

ITSMR Research Note

KEY FINDINGS

TICKETS ISSUED FOR DRUG-IMPAIRED DRIVING

- The number of drivers ticketed for drug-impaired driving rose 20% between 2007 and 2011, while the number of drivers ticketed for alcohol-impaired driving dropped 15%.
- 32% of the drug-impaired driving tickets were issued on weekends, compared to 52% of the tickets issued for alcohol-impaired driving.
- Drug-impaired driving tickets were more likely to be issued during the day (31% vs. 10% from 9am-6pm), while alcohol-impaired driving tickets were more likely to be issued at night (77% vs. 49% from 9pm-6am).

DRIVERS TICKETED FOR DRUG-IMPAIRED DRIVING

- 24% of the drivers ticketed for drug-impaired driving in 2010 and 2011 were women, up from 17% in 2007. In comparison, 25% of the drivers ticketed for alcohol-impaired driving in 2011 were women, up from 22% in 2007.
- The largest proportion of drivers ticketed for drug-impaired driving and alcohol-impaired driving each year 2007-2011 were in the 21-29 year age group (36% and 37%, respectively, in 2011).
- The proportion of drivers ticketed for drug-impaired driving under age 21 decreased between 2007 and 2011 (24% vs. 17%), while the proportion ages 21-39 increased from 49% to 56%. In comparison, the distribution of drivers ticketed for alcohol-impaired driving by age showed little variation between 2007 and 2009.
- 26% of the drug-impaired drivers were also ticketed for alcohol-impaired driving; 14% were also ticketed for speeding compared to 21% of the alcohol-impaired drivers ticketed.

CONCLUSIONS

- Differences between drivers ticketed for drug-impaired and alcohol-impaired driving and their driving patterns (time of day/day of week) highlight the need to develop enhanced enforcement strategies.
- The findings also support the work of the GTSC and the Advisory Council on Impaired Driving to address the problem of drug-impaired driving and improve the effectiveness of public awareness efforts to educate the motoring public on the dangers of driving under the influence of drugs.

Drivers Ticketed for Drug-Impaired Driving on New York Roadways

ABSTRACT

A recent study conducted by the Institute for Traffic Safety Management and Research found that the involvement of drugs is a serious issue in fatal crashes, with one out of six fatalities (16%) being drug-related. This finding, together with an awareness that the use of both prescription drugs and illegal drugs continues to increase, is of concern to the NYS Governor's Traffic Safety Committee (GTSC) and the state's Advisory Council on Impaired Driving. To address this concern, the GTSC funded the Institute for Traffic Safety Management and Research (ITSMR) to conduct another drug-related study to determine the number of drivers that have been ticketed for drug-impaired driving on New York's roadways and examine the demographic characteristics of those drivers. The study involved the analyses of arrest data from the state's Traffic Safety Law Enforcement and Disposition (TSLED) ticket system for the five-year period 2007-2011. The analyses also included comparisons to tickets issued for alcohol-impaired driving. Key findings from the analyses are noted in the box on the left.

INTRODUCTION

A recent study conducted by the Institute for Traffic Safety Management and Research (ITSMR) found that the involvement of drugs is a serious issue in fatal crashes, with one out of six fatalities (16%) being drug-related. This finding is consistent with recent research conducted by the National Highway Traffic Safety Administration (NHTSA) that showed 18% of the drivers killed in motor vehicle crashes in 2009 tested positive for drugs, up from 13% in 2005.¹ Although testing positive for drugs means drugs were found in the driver's system, it does not imply impairment; however, this upward trend indicates that driving under the influence of drugs is becoming a more prevalent driving behavior among motorists on the nation's roadways.

The findings from ITSMR's study, together with an awareness that the use of both prescription drugs and illegal drugs continues to expand, are of concern to the NYS Governor's Traffic Safety Committee (GTSC) and the state's Advisory Council on Impaired Driving. To address this concern, the GTSC funded ITSMR to conduct a second study on drugs and driving to 1) determine the number of drivers ticketed for drug-impaired driving on New York roadways and the demographic characteristics of those drivers, and 2) examine differences and/or similarities with alcohol-impaired driving arrests.

RESEARCH METHODOLOGY

The primary objectives of the study were to determine the number of drivers ticketed for drug-impaired driving and identify the key characteristics of those drivers. The study also sought to identify and examine differences between drivers ticketed for drug-impaired driving and alcohol-impaired driving. Based on these objectives, the study addressed the following key research questions:

- ❖ How many drivers each year are ticketed for drug-impaired driving? How many tickets for drugged-driving are issued each year?
- ❖ What are the characteristics (i.e., investigating police agency, day of week, time of day) associated with the arrest event? Are there identifiable differences in these characteristics between drug-impaired arrests and alcohol-impaired arrests?
- ❖ What characteristics (i.e., age and gender) are associated with the driver ticketed for drug-impaired driving and have those characteristics changed over the past five years? Are there identifiable differences in age and gender between drivers ticketed for drug-impaired driving and drivers ticketed for alcohol-impaired driving?
- ❖ In addition to being ticketed for drug-impaired driving, what other VTL violations were these drivers charged with during the same traffic stop?

The study defined a drug-impaired driving arrest as one in which the driver was charged with a violation of the VTL Section 1192.4 (DWAI Drugs) or 1192.4a (DWAI Drugs & Alcohol). An alcohol-impaired driving arrest is defined as one in which the driver was charged with a violation of VTL Section 1192.1 (DWAI), 1192.2 (Per Se) or 1192.3 (DWI).

Data Sources and Data Analyses

The data source for the study was the NYS Department of Motor Vehicles' Traffic Safety Law Enforcement and Disposition (TSLED) system. The TSLED file contains a variety of data on drivers ticketed for violations of the state's Vehicle and Traffic Law (VTL), including the age and gender of the driver, county where the ticket was issued, specific section of the VTL violated, disposition of the ticket and the sanctions imposed. TSLED captures data on tickets issued in all areas of the state except for New York City and a portion of the five western townships of Suffolk County on Long Island. TSLED also excludes tickets issued in the cities of Buffalo and Rochester, except for tickets issued in violation of VTL Section 1192 (operating a motor vehicle while under the influence of alcohol or drugs). The tickets issued in New York City and a portion of the five western townships of Suffolk County for VTL Section 1192 violations are captured by different systems. Since these systems do not have the same detailed data available as in TSLED, the ticket analyses for this study were restricted to the data available from TSLED. As such, it is important to note that TSLED captures data on 75%-80% of the VTL 1192 tickets issued annually across the state.

Analyses were conducted to determine the number of drivers ticketed and the number of tickets issued for drug-impaired driving each year, 2007-2011. To conduct the analyses, data on all tickets issued for VTL violations 1192.1 - 1192.4 were extracted for these five years from the TSLED system. The analyses examined various characteristics associated with the issuance of the ticket, including the enforcement agency involved, day of week, time of day, and other tickets issued during the same traffic stop. The analyses also examined the demographic characteristics of the driver (age and gender) and differences between motorists ticketed for drug-impaired driving offenses and motorists ticketed for alcohol-impaired driving offenses. All of the data analyses were conducted by ITSMR project staff with the use of SAS and Excel software.

RESULTS OF TICKET ANALYSES

To address the research questions noted above, various analyses of the data on drug-impaired driving arrests were conducted for the five-year period, 2007-2011. The analyses examined: 1) the number of drivers ticketed and the number of tickets issued, 2) characteristics of the arrest event, and 3) characteristics of the drivers ticketed. In addition, the analyses also included comparisons between drivers ticketed for drug-impaired driving and drivers ticketed for alcohol-impaired driving.

Drivers Ticketed and Tickets Issued

As shown in Table 1, the number of drivers ticketed for drug-impaired driving rose from 3,310 in 2007 to 4,156 in 2010, followed by a decrease to 3,970 in 2011, representing an overall increase of 20% between 2007 and 2011. Similarly, the number of tickets issued for drug-impaired driving experienced an overall increase of 21% between 2007 and 2011 (3,481 vs. 4,198). Drivers arrested for 1192.4 (DWAI drugs) offenses increased 10% and arrests for 1192.4a (DWAI Drugs & Alcohol) more than doubled (322 vs. 710) over the five years.

In contrast, the number of drivers ticketed for alcohol-impaired driving offenses declined by 15% between 2007 and 2011 (45,829 vs. 39,164). The number of tickets issued for alcohol-impaired driving offenses dropped from more than 75,000 in 2007 to less than 69,000 in 2011, representing a decrease of 8%. As further indicated in Table 1, the number of tickets issued for VTL 1192.2, 2aa or 2ab (Per Se and Aggravated DWI) and VTL 1192.3 (DWI) violations each decreased approximately 8% between 2007 and 2011, while the number of tickets issued for VTL 1192.1 (DWAI) dropped 24%.

	2007	2008	2009*	2010*	2011*	Change 2007-2011
Drug-Impaired Driving						
Drivers Ticketed	3,310	3,355	3,799	4,156	3,970	19.9%
Tickets Issued	3,481	3,581	4,043	4,390	4,198	20.6%
1192.4	3,159	3,095	3,432	3,654	3,488	10.4%
1192.4a	322	486	611	736	710	120.5%
Alcohol-Impaired Driving						
Drivers Ticketed	45,829	44,531	45,053	43,023	39,164	-14.5%
Tickets Issued	75,123	76,078	77,750	75,043	68,804	-8.4%
1192.1	1,656	2,191	2,215	1,674	1,257	-24.1%
1192.2, 2aa, 2ab	34,340	34,486	35,218	34,464	31,734	-7.6%
1192.3	39,127	39,401	40,317	38,905	35,813	-8.5%

* Suffolk County PD became a TSLED agency in mid-2009, resulting in increases in the total number of TSLED tickets issued and persons ticketed for impaired driving by TSLED agencies.

Source: NYS DMV TSLED System.

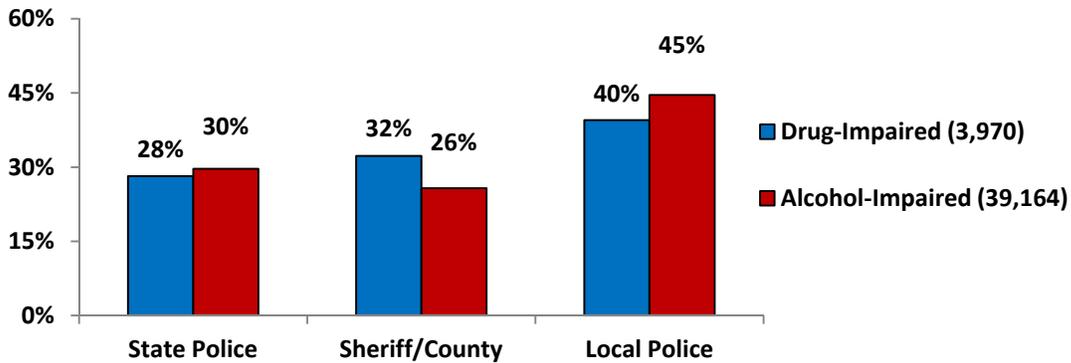
Characteristics of the Arrest Event

Analyses were conducted to examine various characteristics associated with drug-impaired driving arrests, including the issuing enforcement agency, day of week and time of day. Since the analyses of the annual data for these variables showed only small variations from year to year, only the data for 2011 are presented below. Additional analyses were conducted to examine differences between drug-impaired and alcohol-impaired driving arrests. The results of this comparison are also included below.

Enforcement Agency

Analyses by enforcement agency show some differences between drug-impaired and alcohol-impaired driving arrests. As shown in Figure 1, local police agencies (excluding the NYPD) arrested the largest proportion of both drug-impaired and alcohol-impaired drivers (40% and 45%, respectively). The second largest proportion of drug-impaired drivers was arrested by sheriff/county agencies (32%), while the second largest proportion of alcohol-impaired drivers was arrested by the State Police (30%).

FIGURE 1
Drivers Ticketed by Enforcement Agency
Drug-Impaired vs. Alcohol-Impaired
2011

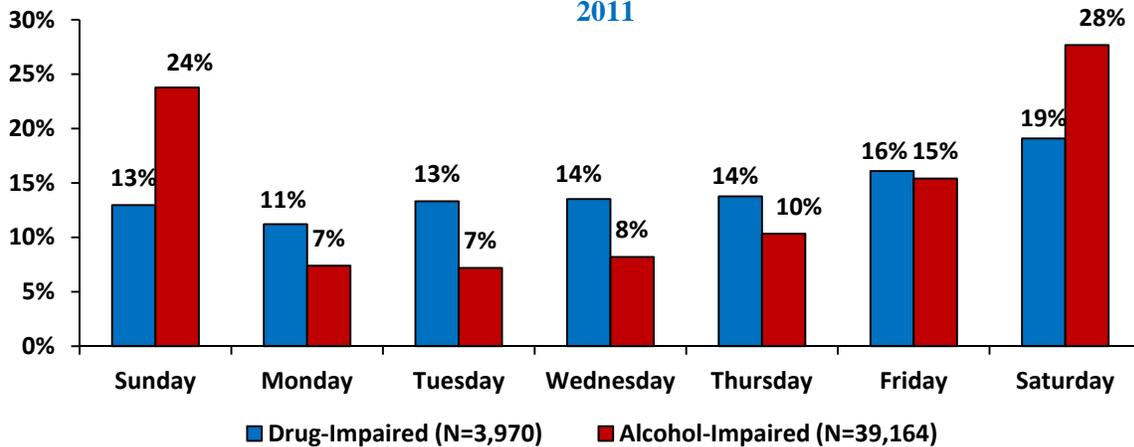


Source: NYS DMV TSLED System

Day of Week

As shown in Figure 2, while drug-impaired driving arrests were most likely to occur on Saturday (19%), they were fairly evenly distributed over the other days (11%-16%). This pattern is very different from that of alcohol-impaired driving offenses, with alcohol-impaired arrests being much more likely than drug-impaired arrests to occur on weekends (52% vs. 32%) and much less likely to occur on weekdays (48% vs. 68%).

FIGURE 2
Drivers Ticketed by Day of Week
Drug-Impaired vs. Alcohol-Impaired
2011

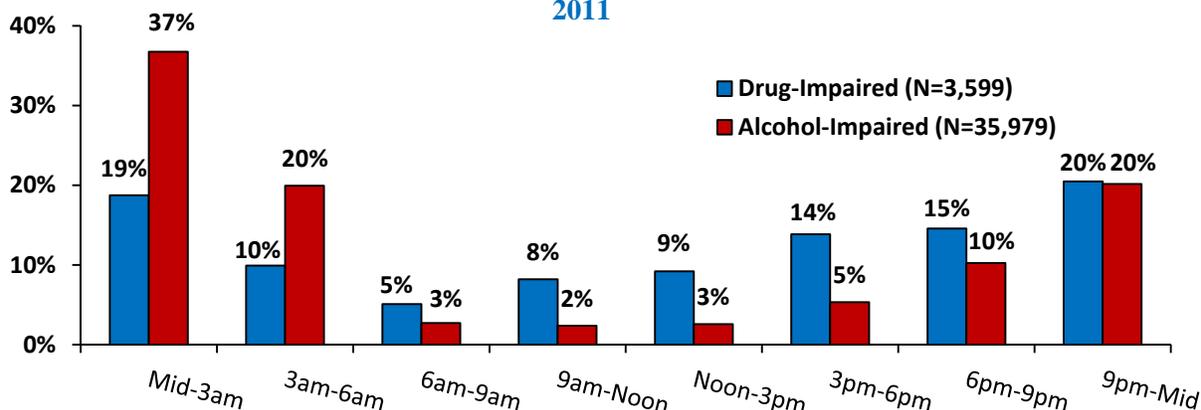


Source: NYS DMV TSLED System

Time of Day

The arrests for drug-impaired driving also followed a different pattern than arrests for alcohol-impaired driving when examined by time of day (Figure 3). One-half (49%) of the drug-impaired driving arrests occurred at night (9pm-6am) compared to three-quarters (77%) of the alcohol-impaired arrests, while 31% of the drug-impaired driving arrests occurred during the day (9am-6pm) compared to 10% of the alcohol-impaired driving arrests.

FIGURE 3
Drivers Ticketed by Time of Day
Drug-Impaired vs. Alcohol-Impaired
2011



Source: NYS DMV TSLED System

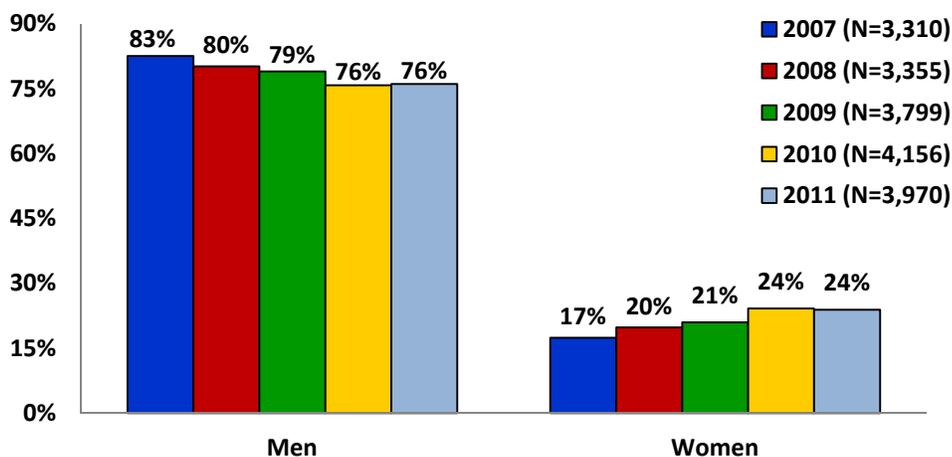
Characteristics of Drivers Ticketed for Drug-Impaired Driving

To determine the characteristics of drivers ticketed for drug-impaired driving, analyses were conducted to examine the age and gender of the drug-impaired driver. Also examined were other tickets issued during the same arrest event. In addition, analyses sought to identify changes over time with respect to these variables and to examine differences between drivers ticketed for drug-impaired offenses and alcohol-impaired offenses.

Driver Gender

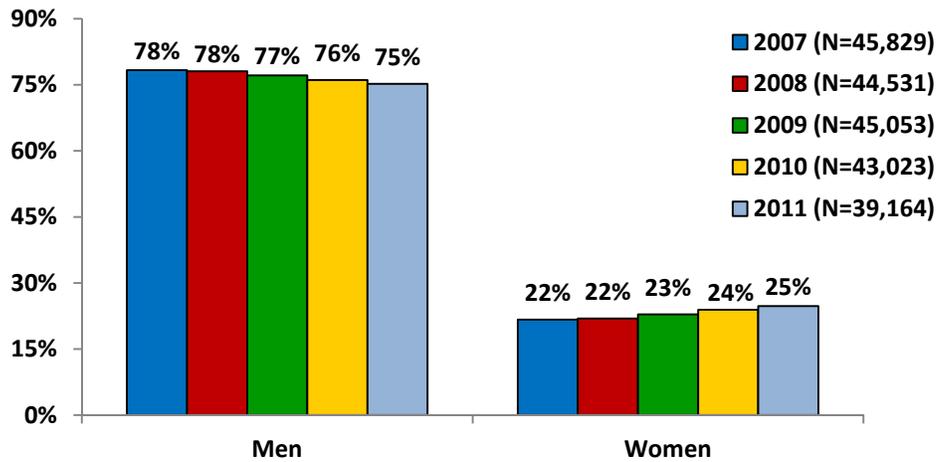
In 2011, three-quarters of both the drivers ticketed for drug-impaired and alcohol-impaired driving were men and one-quarter were women (Figures 4A & 4B). An examination of the trends over the five years, 2007-2011, shows that the proportion of drivers ticketed for drug-impaired driving who were women increased from 17% in 2007 to 24% in 2010 and 2011, while the proportion of drivers ticketed for alcohol-impaired driving who were women rose from 22% to 25%.

FIGURE 4A
Drivers Ticketed for Drug-Impaired Driving by Gender



Source: NYS DMV TSLED System

FIGURE 4B
Drivers Ticketed for Alcohol-Impaired Driving by Gender

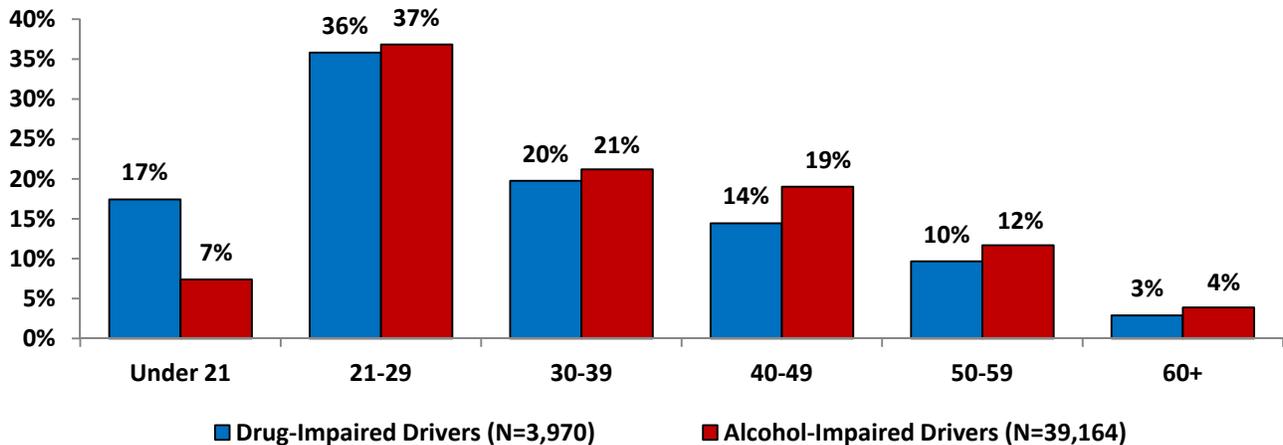


Source: NYS DMV TSLED System

Driver Age

The largest proportion of drivers ticketed for drug-impaired and alcohol-impaired driving each year were in the 21-29 age group. Figure 5 shows that in 2011 36% and 37%, respectively, of the drivers ticketed for drug-impaired and alcohol-impaired driving were ages 21-29. The next largest proportion of drivers ticketed each year were in the 30-39 age group (20% and 21%, respectively, in 2011). As might be expected due to the state's impaired driving laws, drivers ticketed for alcohol-impaired driving were far less likely than drivers ticketed for drug-impaired driving to be under age 21 (7% vs. 17%).

FIGURE 5
Drivers Ticketed for Impaired Driving by Age
Drug-Impaired vs. Alcohol-Impaired
2011



Source: NYS DMV TSLED System

Further examination of the data shows a shift between 2007 and 2011 in the distribution of drivers ticketed for drug-impaired driving by age. Table 2 shows that the proportion of drug-impaired drivers in the under 21 and 40-49 age groups dropped (24% vs. 17% and 18% vs. 14%, respectively), while the proportion increased in the 21-29, (32% vs. 36%), 30-39 (17% vs. 20%) and 50-59 (8% vs. 10%) age groups.

In comparison, Table 2 shows a different pattern between 2007 and 2011 for drivers ticketed for alcohol-impaired driving offenses. The proportion of drivers ticketed for alcohol-impaired driving showed little variation among the age groups.

TABLE 2				
Drivers Ticketed for Impaired Driving				
By Age: 2007 Versus 2011				
Driver Age	Drug-Impaired Drivers		Alcohol-Impaired Drivers	
	2007	2011	2007	2011
Under 21	24%	17%	9%	7%
21-29	32%	36%	37%	37%
30-39	17%	20%	21%	21%
40-49	18%	14%	20%	19%
50-59	8%	10%	10%	12%
60+	2%	2%	3%	4%

Source: NYS DMV TSLED System

Tickets Issued for Other VTL Violations

Analyses were also conducted to examine the extent to which drivers ticketed for drug-impaired driving were also ticketed for other VTL violations during the same traffic stop and to identify differences between the other violations associated with drug-impaired and alcohol-impaired drivers ticketed. The results of these analyses are summarized in Table 3.

As shown in Table 3, of the drug-impaired drivers ticketed, 26% were also ticketed for an alcohol-impaired driving offense and 14% were ticketed for a speeding violation. In comparison, 21% of the drivers ticketed for alcohol-impaired driving were also ticketed for speeding; less than 3% were also ticketed for drug-impaired driving.

TABLE 3		
Tickets Issued for Other Selected VTL Violations		
2011		
VTL Violation	Drug-Impaired Drivers	Alcohol-Impaired Drivers
	(N=3,970)	(N=39,164)
Speeding	14%	21%
Alcohol (1192.1-.3)	26%	NA
Drugs (1192.4 & 4a)	NA	3%
Seat Belts	5%	3%
Traffic Control Device	2%	2%
Cell Phones	1%	1%

Source: NYS DMV TSLED System

SUMMARY AND CONCLUSIONS

Based on a recent study conducted by ITSMR that found that approximately one out of six fatalities (16%) was drug-related in each of the past five years, 2007-2011, the GTSC funded ITSMR to conduct this additional study on drugs and driving. The primary objectives of this study were to 1) determine the number of drivers ticketed annually for drug-impaired driving on New York roadways and the demographic characteristics of those drivers and 2) identify differences and/or similarities with alcohol-impaired driving arrests.

The overall findings of the study indicate that arrests for drug-impaired driving are on a general upward trend, increasing 20% between 2007 and 2011, while arrests for alcohol-impaired driving are on a general downward trend, decreasing 15% between 2007 and 2011 (Table 4).

TABLE 4		
Drivers Ticketed & Tickets Issued for Impaired Driving		
Change between 2007 and 2011		
	Drug-Impaired Drivers	Alcohol-Impaired Drivers
Drivers Arrested	+ 19.9%	- 14.5%
Tickets Issued	+ 20.6%	- 8.4%

Source: NYS DMV TSLED System

The study found that the proportion of drivers ticketed for drug-impaired driving or alcohol-impaired driving who were women increased between 2007 and 2011, with a larger increase occurring among drug-impaired drivers (17% in 2007 vs. 24% in 2011). With respect to driver age, the study found that the largest proportion of drivers ticketed for drug-impaired or alcohol-impaired driving were ages 21-29 (36% and 37%, respectively, in 2011). The findings further showed, however, differences in the distribution by age between 2007 and 2011 among drivers ticketed for drug-impaired driving and those ticketed for alcohol-impaired driving. The proportion of drivers ticketed for drug-impaired driving under age 21 decreased, while the proportions of drivers ages 21-29, 30-39 and 50-59 increased. In comparison, the proportion of drivers ticketed for alcohol-impaired driving showed little variation among the age groups between 2007 and 2011.

These differences between drug-impaired and alcohol-impaired drivers, as well as differences in driving patterns related to time of day and day of week, should be useful information for developing enforcement strategies and other countermeasures. These findings should also enhance the work of the GTSC and the Advisory Council on Impaired Driving in their efforts to address the problem of drug-impaired driving among motorists in New York State and improve the effectiveness of public awareness efforts to educate the motoring public on the dangers of driving under the influence of drugs.

REFERENCES

1. Office of National Drug Control Policy. 2011. *Drug Testing and Drug-Involved Driving of Fatally Injured Drivers in the United States: 2005-2009*. Washington D.C.