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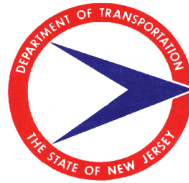
**DEVELOPMENT AND IMPLEMENTATION OF AN AWARENESS, EDUCATION AND
ENFORCEMENT CAMPAIGN REGARDING ILLEGAL TRUCK MOVEMENT ALONG
ROUTE 17 IN PARAMUS, NJ**

Final Report
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EXECUTIVE SUMMARY

Initiated from a perception that trucks were traveling illegally in the left lane of Route 17 in Paramus, New Jersey, a study was conducted by the New Jersey Institute of Technology (NJIT) to determine the extent of the problem, and to develop and test methods to alleviate the problem. Three main techniques were employed in this study: partnerships primarily between and among three levels of police, a New Jersey State Senator, the NJDOT, and NJIT; technological instruments to capture the extent of the problem; and, educational tools to assist in alleviating it. Originally an enforcement campaign was to be a part of this study to determine the effects of police activities in minimizing left lane truck travel. However, as it was determined by the Route 17 Truck Study Working Group that such enforcement efforts have been proven effective, they need not be a focus of this study.

An extensive literature review was conducted to determine if other States have developed unique methods for dealing with trucks illegally traveling in the left lane; to identify other types of truck restrictions and strategies used under the managed lane concept for use as to their potential to address trucks traveling in the left lane; and, to identify methods to detect and analyze truck movements, methods to educate the public, and enforcement measures utilized by police departments. The literature review identified no approaches specifically used for dealing with trucks illegally traveling in the left lane. The review indicated that automated enforcement technologies, including automated license plate reading systems, do hold potential for enforcing truck restrictions. The literature review also demonstrated that the current research has not been previously performed and will identify strategies that can be used for enforcing truck lane restrictions.

The foundation of this research effort was the creation of the Route 17 Working Group comprised of various stakeholders with jurisdictional responsibilities and interests in the outcome. The Working Group served as a forum for exchanging data, ideas and information, and for building collaboration. The Working Group also served as a conduit for establishing and strengthening relationships between parties that ordinarily may not interact. This collaboration proved to be an effective tool in ensuring that a variety of interests and concerns were acknowledged, that ideas were shared, and that actions which may result from this study are rooted in a collaborative effort.

NJIT employed a unique technology in determining and documenting trucks in the left lane. A Traffic Pattern Video Monitoring System comprised of four high-resolution Day/Night capable Digital Signal Processing cameras, two specialized license plate imaging cameras, and a digital recording system was designed for this study by EarthCam. Wireless internet connectivity was provisioned at each monitoring location so that study team personnel were able to log on remotely and view video from the cameras live, as well as archived events on a password protected website. Installed on

two overhead sign structures along Route 17 in the study area, the Traffic Pattern Video Monitoring System proved effective for the study's data collection, with one exception. The License Plate Imaging Cameras presented a limitation to this study. The cameras were highly effective in capturing license plates that were clean and reflective (such as New Jersey plates). For non-reflective, dirty, or bent license plates, the cameras were ineffective in capturing a clear picture.

NJIT and members of the Working Group conducted a two part Education Campaign in an effort to deter trucks from using the left lane. The first part involved notifying drivers of "no trucks in the left lane" while they were physically traveling on Route 17, by using variable message signs and installing permanent signs. The second part was geared toward truck drivers that had traveled illegally on Route 17 and those which may do so in the future. Notices alerting trucking companies and truck drivers throughout the country of this illegality were published in various trade publications, conveyed via email and fax, and read on XM radio. Additionally, warning notices were mailed to violators whose vehicles were captured via the License Plate Imaging Cameras.

The Truck Movement Monitoring portion of this study was conducted in two phases. Each phase employed the Traffic Pattern Video Monitoring system, supplemented by manual truck counters. Each phase had a two week duration. The first phase established a baseline number of trucks traveling in the left lane, while the second phase, conducted after the Education Campaign, determined if the educational tools employed had a positive impact on the numbers. This study concluded that the Education Campaign was effective in reducing the number of trucks traveling illegally in the left lane on Route 17 in Paramus.

The following recommendations have been developed by the Route 17 Working Group:

- As the installation of new signs proved successful in reducing the number of trucks in the left lane, it is recommended that the NJDOT paint "No Trucks in Left Lane" on the roadway pavement on the northbound segment of Route 17 just north of Farview Avenue where Route 17 changes from two to three lanes.
- As a permanent Variable Message Sign exists in the study area, it is recommended that NJDOT post "No trucks in Left Lane" messages at various times throughout the day and night.
- It was determined, through use of the License Plate Imaging Cameras that Canadian drivers are violating the left lane regulations. This may be a result of Canadian drivers not being aware of this law, and potentially other laws pertaining to truck operations. It is recommended that the State of New Jersey contact Canadian trucking organizations and provide them with "rules of the road" information.

- The Traffic Pattern Video Monitoring System installed in the study area proved to be beneficial in capturing traffic along Route 17 in portions of the study area. It is recommended that the cameras remain in place for purposes such as: investigating driver behaviors, providing real time video to police headquarters and vehicles, and obtaining traffic counts for NJDOT purposes.

BACKGROUND

Route 17 in Bergen County is one of the State's most heavily traveled truck routes. The average daily number of trucks traveling between MP 4.0 (Rutherford) and MP 26.0 (Mahwah) has grown steadily from 26,191 in 2002 to 27,217 in 2005.¹ In addition to being a destination for truck hauled freight, the corridor also serves as a through route for these vehicles. Located near two non-truck routes: the Garden State Parkway and the Palisades Interstate Parkway, Route 17 provides trucks access to the New York State Thruway for freight destinations beyond New Jersey.

Illegal truck movement, specifically trucks traveling in the left lane of a three lane highway, has been occurring on various NJ state highways, including Route 17. According to NJ Statute Title 39:4-88e Traffic on Marked Lanes:

“When such roadway had been divided in such a manner that there are 3 or more lanes for traffic in any one direction, no truck of 10,000 pounds registered gross weight or over shall be driven in the farthest left-hand lane, except when and to the extent necessary to prepare for a left turn, or when necessary to enter or leave such roadway by entrance or exit to or from the left lane or when reasonably necessary in response to emergency conditions.”

Either some truck operators are unaware of this law, or they are just not abiding by it. This problem has been observed by motorists and law enforcement officials; however, the magnitude of the problem has not been documented.

OBJECTIVES

The New Jersey Institute of Technology (NJIT), under contract with the New Jersey Department of Transportation (NJDOT), undertook a research study to document the extent of trucks traveling illegally in the left lane of Route 17 in Paramus Borough (MP 12 to MP 16.5) and to develop methods to curtail such activity.

¹ Louis Whiteley, NJDOT

This research study, designed as a pilot effort, consisted of the following objectives:

1. To determine, using appropriate technology, the extent of illegal truck movement in the left lanes.
2. To evaluate the effectiveness of technology and education on reducing the number of trucks in the left lane of a three lane highway to mitigate illegal truck movement.
3. To develop the educational tools and partnerships with various police departments and local, state-wide, and inter-state trucking associations to address this growing problem.
4. To develop a model for possible implementation at other problem areas throughout the State.

INTRODUCTION

The central problem identified in this research effort involved trucks traveling illegally in the left lane of a three lane roadway. Two major questions were posed: How extensive is the problem, and what methods can be employed to alleviate the problem? Three main techniques were employed to answer these questions: the establishment of partnerships primarily between and among three levels of police, a New Jersey State Senator, the NJDOT, and NJIT; the use of technological instruments to capture the extent of the problem; and the development of educational tools to assist in alleviating the problem.

The relationships established and honed during this research effort are further discussed in the "Awareness Campaign/Working Group" section of this report. The educational tools developed and employed are discussed further in the "Education Campaign" section of this report.

NJIT, with the assistance of EarthCam, developed and employed a Traffic Pattern Video Monitoring System comprised of: four high-resolution Day/Night capable Digital Signal Processing cameras for effective recording of north and southbound traffic conditions during triggered events (overview cameras effective to 0.08 lux in night mode, trigger cameras effective to 0.15 Lux in night mode), and two specialized license plate cameras effective up to 35' in zero lux conditions up to 70mph vehicle speed.

A digital video recording system with intelligent event triggering capability and remote viewing system was installed as well. "Events" were triggered by specialized day/night trigger cameras which differentiated and tagged occasions of trucks occupying the left lane. The digital video recording systems reacted to trigger events and recorded pre and post trigger event information from all camera systems at the location and saved these videos with time/date stamp information. Wireless internet connectivity was

provisioned at each monitoring location. Study team personnel were able to log on remotely and view video from the cameras live, as well as achieved events on a password protected website.

The Traffic Pattern Video Monitoring System (consisting of twelve cameras in total) was installed on two overhead sign structures along Route 17 in the study area: one near Century Road and one near Linwood Avenue, capturing both northbound and southbound truck movements. Figure 1 provides a section view and Figure 2 provides a plan view of the overhead sign structure with the mounted Traffic Pattern Video Monitoring System.

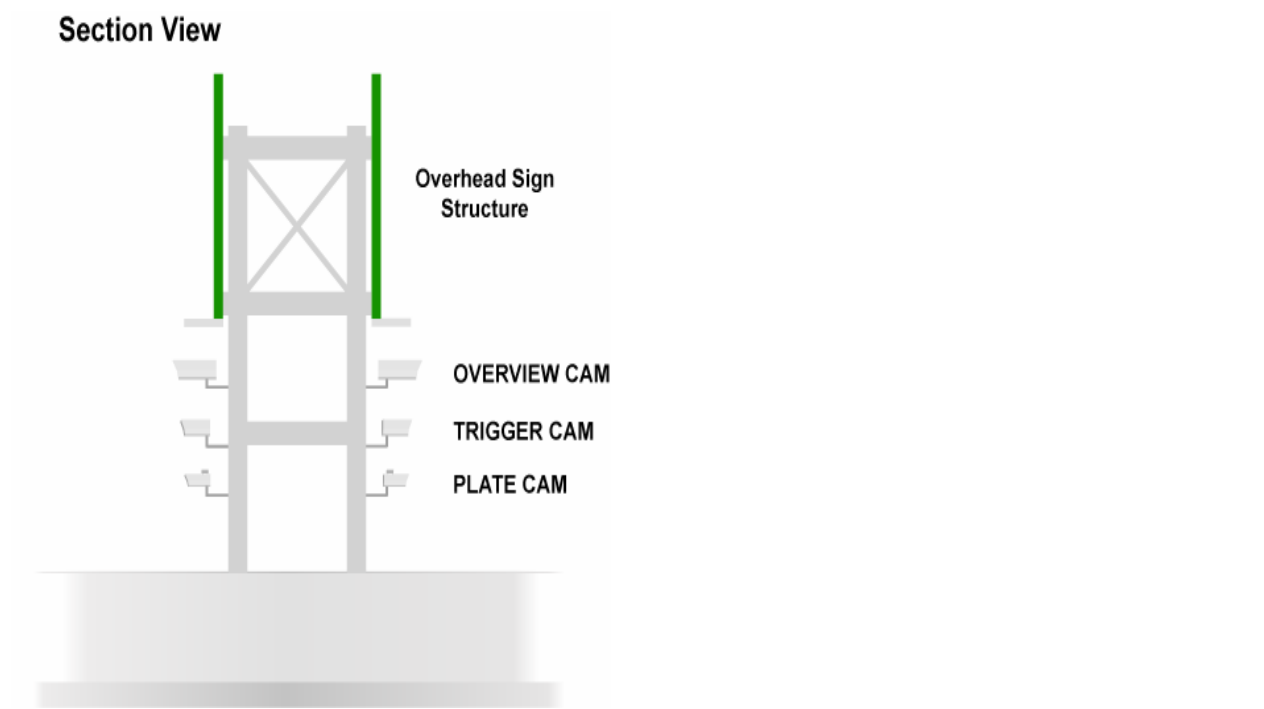


Figure 1. Section view of mounted Traffic Pattern Video Monitoring System

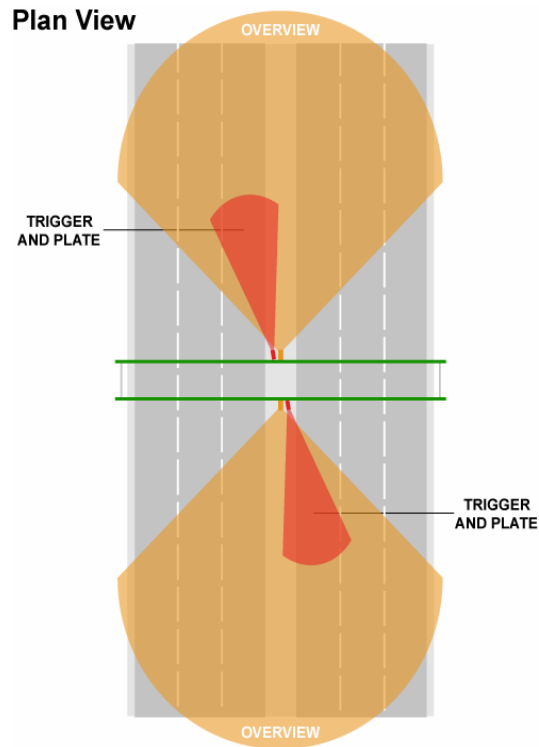


Figure 2. Plan view of the overhead sign structure with the mounted Traffic Pattern Video Monitoring System

The remainder of this report documents the results of the literature search performed, the establishment and activities of the Working Group, the design and execution of the education campaign, the design and execution of the truck movement monitoring and analysis, and the conclusions and recommendations.

SUMMARY OF LITERATURE REVIEW

A literature search was conducted for this research study. The intent of the literature search was to:

- Determine if other States have developed unique methods for dealing with trucks illegally traveling in the left lane.
- To identify other types of truck restrictions and strategies used under the managed lane concept for use as to their potential to address trucks traveling in the left lane.
- To identify methods to detect and analyze truck movements, methods to educate the public, and enforcement measures utilized by police departments.

Literature was gathered by searching the Transportation Research Information Services (TRIS) database and other databases assessable through the New Jersey Institute of Technology (NJIT) Van Houten Library.

The search identified several states using truck lane restrictions. Information on the violation rates for trucks illegally using restricted lanes was not available for many locations. For a select number of states, violation rates were found to vary from as low as 1 percent to 62 percent. The literature review did not identify approaches specifically used for dealing with trucks illegally traveling in the left lane. Enforcement strategies used for managed lanes were identified providing an overview of the types of enforcement strategies available. Automated enforcement technologies, including automated license plate reading systems, were identified as holding potential for enforcing truck restrictions.

The literature review demonstrated approaches taken by State Departments of Transportation to identify the impacts of various types of truck lane restrictions. The literature review also demonstrated that this study's research has not been previously performed and such research will identify strategies that can be used for enforcing truck lane restrictions. (See NJIT's Literature Review report prepared for this study, dated April 2006, for more detailed information.)

SUMMARY OF WORK PERFORMED

Awareness Campaign/Working Group

The issue of trucks traveling illegally in the left lane of Route 17 involves various agencies and interested parties, and transcends jurisdictional boundaries. In an effort to determine the most appropriate methods of studying this issue and developing educational tools, NJIT assembled a Working Group consisting of various stakeholders with jurisdictional responsibilities and interests in the outcome. These stakeholders included State Senator Joseph Coniglio, and representatives from the NJ State Police, Bergen County Police Department, Paramus Police Department, NJ Motor Truck Association, Federal Highway Administration, and NJ Department of Transportation.

The foundation of this research effort was to make various parties aware of the situation and to build relationships amongst all parties. The Working Group served as a forum for exchanging data, ideas and information, and for building collaboration. The Working Group also served as a conduit for establishing and strengthening relationships between parties that ordinarily may not interact. This collaboration ensured that a variety of interests and concerns were acknowledged, that ideas were shared, and that actions which may result from this study are rooted in a collaborative effort.

The Working Group met frequently, both before the commencement of this study and during the course of the study, helping formulate the study and suggesting adjustments as the study progressed. Additionally, members of the working group met separately to address specific issues such as video monitoring equipment design and usage, enforcement, and the education campaign. (See NJIT's Awareness and Education Campaign Technical Memorandum prepared for this study, dated November 30, 2006, for more information.)

Education Campaign

In an effort to educate the general public as well as truck operators of the illegality of trucks 10,000 pounds registered gross weight and over operating in the left lane of Route 17 in Paramus, NJIT and the Working Group designed a two part campaign. The first part involved notifying drivers of "no trucks in the left lane" while they were physically traveling on Route 17. The second part was geared toward truck drivers that had traveled illegally on Route 17 and those which may do so in the future. These aspects of the Education Campaign are described below.

Educating Drivers While on Route 17

Temporary Signs: Prior to the installation of new, permanent signs, the NJDOT posted two Variable Message Signs (VMS) for a two week duration beginning on July 17, 2006. The first sign was posted land side of Route 17 North prior to Passaic Avenue in Rochelle Park (just south of the study area). At this location Route 17 is two lanes in each direction. The VMS indicated "No trucks in left lane north of Route 4", which is the point where Route 17 becomes three lanes in each direction. The second VMS was located land side of Route 17 South near Franklin Turnpike in Ridgewood (just north of the study area). As this section of Route 17 is three lanes in each direction, this VMS indicated "No trucks in left lane".

Permanent Signs: In August, 2006, NJDOT installed three new 48" X 60" signs on each the northbound and southbound roadways within the study area, as well as seven more northbound and ten more southbound on Route 17 outside of the study area.

Educating Existing and Potential Route 17 Truck Drivers

Published Notices to Trucking Companies and Truck Drivers: As there are over 27,000 truck trips along Route 17 per day, the education campaign had to be far reaching. Stopping trucks along Route 17 to educate drivers was not an option, due to the sheer number and safety concerns. NJIT worked with the New Jersey Motor Truck Association (NJMTA) specifically for this portion of the Education Campaign. NJMTA, a non-profit trade association, represents the trucking community with more than 1,000

members. Such members include operators of truck fleets belonging to large enterprises headquartered out of state, as well as those of family-owned and corporate trucking businesses based in New Jersey.

NJMTA and NJIT prepared the following notice.

Warning to Truckers: Stay out of Left Lane on Route 17 Paramus, New Jersey

Law Enforcement will be aggressively enforcing the law on the four mile stretch of Route 17 (MP 12 to MP 16.5) in Paramus Borough, New Jersey. This is the result of complaints that an excessive amount of trucks have been utilizing the left lane in violation of the law.

New Jersey law prohibits certain trucks from traveling in the left lane:

NJ Title 39:4-88e Traffic on Marked Lanes, "When such roadway had been divided in such a manner that there are 3 or more lanes for traffic in any one direction, no truck of 10,000 pounds registered gross weight or over shall be driven in the farthest left-hand lane, except when and to the extent necessary to prepare for a left turn, or when necessary to enter or leave such roadway by entrance or exit to or from the left lane or when reasonably necessary in response to emergency conditions."

The New Jersey Institute of Technology (NJIT) was hired by the state's Department of Transportation (DOT) to study the extent to which trucks are traveling illegally in the left lane of Route 17 in Paramus, NJ, as well as determine ways to curtail that activity through education and enforcement methods.

Signs will also be posted along the highway to remind truck drivers approaching the designated area that they are to stay out of the left lane.

NJMTA subsequently published this notice in its Weekly Reader, a weekly blast email/fax, which reaches 1,000 members either domiciled in New Jersey or who conduct business in New Jersey.

In addition, NJMTA provided this notice to the following entities who published it as noted:

- American Trucking Associations (ATA)

Published in an ATA document sent to all 50 states and to all major trucking associations including, National Tank Truck, Intermodal Carriers Conference, National Automobile Transporters, Agricultural & Food Transporters Conference and the Truckload Carriers Association. They in turn can notify their members.

- Transport Topics Publishing Group

Published in *Transport Topics*, a weekly industry newspaper with a state news section.

- Owner-Operators Independent Drivers Association (OOIDA)

Published in daily email to 140,800 independent truck drivers and announced on their radio show on XM radio.

Notifying Violators of the Law: Identifying truck drivers who violated NJ statute by driving in the left lane of a three lane highway was an important aspect of the Education Campaign. Two License Plate Imaging Cameras were installed, as part of the Video Monitoring Equipment facing both the northbound and southbound roadways at two locations on Route 17. When an “event” (truck in left lane) was triggered, these specialized cameras captured a snap shot of the vehicles’ license plates.

NJIT viewed license plate snap shots and recorded a sampling of the visible license plate numbers and states. These were provided to the Paramus Police Department who determined the trucks owners’ names and addresses. The Paramus Police Department prepared a “Warning Notice” on Paramus Police letterhead. These notices, enclosed in Paramus Police Department envelopes, were mailed to the registered owners of 67 trucks. Appendix A contains the Warning Notice.

Truck Movement Monitoring and Analysis

Truck Crash Analysis

Crash data from 2001 to 2004 was collected from the New Jersey Department of Transportation’s (NJDOT) crash database. NJDOT's crash database includes all crashes including fatalities, injuries or property damage for all counties and public roadways within the State. In the NJDOT database a “truck” is classified as any of the following: single unit truck (2 axle); single unit truck (3+ axles); truck/trailer; truck/trailer (bobtail); tractor/semi-trailer; tractor/doubles; tractor/triples; and heavy truck-other. Table 1 shows truck crashes on Route 17 from 2001 to 2004. Truck crashes represent fourteen percent of total crashes on Route 17 in Paramus.

Table 1. Route 17 (Paramus) Truck Crashes for 2001 - 2004

| Year | Total Crashes | Truck Crashes | Percent Truck |
|--------------|----------------------|----------------------|----------------------|
| 2001 | 681 | 98 | 14.4% |
| 2002 | 770 | 112 | 14.5% |
| 2003 | 687 | 93 | 13.5% |
| 2004 | 753 | 107 | 14.2% |
| Total | 2891 | 410 | 14.2% |

Temporal Distribution

Table 2 shows the distribution of crashes by day of week. On average, truck crashes occurring within the study period represent fourteen percent of all crashes per day with Wednesdays showing a slightly higher than average percent of crashes at 16 percent of all crashes. Saturday crashes represent a slightly lower percent of all crashes with 10 percent of all crashes and Sunday crashes are even lower with 6.6 percent of all crashes.

Table 2. Truck Crashes by Day of Week 2001 - 2004

| Day of Week | Total Crashes | Truck Crashes | Percent of Crashes |
|--------------------|----------------------|----------------------|---------------------------|
| Monday | 502 | 73 | 14.5% |
| Tuesday | 484 | 76 | 15.7% |
| Wednesday | 428 | 71 | 16.6% |
| Thursday | 443 | 66 | 14.9% |
| Friday | 500 | 73 | 14.6% |
| Saturday | 443 | 45 | 10.2% |
| Sunday | 91 | 6 | 6.6% |
| Total | 2891 | 410 | 14.2% |

Table 3. Truck Crashes by Month for 2001 - 2004

| Month | Total | Trucks | Percent of Crashes |
|--------------|--------------|---------------|---------------------------|
| January | 237 | 29 | 12.2% |
| February | 185 | 29 | 15.7% |
| March | 189 | 26 | 13.8% |
| April | 211 | 33 | 15.6% |
| May | 201 | 20 | 10.0% |
| June | 243 | 46 | 18.9% |
| July | 227 | 41 | 18.1% |
| August | 236 | 29 | 12.3% |
| September | 291 | 46 | 15.8% |
| October | 284 | 43 | 15.1% |
| November | 274 | 33 | 12.0% |
| December | 313 | 35 | 11.2% |

Table 3 shows the monthly truck crashes on Route 17 in Paramus from 2001 to 2004. On average there were about 34 truck crashes or 14 percent of all crashes per month occurring within the study period on the roadway. Truck crashes occurred with the highest frequency in the months of June and September with a total of 46 crashes

during each of those months. The month of June, however, had the highest percent of truck crashes with truck crashes representing 19 percent of all crashes.

Table 4 shows the distribution of crashes by hour. The highest frequency of truck crashes occurred from 1:00 to 2:00 PM with 39 truck crashes occurring between 2001 and 2004. The evening peak period generally has a higher number of truck crashes than the morning peak period.

Direction of Travel

Table 5 shows the direction of travel before the crash occurred on Route 17 in Paramus for all crashes and for truck crashes occurring between 2001 and 2004. About sixty percent of all crashes and truck crashes occurred in the southbound direction, indicating that the southbound direction would warrant a greater need for study of future safety improvements than the northbound direction.

Table 4. Distribution of Crashes by Hour from 2001-2004

| Time (hour) | | Total Crashes | Truck Crashes | Percent of Crashes |
|--------------------|-----------|----------------------|----------------------|---------------------------|
| From | To | | | |
| 0 | - 100 | 18 | 0 | 0.00% |
| 100 | - 200 | 12 | 1 | 0.25% |
| 200 | - 300 | 19 | 5 | 1.23% |
| 300 | - 400 | 13 | 2 | 0.49% |
| 400 | - 500 | 16 | 0 | 0.00% |
| 500 | - 600 | 17 | 1 | 0.25% |
| 600 | - 700 | 21 | 5 | 1.23% |
| 700 | - 800 | 74 | 17 | 4.18% |
| 800 | - 900 | 149 | 31 | 7.62% |
| 900 | - 1000 | 124 | 25 | 6.14% |
| 1000 | - 1100 | 92 | 13 | 3.19% |
| 1100 | - 1200 | 123 | 21 | 5.16% |
| 1200 | - 1300 | 212 | 27 | 6.63% |
| 1300 | - 1400 | 241 | 39 | 9.58% |
| 1400 | - 1500 | 175 | 26 | 6.39% |
| 1500 | - 1600 | 307 | 31 | 7.62% |
| 1600 | - 1700 | 244 | 31 | 7.62% |
| 1700 | - 1800 | 357 | 36 | 8.85% |
| 1800 | - 1900 | 305 | 37 | 9.09% |
| 1900 | - 2000 | 150 | 23 | 5.65% |
| 2000 | - 2100 | 78 | 4 | 0.98% |
| 2100 | - 2200 | 64 | 15 | 3.69% |
| 2200 | - 2300 | 40 | 11 | 2.70% |
| 2300 | - 2400 | 32 | 6 | 1.47% |

Table 5. Direction of Travel Before Crash Occurred

| Year | All Vehicles | | | | Trucks | | | |
|----------------|---------------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|
| | North | East | South | West | North | East | South | West |
| 2001 | 269 | 15 | 383 | 10 | 35 | 6 | 51 | 4 |
| 2002 | 258 | 22 | 470 | 11 | 33 | 3 | 72 | 2 |
| 2003 | 262 | 13 | 392 | 16 | 34 | 1 | 56 | 2 |
| 2004 | 268 | 23 | 424 | 30 | 41 | 3 | 58 | 2 |
| Total | 1057 | 73 | 1669 | 67 | 143 | 13 | 237 | 10 |
| Percent | 36.9% | 2.5% | 58.2% | 2.3% | 35.5% | 3.2% | 58.8% | 2.5% |

Table 6. Crashes by Light Condition

| Light Condition | Total Crashes | Percent | Truck Crashes | Percent |
|--------------------------|----------------------|----------------|----------------------|----------------|
| Unknown | 4 | 0.1% | 1 | 0.2% |
| Daylight | 2055 | 71.5% | 298 | 73.8% |
| Dawn or Dusk | 73 | 2.5% | 10 | 2.5% |
| Dark (Street Lights On) | 732 | 25.5% | 93 | 23.0% |
| Dark (Street Lights Off) | 9 | 0.3% | 3 | 0.7% |
| Dark (No Street Lights) | 3 | 0.1% | 0 | 0.0% |
| Total | 2876 | | 405 | |

Table 7. Road Character for Crashes on Route 17 in Paramus

| Road Character | Total Crashes | Percent of Crashes | Truck Crashes | Percent of Crashes |
|------------------------|----------------------|---------------------------|----------------------|---------------------------|
| Unknown | 6 | 0.2% | 0 | 0.0% |
| Straight and Level | 2413 | 84.0% | 344 | 85.4% |
| Straight and Grade | 199 | 6.9% | 30 | 7.4% |
| Straight and Hillcrest | 19 | 0.7% | 5 | 1.2% |
| Curve and Level | 75 | 2.6% | 11 | 2.7% |
| Curve and Grade | 137 | 4.8% | 10 | 2.5% |
| Curve and Hillcrest | 25 | 0.9% | 3 | 0.7% |
| Total | 2874 | 100% | 403 | 100% |

Light Conditions

As shown in Table 6, a majority of crashes on Route 17 in Paramus occurred during daylight condition with 71.5 percent of all crashes and 73.8 percent of truck crashes occurring during daylight. Twenty-five percent of all crashes and 23 percent of truck crashes occurred during “Dark (Street Lights On)” conditions.

Roadway and Surface Character

For both truck crashes and for all crashes on Route 17 in Paramus, over 80 percent of crashes occurred on straight and level sections of the roadway. As shown in Table 7, less than 10 percent of crashes occurred on roadways with a curve indicating that roadway curvature does not impact crashes on this section of Route 17. Over 80 percent of crashes also occurred on dry pavement with 16 percent of both truck and total crashes occurring on wet pavement.

Vehicle Registration

The State of vehicle registration for vehicles involved in crashes on Route 17 in Paramus was reviewed to better understand the extent of unfamiliar drivers on this section of roadway. Table 8 shows the State in which the vehicle involved in the crash was registered. In about 80 percent of all crashes and 75 percent of truck crashes, the vehicle is registered in New Jersey. Twenty-five percent of truck crashes and 19 percent of total crashes involve vehicles not registered in New Jersey. The higher percentage of truck crashes involving vehicles not registered in New Jersey suggests that driver unfamiliarity may have an impact on truck crashes.

Table 8. State of Vehicle Registration

| License Plate | Total Crashes | Percent of Crashes | Truck Crashes | Percent of Crashes |
|----------------------|----------------------|---------------------------|----------------------|---------------------------|
| NY | 457 | 17.3% | 62 | 19.7% |
| NJ | 2136 | 81.1% | 236 | 75.2% |
| PA | 29 | 1.1% | 12 | 3.8% |
| CT | 13 | 0.5% | 4 | 1.3% |
| Total | 2635 | 100% | 314 | 100% |

Collision Type

Table 9 shows the collision type of crashes occurring on Route 17 in Paramus. Sixty four percent of total crashes and 54 percent of truck crashes involve rear end crashes. Same direction-sideswipe crashes are the next highest percent of collision types for all crashes and for truck crashes.

Table 9. Collision Type of Crashes on Route 17 in Paramus

| Collision Type | Total Crashes | Percent of Crashes | Truck Crashes | Percent of Crashes |
|----------------------------|----------------------|---------------------------|----------------------|---------------------------|
| Unknown | 1 | 0.0% | 0 | 0.0% |
| Same Direction - Rear End | 1843 | 64.2% | 214 | 54.3% |
| Same Direction - Sideswipe | 714 | 24.9% | 140 | 35.5% |
| Angle | 42 | 1.5% | 5 | 1.3% |
| Head-On | 6 | 0.2% | 1 | 0.3% |
| Left Turn | 0 | 0.0% | 0 | 0.0% |
| Struck Parked Vehicle | 12 | 0.4% | 2 | 0.5% |
| Other | 252 | 8.8% | 32 | 8.1% |
| Total | 2870 | | 394 | |

Contributing Circumstances

The contributing circumstances associated with total crashes and truck crashes are very similar. For both types of crashes “Driver Inattention” (35%) and “None” (48%) have the highest frequency of occurrence. Other contributing circumstances indicated for truck crashes include “Following too closely” (3%) and “Other” (6%).

Signage Survey

NJDOT conducted a sign survey for the entire length of Route 17 from NJ Route 3 to I-287 and concluded that an insufficient number of “No Trucks in Left Lane” signs existed along the entire length of Route 17 (including the segment through Paramus). Within the study limits, two signs existed on each of the northbound and southbound roadways. NJDOT staff determined that ten more signs were needed on the northbound side and thirteen more on the southbound side for the entire length of Route 17. NJDOT also determined the appropriate locations for the signs.

Pre and Post Truck Movement Monitoring and Data Analysis

The number of trucks using the left lane was monitored at Century Road and at Linwood Avenue in both the northbound and southbound directions of Route 17 in Paramus,

New Jersey. Trucks were monitored for a two-week period before and after the previously described educational campaign. The monitoring periods included a two-week period before the educational campaign, between June 20, 2006 and July 3, 2006, and a two-week period after the educational campaign, between October 1st, 2006 and October 14th, 2006. (Note: pre-education and post-education campaign will be known as pre and post campaign for the remainder of this document.) Table 1 summarizes the average daily and average weekday number of trucks and buses in the left lane at Century Road and Linwood Avenue for the pre and post-campaign periods. Table 10 also summarizes the percentage change between the pre and post-campaign periods. Appendix Tables B-1 through B-4 provides the daily number of trucks and buses using the left lane for the time periods analyzed at Century Road and Linwood Avenue.

Comparison of Trucks in Left Lane

At Century Road northbound there was an average of 184 trucks using the left lane during the weekday daytime for the pre-campaign period and an average of 93 trucks per day during the post-campaign period. From the pre-campaign to the post-campaign there was a 49 percent reduction in the average number of trucks using the left lane during the weekday daytime. In the southbound direction at Century Road, there was an average of 188 trucks using the left lane during the weekday daytime for the pre-campaign period and an average of 112 trucks per day during the post-campaign period. This corresponds to a 40 percent reduction in the average number of trucks using the left lane in the southbound direction.

At Linwood Avenue northbound there was an average of 22 trucks using the left lane during the weekday daytime during the pre-campaign and an average of 7 during the post-campaign. From the pre-campaign to the post-campaign there was a 68.5 percent reduction in the average number of trucks using the left lane during the weekday daytime. In the southbound direction at Linwood Avenue, there was an average of 28 trucks using the left lane during the weekday daytime during the pre-campaign and an average of 18 trucks per day during the post-campaign. This corresponds to a 35 percent reduction in the average number of trucks using the left lane in the southbound direction. Overall, the northbound direction at both Century Road and Linwood Avenue had the highest percent reduction in the average weekday number of trucks in the left lane, with a higher reduction at Century Road northbound (49.3%) compared to Linwood Avenue northbound (68.5%).

Table 10. Summary of Change in Buses and Trucks in Left Lane

| Location | | Pre-Campaign | | Post-Campaign | | Percent Decrease | | |
|---------------------|-----------------|---------------------|---------------|----------------------|---------------|-------------------------|---------------|-------------------|
| | | Buses | Trucks | Buses | Trucks | Buses | Trucks | Difference |
| Century Road (NB) | Average | 93 | 152 | 66 | 73 | 28.8% | 60.3% | 31.4% |
| | Weekday Average | 100 | 184 | 73 | 93 | 26.7% | 49.3% | 22.7% |
| Century Road (SB) | Average | 102 | 156 | 81 | 79 | 20.5% | 57.8% | 37.2% |
| | Weekday Average | 105 | 188 | 86 | 112 | 17.5% | 40.6% | 23.1% |
| Linwood Avenue (NB) | Average | 91 | 18 | 52 | 6 | 42.6% | 71.1% | 28.5% |
| | Weekday Average | 99 | 22 | 58 | 7 | 41.6% | 68.5% | 26.9% |
| Linwood Avenue (SB) | Average | 85 | 24 | 60 | 15 | 29.3% | 45.4% | 16.1% |
| | Weekday Average | 91 | 28 | 67 | 18 | 26.4% | 34.6% | 8.2% |

Impact of Educational Campaign on Trucks in Left Lane

Of concern in comparing truck volumes in the left lane before and after the educational campaign, is to assume that the total change in volume in the left lane is due to the educational campaign. Seasonal variation, however, is one factor that may, in addition to the educational campaign, impact both truck volumes as well as the overall roadway volumes between the pre and post-campaign periods. To better isolate the impacts of the educational campaign on the number of trucks in the left lane, comparisons were also made between the average number of buses in the left lane in the pre-campaign period compared to the post-campaign period. As buses are legally allowed in the left lane, the percent reduction in the number of buses in the left lane from the pre to the post-campaign would represent the change in volume due to seasonal variation and other factors not related to the educational campaign. The difference between the percentage change from the pre to the post-campaign for buses compared to trucks could then be taken as the impact for the educational campaign.

As shown in Table 10, at Century Road there was a percent reduction in the average number of buses during the weekday from the pre to the post-campaign period of 27 percent and 18 percent in the northbound and southbound directions, respectively. This is compared to a reduction in the average weekday number of trucks of 49 percent and 41 percent in the northbound and southbound directions, respectively. The difference between the percent reduction from the pre to the post-campaign for buses compared to trucks can be taken to represent the reduction in trucks that is attributed to the educational campaign. At Century Road there is a difference of 23 percent for both the northbound and southbound directions.

At Linwood Avenue, there was a percent reduction in the average number of buses of 42 percent and 26 percent in the northbound and southbound directions, respectively. This is compared to a reduction in trucks of 68.5 percent and 35 percent in the northbound and southbound directions, respectively. There is a difference of 27 percent in the northbound direction and 8 percent in the southbound direction between the percent reduction in buses compared to trucks.

Truck Classification

Table 11 shows the percentage distribution of trucks in the left lane by truck classification for Century Road and for Linwood Avenue during the both the pre and post-campaign periods. Figures 3 and 4 graphically show the data for Century Road and Linwood Avenue, respectively. The classification scheme used is the FHWA 13-category classification scheme. In this scheme trucks are classified as follows:

- Class 5: Two-Axle, Six-Tire, Single-Unit Trucks -- All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with two axles and dual rear wheels.
- Class 6: Three-Axle Single-Unit Trucks -- All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with three axles.
- Class 7: Four or More Axle Single-Unit Trucks -- All trucks on a single frame with four or more axles.
- Class 8: Four or Fewer Axle Single-Trailer Trucks -- All vehicles with four or fewer axles consisting of two units, one of which is a tractor or straight truck power unit.
- Class 9: Five-Axle Single-Trailer Trucks -- All five-axle vehicles consisting of two units, one of which is a tractor or straight truck power unit.
- Class 10: Six or More Axle Single-Trailer Trucks -- All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.
- Class 11: Five or fewer Axle Multi-Trailer Trucks -- All vehicles with five or fewer axles consisting of three or more units, one of which is a tractor or straight truck power unit.
- Class 12: Six-Axle Multi-Trailer Trucks -- All six-axle vehicles consisting of three or more units, one of which is a tractor or straight truck power unit.
- Class 13: Seven or More Axle Multi-Trailer Trucks -- All vehicles with seven or more axles consisting of three or more units, one of which is a tractor or straight truck power unit.

Table 11. Truck Classification

| Location | | Truck Classification Scheme | | | | | | |
|----------------------|----------------------|-----------------------------|--------|-------|--------|--------|-------|-------|
| | | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Century Rd NB | Pre-Campaign | 17.2% | 20.9% | 1.1% | 25.3% | 34.2% | 0.3% | 1.0% |
| | Post-Campaign | 36.8% | 6.4% | 2.1% | 0.7% | 52.8% | 0.1% | 1.1% |
| | Difference | 19.6% | -14.5% | 1.0% | -24.6% | 18.6% | -0.2% | 0.1% |
| Century Rd SB | Pre-Campaign | 24.0% | 7.0% | 0.6% | 2.8% | 53.2% | 0.1% | 1.4% |
| | Post-Campaign | 24.9% | 14.1% | 17.0% | 15.5% | 25.8% | 0.3% | 2.3% |
| | Difference | 0.9% | 7.1% | 16.4% | 12.7% | -27.4% | 0.2% | 0.9% |
| Linwood Av NB | Pre-Campaign | 51.0% | 18.3% | 0.0% | 4.2% | 26.6% | 0.0% | 0.0% |
| | Post-Campaign | 77.5% | 7.9% | 0.0% | 0.0% | 14.6% | 0.0% | 0.0% |
| | Difference | 26.5% | -10.4% | 0.0% | -4.2% | -12.0% | 0.0% | 0.0% |
| Linwood Av SB | Pre-Campaign | 55.4% | 20.8% | 6.6% | 13.0% | 3.9% | 0.0% | 0.3% |
| | Post-Campaign | 73.4% | 13.1% | 2.3% | 5.1% | 6.1% | 0.0% | 0.0% |
| | Difference | 18.0% | -7.7% | -4.3% | -7.9% | 2.2% | 0.0% | -0.3% |

Figure 3. Truck Classification for Century Road

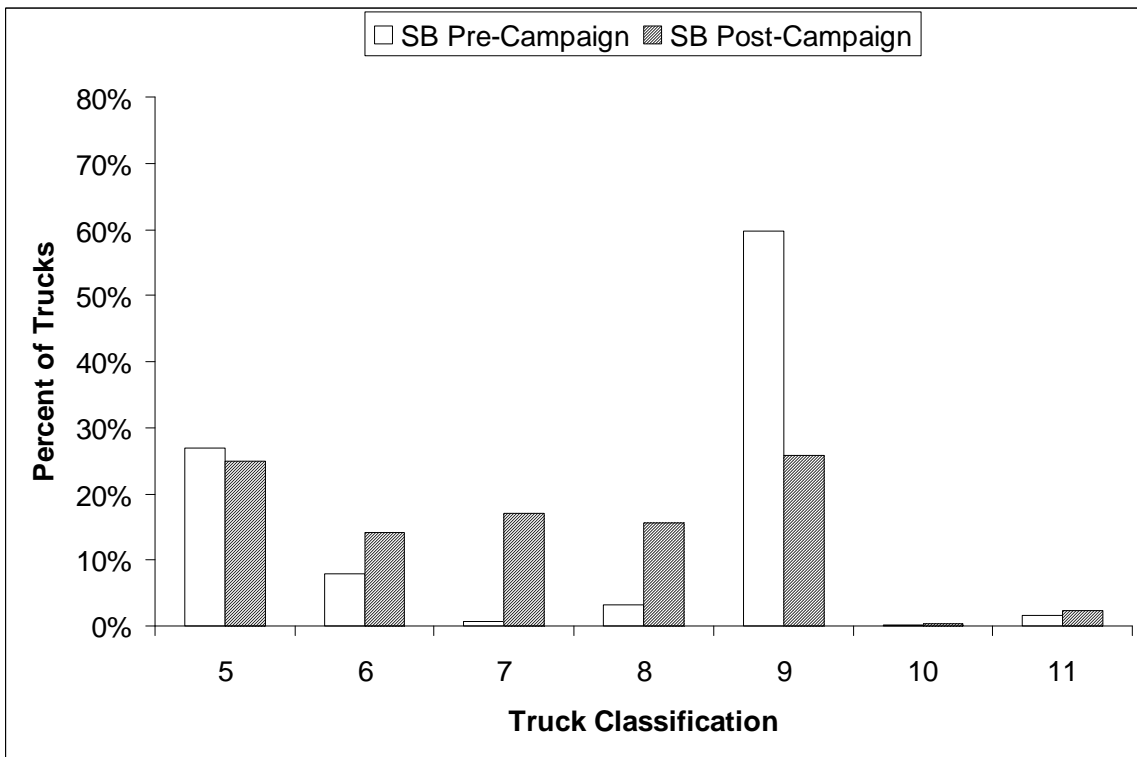
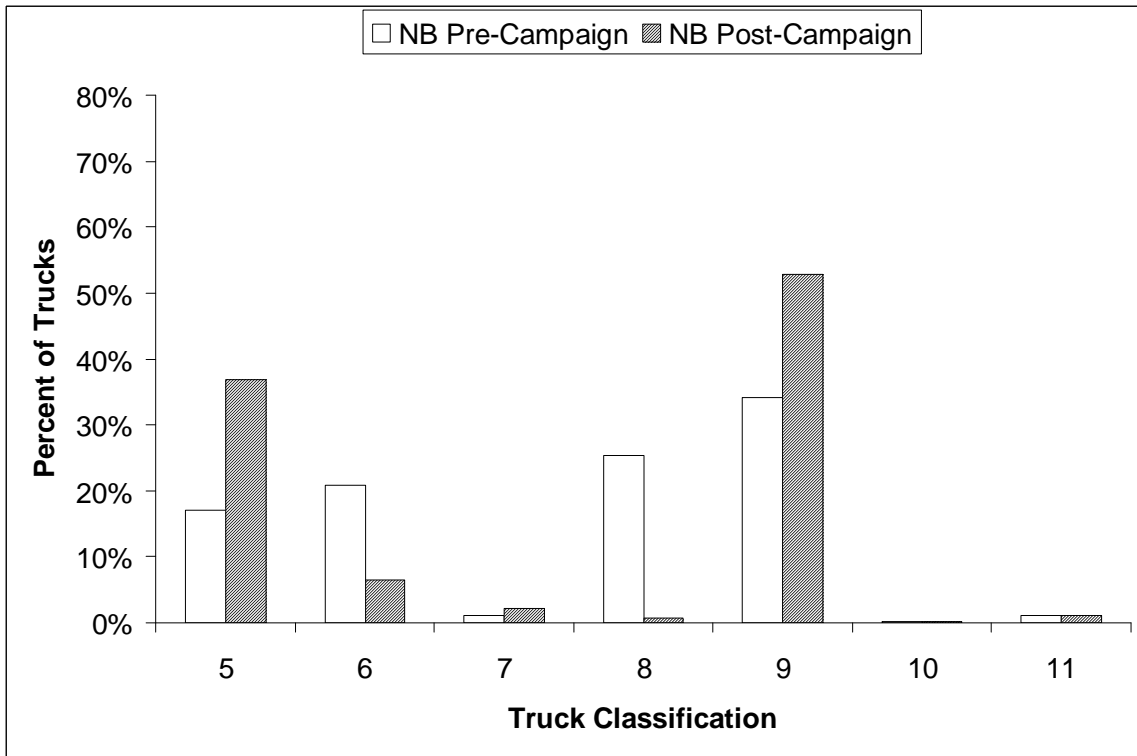
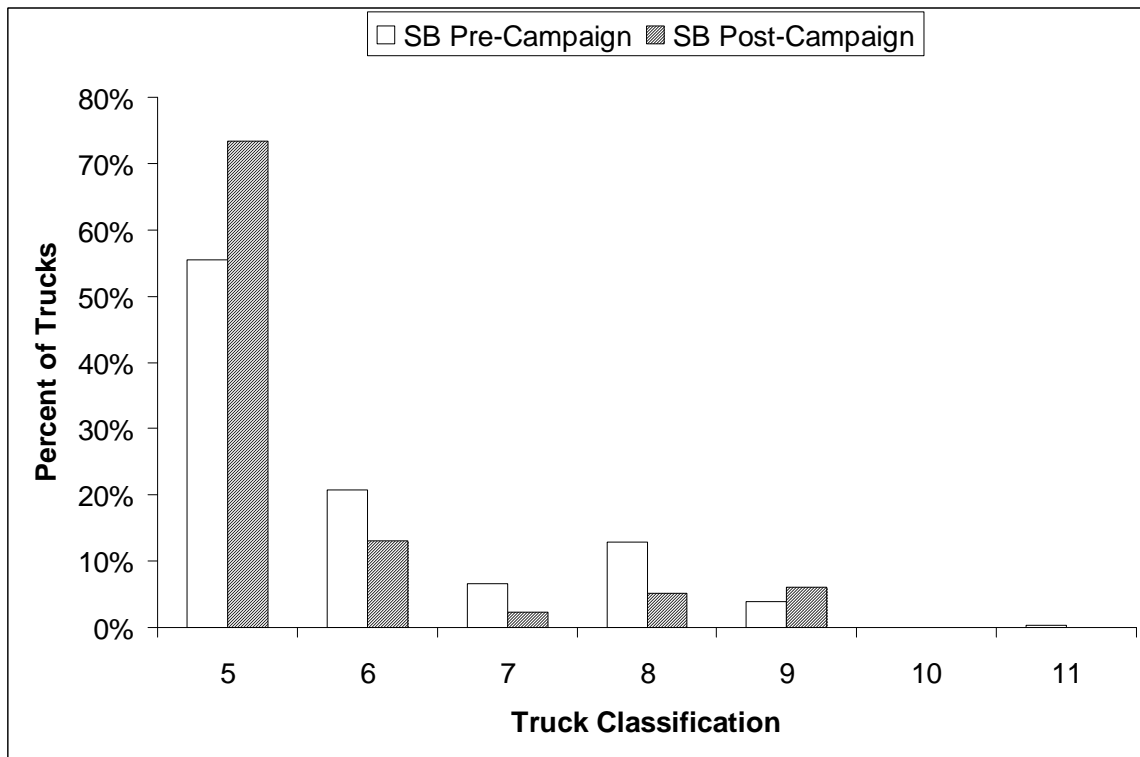
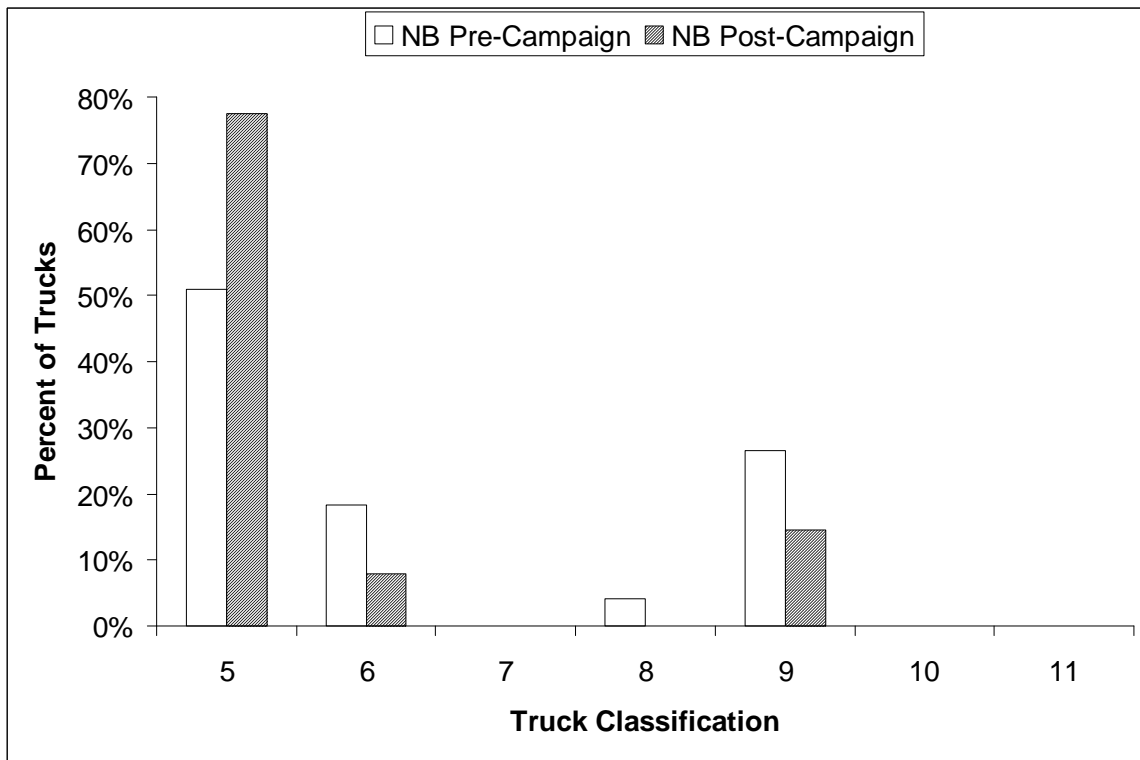


Figure 4. Truck Classification for Linwood Avenue



There are no distinct changes in the percentage distribution of trucks by truck classification in the left lane between the pre and post-campaign period. At Century Road in the northbound direction during the pre-campaign period, over fifty percent of trucks in the left lane are classified as Class 8 and Class 9 trucks. This is also true in the post-campaign period, however over 50 percent of trucks are classified as Class 9 trucks in the post-campaign period. In the southbound direction at Century Road during the pre-campaign period, over 50 percent of trucks are classified as Class 9 trucks. In the post-campaign period, this is reduced to 26 percent. At Linwood Avenue Class 5 trucks are the highest percent of trucks in the left lane for both the pre and post-campaign periods. The percent of Class 5 trucks increases by 26 and 18 percent from the pre-campaign to the post-campaign period in the northbound and southbound directions, respectively.

Truck Violation Rate

In addition to the truck volume counts made in the left lane at Century Road and Linwood Avenue, manual classification counts were observed northbound and southbound on Route 17 in Paramus during both the pre and post-campaign periods. The pre-campaign counts were performed between June 21st -23rd, 26th -27th, 2006 and the post-campaign counts were performed between October 9th -13th, 2006. Counts were observed at four locations on Route 17 including from the overpass at: Century Road (MP 12.96); Midland Avenue (MP 14.40), Paramus Park Entrance; and Ridgewood Road (MP 15.72). The counts included the number of trucks and non-trucks using the left lane, as well as the number of trucks using the other lanes of Route 17.

The counts collected at these four locations were intended to supplement the data collected at Century Road and Linwood Avenue. The counts collected at Century Road and Linwood Avenue were collected electronically using video cameras which detected and recorded truck movements in the left lane. In some cases there are discrepancies between the electronically collected and manual counts. This is particularly true during the post-campaign counts where the manual counts are much lower than the electronic counts. As the electronic counts can be verified by reviewing the video data files, the electronic counts are believed to be correct. The manual counts are, however, included in the following analyses.

Truck violation rates were determined for northbound and southbound Route 17 in Paramus for both the pre and post-campaign periods. The violation rate was determined as the percent of all trucks on the roadway traveling in the left lane. Table 12 summarizes the average daily count and violation rate during the pre- and post-campaign at Century Road, Midland Avenue, Paramus Park Entrance and Ridgewood Road. The hourly counts and violation rates for each location are provided in Tables B-5 through B-8 in the appendix. In addition, Figures 5 through 12 compares the pre-campaign violation rates to the post-campaign violation rates for each of the four locations in the northbound and southbound directions.

At the Century Road overpass, in the northbound and southbound directions there are on average 13 and 14 trucks per hour, respectively, in the left lane during the pre-campaign period. The average hourly violation rate for the northbound and southbound is 4.3% and 4.4%, respectively. In the post-campaign period the average number of trucks in the left lane decreased to 1 and 3, respectively, with the average hourly violation rate of 0.9% and 3.0% for the northbound and southbound directions, respectively.

At the Midland Avenue overpass, in the northbound and southbound directions there are on average 9 and 8 trucks per hour, respectively, in the left lane during the pre-campaign period. The data collected at Midland Avenue during the post-campaign period showed almost no trucks using the left lane in both the northbound and southbound directions. In the pre-campaign, the average hourly violation rate for the northbound and southbound directions is 5.5% and 4.3%, respectively, with violation rates as high as 11.5% during the 5:00 PM to 6:00 PM period. As stated, there were almost no trucks using the left lane in the post-campaign period, resulting in a violation rate of almost zero.

At the Paramus Park overpass, in the northbound and southbound directions there are on average 9 trucks per hour for both directions in the left lane during the pre-campaign period. The average hourly violation rate for the northbound and southbound directions is 5.1% and 5.4%, respectively, with violation rates as high as 9.1% during the 5:00 PM to 6:00 PM period.

At the Ridgewood Road overpass, in the northbound and southbound directions there are on average 10 and 8 trucks per hour, respectively, in the left lane. The average hourly violation rate for the northbound and southbound directions is 3.5% and 3.0%, respectively, with violation rates as high as 9.4% during the 1:00 PM to 2:00 PM period. The post-campaign violation rate is 0.2% for both the north and southbound directions.

As shown in Figures 5 through 12, there is a general increase in the violation rate from the start to the end of the study period for both the northbound and southbound directions during the pre-campaign period. In the post-campaign period, the violation rate remains relatively flat and low throughout the study period.

Table 12. Traffic Count and Violation Rates

| Time | Pre-Campaign | | | | | | Post-Campaign ^a | | | | | |
|-----------------|----------------|--------|-----------------------------|----------------|------|------|----------------------------|--------|-----------------------------|----------------|------|------|
| | Left Lane | | Trucks in Other Lanes | Violation Rate | | | Left Lane | | Trucks in Other Lanes | Violation Rate | | |
| | Non- Trucks | Trucks | | Average | Min | Max | Non- Trucks | Trucks | | Average | Min | Max |
| Century Road NB | 1502 | 13 | 311 | 4.3% | 2.4% | 6.9% | 1418 | 1 | 154 | 0.9% | 0.0% | 2.6% |
| Century Road SB | 1291 | 14 | 298 | 4.4% | 2.0% | 7.3% | 1093 | 3 | 125 | 3.0% | 0.0% | 8.5% |
| Midland Ave NB | 1461 | 9 | 275 | 3.5% | 1.8% | 5.5% | 1339 | 0 | 156 | 0.1% | 0.0% | 0.3% |
| Midland Ave SB | 1315 | 8 | 265 | 2.9% | 1.7% | 4.3% | 1270 | 0 | 142 | 0.1% | 0.0% | 0.4% |
| Paramus Park NB | 1525 | 9 | 269 | 3.5% | 2.0% | 5.1% | 1426 | 0 | 98 | 0.2% | 0.0% | 1.0% |
| Paramus Park SB | 1494 | 9 | 272 | 3.2% | 1.5% | 5.4% | 1225 | 0 | 91 | 0.2% | 0.0% | 0.8% |
| Ridgewood Rd NB | 1661 | 10 | 314 | 3.5% | 1.2% | 6.5% | 1420 | 0 | 169 | 0.2% | 0.0% | 0.6% |
| Ridgewood Rd SB | 1748 | 11 | 321 | 3.0% | 1.2% | 5.4% | 1333 | 0 | 158 | 0.2% | 0.0% | 0.8% |

^a Truck counts appears to be undercounted. Truck counts may only include tractor-trailers.

Figure 5. Comparison of Violations Rates at Century Road Northbound

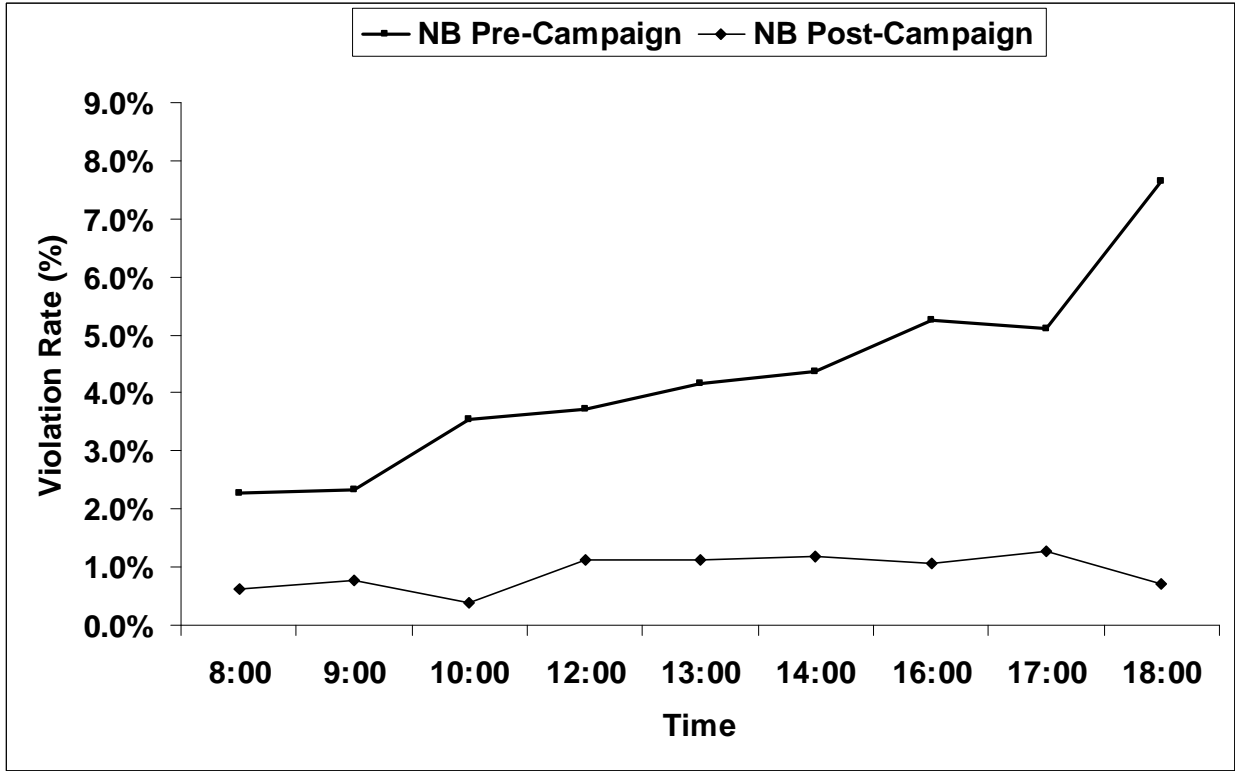


Figure 6. Comparison of Violations Rates at Century Road Southbound

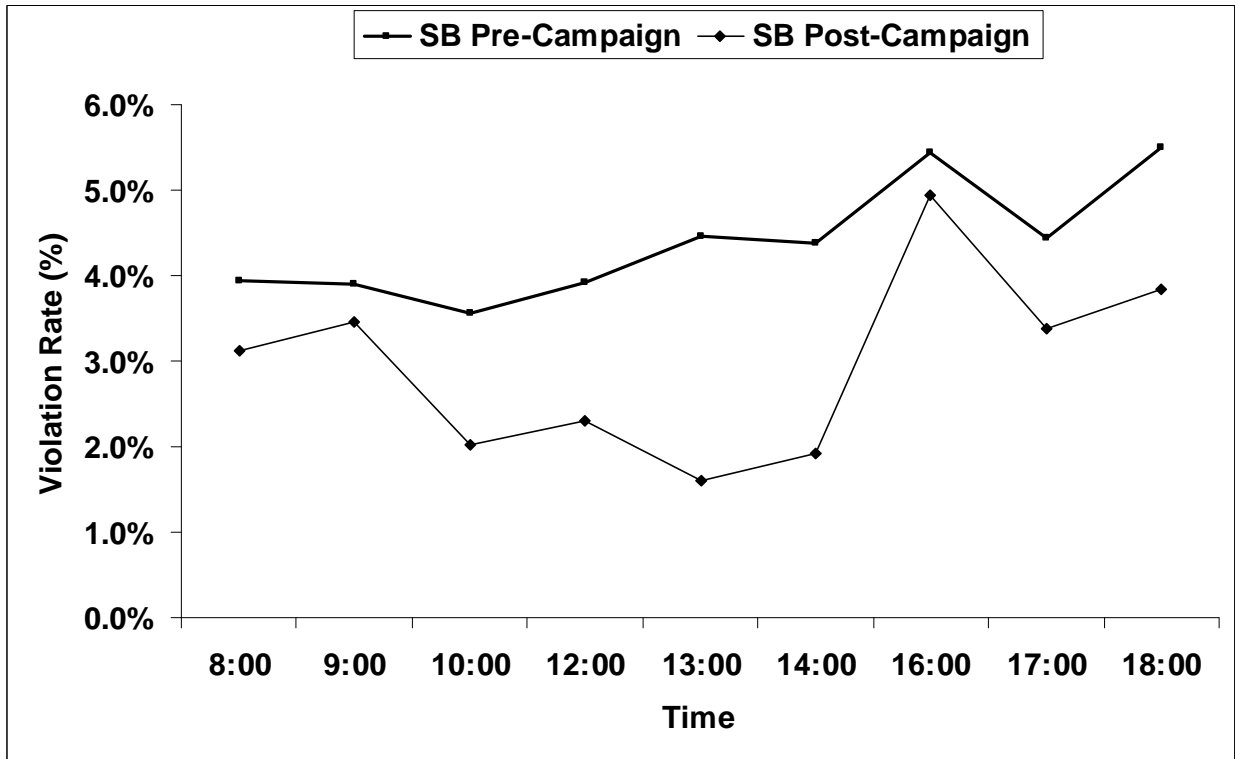


Figure 7. Comparison of Violations Rates at Midland Avenue Northbound

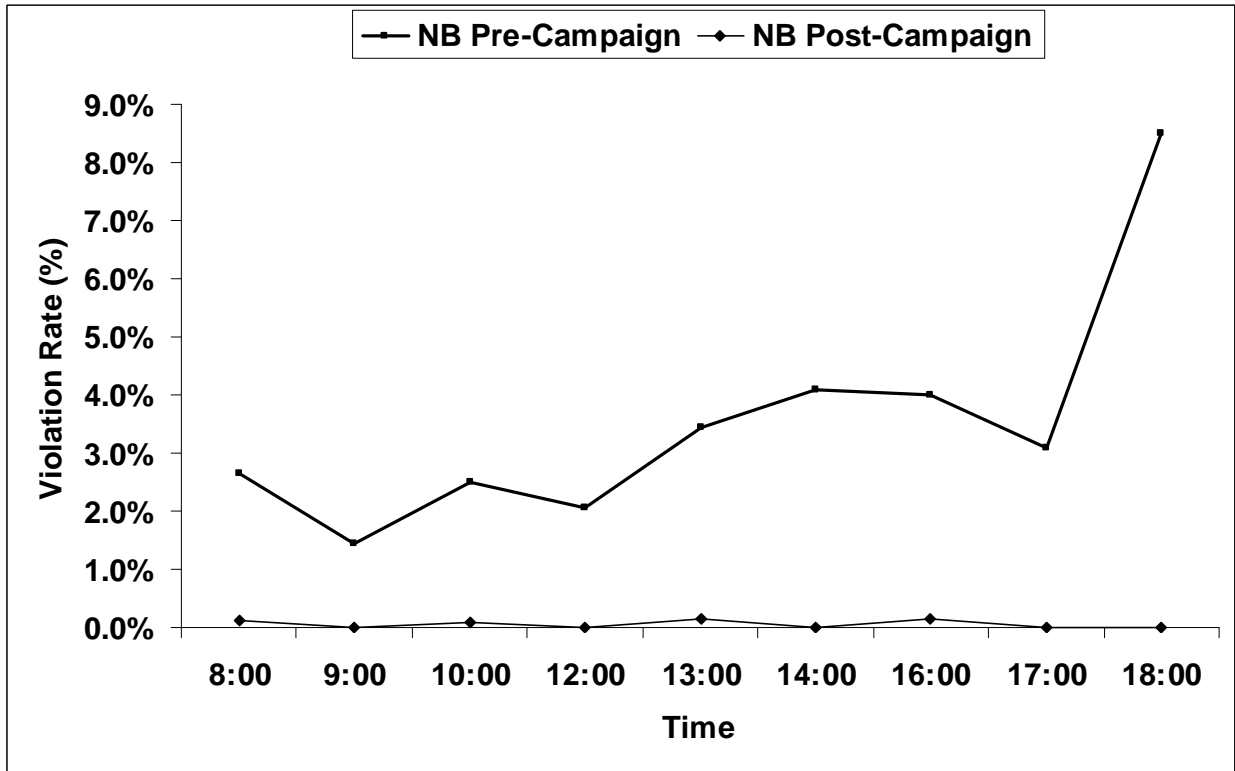


Figure 8. Comparison of Violations Rates at Midland Avenue Southbound

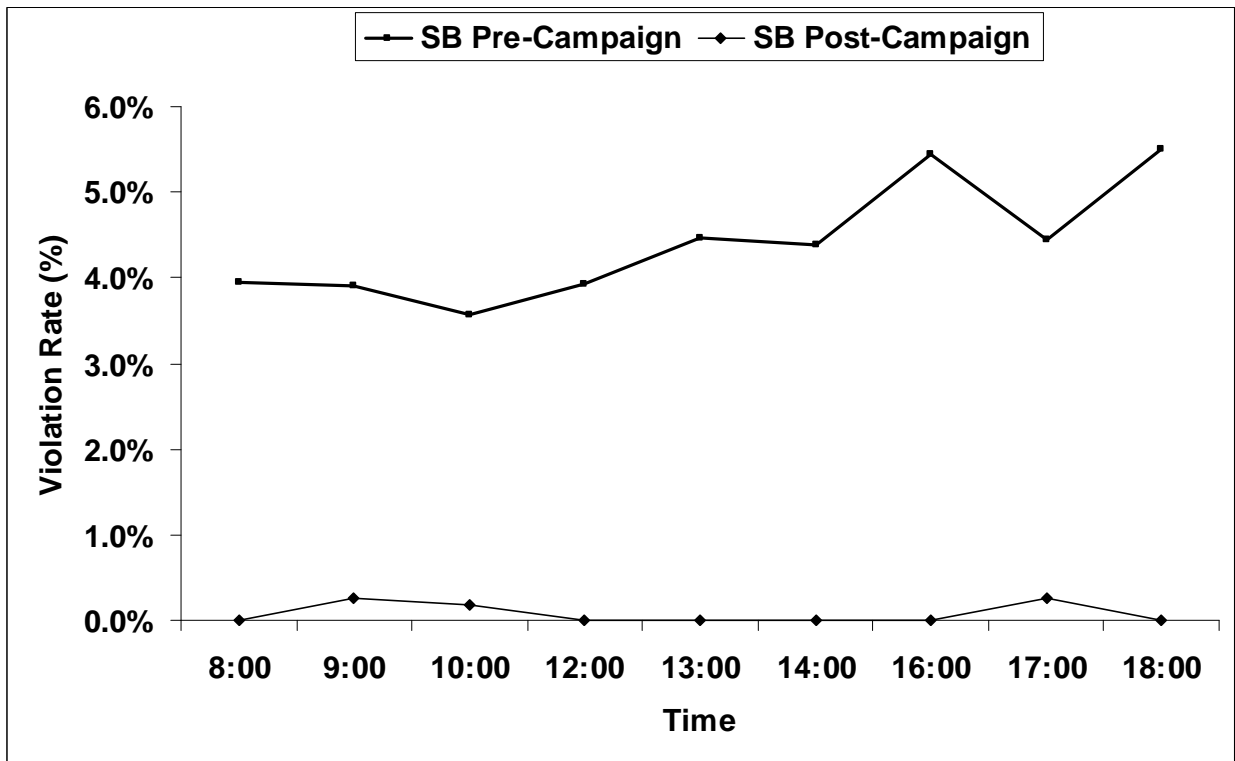


Figure 9. Comparison of Violations Rates at Paramus Park Northbound

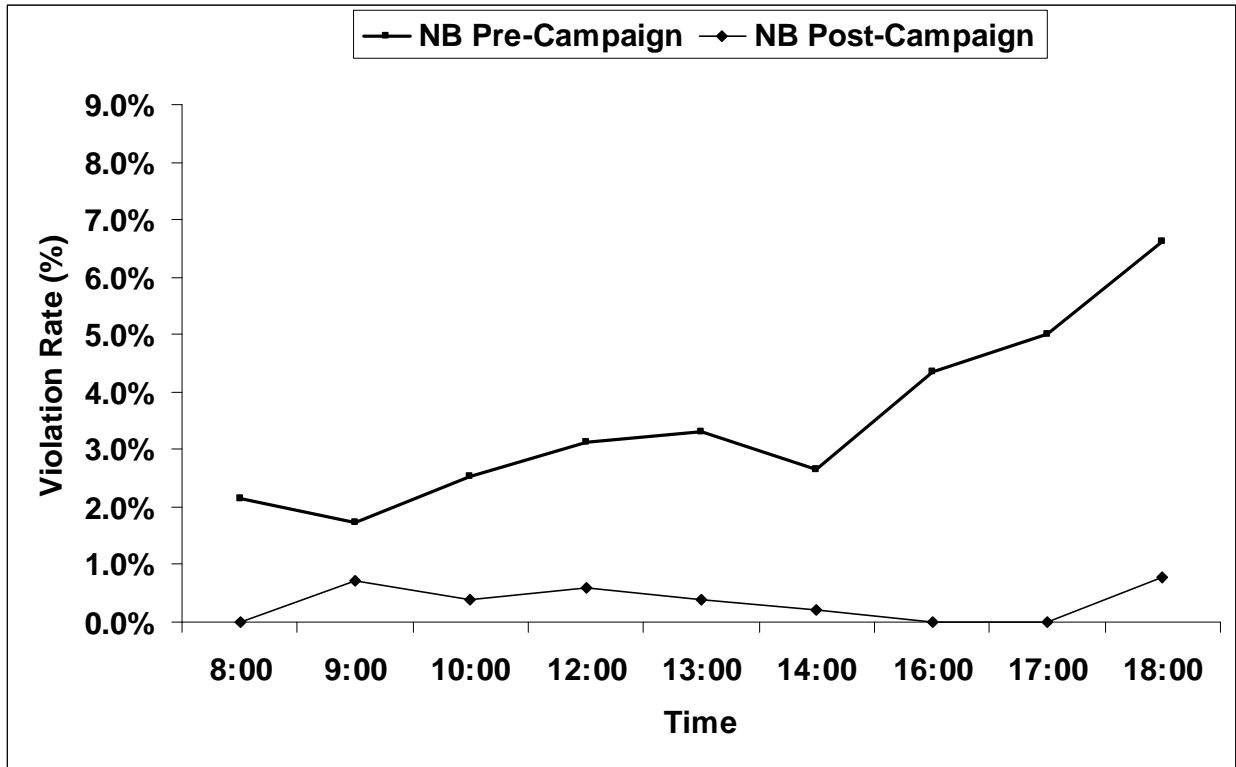


Figure 10. Comparison of Violations Rates at Paramus Park Southbound

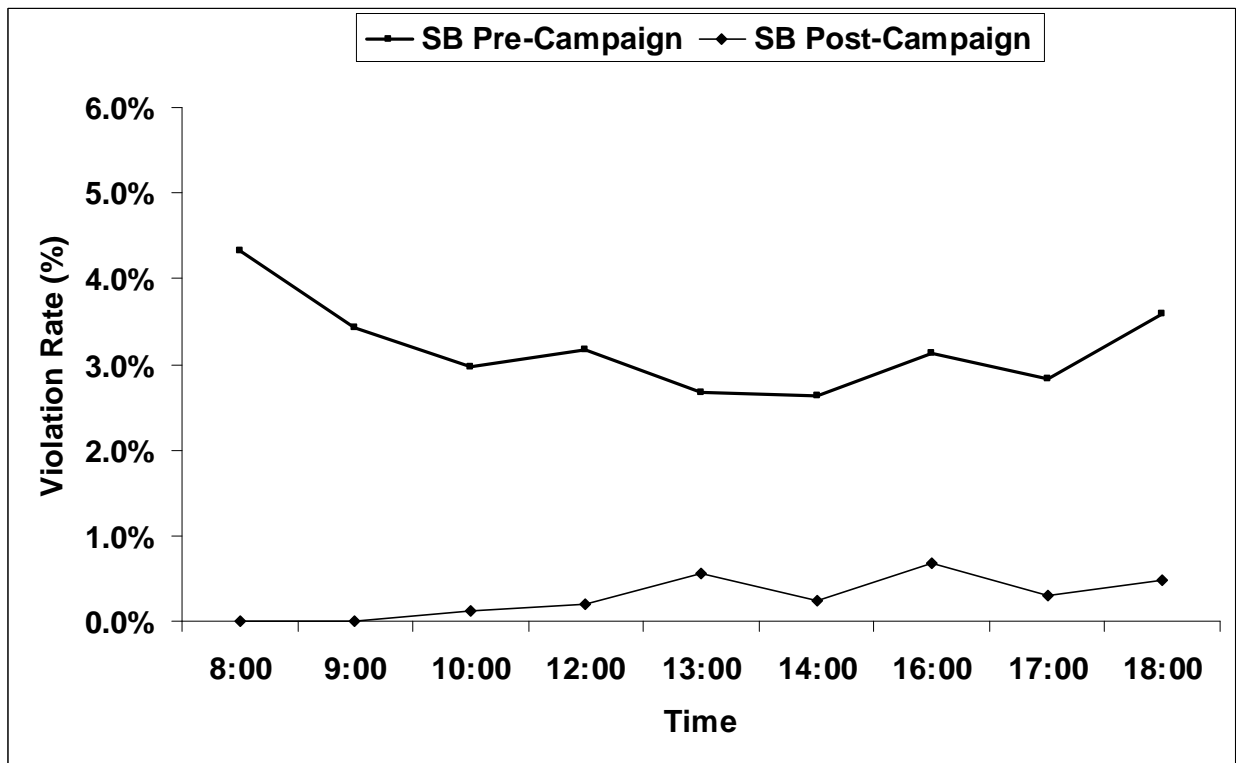


Figure 11. Comparison of Violations Rates at Ridgewood Avenue Northbound

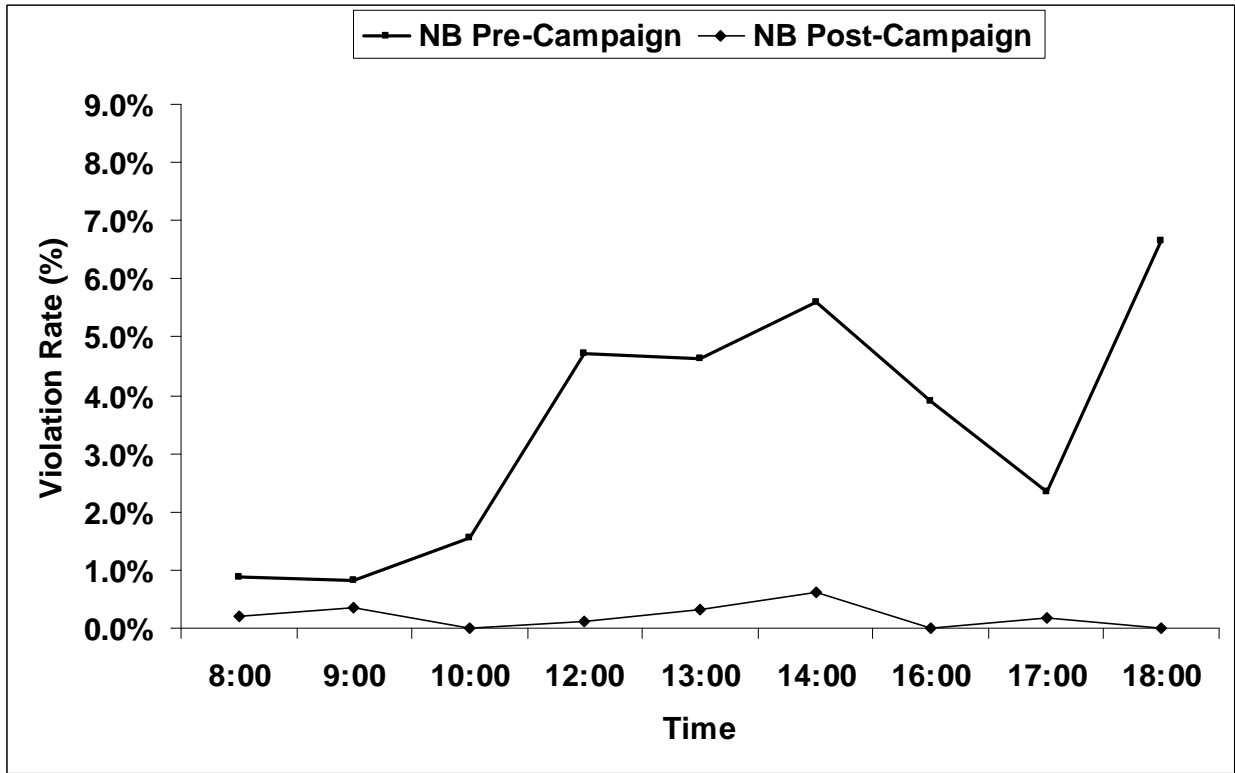
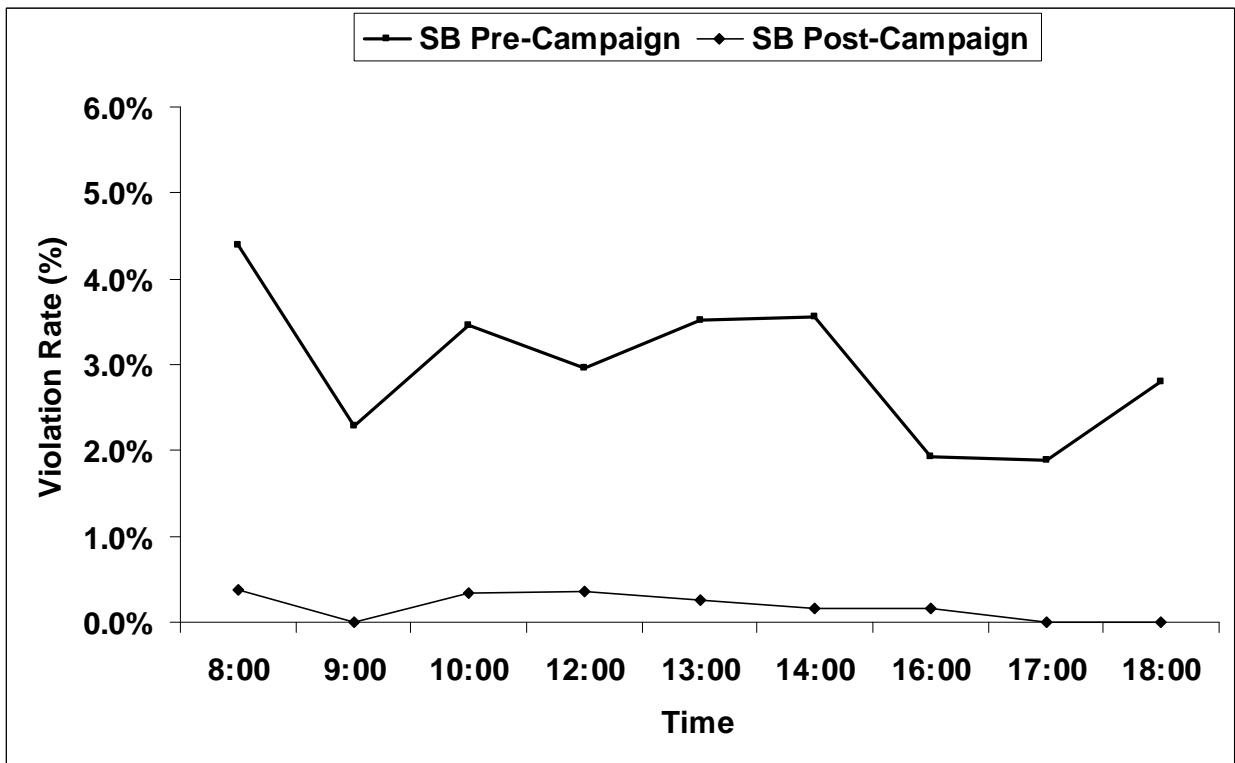


Figure 12. Comparison of Violations Rates at Ridgewood Avenue Southbound



Truck Lane Changing Behavior

Truck lane changing behavior was also studied to better understand at what locations trucks entered the left lane within the study area. Ten-minute counts were made of trucks traveling in the left lane at four locations on Route 17 in Paramus. The difference in counts between adjacent locations was then determined in the direction of travel of the trucks. If the difference is positive, then this difference represents the number of trucks entering the left lane, if the difference is negative, then the difference represents the number of trucks departing the left lane. For example, on June 21, 2006 between 9:10 AM and 9:20 AM in the northbound direction, one truck was counted at Century Road, two at Midland Avenue, four at Paramus Park and zero at Ridgewood Road. From these counts the number of trucks entering/departing the left lane between Midland Avenue and Century Road can be determined as the difference between the numbers of trucks in the left lane at Midland Avenue minus the number of trucks in the left lane at Century Road. This difference is one, or one truck entering the left lane in the northbound direction between Century Road and Midland Avenue. Between Midland Avenue and Paramus Park, two trucks entered the left lane. Between Paramus Park and Ridgewood Road four trucks departed from the left lane.

Figures 13, 15 and 17 show the number of trucks entering/departing the left lane in the northbound direction of Route 17 between Century Road and Midland Avenue, between Paramus Park and Midland Avenue and between Ridgewood Road and Paramus Park, respectively during the pre and post-campaign periods. Figures 14, 16 and 18 show the number of trucks entering/departing the left lane in the southbound direction of Route 17 between Ridgewood Road and Paramus Park, between Paramus Park and Midland Avenue and between Midland Avenue and Century Road, respectively during the pre and post-campaign periods.

The Figures show, for each location there are different trends in the number of trucks entering and departing the left lane. The difference between the number of trucks in the left lane was determined for each of the five days of the study and the results summarized for the pre and post-campaign period in the northbound direction in Tables 13 and 14, respectively, and for the pre and post-campaign period in the southbound direction in Tables 15 and 16.

Lane Changing Between Century Road and Midland Avenue

Between Century Road and Midland Avenue in the northbound direction during the pre-campaign, 50 percent of 10-minute truck counts showed trucks entering the left lane, 26.7 percent of the time trucks departed the left lane and in 23.3 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Century Road and Midland Avenue in the northbound

direction trucks are generally moving into the left lane, with an average of 0.79 trucks per 10 minutes or approximately 5 trucks per hour moving into the left lane.

In the post-campaign period between Century Road and Midland Avenue, 1.5 percent of the 10-minute counts showed trucks entering the left lane, 19.3 percent of the time trucks departed the left lane and in 79.3 percent of the 10-minute counts, the number of trucks remained the same between the two locations. On average, about 1 truck is entering and exiting the left lane per 10-minute period.

In the southbound direction in the pre-campaign period between Midland Avenue and Century Road, 78.9 percent of 10-minute truck counts showed trucks entering the left lane, 7.0 percent of the time trucks departed the left lane and in 14.1 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Midland Avenue and Century Road Park in the southbound direction trucks are generally moving into the left lane, with an average of 1.63 trucks per 10 minutes or approximately 10 trucks per hour moving into the left lane.

In the post-campaign period, 4.4 percent of the 10-minute counts showed trucks entering the left lane, 2.6 percent of the time trucks departed the left lane and in 93 percent of the 10-minute counts, the number of trucks remained the same between the two locations. On average, 1.25 trucks entered the left lane per 10-minute period or approximate 8 trucks per hour and 6 trucks per hour exited the left lane.

Figure 13. Number of Trucks Entering/Departing Left Lane at Midland Avenue (Northbound)

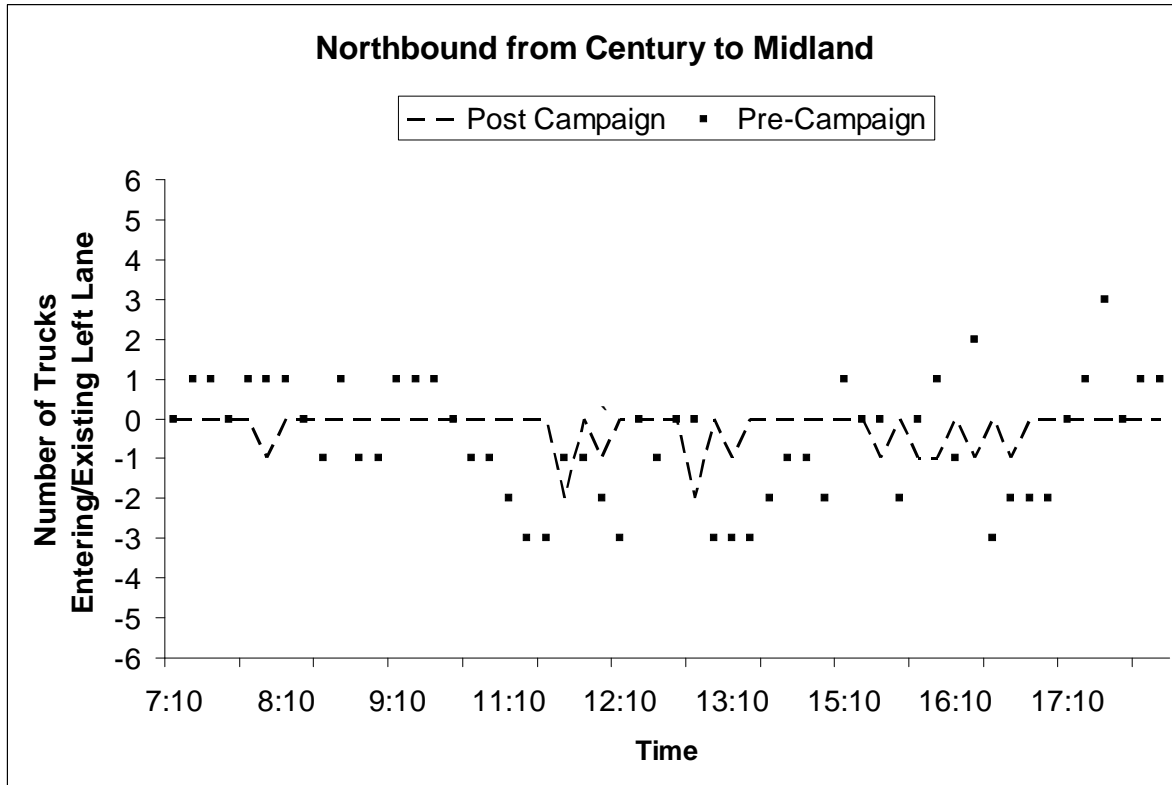


Figure 14. Number of Trucks Entering/Departing Left Lane at Paramus Park (Northbound)

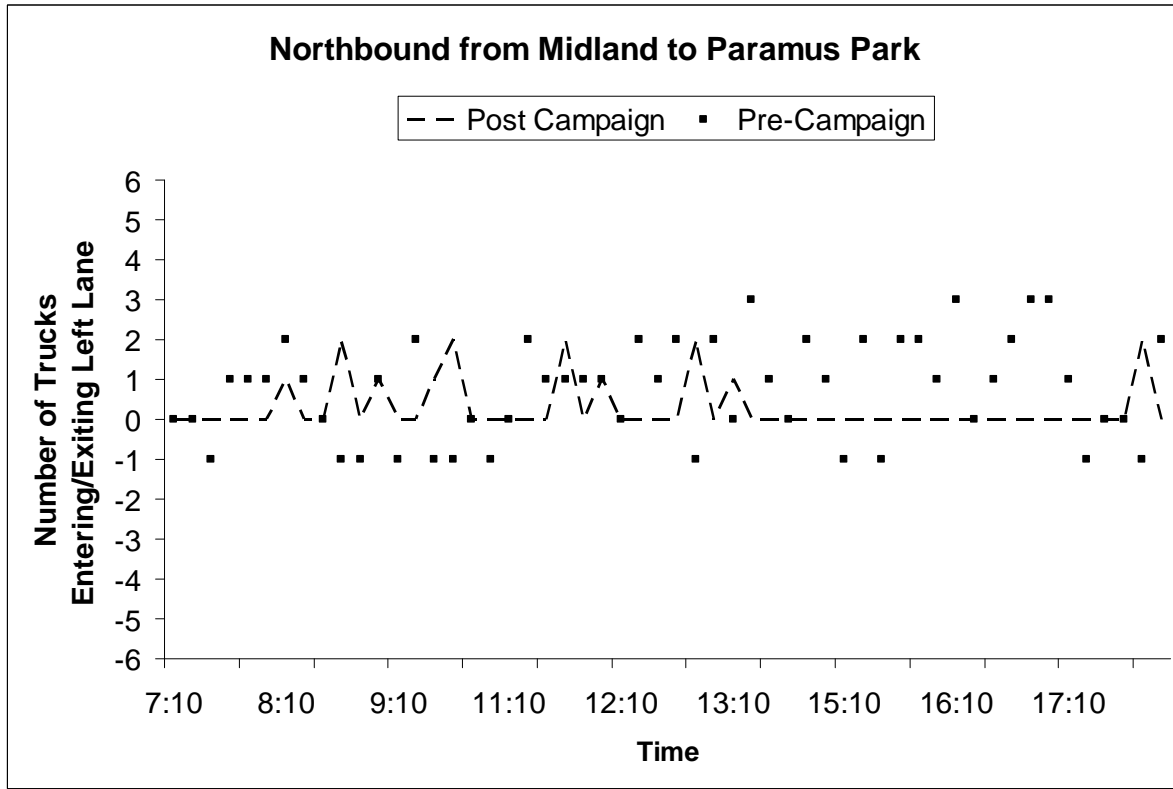


Figure 15. Number of Trucks Entering/Departing Left Lane at Ridgewood Avenue (Northbound)

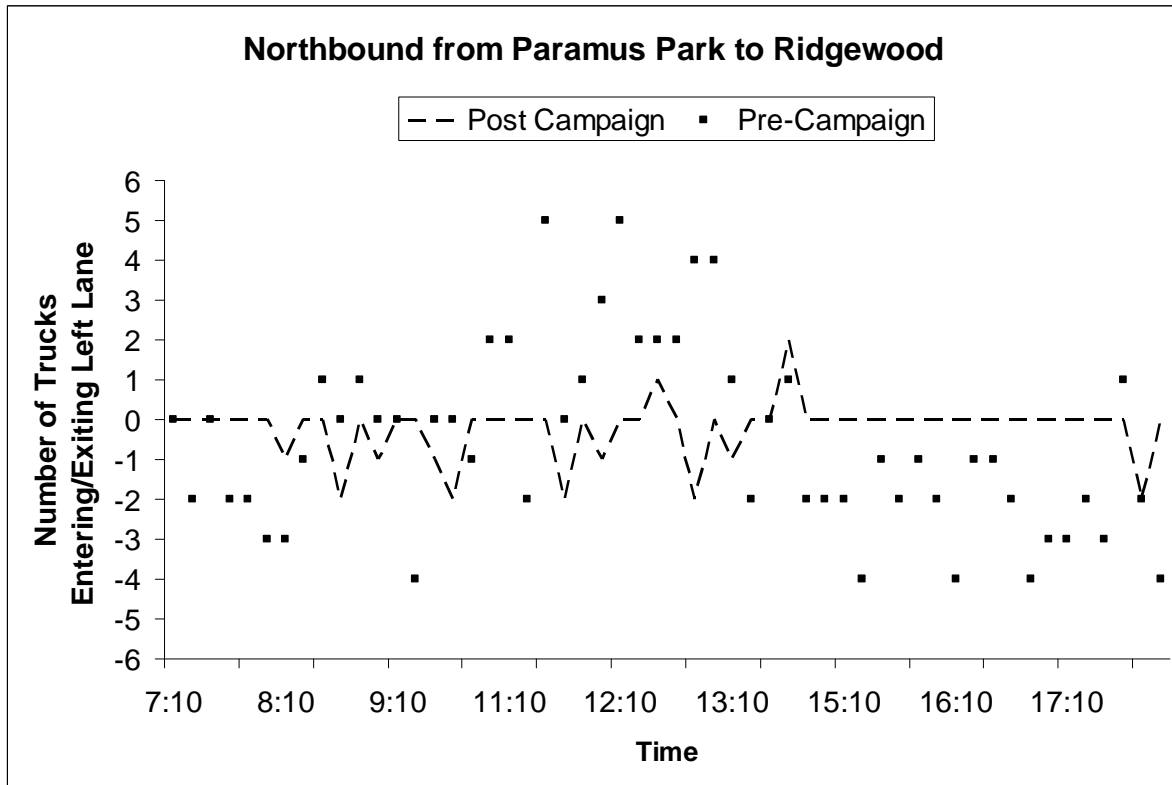


Figure 16. Number of Trucks Entering/Departing Left Lane at Paramus Park (Southbound)

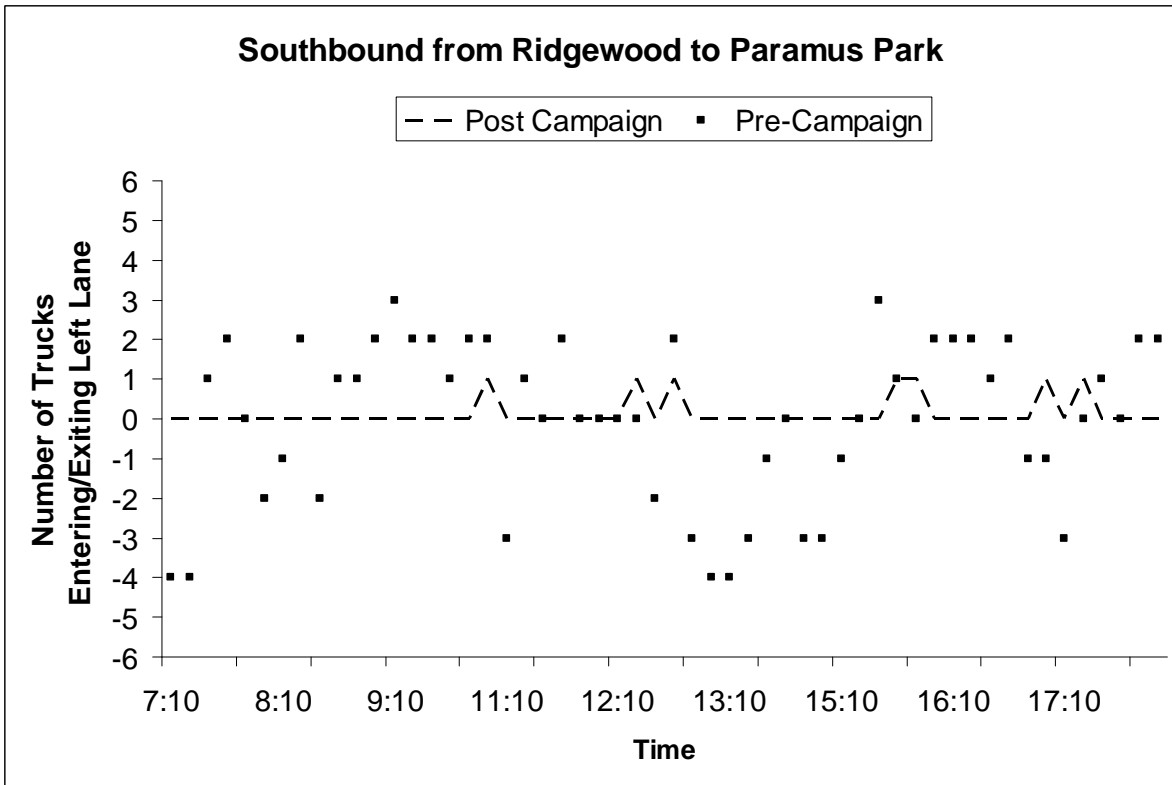


Figure 17. Number of Trucks Entering/Departing Left Lane at Midland Avenue (Southbound)

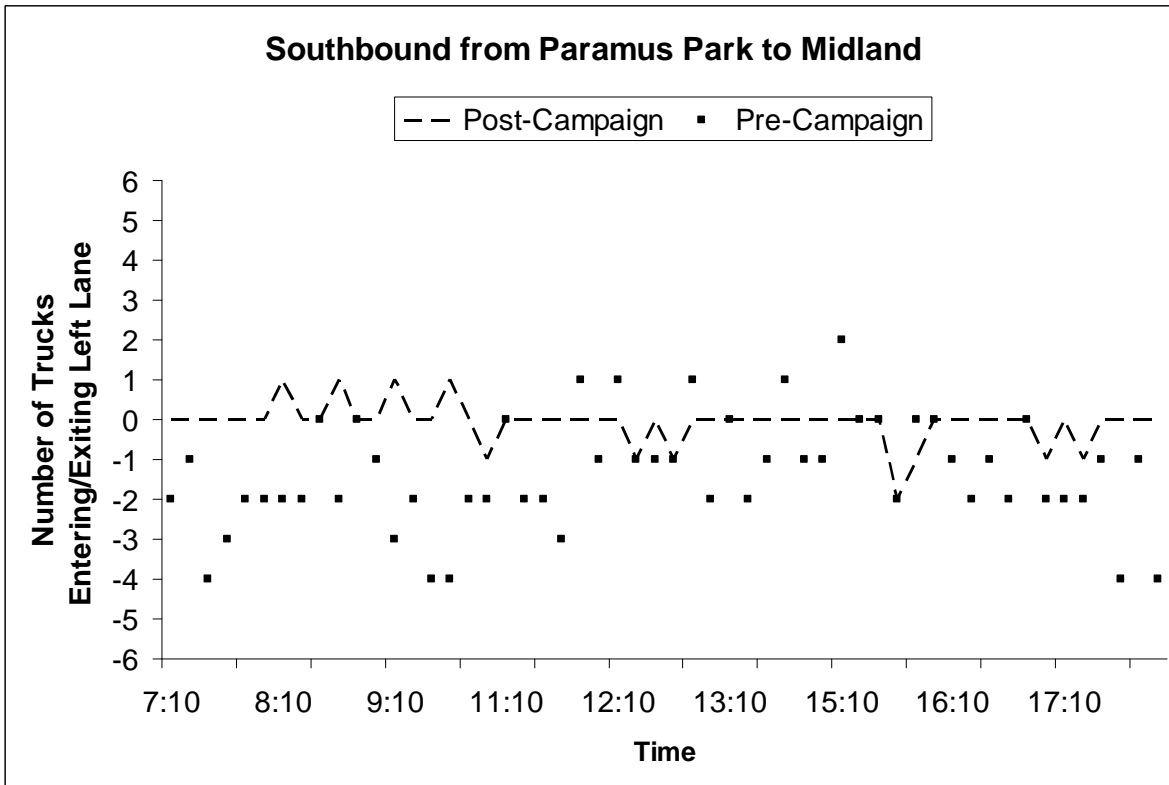


Figure 18. Number of Trucks Entering/Departing Left Lane at Century Road (Southbound)

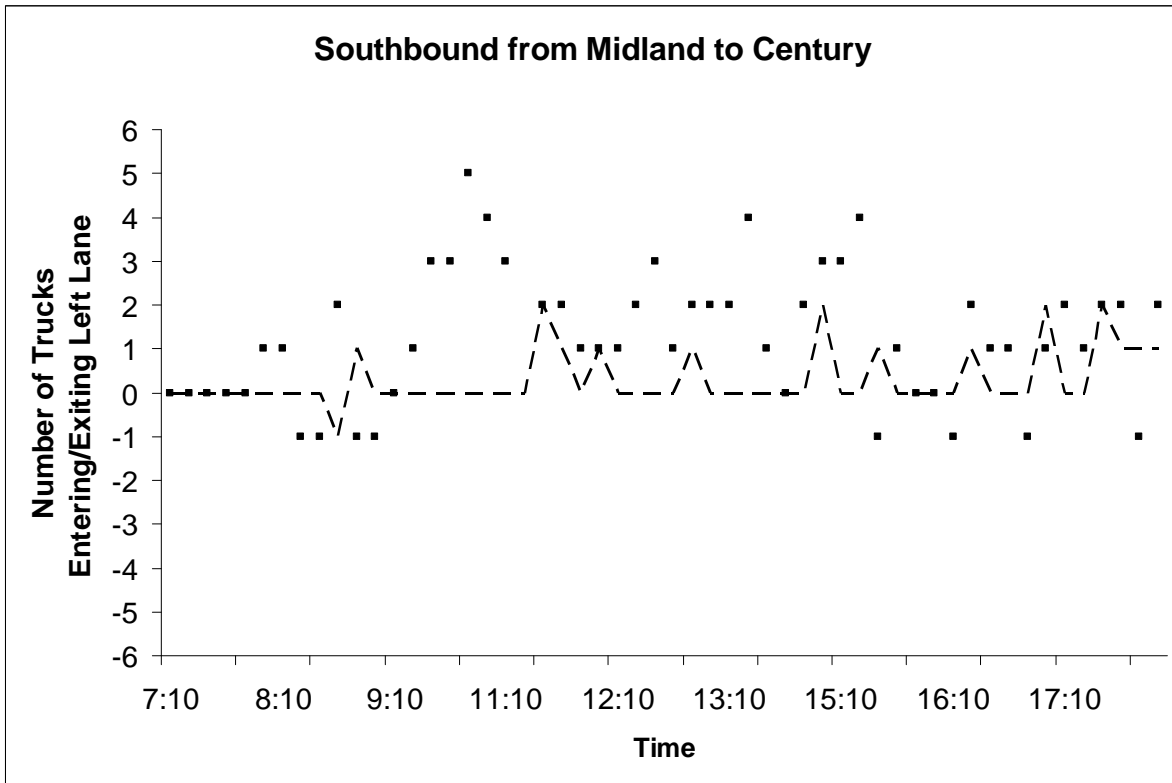


Table 13. Pre-Campaign Number of Trucks Entering/Departing Left Lane (Northbound)

| No. of Trucks Entering/Departing Left Lane ⁽¹⁾ | Between Century and Midland | | Between Midland and Paramus Park | | Between Paramus Park and Ridgewood | |
|---|--------------------------------|---------|-------------------------------------|---------|---------------------------------------|---------|
| | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| -10 | 1 | 0.37% | | | | |
| -9 | 0 | 0.00% | | | | |
| -8 | 0 | 0.00% | | | | |
| -7 | 0 | 0.00% | | | | |
| -6 | 1 | 0.37% | | | | |
| -5 | 7 | 2.59% | 3 | 1.11% | 1 | 0.37% |
| -4 | 8 | 2.96% | 1 | 0.37% | 6 | 2.22% |
| -3 | 25 | 9.26% | 7 | 2.59% | 11 | 4.07% |
| -2 | 30 | 11.11% | 29 | 10.74% | 38 | 14.07% |
| -1 | 63 | 23.33% | 62 | 22.96% | 56 | 20.74% |
| 0 | 65 | 24.07% | 61 | 22.59% | 76 | 28.15% |
| 1 | 48 | 17.78% | 61 | 22.59% | 41 | 15.19% |
| 2 | 12 | 4.44% | 34 | 12.59% | 20 | 7.41% |
| 3 | 5 | 1.85% | 12 | 4.44% | 9 | 3.33% |
| 4 | 5 | 1.85% | | | 4 | 1.48% |
| 5 | | | | | 6 | 2.22% |
| 6 | | | | | 2 | 0.74% |
| No. Entering | 135 | 50.0% | 168 | 62.2% | 158 | 58.5% |
| No. Departing | 72 | 26.7% | 40 | 14.8% | 56 | 20.7% |
| No. Change | 63 | 23.3% | 62 | 23.0% | 56 | 20.7% |
| Average No. Entering | 0.79 | | 0.98 | | 1.05 | |
| Average No. Departing | 3.90 | | 4.00 | | 3.46 | |

⁽¹⁾ A Negative number indicates the number of trucks departing the left lane; a positive number indicates the number of trucks entering the left lane.

Table 14. Post-Campaign Number of Trucks Entering/Departing Left Lane (Northbound)

| No. of Trucks Entering/Departing Left Lane ⁽¹⁾ | Between Century and Midland | | Between Midland and Paramus Park | | Between Paramus Park and Ridgewood | |
|---|-----------------------------|---------|-------------------------------------|---------|---------------------------------------|---------|
| | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| -3 | 1 | 0.37% | | | | |
| -2 | 7 | 2.59% | | | 5 | 1.85% |
| -1 | 44 | 16.30% | 4 | 1.48% | 6 | 2.22% |
| 0 | 214 | 79.26% | 255 | 94.44% | 247 | 91.48% |
| 1 | 4 | 1.48% | 6 | 2.22% | 9 | 3.33% |
| 2 | | | 5 | 1.85% | 3 | 1.11% |
| No. Entering | 4 | 1.5% | 11 | 4.1% | 12 | 4.4% |
| No. Departing | 52 | 19.3% | 4 | 1.5% | 11 | 4.1% |
| No. Change | 214 | 79.3% | 255 | 94.4% | 247 | 91.5% |
| Average No. Entering | 1.00 | | 1.45 | | 1.25 | |
| Average No. Departing | 1.17 | | 1.00 | | 1.45 | |

⁽¹⁾ A Negative number indicates the number of trucks departing the left lane; a positive number indicates the number of trucks entering the left lane.

Table 15. Pre-Campaign Number of Trucks Entering/Departing Left Lane (Southbound)

| No. of Trucks Entering/Departing Left Lane ⁽¹⁾ | Between Century and Midland | | Between Midland and Paramus Park | | Between Paramus Park and Ridgewood | |
|---|--------------------------------|---------|-------------------------------------|---------|---------------------------------------|---------|
| | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| -5 | 1 | 0.37% | 1 | 0.37% | 1 | 0.37% |
| -4 | 1 | 0.37% | 7 | 2.59% | 6 | 2.22% |
| -3 | 5 | 1.85% | 9 | 3.33% | 13 | 4.81% |
| -2 | 12 | 4.44% | 46 | 17.04% | 19 | 7.04% |
| -1 | 38 | 14.07% | 49 | 18.15% | 49 | 18.15% |
| 0 | 55 | 20.37% | 62 | 22.96% | 78 | 28.89% |
| 1 | 65 | 24.07% | 49 | 18.15% | 57 | 21.11% |
| 2 | 45 | 16.67% | 36 | 13.33% | 39 | 14.44% |
| 3 | 25 | 9.26% | 9 | 3.33% | 7 | 2.59% |
| 4 | 12 | 4.44% | 2 | 0.74% | 1 | 0.37% |
| 5 | 4 | 1.48% | | | | |
| 6 | 5 | 1.85% | | | | |
| No. Entering | 213 | 78.9% | 158 | 58.5% | 182 | 67.4% |
| No. Departing | 19 | 7.0% | 63 | 23.3% | 39 | 14.4% |
| No. Change | 38 | 14.1% | 49 | 18.1% | 49 | 18.1% |
| Average No. Entering | 1.63 | | 0.99 | | 0.88 | |
| Average No. Departing | 4.53 | | 3.19 | | 3.97 | |

⁽¹⁾ A Negative number indicates the number of trucks departing the left lane; a positive number indicates the number of trucks entering the left lane.

Table 16. Post-Campaign Number of Trucks Entering/Departing Left Lane (Southbound)

| No. of Trucks Entering/Departing Left Lane ⁽¹⁾ | Between Century and Midland | | Between Midland and Paramus Park | | Between Paramus Park and Ridgewood | |
|---|--------------------------------|---------|-------------------------------------|---------|---------------------------------------|---------|
| | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| -3 | | | 1 | 0.37% | | |
| -2 | | | 2 | 0.74% | | |
| -1 | 7 | 2.59% | 13 | 4.81% | 2 | 0.74% |
| 0 | 251 | 92.96% | 248 | 91.85% | 195 | 72.22% |
| 1 | 10 | 3.70% | 6 | 2.22% | 40 | 14.81% |
| 2 | 1 | 0.37% | 0 | 0.00% | 24 | 8.89% |
| 3 | 1 | 0.37% | 0 | 0.00% | 9 | 3.33% |
| No. Entering | 12 | 4.4% | 6 | 2.2% | 73 | 27.0% |
| No. Departing | 7 | 2.6% | 16 | 5.9% | 2 | 0.7% |
| No. Change | 251 | 93.0% | 248 | 91.9% | 195 | 72.2% |
| Average No. Entering | 1.25 | | 1.00 | | 1.58 | |
| Average No. Departing | 1.00 | | 1.25 | | 1.00 | |

⁽¹⁾ A Negative number indicates the number of trucks departing the left lane; a positive number indicates the number of trucks entering the left lane.

Lane Changing Between Midland Avenue and Paramus Park

Between Midland Avenue and Paramus Park in the northbound direction during the pre-campaign period, 62.2 percent of 10-minute truck counts showed trucks entering the left lane, 14.8 percent departed the left lane and in 23 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Midland Avenue and Paramus Park in the northbound direction trucks are generally moving into the left lane, with an average of 0.98 trucks per 10 minutes or approximately 6 trucks per hour moving into the left lane.

In the post-campaign period, 4.1 percent of the 10-minute truck counts show trucks entering the left lane, 1.5 percent departed the left lane and in 94.4 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Midland Avenue and Paramus Park in the northbound direction trucks are generally moving into the left lane, with an average of 9 trucks per hour entering the left lane and 6 trucks per hour exiting the left lane.

In the southbound direction between Paramus Park and Midland Avenue during the pre-campaign, 58.5 percent of 10-minute truck counts showed trucks entering the left lane, 23.3 percent of the time trucks departed the left lane and in 18.1 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Midland and Paramus Park in the southbound direction trucks are generally moving into the left lane, with an average of 0.99 trucks per 10 minutes or approximately 6 trucks per hour moving into the left lane.

In the post-campaign period, 2.2 percent of the 10-minute truck counts show trucks entering the left lane, 5.9 percent departed the left lane and in 91.9 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Midland and Paramus Park during the post-campaign, trucks are generally moving into the left lane, with an average of 6 trucks per hour entering the left lane and 7.5 exiting the left lane per hour.

Lane Changing Between Paramus Park and Ridgewood Road

Between Paramus Park and Ridgewood Road in the northbound direction during the pre-campaign period, 58.5 percent of 10-minute truck counts showed trucks entering the left lane, 20.7 percent of the time trucks departed the left lane and in 20.7 percent of the 10-minute counts, the number of trucks remained the same

between the two locations. The data indicates that between Paramus Park and Ridgewood Road in the northbound trucks are generally moving into the left lane, with an average of 1.05 trucks per 10 minutes or approximately 6 trucks per hour moving into the left lane.

In the post-campaign period, 4.4 percent of the 10-minute truck counts show trucks entering the left lane, 4.1 percent departed the left lane and in 91.5 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Paramus Park and Ridgewood Road in the northbound direction trucks are generally moving into the left lane, with an average of 7.5 trucks per hour entering the left lane and about 9 trucks per hour exiting the left lane.

In the southbound direction between Ridgewood Road and Paramus Park, 67.4 percent of 10-minute truck counts showed trucks entering the left lane, 14.4 percent of the time trucks departed the left lane and in 18.1 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Ridgewood Road and Paramus Park in the southbound direction trucks are generally moving into the left lane, with an average of 0.79 trucks per 10 minutes or approximately 6 trucks per hour moving into the left lane.

In the post-campaign period, 27 percent of the 10-minute truck counts show trucks entering the left lane, 0.7 percent departed the left lane and in 72.2 percent of the 10-minute counts, the number of trucks remained the same between the two locations. The data indicates that between Ridgewood and Paramus Park in the southbound direction trucks are generally moving into the left lane, with an average of 9.5 trucks per hour entering the left lane and 6 trucks per hour exiting the left lane.

CONCLUSIONS

The truck restriction analysis provided several results which are summarized as follows:

- At Century Road northbound from the pre-campaign to the post-campaign there was a 49 percent reduction in the average number of trucks using the left lane during the weekday daytime.
- In the southbound direction at Century Road, there was a 40 percent reduction in the average number of trucks using the left lane in the southbound direction.

- At Linwood Avenue northbound there was a 68.5 percent reduction in the average number of trucks using the left lane during the weekday daytime.
- In the southbound direction at Linwood Avenue, there was a 35 percent reduction in the average number of trucks using the left lane.
- Overall, the northbound direction at both Century Road and Linwood Avenue had the highest percent reduction in the average weekday number of trucks in the left lane, with a higher reduction at Century Road northbound (49.3%) compared to Linwood Avenue northbound (68.5%).
- At Century Road there is a 23 percent reduction in trucks in the left lane that can be attributable to the educational campaign.
- At Linwood Avenue, there a 27 percent reduction in trucks in the left lane in the northbound direction and 8 percent in the southbound direction that can be attributable to the educational campaign.
- There are no distinct changes in the percentage distribution of trucks by truck classification in the left lane between the pre- and post-campaign period.
- At the Century Road overpass, in the pre-campaign period the average hourly violation rate for the northbound and southbound is 4.3 percent and 4.4 percent, respectively. In the post-campaign period the average hourly violation rate is 0.9 percent and 3.0 percent for the northbound and southbound directions, respectively.
- At the Midland Avenue overpass, the average hourly violation rate for the northbound and southbound directions during the pre-campaign period is 5.5 percent and 4.3 percent, respectively, with violation rates as high as 11.5 percent during the 5:00 PM to 6:00 PM. period. There were almost no trucks using the left lane in the post-campaign period, resulting in a violation rate of almost zero percent.
- At the Paramus Park overpass, during the pre-campaign period the average hourly violation rate for the northbound and southbound directions is 5.1 percent and 5.4 percent, respectively, with violation rates as high as 9.1 percent during the 5:00 PM to 6:00 PM period. There were almost no trucks using the left lane in the post-campaign period, resulting in a violation rate of almost zero percent.
- At the Ridgewood Road overpass, the average hourly violation rate for the northbound and southbound directions is 3.5 percent and 3.0 percent, respectively, with violation rates as high as 9.4 percent during the 1:00 PM to 2:00 PM period. The post-campaign violation rate is 0.2% for both the north and southbound directions.

- The data indicates that trucks are generally moving into the left lane at a rate of:
 - 5 trucks per hour between Century Road and Midland Avenue (northbound) in the pre-campaign and 6 trucks per hour during the post-campaign
 - 10 trucks per hour between Midland Avenue and Century Road (southbound) during both the pre- and post-campaign periods
 - 6 trucks per hour between Midland Avenue and Paramus Park (northbound)
 - 6 trucks per hour Paramus Park and Midland Avenue (southbound)
 - 6 trucks per hour between Paramus Park and Ridgewood Road (northbound)
 - 6 trucks per hour Ridgewood Road and Paramus Park (southbound)

RECOMMENDATIONS

At the conclusion of the study, the Route 17 Working Group developed the following recommendations:

- As the installation of new signs proved successful in reducing the number of trucks in the left lane, it is recommended that the NJDOT paint “No Trucks in Left Lane” on the roadway pavement on the northbound segment of Route 17 just north of Farview Avenue where Route 17 changes from two to three lanes.
- As a permanent Variable Message Sign exists in the study area, it is recommended that NJDOT post “No trucks in Left Lane” messages at various times throughout the day and night.
- It was determined, through use of the License Plate Imaging Cameras that Canadian drivers are violating the left lane regulations. This may be a result of Canadian drivers not being aware of this law, and potentially other laws pertaining to truck operations. It is recommended that the State of New Jersey contact Canadian trucking organizations and provide them with “rules of the road” information.
- The Traffic Pattern Video Monitoring System installed in the study area proved to be beneficial in capturing traffic along Route 17 in portions of the study area. It is recommended that the cameras remain in place for purposes such as: investigating driver behaviors, providing real time video to police headquarters and vehicles, and obtaining traffic counts for NJDOT purposes.

APPENDIX A

Warning Notice



BOROUGH OF PARAMUS
POLICE DEPARTMENT
1 Carlough Drive
Paramus, New Jersey 07652-2724
201-262-3400 Fax 201-262-0709



FREDERICK J. CORRUBIA
CHIEF OF POLICE

RICHARD J. CARY
DEPUTY CHIEF

WARNING

The Paramus, New Jersey Police Department captured your vehicle on video traveling unlawfully in the left lane of Route 17 in Paramus, NJ.

According to NJ Statute Title 39:4-88e Traffic on Marked Lanes, "When such roadway had been divided in such a manner that there are 3 or more lanes for traffic in any one direction, no truck of 10,000 pounds registered gross weight or over shall be driven in the farthest left-hand lane, except when and to the extent necessary to prepare for a left turn, or when necessary to enter or leave such roadway by entrance or exit to or from the left lane or when reasonably necessary in response to emergency conditions."

Please refrain from traveling in the left lane, of three or more lane roadways, in New Jersey.

This notice is a warning. In the future, this unlawful action may result in a fine.

F.J. Corrubia
Chief of Police

APPENDIX B

Daily Number of Trucks and Buses Using the Left Lane

**Table B-1. Number of Trucks and Buses Using Left Lane
at Century Road (Northbound, Daytime)**

| <u>Pre-Campaign</u> | | | | <u>Post-Campaign</u> | | | |
|------------------------|--------------|--------------|---------------|------------------------|------------------|--------------|---------------|
| | <u>Date</u> | <u>Buses</u> | <u>Trucks</u> | | <u>Date</u> | <u>Buses</u> | <u>Trucks</u> |
| Tuesday | June 20,2006 | 79 | 169 | Sunday | October 1, 2006 | 43 | 8 |
| Wednesday | June 21,2006 | 95 | 191 | Monday | October 2, 2006 | 59 | 74 |
| Thursday | June 22,2006 | 104 | 219 | Tuesday | October 3, 2006 | 63 | 95 |
| Friday | June 23,2006 | 98 | 219 | Wednesday | October 4, 2006 | 69 | 95 |
| Saturday | June 24,2006 | 46 | 47 | Thursday | October 5, 2006 | 65 | 115 |
| Sunday | June 25,2006 | - | - | Friday | October 6, 2006 | 79 | 88 |
| Monday | June 26,2006 | 72 | 97 | Saturday | October 7, 2006 | 57 | 40 |
| Tuesday | June 27,2006 | 103 | 174 | Sunday | October 8, 2006 | 49 | 9 |
| Wednesday | June 28,2006 | 83 | 181 | Monday | October 9, 2006 | 114 | 79 |
| Thursday | June 29,2006 | 120 | 251 | Tuesday | October 10, 2006 | 71 | 107 |
| Friday | June 30,2006 | 109 | 213 | Wednesday | October 11, 2006 | 64 | 88 |
| Saturday | July 1,2006 | 84 | 71 | Thursday | October 12, 2006 | 61 | 104 |
| Sunday | July 2,2006 | 83 | 24 | Friday | October 13, 2006 | 87 | 87 |
| Monday | July 3,2006 | 135 | 125 | Saturday | October 14, 2006 | 47 | 34 |
| Average | | 93 | 152 | Average | | 66 | 73 |
| Weekday Average | | 100 | 184 | Weekday Average | | 73 | 93 |

**Table B-2. Number of Trucks and Buses Using Left Lane
at Century Road (Southbound, Daytime)**

| <u>Pre-Campaign</u> | | | | <u>Post-Campaign</u> | | | |
|------------------------|--------------|--------------|---------------|------------------------|-------------------------------|--------------|---------------|
| | <u>Date</u> | <u>Buses</u> | <u>Trucks</u> | | <u>Date</u> | <u>Buses</u> | <u>Trucks</u> |
| Tuesday | June 20,2006 | 88 | 150 | Sunday | October 1, 2006 | 50 | 4 |
| Wednesday | June 21,2006 | 69 | 246 | Monday | October 2, 2006 | 74 | 91 |
| Thursday | June 22,2006 | 109 | 208 | Tuesday | October 3, 2006 | 76 | 100 |
| Friday | June 23,2006 | 106 | 211 | Wednesday | October 4, 2006 | 77 | 112 |
| Saturday | June 24,2006 | 91 | 63 | Thursday | October 5, 2006 | 71 | 125 |
| Sunday | June 25,2006 | - | - | Friday | October 6, 2006 | 114 | 122 |
| Monday | June 26,2006 | 42 | 120 | Saturday | October 7, 2006 | 97 | 34 |
| Tuesday | June 27,2006 | 119 | 188 | Sunday | October 8, 2006 | 53 | 9 |
| Wednesday | June 28,2006 | 128 | 210 | Monday | October 9, 2006 | 80 | 96 |
| Thursday | June 29,2006 | 132 | 193 | Tuesday | October 10, 2006 ¹ | 10 | 34 |
| Friday | June 30,2006 | 120 | 207 | Wednesday | October 11, 2006 ¹ | - | - |
| Saturday | July 1,2006 | 99 | 63 | Thursday | October 12, 2006 ¹ | 21 | 39 |
| Sunday | July 2,2006 | 89 | 15 | Friday | October 13, 2006 | 112 | 136 |
| Monday | July 3,2006 | 133 | 148 | Saturday | October 14, 2006 | 87 | 45 |
| Average | | 102 | 156 | Average | | 81 | 79 |
| Weekday Average | | 105 | 188 | Weekday Average | | 86 | 112 |

¹ Equipment malfunctioning (not included in average values)

**Table B-3. Number of Trucks and Buses Using Left Lane
at Linwood Avenue (Northbound, Daytime)**

| <u>Pre-Campaign</u> | | | | <u>Post-Campaign</u> | | | |
|----------------------------|---------------------|--------------|---------------|-----------------------------|------------------|--------------|---------------|
| | Date | Buses | Trucks | | Date | Buses | Trucks |
| Tuesday | June 20,2006 | 88 | 19 | Sunday | October 1, 2006 | 35 | 1 |
| Wednesday | June 21,2006 | 92 | 23 | Monday | October 2, 2006 | 43 | 5 |
| Thursday | June 22,2006 | 92 | 22 | Tuesday | October 3, 2006 | 53 | 5 |
| Friday | June 23,2006 | 95 | 18 | Wednesday | October 4, 2006 | 43 | 11 |
| Saturday | June 24,2006 | 50 | 12 | Thursday | October 5, 2006 | 50 | 8 |
| Sunday | June 25,2006 | 70 | 2 | Friday | October 6, 2006 | 87 | 5 |
| Monday | June 26,2006 | 102 | 22 | Saturday | October 7, 2006 | 51 | 8 |
| Tuesday | June 27,2006 | 110 | 20 | Sunday | October 8, 2006 | 35 | 4 |
| Wednesday | June 28,2006 | 94 | 17 | Monday | October 9, 2006 | 79 | 2 |
| Thursday | June 29,2006 | 136 | 27 | Tuesday | October 10, 2006 | 55 | 8 |
| Friday | June 30,2006 | 90 | 32 | Wednesday | October 11, 2006 | 51 | 5 |
| Saturday | July 1,2006 | 82 | 13 | Thursday | October 12, 2006 | 44 | 12 |
| Sunday | July 2,2006 | 87 | 4 | Friday | October 13, 2006 | 71 | 9 |
| Monday | July 3,2006 | 88 | - | Saturday | October 14, 2006 | 36 | 7 |
| Average | | 91 | 18 | Average | | 52 | 6 |
| Weekday Average | | 99 | 22 | Weekday Average | | 58 | 7 |

**Table B-4. Number of Trucks and Buses Using Left Lane
at Linwood Avenue (Southbound, Daytime)**

| <u>Pre-Campaign</u> | | | | <u>Post-Campaign</u> | | | |
|------------------------|---------------------------|--------------|---------------|------------------------|------------------|--------------|---------------|
| | <u>Date</u> | <u>Buses</u> | <u>Trucks</u> | | <u>Date</u> | <u>Buses</u> | <u>Trucks</u> |
| Tuesday | June 20,2006 | 71 | 27 | Sunday | October 1, 2006 | 29 | 2 |
| Wednesday | June 21,2006 | 69 | 39 | Monday | October 2, 2006 | 55 | 15 |
| Thursday | June 22,2006 | 90 | 27 | Tuesday | October 3, 2006 | 69 | 18 |
| Friday | June 23,2006 | 105 | 30 | Wednesday | October 4, 2006 | 59 | 15 |
| Saturday | June 24,2006 ¹ | 36 | 16 | Thursday | October 5, 2006 | 75 | 17 |
| Sunday | June 25,2006 | 69 | 7 | Friday | October 6, 2006 | 74 | 14 |
| Monday | June 26,2006 | 104 | 25 | Saturday | October 7, 2006 | 56 | 8 |
| Tuesday | June 27,2006 | 94 | 24 | Sunday | October 8, 2006 | 37 | 12 |
| Wednesday | June 28,2006 ¹ | 88 | 24 | Monday | October 9, 2006 | 58 | 20 |
| Thursday | June 29,2006 | 100 | 33 | Tuesday | October 10, 2006 | 74 | 19 |
| Friday | June 30,2006 | 102 | 31 | Wednesday | October 11, 2006 | 56 | 11 |
| Saturday | July 1,2006 | 61 | 21 | Thursday | October 12, 2006 | 57 | 14 |
| Sunday | July 2,2006 | 78 | 8 | Friday | October 13, 2006 | 91 | 40 |
| Monday | July 3,2006 | 82 | 20 | Saturday | October 14, 2006 | 55 | 9 |
| Average | | 85 | 24 | Average | | 60 | 15 |
| Weekday Average | | 91 | 28 | Weekday Average | | 67 | 18 |

¹ Equipment malfunctioning

**Table B-5. Traffic Count and Violation Rates for Route 17
at the Century Road Overpass**

| Time | Pre-Campaign | | | | | | Post-Campaign ^a | | | | | | |
|-------------------|----------------|-----------|-----------------------------|----------------|-------------|-------------|----------------------------|----------|-----------------------------|----------------|-------------|-------------|--|
| | Left Lane | | Trucks in Other Lanes | Violation Rate | | | Left Lane | | Trucks in Other Lanes | Violation Rate | | | |
| | Non- Trucks | Trucks | | Average | Min | Max | Non- Trucks | Trucks | | Average | Min | Max | |
| Northbound | | | | | | | | | | | | | |
| 7:00 - 8:00 | 2096 | 8 | 328 | 2.3% | 1.0% | 4.5% | 1528 | 1 | 172 | 0.6% | 0.0% | 1.8% | |
| 8:00 - 9:00 | 1907 | 9 | 360 | 2.3% | 1.3% | 4.0% | 1770 | 1 | 169 | 0.8% | 0.0% | 3.1% | |
| 9:00 - 10:00 | 1224 | 15 | 404 | 3.5% | 1.6% | 6.3% | 1359 | 1 | 190 | 0.4% | 0.0% | 1.0% | |
| 11:00 - 12:00 | 1088 | 14 | 382 | 3.7% | 1.1% | 7.1% | 1165 | 2 | 186 | 1.1% | 0.0% | 2.5% | |
| 12:00 - 13:00 | 1275 | 16 | 361 | 4.2% | 2.9% | 6.7% | 1191 | 2 | 168 | 1.1% | 0.0% | 2.1% | |
| 13:00 - 14:00 | 1363 | 14 | 315 | 4.4% | 2.6% | 5.9% | 1352 | 2 | 161 | 1.2% | 0.0% | 3.5% | |
| 15:00 - 16:00 | 1390 | 15 | 263 | 5.3% | 3.8% | 8.4% | 1376 | 1 | 135 | 1.1% | 0.0% | 2.3% | |
| 16:00 - 17:00 | 1532 | 12 | 227 | 5.1% | 3.2% | 9.1% | 1480 | 1 | 116 | 1.3% | 0.0% | 3.9% | |
| 17:00 - 18:00 | 1645 | 13 | 162 | 7.7% | 4.5% | 10.3% | 1546 | 1 | 91 | 0.7% | 0.0% | 2.6% | |
| Average | 1502 | 13 | 311 | 4.3% | 2.4% | 6.9% | 1418 | 1 | 154 | 0.9% | 0.0% | 2.6% | |
| Southbound | | | | | | | | | | | | | |
| 7:00 - 8:00 | 1652 | 12 | 313 | 3.9% | 1.4% | 7.2% | 1096 | 3 | 118 | 3.1% | 0.0% | 9.1% | |
| 8:00 - 9:00 | 1409 | 11 | 272 | 3.9% | 2.3% | 6.3% | 1052 | 4 | 140 | 3.5% | 0.0% | 9.7% | |
| 9:00 - 10:00 | 1194 | 12 | 320 | 3.6% | 0.9% | 5.2% | 890 | 2 | 157 | 2.0% | 0.0% | 5.2% | |
| 11:00 - 12:00 | 1003 | 15 | 373 | 3.9% | 1.8% | 5.7% | 1113 | 2 | 141 | 2.3% | 0.0% | 5.2% | |
| 12:00 - 13:00 | 1141 | 16 | 332 | 4.5% | 2.3% | 6.1% | 1153 | 1 | 136 | 1.6% | 0.0% | 7.4% | |
| 13:00 - 14:00 | 1218 | 16 | 345 | 4.4% | 2.4% | 7.1% | 1084 | 3 | 152 | 1.9% | 0.0% | 8.0% | |
| 15:00 - 16:00 | 1192 | 16 | 274 | 5.4% | 2.9% | 8.9% | 1086 | 3 | 106 | 4.9% | 0.0% | 16.7% | |
| 16:00 - 17:00 | 1359 | 13 | 254 | 4.4% | 1.3% | 10.1% | 1119 | 3 | 96 | 3.4% | 0.0% | 7.6% | |
| 17:00 - 18:00 | 1454 | 12 | 201 | 5.5% | 2.2% | 9.3% | 1247 | 3 | 78 | 3.8% | 0.0% | 7.5% | |
| Average | 1291 | 14 | 298 | 4.4% | 2.0% | 7.3% | 1093 | 3 | 125 | 3.0% | 0.0% | 8.5% | |

^aTruck counts appears to be undercounted. Truck counts may only include tractor-trailers.

**Table B-6. Traffic Count and Violation Rates for Route 17
at the Midland Avenue Overpass**

| Time | Pre-Campaign | | | | | | Post-Campaign ^a | | | | | |
|-------------------|--------------|----------|-------------|----------------|-------------|-------------|----------------------------|----------|-------------|----------------|-------------|-------------|
| | Left Lane | | Trucks in | Violation Rate | | | Left Lane | | Trucks in | Violation Rate | | |
| | Non-Trucks | Trucks | Other Lanes | Average | Min | Max | Non-Trucks | Trucks | Other Lanes | Average | Min | Max |
| Northbound | | | | | | | | | | | | |
| 7:00 - 8:00 | 1812 | 8 | 297 | 2.6% | 1.3% | 4.2% | 1564 | 0 | 173 | 0.1% | 0.0% | 0.6% |
| 8:00 - 9:00 | 1866 | 4 | 296 | 1.4% | 0.8% | 1.8% | 1652 | 0 | 160 | 0.0% | 0.0% | 0.0% |
| 9:00 - 10:00 | 1216 | 9 | 362 | 2.5% | 0.8% | 4.1% | 1158 | 0 | 202 | 0.1% | 0.0% | 0.5% |
| 11:00 - 12:00 | 1087 | 6 | 301 | 2.1% | 0.6% | 4.4% | 1022 | 0 | 184 | 0.0% | 0.0% | 0.0% |
| 12:00 - 13:00 | 1244 | 11 | 310 | 3.4% | 1.2% | 6.2% | 1109 | 0 | 180 | 0.2% | 0.0% | 0.8% |
| 13:00 - 14:00 | 1431 | 12 | 287 | 4.1% | 1.4% | 6.5% | 1190 | 0 | 166 | 0.0% | 0.0% | 0.0% |
| 15:00 - 16:00 | 1451 | 9 | 228 | 4.0% | 2.4% | 4.5% | 1426 | 0 | 132 | 0.2% | 0.0% | 0.8% |
| 16:00 - 17:00 | 1538 | 7 | 233 | 3.1% | 1.8% | 6.6% | 1426 | 0 | 116 | 0.0% | 0.0% | 0.0% |
| 17:00 - 18:00 | 1500 | 14 | 166 | 8.5% | 5.8% | 11.5% | 1502 | 0 | 92 | 0.0% | 0.0% | 0.0% |
| Average | 1461 | 9 | 275 | 3.5% | 1.8% | 5.5% | 1339 | 0 | 156 | 0.1% | 0.0% | 0.3% |
| Southbound | | | | | | | | | | | | |
| 7:00 - 8:00 | 1777 | 10 | 276 | 3.6% | 1.5% | 5.2% | 1449 | 0 | 132 | 0.0% | 0.0% | 0.0% |
| 8:00 - 9:00 | 1406 | 10 | 256 | 3.6% | 2.8% | 4.6% | 1430 | 0 | 153 | 0.3% | 0.0% | 1.3% |
| 9:00 - 10:00 | 1209 | 5 | 247 | 2.0% | 1.1% | 3.5% | 1164 | 0 | 209 | 0.2% | 0.0% | 0.9% |
| 11:00 - 12:00 | 1080 | 8 | 347 | 2.2% | 1.0% | 3.2% | 1163 | 0 | 175 | 0.0% | 0.0% | 0.0% |
| 12:00 - 13:00 | 1157 | 8 | 283 | 2.9% | 2.2% | 4.0% | 1178 | 0 | 176 | 0.0% | 0.0% | 0.0% |
| 13:00 - 14:00 | 1239 | 10 | 312 | 3.3% | 2.5% | 5.1% | 1157 | 0 | 175 | 0.0% | 0.0% | 0.0% |
| 15:00 - 16:00 | 1144 | 8 | 257 | 3.0% | 1.9% | 3.6% | 1335 | 0 | 111 | 0.0% | 0.0% | 0.0% |
| 16:00 - 17:00 | 1370 | 5 | 218 | 2.2% | 0.8% | 4.6% | 1321 | 0 | 89 | 0.3% | 0.0% | 1.3% |
| 17:00 - 18:00 | 1454 | 6 | 192 | 3.3% | 1.1% | 5.1% | 1236 | 0 | 62 | 0.0% | 0.0% | 0.0% |
| Average | 1315 | 8 | 265 | 2.9% | 1.7% | 4.3% | 1270 | 0 | 142 | 0.1% | 0.0% | 0.4% |

^a Truck counts appears to be undercounted. Truck counts may only include tractor-trailers.

**Table B-7. Traffic Count and Violation Rates for Route 17
at the Paramus Park Overpass**

| Time | Pre-Campaign | | | | | | Post-Campaign ^a | | | | | | |
|-------------------|----------------|----------|-----------------------------|----------------|-------------|-------------|----------------------------|----------|-----------------------------|----------------|-------------|-------------|--|
| | Left Lane | | Trucks in Other Lanes | Violation Rate | | | Left Lane | | Trucks in Other Lanes | Violation Rate | | | |
| | Non- Trucks | Trucks | | Average | Min | Max | Non- Trucks | Trucks | | Average | Min | Max | |
| Northbound | | | | | | | | | | | | | |
| 7:00 - 8:00 | 1697 | 6 | 291 | 2.1% | 1.3% | 3.4% | 1564 | 0 | 103 | 0.0% | 0.0% | 0.0% | |
| 8:00 - 9:00 | 1970 | 5 | 296 | 1.7% | 0.6% | 3.3% | 1629 | 1 | 95 | 0.4% | 0.0% | 2.2% | |
| 9:00 - 10:00 | 1403 | 8 | 307 | 2.5% | 1.7% | 3.3% | 1283 | 1 | 134 | 0.2% | 0.0% | 1.2% | |
| 11:00 - 12:00 | 1236 | 9 | 290 | 3.1% | 1.2% | 5.9% | 1134 | 1 | 116 | 0.4% | 0.0% | 1.8% | |
| 12:00 - 13:00 | 1306 | 10 | 300 | 3.3% | 2.5% | 4.9% | 1215 | 1 | 115 | 0.2% | 0.0% | 1.2% | |
| 13:00 - 14:00 | 1375 | 8 | 294 | 2.7% | 1.5% | 3.6% | 1329 | 0 | 102 | 0.1% | 0.0% | 0.6% | |
| 15:00 - 16:00 | 1392 | 11 | 241 | 4.3% | 2.3% | 5.7% | 1529 | 0 | 83 | 0.0% | 0.0% | 0.0% | |
| 16:00 - 17:00 | 1753 | 12 | 239 | 5.0% | 1.8% | 6.8% | 1512 | 0 | 74 | 0.0% | 0.0% | 0.0% | |
| 17:00 - 18:00 | 1590 | 12 | 166 | 6.6% | 4.6% | 9.1% | 1635 | 0 | 58 | 0.5% | 0.0% | 2.4% | |
| Average | 1525 | 9 | 269 | 3.5% | 2.0% | 5.1% | 1426 | 0 | 98 | 0.2% | 0.0% | 1.0% | |
| Southbound | | | | | | | | | | | | | |
| 7:00 - 8:00 | 1848 | 12 | 272 | 4.3% | 1.7% | 7.9% | 1466 | 0 | 86 | 0.0% | 0.0% | 0.0% | |
| 8:00 - 9:00 | 1971 | 9 | 270 | 3.4% | 1.7% | 5.4% | 1517 | 0 | 92 | 0.0% | 0.0% | 0.0% | |
| 9:00 - 10:00 | 1514 | 9 | 283 | 3.0% | 0.9% | 6.7% | 1235 | 0 | 127 | 0.1% | 0.0% | 0.4% | |
| 11:00 - 12:00 | 1065 | 9 | 283 | 3.2% | 1.9% | 4.9% | 1016 | 0 | 93 | 0.1% | 0.0% | 0.6% | |
| 12:00 - 13:00 | 1258 | 9 | 309 | 2.7% | 1.9% | 3.7% | 1128 | 1 | 106 | 0.3% | 0.0% | 1.1% | |
| 13:00 - 14:00 | 1382 | 9 | 328 | 2.6% | 1.3% | 4.2% | 1037 | 1 | 95 | 0.1% | 0.0% | 0.7% | |
| 15:00 - 16:00 | 1326 | 8 | 252 | 3.1% | 1.3% | 4.6% | 1248 | 1 | 82 | 0.4% | 0.0% | 2.0% | |
| 16:00 - 17:00 | 1601 | 7 | 241 | 2.8% | 1.8% | 4.0% | 1200 | 0 | 78 | 0.2% | 0.0% | 0.9% | |
| 17:00 - 18:00 | 1479 | 8 | 207 | 3.6% | 1.2% | 7.6% | 1180 | 0 | 56 | 0.3% | 0.0% | 1.4% | |
| Average | 1494 | 9 | 272 | 3.2% | 1.5% | 5.4% | 1225 | 0 | 91 | 0.2% | 0.0% | 0.8% | |

^a Truck counts appears to be undercounted. Truck counts may only include tractor-trailers.

**Table B-8. Traffic Count and Violation Rates for Route 17
at the Ridgewood Road Overpass**

| Time | Pre-Campaign | | | | | | Post-Campaign ^a | | | | | |
|-------------------|--------------|-----------|-------------|----------------|-------------|-------------|----------------------------|----------|-------------|----------------|-------------|-------------|
| | Left Lane | | Trucks in | Violation Rate | | | Left Lane | | Trucks in | Violation Rate | | |
| | Non-Trucks | Trucks | Other Lanes | Average | Min | Max | Non-Trucks | Trucks | Other Lanes | Average | Min | Max |
| Northbound | | | | | | | | | | | | |
| 7:00 - 8:00 | 1405 | 3 | 336 | 0.9% | 0.0% | 2.1% | 1558 | 0 | 171 | 0.2% | 0.0% | 1.0% |
| 8:00 - 9:00 | 1525 | 3 | 303 | 0.8% | 0.3% | 1.5% | 1598 | 1 | 176 | 0.3% | 0.0% | 0.7% |
| 9:00 - 10:00 | 2040 | 7 | 514 | 1.6% | 0.8% | 2.4% | 1154 | 0 | 215 | 0.0% | 0.0% | 0.0% |
| 11:00 - 12:00 | 1207 | 14 | 280 | 4.7% | 1.8% | 8.2% | 1098 | 0 | 203 | 0.1% | 0.0% | 0.5% |
| 12:00 - 13:00 | 1233 | 15 | 299 | 4.6% | 1.5% | 7.8% | 1216 | 1 | 200 | 0.3% | 0.0% | 0.6% |
| 13:00 - 14:00 | 1994 | 25 | 411 | 5.6% | 3.5% | 9.4% | 1298 | 1 | 184 | 0.6% | 0.0% | 1.8% |
| 15:00 - 16:00 | 1651 | 9 | 234 | 3.9% | 1.5% | 8.0% | 1632 | 0 | 149 | 0.0% | 0.0% | 0.0% |
| 16:00 - 17:00 | 1641 | 4 | 213 | 2.4% | 0.4% | 5.7% | 1634 | 0 | 123 | 0.2% | 0.0% | 0.9% |
| 17:00 - 18:00 | 2253 | 11 | 239 | 6.6% | 1.2% | 13.3% | 1589 | 0 | 96 | 0.0% | 0.0% | 0.0% |
| Average | 1661 | 10 | 314 | 3.5% | 1.2% | 6.5% | 1420 | 0 | 169 | 0.2% | 0.0% | 0.6% |
| Southbound | | | | | | | | | | | | |
| 7:00 - 8:00 | 1791 | 12 | 262 | 4.4% | 2.3% | 8.4% | 1499 | 0 | 159 | 0.4% | 0.0% | 1.9% |
| 8:00 - 9:00 | 1892 | 6 | 267 | 2.3% | 0.7% | 5.1% | 1618 | 0 | 168 | 0.0% | 0.0% | 0.0% |
| 9:00 - 10:00 | 2484 | 18 | 430 | 3.4% | 2.2% | 5.0% | 1246 | 1 | 202 | 0.3% | 0.0% | 1.6% |
| 11:00 - 12:00 | 1115 | 9 | 313 | 3.0% | 1.4% | 4.7% | 1050 | 1 | 179 | 0.4% | 0.0% | 1.1% |
| 12:00 - 13:00 | 1212 | 12 | 304 | 3.5% | 0.7% | 6.7% | 1184 | 0 | 178 | 0.3% | 0.0% | 0.7% |
| 13:00 - 14:00 | 1811 | 23 | 497 | 3.6% | 0.7% | 6.3% | 1229 | 0 | 169 | 0.2% | 0.0% | 0.8% |
| 15:00 - 16:00 | 1431 | 5 | 262 | 1.9% | 0.8% | 2.5% | 1436 | 0 | 143 | 0.2% | 0.0% | 0.8% |
| 16:00 - 17:00 | 1670 | 4 | 233 | 1.9% | 0.4% | 5.6% | 1410 | 0 | 136 | 0.0% | 0.0% | 0.0% |
| 17:00 - 18:00 | 2328 | 11 | 319 | 2.8% | 1.9% | 4.2% | 1326 | 0 | 92 | 0.0% | 0.0% | 0.0% |
| Average | 1748 | 11 | 321 | 3.0% | 1.2% | 5.4% | 1333 | 0 | 158 | 0.2% | 0.0% | 0.8% |

^aTruck counts appears to be undercounted. Truck counts may only include tractor-trailers.

Table B-9. Truck Classification at Century Road Northbound

| Date | Truck Classification Scheme | | | | | | | Date | Truck Classification Scheme | | | | | | |
|----------------|-----------------------------|--------------|-------------|--------------|--------------|-------------|-------------|------------------|-----------------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Pre-Campaign | | | | | | | | Post-Campaign | | | | | | |
| June 20, 2006 | 27 | 39 | 6 | 39 | 31 | 3 | 0 | October 1, 2006 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| June 21, 2006 | 27 | 57 | 3 | 63 | 38 | 0 | 3 | October 2, 2006 | 21 | 3 | 1 | 2 | 45 | 0 | 1 |
| June 22, 2006 | 29 | 62 | 3 | 60 | 75 | 1 | 1 | October 3, 2006 | 36 | 10 | 1 | 2 | 44 | 0 | 1 |
| June 23, 2006 | 19 | 64 | 1 | 74 | 68 | 0 | 6 | October 4, 2006 | 32 | 2 | 0 | 1 | 57 | 1 | 2 |
| June 24, 2006 | 9 | 13 | 0 | 13 | 23 | 0 | 0 | October 5, 2006 | 35 | 7 | 5 | 0 | 66 | 0 | 2 |
| June 25, 2006 | | | | | | | | October 6, 2006 | 31 | 8 | 2 | 0 | 47 | 0 | 0 |
| June 26, 2006 | 10 | 24 | 0 | 29 | 42 | 0 | 1 | October 7, 2006 | 19 | 0 | 4 | 0 | 17 | 0 | 0 |
| June 27, 2006 | 34 | 37 | 2 | 34 | 78 | 1 | 4 | October 8, 2006 | 4 | 0 | 0 | 0 | 3 | 0 | 2 |
| June 28, 2006 | 29 | 49 | 1 | 46 | 103 | 1 | 2 | October 9, 2006 | 37 | 3 | 1 | 0 | 37 | 0 | 0 |
| June 29, 2006 | 52 | 49 | 6 | 85 | 82 | 0 | 1 | October 10, 2006 | 42 | 8 | 1 | 0 | 53 | 0 | 3 |
| June 30, 2006 | 66 | 30 | 1 | 48 | 75 | 0 | 3 | October 11, 2006 | 32 | 7 | 3 | 0 | 46 | 0 | 0 |
| July 1, 2006 | 16 | 14 | 1 | 11 | 33 | 0 | 2 | October 12, 2006 | 47 | 6 | 1 | 1 | 49 | 0 | 0 |
| July 2, 2006 | 7 | 2 | 0 | 3 | 15 | 0 | 0 | October 13, 2006 | 37 | 7 | 2 | 1 | 40 | 0 | 0 |
| July 3, 2006 | 28 | 17 | 1 | 44 | 42 | 0 | 0 | October 14, 2006 | 14 | 3 | 0 | 0 | 17 | 0 | 0 |
| July 5, 2006 | 42 | 24 | 0 | 34 | 82 | 0 | 1 | | | | | | | | |
| Total | 395 | 481 | 25 | 583 | 787 | 6 | 24 | Total | 368 | 64 | 21 | 7 | 528 | 1 | 11 |
| Percent | 17.2% | 20.9% | 1.1% | 25.3% | 34.2% | 0.3% | 1.0% | Percent | 36.8% | 6.4% | 2.1% | 0.7% | 52.8% | 0.1% | 1.1% |

Table B-10. Truck Classification at Century Road Southbound

| Date | Truck Classification Scheme | | | | | | | Date | Truck Classification Scheme | | | | | | |
|----------------|-----------------------------|-------------|-------------|-------------|--------------|-------------|-------------|------------------|-----------------------------|--------------|--------------|--------------|--------------|-------------|-------------|
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Pre-Campaign | | | | | | | | Post-Campaign | | | | | | |
| June 20, 2006 | 27 | 19 | 1 | 7 | 90 | 0 | 5 | October 1, 2006 | 0 | 2 | 0 | 1 | 0 | 1 | 0 |
| June 21, 2006 | 75 | 21 | 5 | 3 | 149 | 0 | 7 | October 2, 2006 | 11 | 21 | 18 | 16 | 21 | 2 | 2 |
| June 22, 2006 | 50 | 17 | 3 | 2 | 142 | 0 | 3 | October 3, 2006 | 27 | 13 | 23 | 13 | 21 | 0 | 3 |
| June 23, 2006 | 63 | 15 | 0 | 3 | 138 | 0 | 1 | October 4, 2006 | 27 | 7 | 24 | 19 | 32 | 0 | 3 |
| June 24, 2006 | 20 | 4 | 0 | 1 | 35 | 0 | 2 | October 5, 2006 | 21 | 17 | 23 | 23 | 37 | 0 | 4 |
| June 25, 2006 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | October 6, 2006 | 25 | 13 | 21 | 22 | 38 | 0 | 3 |
| June 26, 2006 | 31 | 6 | 0 | 3 | 80 | 0 | 0 | October 7, 2006 | 8 | 11 | 3 | 7 | 4 | 0 | 1 |
| June 27, 2006 | 40 | 13 | 1 | 2 | 132 | 0 | 0 | October 8, 2006 | 5 | 1 | 0 | 2 | 1 | 0 | 0 |
| June 28, 2006 | 53 | 20 | 0 | 13 | 118 | 0 | 4 | October 9, 2006 | 21 | 14 | 20 | 12 | 29 | 0 | 0 |
| June 29, 2006 | 50 | 10 | 1 | 8 | 122 | 0 | 2 | October 10, 2006 | 12 | 3 | 5 | 7 | 7 | 0 | 0 |
| June 30, 2006 | 62 | 13 | 1 | 8 | 120 | 1 | 2 | October 11, 2006 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 1, 2006 | 26 | 2 | 1 | 2 | 26 | 0 | 6 | October 12, 2006 | 10 | 5 | 5 | 7 | 12 | 0 | 0 |
| July 2, 2006 | 5 | 3 | 0 | 0 | 7 | 0 | 0 | October 13, 2006 | 50 | 22 | 16 | 12 | 32 | 0 | 4 |
| July 3, 2006 | 50 | 17 | 0 | 13 | 66 | 1 | 0 | October 14, 2006 | 19 | 5 | 3 | 6 | 10 | 0 | 2 |
| Total | 552 | 160 | 13 | 65 | 1225 | 2 | 32 | Total | 236 | 134 | 161 | 147 | 244 | 3 | 22 |
| Percent | 24.0% | 7.0% | 0.6% | 2.8% | 53.2% | 0.1% | 1.4% | Percent | 24.9% | 14.1% | 17.0% | 15.5% | 25.8% | 0.3% | 2.3% |

Table B-11 Truck Classification at Linwood Avenue Northbound

| Date | Truck Classification Scheme | | | | | | | Date | Truck Classification Scheme | | | | | | |
|----------------|-----------------------------|--------------|-------------|-------------|--------------|-------------|-------------|------------------|-----------------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Pre-Campaign | | | | | | | | Post-Campaign | | | | | | |
| June 20, 2006 | 10 | 2 | 0 | 1 | 6 | 0 | 0 | October 1, 2006 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| June 21, 2006 | 9 | 7 | 0 | 2 | 5 | 0 | 0 | October 2, 2006 | 4 | 0 | 0 | 0 | 1 | 0 | 0 |
| June 22, 2006 | 10 | 7 | 0 | 1 | 4 | 0 | 0 | October 3, 2006 | 4 | 1 | 0 | 0 | 0 | 0 | 0 |
| June 23, 2006 | 8 | 4 | 0 | 1 | 4 | 0 | 0 | October 4, 2006 | 7 | 1 | 0 | 0 | 3 | 0 | 0 |
| June 24, 2006 | 5 | 1 | 0 | 0 | 5 | 0 | 0 | October 5, 2006 | 5 | 0 | 0 | 0 | 3 | 0 | 0 |
| June 25, 2006 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | October 6, 2006 | 4 | 0 | 0 | 0 | 1 | 0 | 0 |
| June 26, 2006 | 12 | 6 | 0 | 2 | 4 | 0 | 0 | October 7, 2006 | 6 | 1 | 0 | 0 | 1 | 0 | 0 |
| June 27, 2006 | 12 | 1 | 0 | 1 | 8 | 0 | 0 | October 8, 2006 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| June 28, 2006 | 8 | 1 | 0 | 1 | 8 | 0 | 0 | October 9, 2006 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| June 29, 2006 | 21 | 2 | 0 | 1 | 7 | 0 | 0 | October 10, 2006 | 6 | 2 | 0 | 0 | 0 | 0 | 0 |
| June 30, 2006 | 19 | 4 | 0 | 1 | 10 | 0 | 0 | October 11, 2006 | 4 | 0 | 0 | 0 | 1 | 0 | 0 |
| July 1, 2006 | 6 | 7 | 0 | 0 | 4 | 0 | 0 | October 12, 2006 | 10 | 1 | 0 | 0 | 1 | 0 | 0 |
| July 2, 2006 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | October 13, 2006 | 8 | 1 | 0 | 0 | 0 | 0 | 0 |
| July 3, 2006 | 10 | 5 | 0 | 0 | 4 | 0 | 0 | October 14, 2006 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 134 | 48 | 0 | 11 | 70 | 0 | 0 | Total | 69 | 7 | 0 | 0 | 13 | 0 | 0 |
| Percent | 51.0% | 18.3% | 0.0% | 4.2% | 26.6% | 0.0% | 0.0% | Percent | 77.5% | 7.9% | 0.0% | 0.0% | 14.6% | 0.0% | 0.0% |

Table B-12. Truck Classification at Linwood Avenue Southbound

| Date | Truck Classification Scheme | | | | | | | Date | Truck Classification Scheme | | | | | | |
|----------------|-----------------------------|--------------|-------------|--------------|-------------|-------------|-------------|------------------|-----------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Pre-Campaign | | | | | | | | Post-Campaign | | | | | | |
| June 20, 2006 | 12 | 9 | 2 | 3 | 0 | 0 | 1 | October 1, 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| June 21, 2006 | 17 | 7 | 3 | 9 | 3 | 0 | 0 | October 2, 2006 | 10 | 0 | 1 | 1 | 3 | 0 | 0 |
| June 22, 2006 | 13 | 6 | 1 | 6 | 1 | 0 | 0 | October 3, 2006 | 16 | 1 | 1 | 0 | 0 | 0 | 0 |
| June 23, 2006 | 16 | 7 | 3 | 3 | 1 | 0 | 0 | October 4, 2006 | 9 | 3 | 0 | 2 | 1 | 0 | 0 |
| June 24, 2006 | 13 | 2 | 0 | 0 | 1 | 0 | 0 | October 5, 2006 | 16 | 1 | 0 | 0 | 0 | 0 | 0 |
| June 25, 2006 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | October 6, 2006 | 9 | 1 | 0 | 3 | 1 | 0 | 0 |
| June 26, 2006 | 17 | 5 | 0 | 3 | 0 | 0 | 0 | October 7, 2006 | 5 | 2 | 0 | 0 | 1 | 0 | 0 |
| June 27, 2006 | 11 | 5 | 2 | 4 | 2 | 0 | 0 | October 8, 2006 | 12 | 0 | 0 | 0 | 0 | 0 | 0 |
| June 28, 2006 | 11 | 5 | 4 | 3 | 1 | 0 | 0 | October 9, 2006 | 15 | 4 | 0 | 1 | 0 | 0 | 0 |
| June 29, 2006 | 19 | 3 | 3 | 5 | 3 | 0 | 0 | October 10, 2006 | 14 | 2 | 1 | 2 | 0 | 0 | 0 |
| June 30, 2006 | 21 | 5 | 1 | 3 | 1 | 0 | 0 | October 11, 2006 | 5 | 2 | 1 | 2 | 1 | 0 | 0 |
| July 1, 2006 | 9 | 8 | 2 | 2 | 0 | 0 | 0 | October 12, 2006 | 11 | 1 | 0 | 0 | 2 | 0 | 0 |
| July 2, 2006 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | October 13, 2006 | 27 | 9 | 1 | 0 | 3 | 0 | 0 |
| July 3, 2006 | 15 | 2 | 1 | 2 | 0 | 0 | 0 | October 14, 2006 | 7 | 1 | 0 | 0 | 1 | 0 | 0 |
| Total | 184 | 69 | 22 | 43 | 13 | 0 | 1 | Total | 157 | 28 | 5 | 11 | 13 | 0 | 0 |
| Percent | 55.4% | 20.8% | 6.6% | 13.0% | 3.9% | 0.0% | 0.3% | Percent | 73.4% | 13.1% | 2.3% | 5.1% | 6.1% | 0.0% | 0.0% |