

ELMHURST SPEEDWAY

A STUDY OF LAWBREAKING IN ELMHURST



TRANSPORTATION
ALTERNATIVES

INTRODUCTION



TWENTY-THIRD AVENUE IS AN EAST-WEST FOUR-LANE ARTERIAL ROAD running through East Elmhurst, Queens. With two lanes of traffic in either direction, it supports a diverse array of LaGuardia Airport traffic. The avenue is lined with single-family residential homes with neighborhood commercial stores and restaurants at its intersections. Although 23rd Avenue cuts through residential areas, many motorists including drivers of city buses, shuttle buses and large commercial trucks speed. These drivers put local residents in harm's way.

According to data from the New York State Department of Transportation, from 2000 to 2009, there were 29 incidents of motorists crashing into pedestrians or bicyclists on 23rd Avenue. Of the 29 crashes, 20 involved pedestrians, including one fatality.

In the August 2010 *Pedestrian Safety Study and Action Plan*, the New York City Department of Transportation found that pedestrian fatalities occur disproportionately along multi-lane streets and avenues like 23rd Avenue. The study also found that speeding, driver inattention and failure to yield are the underlying factors behind the vast majority of pedestrian fatalities or serious injuries. Transportation Alternatives conducted **a series of weekday and weekend speed surveys on 23rd Avenue. The findings are startling: 80 percent of all motorists on 23rd Avenue exceeded the speed limit.** After conducting this study, T.A. and the Office of New York City Council Member Julissa Ferreras believe that enforcement of the speed limit is necessary on 23rd Avenue. We hope to collaborate with the New York City Police Department to find a solution that ensures a safer 23rd Avenue for all users.

RESULTS

THE SPEED LIMIT ON 23RD AVENUE, LIKE ALL NEW YORK CITY STREETS IS 30 MPH, unless otherwise posted. A series of weekday and weekend speed surveys found that **80 percent** of all motorists on 23rd Avenue exceeded the legal speed limit. The highest single-day recorded percentage of speeding motorists was **84 percent**, observed on a weekday evening. Across the duration of the four speed surveys, the fastest motorist surveyed was traveling at **60 mph** on a weekday afternoon, double the 30 mph speed limit. The speed survey highlights a dangerous disregard for the law and confirms the need for enforcement of the 30 mph speed limit along this corridor.

	AVERAGE (*TOTAL)
TOTAL CARS SURVEYED	989*
PERCENT EXCEEDING THE SPEED LIMIT	80 percent
FASTEST SPEED RECORDED	58 MPH
PERCENT TRAVELING 5 MPH ABOVE SPEED LIMIT	56 percent
PERCENT TRAVELING 10 MPH ABOVE SPEED LIMIT	24 percent
AVERAGE SPEED	35.73 MPH
10 MPH PACE	N/A
PERCENT IN PACE	63 percent

An average of **56 percent** of all motorists on 23rd Avenue traveled 5 mph or greater over the speed limit. The highest single day survey illustrated **64 percent** of motorists on a weekday evening traveling at least 5 mph over the speed limit.

The 10 mph pace represents the highest percentage of vehicles traveling in a 10 mph speed range (for example, 26 to 35 mph). Typically, the midpoint of the 10 mph pace corresponds with the average (mean) speed of the roadway. The 10 mph pace can help determine if there is a uniform speed of traffic flow on a roadway. On 23rd Avenue, the traffic flow is at dangerously high levels. The highest 10 mph pace recorded was 31-40 mph, demonstrating a clear culture of speeding. In the absence of enforcement, drivers have increased their collective speed. This exposes everyone on the road to a greater risk of harm. These findings illustrate a need for the NYPD to step up its efforts on 23rd Avenue.

LARGE COMMERCIAL TRUCK AND BUS ANALYSIS

	CUMULATIVE OF ALL SURVEYS CONDUCTED
TOTAL CARS SURVEYED	100
PERCENT EXCEEDING THE SPEED LIMIT	79 percent
FASTEST SPEED RECORDED	51 MPH
PERCENT TRAVELING 5 MPH ABOVE SPEED LIMIT	52 percent
AVERAGE SPEED	34.71
10 MPH PACE	29-38 MPH
PERCENT IN PACE	70 percent

THERE ARE SEVERAL FACTORS THAT AFFECT THE SAFETY OF LARGER VEHICLES WHEN THEIR SPEED IS INCREASED. Commercial trucks and buses are many times heavier than smaller pickups and sedans, which means that when they are involved in collisions, they strike with many times more force. This greatly increases the chance of injury and death when these vehicles are involved in a crash. The faster a truck or bus is going, the longer it takes for the driver to move out of the way of an obstacle and less time to react to an emergency situation. An average city bus traveling at 30 mph requires 75 feet or two full bus lengths to come to a complete stop.

Surveyors recorded a total of 100 commercial trucks and buses over the duration of the study and found that **79 percent** of all trucks and buses exceeded the speed limit. The fastest commercial truck or bus recorded was traveling at an alarming **51 mph**. At that speed, a bus would require 175 feet to reach a full stop, nearly six bus lengths. Equally as alarming, the surveyors found that **52 percent** of all trucks and buses were traveling at least 5 mph above the speed limit.

CURRENT LEVEL OF ENFORCEMENT OF THE SPEED

	115TH PRECINCT SPEEDING TICKETS ISSUED	SPEEDING TICKETS ISSUED IN NEW YORK CITY
Feb-12	6	6,872
Mar-12	23	7,078
Apr-12	19	5,948
May-12	17	5,582

IN FEBRUARY OF 2011, THE CITY COUNCIL PASSED LOCAL LAW 12. This law requires the NYPD to electronically publish data including the number of tickets issued for moving violations, the number of traffic crashes and the number of injuries and fatalities resulting from those crashes. The data is updated once a month and is broken down by borough and police precinct. Data on the number of crashes, fatalities and injuries is searchable by intersection.

Using this data, Transportation Alternatives conducted an analysis of the current level of enforcement by the 115th Precinct which encompasses East Elmhurst. The findings illustrate a disconnect between threats to public safety and local police enforcement strategies. In the 115th Precinct speeding summonses were never more than one percent of all tickets issued for moving violations. Nearly four times as many tinted window tickets were issued as speeding tickets.

	115TH PRECINCT TINTED WINDOW TICKETS ISSUED	TINTED WINDOW TICKETS ISSUED IN NEW YORK CITY
Feb-12	127	10,160
Mar-12	144	10,235
Apr-12	71	8,854
May-12	74	8,803

In February of 2012, the 115th Precinct issued six speeding tickets. Our series of weekday and weekend speed surveys conducted in February, March and April found that 80 percent of all motorists on 23rd Avenue exceeded the speed limit. With only a handful of tickets issued each month and 80 percent of drivers exceeding the speed limit, it's unclear if 115th Precinct takes the issue of speeding seriously.

TAKE ACTION: How many speeding tickets has your precinct issued? Find out now on the NYPD's web site : http://www.nyc.gov/html/nypd/html/traffic_reports/traffic_summons_reports.shtml

MOVING FORWARD: RECOMMENDATIONS

THE SPEEDING OBSERVED DURING THIS STUDY IS A SIGNIFICANT DANGER to everyone who uses 23rd Avenue. Without enforcement, drivers will continue to put the lives of community members at risk.

Our results show that the highest speeds on 23rd Avenue are exhibited on weekday evenings. This is when sidewalks and intersections are busiest. In the afternoon, children are getting out school, or as one surveyor witnessed, playing on sidewalks adjacent to speeding traffic. The evenings draw larger volumes of pedestrians and bicyclists running errands or attending one of the many religious institutions located along 23rd Avenue.

While the analysis of speeding tickets issued by the 115th Precinct doesn't explain if the lack of enforcement comes from the NYPD's limited resources or that speeding isn't a priority, there are ways to make the streets of East Elmhurst safer. Automated enforcement devices, such as speed cameras and red light cameras, can help catch many of the moving violations that are difficult to control through traditional traffic enforcement techniques. Because New York State Law requires authorization from the State Legislature to implement automated enforcement in New York City, efforts to fully implement this common sense tool have been stifled. Although the City is currently authorized to operate 150 red light cameras, they're not authorized to operate speed cameras. Transportation Alternatives calls on the State Legislature to pass Bill A7737/S7481, the "Neighborhood Speeds for Neighborhood Streets Act." This legislation would authorize a speed camera pilot program in New York City. Speed cameras are a low-cost, proven technology and are currently in place in over 100 American municipalities.

TAKE ACTION: Ask your Assembly Member to sign on as a co-sponsor of **The Neighborhood Speeds for Neighborhood Streets Act:** <http://transalt.org/takeaction/actioncenter/6199>

This report, written by the Office of Council Member Julissa Ferreras and Transportation Alternatives, illustrates that speeding on 23rd Avenue is a major problem endangering the well-being of East Elmhurst residents. In order to make the streets of this city safe, stronger enforcement of traffic laws is a must.

Recognizing limitations in resources, the NYPD must prioritize enforcement against driver behaviors that put pedestrians at risk. We aim to support the NYPD in creating deterrents to dangerous driving behavior, and increase street safety for the pedestrians and bicyclists who are the most vulnerable users of our roads.

METHODOLOGY

FOR THIS STUDY, TRANSPORTATION ALTERNATIVES UTILIZED THE RADAR METER METHOD. A radar meter (radar gun) is a commonly used device for directly measuring vehicle speed. The surveyors used a Bushnell Velocity speed gun capable of recording speeds from 6-200 mph, at a distance of up to 1,500 feet.

Due to the high vehicle volumes on 23rd Avenue between 7 and 10 am and again between 4 and 7 pm, speeding is less likely during these peak travel times. Based on input gathered from the community, a total of four speed surveys were conducted on 23rd Avenue near 96th Street. The conducted two weekday surveys (1 -- 2:30 pm), one weekday evening survey (7 -- 8:30 pm) and one weekend evening survey (7 -- 8:30 pm).

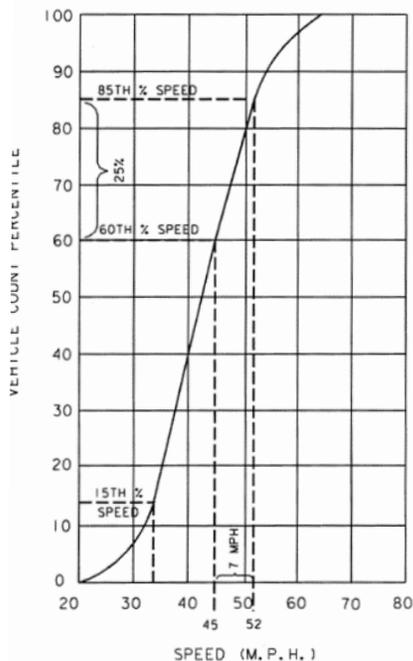
SELECTION STRATEGY

SURVEYORS WERE ASKED TO STAND MID-BLOCK allowing motorists ample time and distance to accelerate away from the previous signal. Data was only collected from motorists traveling at “free-flow” speed. Free-flow speed is the term used to describe the average speed that a motorist would travel if there was no congestion or other adverse conditions, such as bad weather. Speed data was typically collected from the first car in a fleet approaching a green light or individual cars mid-cycle that was preceded by a five second or greater gap. Vehicles slowing to execute left or right turns and vehicles approaching a red light were excluded.

23rd Avenue is a wide four-lane roadway with a median dividing traffic. In an effort to collect accurate data, surveyors were asked to spend half their time collecting data from vehicles traveling in one direction, then cross the street and collect data from vehicles traveling in the opposite direction.

Speeding by commercial trucks or buses was a concern. Whenever a commercial truck or bus met the selection strategy and was recorded, surveyors were asked to mark a “T” next to the speed so analysis could be done later.

GLOSSARY



85TH PERCENTILE: The 85th percentile speed is a well-recognized value that is important in speed studies. This value shows the speed at which 85 percent of the vehicles are traveling at or below. This is also the speed that is typically used to set speed limits, since experience has shown that a speed limit near this value is the maximum safe and reasonable speed for a roadway. This value is most often used to describe a speed study, because it's easy for the public and elected officials to understand. However, this data alone does not give a complete understanding of traffic speeds on a roadway and, in particular, it does not address the percentage of outlying speeds that residents are often concerned with.

50TH PERCENTILE: The 50th percentile is the median speed of the observed data set. This percentile represents the speed at which half of the observed vehicles are below and half of the observed vehicles are above.

15TH PERCENTILE: Most cumulative speed distribution curves “break” at approximately 15 percent and 85 percent of the total number of observations (see figure below). Consequently, the motorists observed in the lower 15 percent are considered to be traveling unreasonably slow and those observed above the 85th percentile value are assumed to be exceeding a safe and reasonable speed.

AVERAGE SPEED: This number is the statistical average. All speeds were added then divided by the number of vehicles counted.

10 MPH PACE: The 10 mph pace represents the highest percentage of vehicles traveling in a 10 mph speed range (for example, 25 to 35 mph). Typically, the midpoint of the 10 mph pace corresponds with the average (mean) speed of the roadway. The 10 mph pace can help determine if there is a uniform speed of traffic flow on a roadway, which results in increased safety. However, similar to the 85th percentile speed, this method does not take outlying speed data into account.

PERCENT IN PACE: The percentage of motorists traveling within the 10 mph pace.

PERCENT OVER PACE: The percentage of motorists traveling above the 10 mph pace.

PERCENT UNDER PACE: The percentage of motorists traveling under the 10 mph pace.

PERCENT EXCEEDING THE SPEED LIMIT: The speed limit in New York City is 30 mph unless otherwise posted. For this study, any motorist traveling 31 mph or greater was considered to be exceeding the speed limit.

PERCENT OF VEHICLES TRAVELING 5 MPH ABOVE THE SPEED LIMIT: This method calculates the percentage of vehicles that are traveling at speeds 5 mph above the posted speed limit. It provides a fairly simple way of understanding the outlying speed data on a street.