

# **TRAFFIC LAW SANCTIONS**

## **Executive Summary**

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FINAL REPORT**

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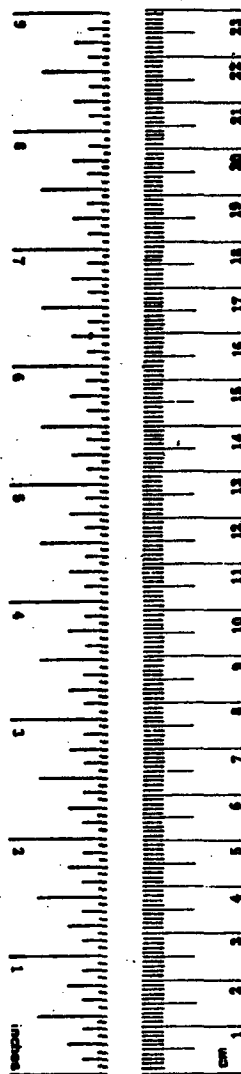
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16. Abstract					
<p>Surveys of the driver population were conducted in Colorado, Maryland, and North Carolina for the purpose of determining driver perceptions on several different subjects, including (1) the chances of being caught by the police for specific unsafe driving actions, (2) the chances of being found guilty by the courts if a challenge were made, (3) the fine for a first violation of an offense, (4) the perceived severity of the fine, and (5) other related topics of interest of a deterrence nature. Questions on these topics were asked on seven different offenses which had been identified in previous NHTSA research as being the primary unsafe driving actions associated with accident causation. The seven offenses were speeding 10 miles per hour over the posted speed limit, speeding 20 miles per hour over the posted speed limit, driving while intoxicated, running a traffic light or stop sign, following a moving car too closely, turning in front of oncoming traffic, and crossing the center line of the roadway.</p> <p>Through an independent data collection effort, it was also possible to obtain the citation history of all survey respondents and whether they had appeared in court for a particular violation. The number of citations for each type of offense was obtained for a three-year period prior to the survey. A total of over 2,600 drivers participated in the survey. The Final Report provides details on the survey responses as related to citation histories.</p>					
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## METRIC CONVERSION FACTORS

### Approximate Conversions to Metric Measures

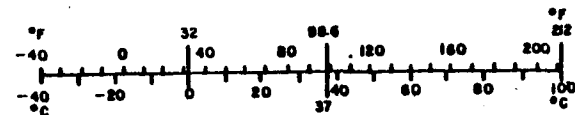
Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
<b>AREA</b>				
in <sup>2</sup>	square inches	6.5	square centimeters	cm <sup>2</sup>
ft <sup>2</sup>	square feet	0.93	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yards	0.8	square meters	m <sup>2</sup>
mi <sup>2</sup>	square miles	2.6	square kilometers	km <sup>2</sup>
	acres	0.4	hectares	ha
<b>MASS (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
<b>VOLUME</b>				
sp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft <sup>3</sup>	cubic feet	0.03	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.76	cubic meters	m <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

\*1 m = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286.



### Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
<b>AREA</b>				
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
km <sup>2</sup>	square kilometers	0.4	square miles	mi <sup>2</sup>
ha	hectares (10,000 m <sup>2</sup> )	2.5	acres	
<b>MASS (weight)</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
<b>VOLUME</b>				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	36	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



## EXECUTIVE SUMMARY

### INTRODUCTION

Surveys of the driver population were conducted in Colorado, Maryland, and North Carolina for the purpose of determining driver perceptions on several different subjects, including (1) the chances of being caught by the police for specific unsafe driving actions, (2) the chances of being found guilty by the courts if a challenge were made, (3) the fine for a first violation of an offense, (4) the perceived severity of the fine, and (5) other related topics of interest of a deterrence nature. Questions on these topics were asked on seven different offenses which had been identified in previous NHTSA research as being the primary unsafe driving actions associated with accident causation. The seven offenses were speeding 10 miles per hour over the posted speed limit, speeding 20 miles per hour over the posted speed limit, driving while intoxicated (DWI), running a traffic light or stop sign, following a moving car too closely, turning in front of on-coming traffic, and crossing the center line of the roadway.

Through an independent data collection effort, it was also possible to obtain the citation history of all survey respondents and whether they had appeared in court for a particular violation. The number of citations for each type of offense was obtained for a three-year period prior to the survey. In addition, data were collected on the level of traffic law enforcement by local law enforcement agencies during the period of the survey. These data were obtained in order to control for the differences in the level of enforcement in the three jurisdictions of the survey.

## SURVEY RESULTS

The jurisdictions for the survey were Denver, Colorado; Anne Arundel County, Maryland; and Raleigh (Wake County), North Carolina. The number of drivers surveyed for which three-year violation histories were obtained were 869 drivers in Colorado; 904 drivers in Maryland; and 866 drivers in North Carolina. The surveys were conducted at local driver licensing stations at the time that drivers came to obtain a renewal license. Because all drivers must periodically appear at the renewal station, it was believed that the sample was representative of the driving population.

During the analysis, it was found beneficial to divide the respondents into five groups according to the number of major and/or minor violations which they had acquired over the three-year period prior to the survey. The group definitions were as follows:

- Group 1--No minor and no major violations
- Group 2--One to three minor violations but no major violations;
- Group 3--Four or more minor violations but no major violations;
- Group 4--One major violation and possibly some minor violations;
- Group 5--Two or more major violations and possibly some minor violations.

Generally, a minor violation was defined as a violation for which a driver could be assigned up to three "points" on the driver record while a major violation had four or more points associated with it. Major violations included driving while

intoxicated, reckless driving, and speeding more than 30 miles per hour over the posted speed limit.

The sample size for each group and the average number of citations which had been acquired over the three-year period were as follows:

		Colorado	Maryland	North Carolina
Group 1	N	405	412	366
Group 2	N	372	313	382
	Citations	1.51	1.37	1.41
Group 3	N	39	94	35
	Citations	4.36	4.82	4.69
Group 4	N	41	68	68
	Citations	2.46	2.72	2.21
Group 5	N	12	17	15
	Citations	3.33	4.24	4.07

These averages are of interest because they do not vary greatly across the three states. With each group, the difference between the lowest and the highest average is always less than one citation. For example, with Group 2, the Maryland drivers had the lowest average of 1.37 minor violations while Colorado had the highest average of 1.51 minor violations. As another example, Groups 4 and 5 can be combined to form a group with one or more major violations. This combination gives an average of 2.67 citations for the Colorado respondents, 3.02 citations for the Maryland respondents, and 2.54 citations for the North Carolina respondents. Once again, the three averages differ by only a small amount.

Part of the selection criteria was to select states with sanction policies which could be rated in terms of severity as low, intermediate, and high. With these states, Maryland

represents the high sanction state, North Carolina the intermediate sanction state, and Colorado the low sanction state. In terms of the actual fines, it was determined after selection that the states did not differ as greatly in fine structure as originally believed. Colorado has the lowest actual fine structure while Maryland and North Carolina have higher but similar actual fine structures. Given this circumstance, it would be expected that the average citation level in Colorado for these groups would be higher than the other states if violation levels were related to sanction severity. As the above averages indicate, this circumstance is not the case. The Colorado averages do not emerge as being very different from the other two states.

Data on the actual speeds of vehicles were also collected at each jurisdiction in order to account for variations in violation rates. This violation was chosen because it is by far the most common violation and, as a practical matter, it is the easiest to measure in sufficient volume. Speed data were collected on four typical roadways in each jurisdiction over a one-week period. An analysis of the speed data indicated no evidence that sanction severity is related to the speed violation rates.

Other primary results from the survey are as follows:

On the Perceptions of Being Caught by the Police for an Unsafe Driving Act:

1. The Colorado responses were usually lower on average than the Maryland or North Carolina responses.
2. Respondents greatly overestimated the chances of being detected for each type of violation. Respondents also gave extreme variations in their responses.
3. The distribution of the averages across the groups is different in each jurisdiction

As an example of the first point, consider the offense of driving 10 MPH over the posted speed limit. The respondents were



asked: For every 100 drivers who commit these act, how many, in your opinion, will be caught by the police in the (Denver, Anne Arundel, Raleigh) area? The averages by group were as follows:

Average Estimated Detection Responses for  
Driving 10 MPH Over the Limit

	Colorado	Maryland	North Carolina
Group 1	17.4	27.8	26.8
Group 2	22.4	28.7	25.2
Group 3	24.8	28.5	30.6
Group 4	24.3	30.0	26.5
Group 5	9.9	26.7	48.0

The Group 1 respondents from Colorado stated that about 17 out of every 100 drivers would be caught while Group 1 respondents from the other two jurisdictions stated about 27 out of every 100 drivers would be caught.

This same pattern holds true for the other groups. With the remaining types of offenses, the Colorado averages were almost always lower (with the exceptions being that Group 2 or Group 3 averages from one of the other states might occasionally be higher).

With all the types of violations, the responses in each state ranged from zero percent to 100 percent. In Colorado, there were 26 persons who answered the above question with a zero response and at the other extreme, there were 6 persons who responded with 100. The same type of extremes occurred in the other two states. The response of 100 percent is, of course, completely unrealistic in almost all enforcement environments and reflects the lack of knowledge about true detection rates on the part of drivers. On the other hand, responses which are low, such as 0 to 5 percent, are certainly valid in many situations.

On the Perceptions of Court Convictions:

1. Respondents had more realistic estimates on the chances of being found guilty in court. This result is complicated by fine reductions and/or suspensions.
2. Using the five groups, no significant differences were found in the perceptions of the Colorado and North Carolina respondents. In Maryland, Groups 3, 4, and 5 had higher averages than Groups 1 and 2.
3. Other differences were found in average perceptions by dividing the groups into Court Appearance versus No Court Appearance.

As an example of the first point, consider the offense of DWI. The respondents were asked how many out of 100 drivers who appeared in court on this charge would be found guilty of committing the violation. The responses by group were as follows:

Court Conviction Responses for DWI

	Colorado	Maryland	North Carolina
Group 1	67.7	58.8	70.7
Group 2	72.9	63.3	73.0
Group 3	69.8	72.6	77.3
Group 4	73.4	72.0	70.8
Group 5	69.3	70.3	76.3

Most of these values are close to the 70.0 percent figure which other research by NHTSA has developed. As with the questions on detection, the respondents gave a wide range of answers to the questions on court convictions. With the DWI offense, 7 persons in Colorado responded with zero percent and 188 persons with 100 percent.

The second point states that in Maryland, Groups 3, 4, and 5 had higher averages than Groups 1 and 2. Virtually all the Group 4 and 5 respondents had been to court because their offenses were major in nature. Their court experiences apparently affected their perceptions of being found guilty in comparison to Group 1 respondents, for example, who had not been to court. The same situation occurred with Group 3 respondents in Maryland in which it was found that those with court appearances had higher average perceptions on court convictions than their counterparts who had not made court appearances. This same result did not occur in the other two states. In North Carolina, the respondents with court appearances frequently had lower perceptions than respondents without court appearances. In Colorado, the results were mixed and no overall conclusions could be made.

#### Other Survey Results:

1. Respondents were generally unaware of the fine for a first offense of the violations. Respondents underestimated (on average) the fine for speeding 10 MPH over the posted speed limit and following too closely and overestimated the fine for DWI and running a traffic light/stop sign.
2. The respondents from all jurisdictions felt (by from 64% to 68%) that appearance before a judge had a greater influence than paying the fine to a clerk.
3. Eighty-eight percent or more of all respondents were aware of court traffic schools and licensing agency education programs and 81 percent or more thought their driving would be positively influenced by them.
4. Ninety-three percent or more of all respondents were aware that insurance premiums may be increased

as a result of traffic violation convictions. Of those who were so aware, seventy-three percent or more said their driving is influenced by insurance company practices.

The first point is of interest because it generally indicates that drivers are not aware of the sanctions for these offenses. It is also interesting to note that respondents usually overestimated the DWI fine. This result is due in part to the fact that the actual fine for DWI on the first offense is generally much lower than the legal limit. A driver is subject to a fine of up to \$1,000 as well as other sanctions such as license suspension for the first DWI offense, but the actual fine is generally between \$125 and \$175.

#### RESEARCH RECOMMENDATIONS

The results of this survey identified several areas of potential research in the general areas of driver perceptions and other topics. These research areas can be summarized as follows:

1. Research should be encouraged from the deterrence model viewpoint on the relationship of the perceptions of drivers and traffic safety programs.
2. The relationship of traffic court practices and perceptions should be studied in greater detail.
3. More research is needed from the deterrence viewpoint on changes in traffic laws.
4. More research is needed on the perceptions and opinions of the repeat offender.
5. There are several other areas of analysis which could be performed with the data base from this survey.

6. The deterrent effects of increases in insurance premiums should be studied in more detail.
7. Warning ticket programs should be analyzed in greater detail--particularly as they relate to the repeat offender.

The reasons for these recommendations are described in more detail in the final report on the project.