**	**17,589**	**10,479**	**10,335**	**163,020**	**163,493**	**326,513**	**11,935**	**11,951**	**31,041**	**31,000**	**96,233**	**95,470**	**28,306**	**28,303**	**167,515**	**166,724**	**334,239**
Inwood	755	258	0	59	0	35	0	11	2	363	2	365	0	21	0	58	0	255	0	56	0	390	390
St. James	750	301	5	38	9	20	5	13	4	372	23	395	6	6	4	82	7	195	2	53	19	336	355
Lawrence	726	215	0	63	2	53	0	25	0	356	2	358	0	34	1	78	2	213	0	40	3	365	368
East Williston	724	252	11	29	0	22	1	24	1	327	13	340	2	14	3	23	8	291	1	42	14	370	384
Country Life Press	717	287	1	23	0	45	0	20	2	375	3	378	0	28	2	39	0	239	0	31	2	337	339
Glen Head	657	261	7	42	3	20	1	20	1	343	12	355	0	17	2	42	4	186	2	49	8	294	302
Westwood	610	243	0	15	0	4	1	25	0	287	1	288	0	1	0	19	1	275	0	26	1	321	322
Mastic-Shirley	605	200	0	29	1	14	6	36	8	279	15	294	2	11	1	6	2	139	0	150	5	306	311
Lakeview	592	244	0	19	0	5	0	28	0	296	0	296	0	4	0	18	1	245	1	27	2	294	296
Locust Valley	576	201	3	77	3	27	1	16	2	321	9	330	0	22	1	37	2	148	3	33	6	240	246
Far Rockaway	560	120	0	68	0	51	0	23	0	262	0	262	0	22	0	76	0	128	0	72	0	298	298
Sea Cliff	519	190	3	47	1	17	1	9	0	263	5	268	1	13	2	38	3	149	2	43	8	243	251
Albertson	512	192	5	27	0	30	0	10	0	259	5	264	0	19	1	25	1	164	2	36	4	244	248
Oakdale	498	139	2	45	6	32	2	21	0	237	10	247	2	35	2	36	5	111	4	56	13	238	251
Glen Street	476	165	0	28	3	23	3	23	2	239	8	247	4	29	4	30	4	104	4	50	16	213	229
St. Albans	461	136	1	28	9	17	13	0	4	181	27	208	9	9	5	22	7	168	4	29	25	228	253
Glen Cove	435	148	4	26	3	13	4	10	1	197	12	209	1	11	6	46	1	129	0	32	8	218	226
Hollis	413	145	4	18	1	17	3	12	3	192	11	203	5	5	8	29	1	113	0	49	14	196	210
Hempstead Gardens	368	157	0	10	0	9	0	4	0	180	0	180	0	4	0	15	0	145	1	23	1	187	188
Boland's Landing	330	2	179	4	11	0	0	0	7	6	197	203	0	1	124	2	0	0	0	0	124	3	127
Great River	310	104	0	23	3	17	0	9	3	153	6	159	0	21	0	19	0	44	3	64	3	148	151
West Hempstead	297	115	0	9	0	14	0	12	0	150	0	150	0	7	0	9	0	115	0	16	0	147	147
Oyster Bay	286	47	0	46	0	22	0	15	0	130	0	130	0	22	0	39	0	63	0	32	0	156	156
Greenvale	237	66	3	13	5	30	0	9	0	118	8	126	1	23	2	12	5	54	1	13	9	102	111
Speonk	180	49	1	9	0	7	1	11	0	76	2	78	0	9	0	4	0	43	1	45	1	101	102
East Hampton	123	15	1	13	0	7	1	4	0	39	2	41	0	10	0	24	5	36	1	6	6	76	82
Long Island City	101	0	80	0	0	0	0	0	0	0	80	80	0	0	7	0	14	0	0	0	21	0	21
Bellport	78	18	1	6	0	1	1	4	1	29	3	32	0	2	0	1	1	15	1	26	2	44	46
Hampton Bays	78	23	1	5	0	12	0	0	2	40	3	43	0	4	0	4	2	15	1	9	3	32	35
Riverhead	75	20	0	26	0	5	0	2	0	53	0	53	0	4	1	4	0	13	0	0	1	21	22
Southampton	72	7	0	5	1	14	0	5	1	31	2	33	1	11	1	8	0	11	2	5	4	35	39
Bridgehampton	57	12	1	6	0	5	0	2	0	25	1	26	0	6	0	4	1	15	1	4	2	29	31
Montauk	55	5	0	4	0	4	0	3	0	16	0	16	0	10	0	12	0	11	0	6	0	39	39
Medford	42	10	0	2	0	2	1	2	0	16	1	17	0	2	0	3	0	20	0	0	0	25	25
Pinelawn	36	0	0	16	2	1	0	0	0	17	2	19	0	2	3	12	0	0	0	0	3	14	17
Yaphank	30	16	0	0	1	1	0	0	0	17	1	18	1	0	0	1	0	10	0	0	1	11	12
Westhampton	27	2	1	2	0	10	1	0	0	14	2	16	1	4	0	1	0	5	0	0	1	10	11
Greenport	21	0	0	4	0	0	0	4	0	8	0	8	0	0	0	8	0	5	0	0	0	13	13
Amagansett	20	5	0	1	0	0	0	0	0	6	0	6	0	5	0	3	0	6	0	0	0	14	14
Mattituck	15	8	0	2	0	0	0	0	0	10	0	10	0	0	0	1	0	4	0	0	0	5	5
Southold	10	4	0	3	0	0	0	0	1	7	1	8	0	0	0	1	0	1	0	0	0	2	2
Mets-Willets Point	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2012-2014 LIRR OD COUNTS: WEEKEND

East/West Total By Station in Numerical Order

	Weekend East/West Total On/Off	WESTBOUND							EASTBOUND						
		Saturday		Sunday		Weekend Total			Saturday		Sunday		Weekend Total		
		On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**553,476**	**76,394**	**76,433**	**58,666**	**58,351**	**135,060**	**134,784**	**269,844**	**77,923**	**77,627**	**64,204**	**63,878**	**142,127**	**141,505**	**283,632**
Penn Station	164,603	0	46,746	0	32,770	0	79,516	79,516	46,812	0	38,275	0	85,087	0	85,087
Jamaica	95,007	11,436	13,152	10,309	11,344	21,745	24,496	46,241	15,127	11,377	12,528	9,734	27,655	21,111	48,766
Huntington	19,481	3,499	1,499	2,712	1,396	6,211	2,895	9,106	1,321	4,049	1,532	3,473	2,853	7,522	10,375
Hicksville	19,393	4,733	930	3,164	580	7,897	1,510	9,407	830	4,849	630	3,677	1,460	8,526	9,986
Babylon	15,262	3,649	1,056	2,318	873	5,967	1,929	7,896	839	3,437	563	2,527	1,402	5,964	7,366
Atlantic Terminal	15,072	0	3,852	0	4,252	0	8,104	8,104	3,790	0	3,178	0	6,968	0	6,968
Ronkonkoma	14,302	3,987	0	2,862	0	6,849	0	6,849	0	4,155	0	3,298	0	7,453	7,453
Mineola	12,355	2,995	420	2,181	317	5,176	737	5,913	454	3,111	340	2,537	794	5,648	6,442
Woodside	9,238	496	1,802	384	1,705	880	3,507	4,387	2,173	476	1,788	414	3,961	890	4,851
Rockville Centre	8,230	1,581	1,021	1,175	161	2,756	1,182	3,938	794	1,624	589	1,285	1,383	2,909	4,292
Valley Stream	6,628	1,413	228	1,076	231	2,489	459	2,948	249	1,742	253	1,436	502	3,178	3,680
Freeport	5,986	1,171	447	827	450	1,998	897	2,895	475	1,197	417	1,002	892	2,199	3,091
Bayside	5,701	1,590	87	1,059	48	2,649	135	2,784	78	1,495	64	1,280	142	2,775	2,917
Great Neck	5,699	1,459	102	1,253	72	2,712	174	2,886	91	1,195	108	1,419	199	2,614	2,813
Baldwin	5,217	1,302	120	919	94	2,221	214	2,435	183	1,309	123	1,167	306	2,476	2,782
Port Washington	5,042	1,389	0	1,016	0	2,405	0	2,405	0	1,360	0	1,277	0	2,637	2,637
Lynbrook	4,882	1,031	347	713	176	1,744	523	2,267	257	1,251	172	935	429	2,186	2,615
Long Beach	4,836	1,411	0	966	0	2,377	0	2,377	0	1,480	0	979	0	2,459	2,459
Merrick	4,820	1,235	116	865	42	2,100	158	2,258	125	1,312	64	1,061	189	2,373	2,562
Bellmore	4,698	1,321	119	831	55	2,152	174	2,326	82	1,270	64	956	146	2,226	2,372
Deer Park	4,675	1,254	88	828	49	2,082	137	2,219	92	1,287	65	1,012	157	2,299	2,456
Wantagh	4,376	1,220	144	614	76	1,834	220	2,054	165	1,181	97	879	262	2,060	2,322
Syosset	4,246	1,115	53	941	40	2,056	93	2,149	50	1,118	42	887	92	2,005	2,097
Manhasset	3,966	1,049	56	839	32	1,888	88	1,976	43	954	24	969	67	1,923	1,990
Brentwood	3,749	941	67	713	63	1,654	130	1,784	61	1,070	68	766	129	1,836	1,965
Flushing Main Street	3,714	509	481	358	436	867	917	1,784	422	573	418	517	840	1,090	1,930
Farmingdale	3,467	874	108	604	68	1,478	176	1,654	106	968	93	646	199	1,614	1,813
Wyandanch	3,443	781	199	544	168	1,325	367	1,692	195	818	123	615	318	1,433	1,751
Westbury	3,223	744	107	615	87	1,359	194	1,553	99	844	100	627	199	1,471	1,670
Central Islip	3,145	809	41	654	36	1,463	77	1,540	45	886	30	644	75	1,530	1,605

2012-2014 LIRR OD COUNTS: WEEKEND

East/West Total By Station in Numerical Order

	Weekend East/West Total On/Off	WESTBOUND							EASTBOUND						
		Saturday		Sunday		Weekend Total			Saturday		Sunday		Weekend Total		
		On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**553,476**	**76,394**	**76,433**	**58,666**	**58,351**	**135,060**	**134,784**	**269,844**	**77,923**	**77,627**	**64,204**	**63,878**	**142,127**	**141,505**	**283,632**
Massapequa Park	3,144	840	89	535	67	1,375	156	1,531	58	790	53	712	111	1,502	1,613
Forest Hills	3,118	482	329	425	266	907	595	1,502	370	582	273	391	643	973	1,616
New Hyde Park	3,099	766	89	570	47	1,336	136	1,472	84	803	74	666	158	1,469	1,627
Massapequa	3,098	891	49	550	39	1,441	88	1,529	38	840	32	659	70	1,499	1,569
Lindenhurst	2,602	791	47	455	35	1,246	82	1,328	33	680	22	539	55	1,219	1,274
Broadway	2,560	671	62	430	58	1,101	120	1,221	42	673	43	581	85	1,254	1,339
Stony Brook	2,528	662	26	501	36	1,163	62	1,225	26	508	34	735	60	1,243	1,303
Amityville	2,522	585	122	447	65	1,032	187	1,219	81	620	51	551	132	1,171	1,303
Copiague	2,476	635	84	395	85	1,030	169	1,199	70	627	53	527	123	1,154	1,277
Kew Gardens	2,468	667	115	435	94	1,102	209	1,311	89	551	65	452	154	1,003	1,157
Little Neck	2,390	719	27	460	16	1,179	43	1,222	18	592	18	540	36	1,132	1,168
Auburndale	2,365	729	33	409	25	1,138	58	1,196	31	630	32	476	63	1,106	1,169
Bethpage	2,357	652	53	419	43	1,071	96	1,167	58	611	42	479	100	1,090	1,190
Hempstead	2,270	567	0	456	0	1,023	0	1,023	0	651	0	596	0	1,247	1,247
East New York	2,134	22	531	32	450	54	981	1,035	583	23	458	35	1,041	58	1,099
Nostrand Avenue	2,109	16	591	25	569	41	1,160	1,201	502	12	390	4	892	16	908
Patchogue	2,015	433	57	375	121	808	178	986	33	563	50	383	83	946	1,029
Rosedale	1,952	507	10	354	3	861	13	874	17	621	17	423	34	1,044	1,078
Seaford	1,925	535	34	327	27	862	61	923	44	532	32	394	76	926	1,002
Cold Spring Harbor	1,786	496	4	421	7	917	11	928	10	473	12	363	22	836	858
Floral Park	1,643	421	26	348	36	769	62	831	34	428	30	320	64	748	812
Port Jefferson	1,579	351	0	427	0	778	0	778	0	428	0	373	0	801	801
Douglaston	1,502	444	10	315	8	759	18	777	19	368	6	332	25	700	725
Murray Hill	1,462	384	32	252	47	636	79	715	44	377	44	282	88	659	747
Merillon Avenue	1,435	361	13	286	2	647	15	662	17	433	10	313	27	746	773
Locust Manor	1,413	381	8	266	12	647	20	667	5	395	18	328	23	723	746
Bay Shore	1,318	302	70	261	63	563	133	696	80	249	95	198	175	447	622
Cedarhurst	1,296	233	3	442	12	675	15	690	11	215	7	373	18	588	606
Hewlett	1,270	315	11	309	16	624	27	651	28	297	31	263	59	560	619
Laurelton	1,232	352	7	228	5	580	12	592	7	390	9	234	16	624	640
Island Park	1,224	305	7	269	5	574	12	586	8	351	6	273	14	624	638
Oceanside	1,209	297	35	234	16	531	51	582	26	344	16	241	42	585	627

2012-2014 LIRR OD COUNTS: WEEKEND

East/West Total By Station in Numerical Order

	Weekend East/West Total On/Off	WESTBOUND							EASTBOUND						
		Saturday		Sunday		Weekend Total			Saturday		Sunday		Weekend Total		
		On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**553,476**	**76,394**	**76,433**	**58,666**	**58,351**	**135,060**	**134,784**	**269,844**	**77,923**	**77,627**	**64,204**	**63,878**	**142,127**	**141,505**	**283,632**
Sayville	1,165	215	15	397	16	612	31	643	16	302	16	188	32	490	522
Queens Village	1,142	252	12	263	14	515	26	541	15	303	13	270	28	573	601
Woodmere	1,135	210	17	313	8	523	25	548	20	253	7	307	27	560	587
Northport	1,004	225	36	240	28	465	64	529	27	185	23	240	50	425	475
Far Rockaway	870	229	0	189	0	418	0	418	0	233	0	219	0	452	452
Carle Place	867	262	16	140	11	402	27	429	25	208	21	184	46	392	438
Mastic-Shirley	866	219	11	248	35	467	46	513	6	140	12	195	18	335	353
Lawrence	706	167	0	195	4	362	4	366	2	165	5	168	7	333	340
Kings Park	705	169	18	170	18	339	36	375	19	149	15	147	34	296	330
Bellerose	696	138	10	176	4	314	14	328	6	196	12	154	18	350	368
Gibson	685	169	26	141	22	310	48	358	12	166	16	133	28	299	327
Nassau Boulevard	672	168	6	124	1	292	7	299	6	212	1	154	7	366	373
East Rockaway	651	141	26	114	21	255	47	302	31	170	14	134	45	304	349
Stewart Manor	634	165	14	124	15	289	29	318	12	152	13	139	25	291	316
Islip	594	179	20	117	19	296	39	335	21	117	29	92	50	209	259
Roslyn	591	167	10	122	16	289	26	315	12	125	15	124	27	249	276
Smithtown	561	124	22	101	24	225	46	271	38	133	10	109	48	242	290
Plandome	533	143	8	137	4	280	12	292	4	115	0	122	4	237	241
Glen Street	530	168	8	99	4	267	12	279	6	139	7	99	13	238	251
Inwood	519	120	0	139	2	259	2	261	0	116	2	140	2	256	258
Centre Avenue	499	139	28	98	10	237	38	275	21	114	10	79	31	193	224
Montauk	476	147	0	186	0	333	0	333	0	89	0	54	0	143	143
Garden City	447	106	4	114	2	220	6	226	0	130	1	90	1	220	221
Speonk	433	79	1	151	3	230	4	234	8	108	12	71	20	179	199
East Hampton	428	63	4	167	7	230	11	241	5	113	5	64	10	177	187
St. James	419	110	14	91	12	201	26	227	20	80	12	80	32	160	192
Locust Valley	393	89	6	96	4	185	10	195	3	119	2	74	5	193	198
Sea Cliff	383	103	0	64	4	167	4	171	2	125	8	77	10	202	212
Hollis	381	94	9	70	12	164	21	185	5	82	8	101	13	183	196
Glen Cove	380	100	11	88	0	188	11	199	4	95	3	79	7	174	181
Glen Head	354	112	3	62	7	174	10	184	3	82	7	78	10	160	170
Hampton Bays	319	45	10	142	5	187	15	202	10	43	11	53	21	96	117
Southampton	310	45	13	117	6	162	19	181	3	89	5	32	8	121	129
St. Albans	307	53	6	52	11	105	17	122	21	78	25	61	46	139	185

2012-2014 LIRR OD COUNTS: WEEKEND

East/West Total By Station in Numerical Order

	Weekend East/West Total On/Off	WESTBOUND							EASTBOUND						
		Saturday		Sunday		Weekend Total			Saturday		Sunday		Weekend Total		
		On	Off	On	Off	On	Off	On/Off	On	Off	On	Off	On	Off	On/Off
TOTAL	**553,476**	**76,394**	**76,433**	**58,666**	**58,351**	**135,060**	**134,784**	**269,844**	**77,923**	**77,627**	**64,204**	**63,878**	**142,127**	**141,505**	**283,632**
Oakdale	288	63	11	67	7	130	18	148	9	60	12	59	21	119	140
Oyster Bay	270	71	0	60	0	131	0	131	0	77	0	62	0	139	139
Bridgehampton	260	37	4	94	2	131	6	137	1	88	2	32	3	120	123
Greenlawn	250	55	22	34	15	89	37	126	26	37	18	43	44	80	124
Hillside	249	37	22	23	45	60	67	127	31	27	19	45	50	72	122
Country Life Press	236	57	1	48	1	105	2	107	1	70	0	58	1	128	129
Great River	223	76	3	37	12	113	15	128	4	47	9	35	13	82	95
Greenvale	212	58	3	51	4	109	7	116	17	40	5	34	22	74	96
Albertson	209	64	4	32	2	96	6	102	2	45	4	56	6	101	107
East Williston	203	59	5	39	3	98	8	106	14	47	7	29	21	76	97
Westhampton	132	22	3	43	4	65	7	72	2	46	1	11	3	57	60
Bellport	125	49	6	26	6	75	12	87	5	20	5	8	10	28	38
Pinelawn	113	17	1	25	3	42	4	46	3	21	11	32	14	53	67
Amagansett	92	8	0	42	2	50	2	52	1	31	0	8	1	39	40
Boland's Landing	2	0	2	0	0	0	2	2	0	0	0	0	0	0	0
Hunterspoint Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long Island City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greenport	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hempstead Gardens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lakeview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malverne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mattituck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Hempstead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yaphank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mets-Willets Point	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

**Mets-Willets Point counts were removed at the request of LIRR.*

2012-2014 LIRR OD COUNTS: WEEKDAY & WEEKEND

East/West Total By Station in Numerical Order

	Weekday & Weekend East/West Total On/Off	WESTBOUND									EASTBOUND								
		Weekday Total			Weekend Total			Westbound Total			Weekday Total			Weekend Total			Eastbound Total		
		On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1,214,228**	**163,020**	**163,493**	**326,513**	**135,060**	**134,784**	**269,844**	**298,080**	**298,277**	**596,357**	**167,515**	**166,724**	**334,239**	**142,127**	**141,505**	**283,632**	**309,642**	**308,229**	**617,871**
Penn Station	379,755	0	107,079	107,079	0	79,516	79,516	0	186,595	186,595	108,073	0	108,073	85,087	0	85,087	193,160	0	193,160
Jamaica	193,228	20,382	26,381	46,763	21,745	24,496	46,241	42,127	50,877	93,004	29,188	22,270	51,458	27,655	21,111	48,766	56,843	43,381	100,224
Hicksville	41,317	8,963	1,452	10,415	7,897	1,510	9,407	16,860	2,962	19,822	1,858	9,651	11,509	1,460	8,526	9,986	3,318	18,177	21,495
Atlantic Terminal	36,901	0	11,382	11,382	0	8,104	8,104	0	19,486	19,486	10,447	0	10,447	6,968	0	6,968	17,415	0	17,415
Huntington	33,451	5,720	1,167	6,887	6,211	2,895	9,106	11,931	4,062	15,993	1,303	5,780	7,083	2,853	7,522	10,375	4,156	13,302	17,458
Ronkonkoma	29,323	7,653	87	7,740	6,849	0	6,849	14,502	87	14,589	71	7,210	7,281	0	7,453	7,453	71	14,663	14,734
Babylon	28,628	4,885	1,111	5,996	5,967	1,929	7,896	10,852	3,040	13,892	1,608	5,762	7,370	1,402	5,964	7,366	3,010	11,726	14,736
Mineola	25,440	5,248	1,288	6,536	5,176	737	5,913	10,424	2,025	12,449	1,379	5,170	6,549	794	5,648	6,442	2,173	10,818	12,991
Woodside	16,410	676	3,095	3,771	880	3,507	4,387	1,556	6,602	8,158	2,835	566	3,401	3,961	890	4,851	6,796	1,456	8,252
Rockville Centre	15,760	3,339	286	3,625	2,756	1,182	3,938	6,095	1,468	7,563	363	3,542	3,905	1,383	2,909	4,292	1,746	6,451	8,197
Great Neck	15,471	4,628	188	4,816	2,712	174	2,886	7,340	362	7,702	261	4,695	4,956	199	2,614	2,813	460	7,309	7,769
Valley Stream	14,444	3,337	433	3,770	2,489	459	2,948	5,826	892	6,718	482	3,564	4,046	502	3,178	3,680	984	6,742	7,726
Bayside	13,606	3,777	86	3,863	2,649	135	2,784	6,426	221	6,647	114	3,928	4,042	142	2,775	2,917	256	6,703	6,959
Port Washington	12,501	3,797	0	3,797	2,405	0	2,405	6,202	0	6,202	0	3,662	3,662	0	2,637	2,637	0	6,299	6,299
Baldwin	12,145	3,320	139	3,459	2,221	214	2,435	5,541	353	5,894	168	3,301	3,469	306	2,476	2,782	474	5,777	6,251
Merrick	12,055	3,585	91	3,676	2,100	158	2,258	5,685	249	5,934	88	3,471	3,559	189	2,373	2,562	277	5,844	6,121
Bellmore	11,662	3,421	77	3,498	2,152	174	2,326	5,573	251	5,824	77	3,389	3,466	146	2,226	2,372	223	5,615	5,838
Freeport	11,615	2,192	500	2,692	1,998	897	2,895	4,190	1,397	5,587	599	2,338	2,937	892	2,199	3,091	1,491	4,537	6,028
Deer Park	10,864	2,928	151	3,079	2,082	137	2,219	5,010	288	5,298	170	2,940	3,110	157	2,299	2,456	327	5,239	5,566
Syosset	10,287	2,969	102	3,071	2,056	93	2,149	5,025	195	5,220	90	2,880	2,970	92	2,005	2,097	182	4,885	5,067
Wantagh	10,102	2,824	67	2,891	1,834	220	2,054	4,658	287	4,945	117	2,718	2,835	262	2,060	2,322	379	4,778	5,157
Lynbrook	9,536	1,988	208	2,196	1,744	523	2,267	3,732	731	4,463	278	2,180	2,458	429	2,186	2,615	707	4,366	5,073
Long Beach	9,397	2,339	0	2,339	2,377	0	2,377	4,716	0	4,716	0	2,222	2,222	0	2,459	2,459	0	4,681	4,681
Manhasset	9,083	2,625	64	2,689	1,888	88	1,976	4,513	152	4,665	62	2,366	2,428	67	1,923	1,990	129	4,289	4,418
Massapequa	7,866	2,335	52	2,387	1,441	88	1,529	3,776	140	3,916	95	2,286	2,381	70	1,499	1,569	165	3,785	3,950
Wyandanch	7,660	1,840	204	2,044	1,325	367	1,692	3,165	571	3,736	217	1,956	2,173	318	1,433	1,751	535	3,389	3,924
Farmingdale	7,287	1,729	152	1,881	1,478	176	1,654	3,207	328	3,535	131	1,808	1,939	199	1,614	1,813	330	3,422	3,752
Westbury	7,084	1,604	167	1,771	1,359	194	1,553	2,963	361	3,324	167	1,923	2,090	199	1,471	1,670	366	3,394	3,760
New Hyde Park	7,083	1,731	146	1,877	1,336	136	1,472	3,067	282	3,349	153	1,954	2,107	158	1,469	1,627	311	3,423	3,734
Massapequa Park	6,971	1,873	44	1,917	1,375	156	1,531	3,248	200	3,448	92	1,818	1,910	111	1,502	1,613	203	3,320	3,523
Central Islip	6,772	1,786	38	1,824	1,463	77	1,540	3,249	115	3,364	48	1,755	1,803	75	1,530	1,605	123	3,285	3,408
Brentwood	6,655	1,348	79	1,427	1,654	130	1,784	3,002	209	3,211	88	1,391	1,479	129	1,836	1,965	217	3,227	3,444

2012-2014 LIRR OD COUNTS: WEEKDAY & WEEKEND

East/West Total By Station in Numerical Order

	Weekday & Weekend East/West Total On/Off	WESTBOUND									EASTBOUND								
		Weekday Total			Weekend Total			Westbound Total			Weekday Total			Weekend Total			Eastbound Total		
		On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1,214,228**	**163,020**	**163,493**	**326,513**	**135,060**	**134,784**	**269,844**	**298,080**	**298,277**	**596,357**	**167,515**	**166,724**	**334,239**	**142,127**	**141,505**	**283,632**	**309,642**	**308,229**	**617,871**
Bethpage	5,988	1,714	70	1,784	1,071	96	1,167	2,785	166	2,951	92	1,755	1,847	100	1,090	1,190	192	2,845	3,037
Flushing Main Street	5,938	514	508	1,022	867	917	1,784	1,381	1,425	2,806	507	695	1,202	840	1,090	1,930	1,347	1,785	3,132
Lindenhurst	5,780	1,512	51	1,563	1,246	82	1,328	2,758	133	2,891	53	1,562	1,615	55	1,219	1,274	108	2,781	2,889
Little Neck	5,744	1,623	33	1,656	1,179	43	1,222	2,802	76	2,878	23	1,675	1,698	36	1,132	1,168	59	2,807	2,866
Seaford	5,721	1,854	31	1,885	862	61	923	2,716	92	2,808	50	1,861	1,911	76	926	1,002	126	2,787	2,913
Auburndale	5,272	1,438	42	1,480	1,138	58	1,196	2,576	100	2,676	37	1,390	1,427	63	1,106	1,169	100	2,496	2,596
Hunterspoint Avenue	5,224	0	2,930	2,930	0	0	0	0	2,930	2,930	2,294	0	2,294	0	0	0	2,294	0	2,294
Amityville	5,129	1,165	109	1,274	1,032	187	1,219	2,197	296	2,493	123	1,210	1,333	132	1,171	1,303	255	2,381	2,636
Copiague	5,105	1,213	84	1,297	1,030	169	1,199	2,243	253	2,496	112	1,220	1,332	123	1,154	1,277	235	2,374	2,609
Forest Hills	5,085	543	321	864	907	595	1,502	1,450	916	2,366	365	738	1,103	643	973	1,616	1,008	1,711	2,719
Broadway	4,960	1,172	53	1,225	1,101	120	1,221	2,273	173	2,446	53	1,122	1,175	85	1,254	1,339	138	2,376	2,514
Stony Brook	4,858	1,145	64	1,209	1,163	62	1,225	2,308	126	2,434	63	1,058	1,121	60	1,243	1,303	123	2,301	2,424
Hempstead	4,637	1,090	0	1,090	1,023	0	1,023	2,113	0	2,113	0	1,277	1,277	0	1,247	1,247	0	2,524	2,524
Cold Spring Harbor	4,595	1,427	46	1,473	917	11	928	2,344	57	2,401	17	1,319	1,336	22	836	858	39	2,155	2,194
Floral Park	4,565	1,389	42	1,431	769	62	831	2,158	104	2,262	53	1,438	1,491	64	748	812	117	2,186	2,303
Rosedale	4,428	1,176	18	1,194	861	13	874	2,037	31	2,068	17	1,265	1,282	34	1,044	1,078	51	2,309	2,360
Kew Gardens	4,246	766	131	897	1,102	209	1,311	1,868	340	2,208	130	751	881	154	1,003	1,157	284	1,754	2,038
Douglaston	3,980	1,259	22	1,281	759	18	777	2,018	40	2,058	14	1,183	1,197	25	700	725	39	1,883	1,922
Oceanside	3,715	1,246	30	1,276	531	51	582	1,777	81	1,858	30	1,200	1,230	42	585	627	72	1,785	1,857
East New York	3,492	30	619	649	54	981	1,035	84	1,600	1,684	679	30	709	1,041	58	1,099	1,720	88	1,808
Northport	3,339	1,144	40	1,184	465	64	529	1,609	104	1,713	70	1,081	1,151	50	425	475	120	1,506	1,626
Nostrand Avenue	3,326	20	552	572	41	1,160	1,201	61	1,712	1,773	630	15	645	892	16	908	1,522	31	1,553
Merillon Avenue	3,317	872	37	909	647	15	662	1,519	52	1,571	43	930	973	27	746	773	70	1,676	1,746
Patchogue	3,206	555	26	581	808	178	986	1,363	204	1,567	49	561	610	83	946	1,029	132	1,507	1,639
Hewlett	3,108	887	36	923	624	27	651	1,511	63	1,574	40	875	915	59	560	619	99	1,435	1,534
Laurelton	3,064	888	14	902	580	12	592	1,468	26	1,494	17	913	930	16	624	640	33	1,537	1,570
Island Park	3,062	931	13	944	574	12	586	1,505	25	1,530	10	884	894	14	624	638	24	1,508	1,532
Port Jefferson	2,954	657	0	657	778	0	778	1,435	0	1,435	0	718	718	0	801	801	0	1,519	1,519
Woodmere	2,902	905	37	942	523	25	548	1,428	62	1,490	32	793	825	27	560	587	59	1,353	1,412
Queens Village	2,898	818	31	849	515	26	541	1,333	57	1,390	23	884	907	28	573	601	51	1,457	1,508
Locust Manor	2,802	628	40	668	647	20	667	1,275	60	1,335	21	700	721	23	723	746	44	1,423	1,467

2012-2014 LIRR OD COUNTS: WEEKDAY & WEEKEND

East/West Total By Station in Numerical Order

	Weekday & Weekend East/West Total On/Off	WESTBOUND									EASTBOUND								
		Weekday Total			Weekend Total			Westbound Total			Weekday Total			Weekend Total			Eastbound Total		
		On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1,214,228**	**163,020**	**163,493**	**326,513**	**135,060**	**134,784**	**269,844**	**298,080**	**298,277**	**596,357**	**167,515**	**166,724**	**334,239**	**142,127**	**141,505**	**283,632**	**309,642**	**308,229**	**617,871**
Bay Shore	2,749	656	56	712	563	133	696	1,219	189	1,408	74	645	719	175	447	622	249	1,092	1,341
Cedarhurst	2,749	721	24	745	675	15	690	1,396	39	1,435	27	681	708	18	588	606	45	1,269	1,314
Murray Hill	2,665	540	42	582	636	79	715	1,176	121	1,297	61	560	621	88	659	747	149	1,219	1,368
Nassau Boulevard	2,381	861	17	878	292	7	299	1,153	24	1,177	13	818	831	7	366	373	20	1,184	1,204
Stewart Manor	2,288	853	26	879	289	29	318	1,142	55	1,197	17	758	775	25	291	316	42	1,049	1,091
Sayville	2,243	554	15	569	612	31	643	1,166	46	1,212	22	487	509	32	490	522	54	977	1,031
Kings Park	2,189	740	28	768	339	36	375	1,079	64	1,143	22	694	716	34	296	330	56	990	1,046
Bellerose	1,974	602	22	624	314	14	328	916	36	952	16	638	654	18	350	368	34	988	1,022
Gibson	1,831	595	31	626	310	48	358	905	79	984	30	490	520	28	299	327	58	789	847
Carle Place	1,788	418	27	445	402	27	429	820	54	874	36	440	476	46	392	438	82	832	914
Plandome	1,668	588	11	599	280	12	292	868	23	891	8	528	536	4	237	241	12	765	777
East Rockaway	1,654	514	25	539	255	47	302	769	72	841	26	438	464	45	304	349	71	742	813
Islip	1,622	499	25	524	296	39	335	795	64	859	23	481	504	50	209	259	73	690	763
Hillside	1,606	347	219	566	60	67	127	407	286	693	411	380	791	50	72	122	461	452	913
Garden City	1,580	576	6	582	220	6	226	796	12	808	3	548	551	1	220	221	4	768	772
Roslyn	1,559	498	12	510	289	26	315	787	38	825	13	445	458	27	249	276	40	694	734
Mastic-Shirley	1,471	279	15	294	467	46	513	746	61	807	5	306	311	18	335	353	23	641	664
Smithtown	1,465	403	35	438	225	46	271	628	81	709	43	423	466	48	242	290	91	665	756
Centre Avenue	1,460	458	8	466	237	38	275	695	46	741	14	481	495	31	193	224	45	674	719
Lawrence	1,432	356	2	358	362	4	366	718	6	724	3	365	368	7	333	340	10	698	708
Far Rockaway	1,430	262	0	262	418	0	418	680	0	680	0	298	298	0	452	452	0	750	750
Inwood	1,274	363	2	365	259	2	261	622	4	626	0	390	390	2	256	258	2	646	648
Greenlawn	1,260	454	48	502	89	37	126	543	85	628	54	454	508	44	80	124	98	534	632
St. James	1,169	372	23	395	201	26	227	573	49	622	19	336	355	32	160	192	51	496	547
Glen Head	1,011	343	12	355	174	10	184	517	22	539	8	294	302	10	160	170	18	454	472
Glen Street	1,006	239	8	247	267	12	279	506	20	526	16	213	229	13	238	251	29	451	480
Locust Valley	969	321	9	330	185	10	195	506	19	525	6	240	246	5	193	198	11	433	444
Country Life Press	953	375	3	378	105	2	107	480	5	485	2	337	339	1	128	129	3	465	468
East Williston	927	327	13	340	98	8	106	425	21	446	14	370	384	21	76	97	35	446	481
Sea Cliff	902	263	5	268	167	4	171	430	9	439	8	243	251	10	202	212	18	445	463
Malverne	825	430	1	431	0	0	0	430	1	431	3	391	394	0	0	0	3	391	394
Glen Cove	815	197	12	209	188	11	199	385	23	408	8	218	226	7	174	181	15	392	407
Hollis	794	192	11	203	164	21	185	356	32	388	14	196	210	13	183	196	27	379	406

2012-2014 LIRR OD COUNTS: WEEKDAY & WEEKEND

East/West Total By Station in Numerical Order

	Weekday & Weekend East/West Total On/Off	WESTBOUND									EASTBOUND								
		Weekday Total			Weekend Total			Westbound Total			Weekday Total			Weekend Total			Eastbound Total		
		On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off	On	Off	On/Off
TOTAL	**1,214,228**	**163,020**	**163,493**	**326,513**	**135,060**	**134,784**	**269,844**	**298,080**	**298,277**	**596,357**	**167,515**	**166,724**	**334,239**	**142,127**	**141,505**	**283,632**	**309,642**	**308,229**	**617,871**
Oakdale	786	237	10	247	130	18	148	367	28	395	13	238	251	21	119	140	34	357	391
St. Albans	768	181	27	208	105	17	122	286	44	330	25	228	253	46	139	185	71	367	438
Albertson	721	259	5	264	96	6	102	355	11	366	4	244	248	6	101	107	10	345	355
Speonk	613	76	2	78	230	4	234	306	6	312	1	101	102	20	179	199	21	280	301
Westwood	610	287	1	288	0	0	0	287	1	288	1	321	322	0	0	0	1	321	322
Lakeview	592	296	0	296	0	0	0	296	0	296	2	294	296	0	0	0	2	294	296
Oyster Bay	556	130	0	130	131	0	131	261	0	261	0	156	156	0	139	139	0	295	295
East Hampton	551	39	2	41	230	11	241	269	13	282	6	76	82	10	177	187	16	253	269
Great River	533	153	6	159	113	15	128	266	21	287	3	148	151	13	82	95	16	230	246
Montauk	531	16	0	16	333	0	333	349	0	349	0	39	39	0	143	143	0	182	182
Greenvale	449	118	8	126	109	7	116	227	15	242	9	102	111	22	74	96	31	176	207
Hampton Bays	397	40	3	43	187	15	202	227	18	245	3	32	35	21	96	117	24	128	152
Southampton	382	31	2	33	162	19	181	193	21	214	4	35	39	8	121	129	12	156	168
Hempstead Gardens	368	180	0	180	0	0	0	180	0	180	1	187	188	0	0	0	1	187	188
Boland's Landing	332	6	197	203	0	2	2	6	199	205	124	3	127	0	0	0	124	3	127
Bridgehampton	317	25	1	26	131	6	137	156	7	163	2	29	31	3	120	123	5	149	154
West Hempstead	297	150	0	150	0	0	0	150	0	150	0	147	147	0	0	0	0	147	147
Bellport	203	29	3	32	75	12	87	104	15	119	2	44	46	10	28	38	12	72	84
Westhampton	159	14	2	16	65	7	72	79	9	88	1	10	11	3	57	60	4	67	71
Pinelawn	149	17	2	19	42	4	46	59	6	65	3	14	17	14	53	67	17	67	84
Amagansett	112	6	0	6	50	2	52	56	2	58	0	14	14	1	39	40	1	53	54
Long Island City	101	0	80	80	0	0	0	0	80	80	21	0	21	0	0	0	21	0	21
Riverhead	75	53	0	53	0	0	0	53	0	53	1	21	22	0	0	0	1	21	22
Medford	42	16	1	17	0	0	0	16	1	17	0	25	25	0	0	0	0	25	25
Yaphank	30	17	1	18	0	0	0	17	1	18	1	11	12	0	0	0	1	11	12
Greenport	21	8	0	8	0	0	0	8	0	8	0	13	13	0	0	0	0	13	13
Mattituck	15	10	0	10	0	0	0	10	0	10	0	5	5	0	0	0	0	5	5
Southold	10	7	1	8	0	0	0	7	1	8	0	2	2	0	0	0	0	2	2
Mets-Willets Point	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

**Mets-Willets Point counts were removed at the request of LIRR.*