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Survey of Public Perceptions of Traffic Law Enforcement In Michigan

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16. Abstract

Perceptions of police presence varied little between road types, however, police presence in construction zones was generally reported to be lower than that of the road types. Although the comparisons were not statistically significant, blacks consistently reported higher levels of police presence on freeways and local streets than did nonblacks.

When the chance of getting a speeding ticket when an officer is present was examined, we find that the perceived chance of being ticketed is quite low at 5 mph over the limit, increases quickly at 10 mph over the limit, and increases still further at 15 mph over the limit. The most notable differences among the population subgroups examined were again those of blacks versus nonblacks. While these differences were not statistically significant they are again of interest, particularly given the national attention being given to issues of police harassment. Specifically, blacks reported a higher chance of getting a ticket at 5 mph over the limit than did the other races, but did not differ as much from the other races at 10 mph and 15 mph over the limit. This may indicate at some level a heightened perception of police activity among blacks at what may be considered marginal levels of speeding.

The perceived chance of getting a ticket for running a red light or being arrested for drunk driving are comparable to those for driving 15 mph over the speed limit. Respondents reported the likelihood of getting a ticket for safety belt nonuse to be about the same as speeding at 10 mph over the limit. The perceived chance of getting a ticket for aggressive driving was slightly higher than that for driving 10 mph over the limit but slightly lower than that for driving 15 mph over the limit. There were no statistically significant differences found by subgroup on these items and unlike speeding, few notable differences were observed.

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Executive Summary

The original intent for this project was to provide baseline data necessary for evaluating the impact of the Michigan Office of Highway Safety Planning (OHSP), Police Traffic Services (PTS) program area. As described in the FY 2000 OHSP Highway Safety Plan, the program goals for the PTS program were to increase the perceived threat of arrest, conviction, and severe sanction for violations of Michigan's vehicle code. As originally planned, this survey project would have provided the baseline from which PTS program efforts would be judged in future years by comparing the results of this survey to results from annual repetitions of the survey that were planned for future years.

During the planning process by OHSP for FY 2001, the program goals for the PTS program were changed such that the data collected from this survey may not be used as a baseline for comparison in subsequent years. Instead, the results of this survey are presented in such a way that OHSP can better understand the relationship between driver perceptions of PTS and specific driver characteristics. The characteristics explored in this report are: driver sex, age, race, annual miles driven, and region of the state from which each respondent was sampled.

MORPACE International, Inc., of Farmington Hills, Michigan, a professional survey research company was retained to carry out the survey. MOREPACE programmed a computer assisted telephone interview (CATI) and developed random-digit-dial (RDD), probability-proportionate-to-size (PPS) stratified sample for this study. The sampling design is shown in Appendix B. MOREPACE conducted 30 pretest interviews on May 25 and May 26, 2000 and conducted the telephone survey of 750 representative Michigan drivers, age 18 and older between June 1 and June 19, 2000. The interviews were conducted during the evening hours to ensure that employed people would be adequately represented in the sample. The average interview length was 10 minutes. The response rate was 34.8%. Sample disposition is shown in Appendix C.

Perceptions of police presence varied little between road types (between 5.0 and 6.1 overall), however, perceived police presence in construction zones was generally lower than that of the road types (3.7 overall). Although the comparisons were not statistically significant, blacks consistently reported higher levels of police presence on freeways and local streets than did nonblacks (5.9 versus 6.7 on freeways and 6.1 versus 7.1 on local streets). If this survey is repeated in the future, the survey team should consider oversampling blacks to provide a sufficient sample size to better examine the nature of the apparent differences.

When the chance of getting a speeding ticket when an officer is present was examined, we find that the perceived chance of being ticketed is quite low at 5 mph over the limit, increases quickly at 10 mph over the limit, and increases still further at 15 mph over the limit. The most notable differences among the population subgroups examined were again those of blacks versus nonblacks. While these differences were not statistically significant they are again of interest, particularly given the national attention being given to issues of police harassment. Specifically, blacks reported a higher chance of getting a ticket at 5 mph over the limit than did the other races, but did not differ as much from the other races at 10 mph and 15 mph over the limit. This may indicate at some level a heightened perception of police activity among blacks at what may be considered marginal levels of speeding.

The perceived chance of getting a ticket for running a red light are comparable to those for driving 15 mph over the speed limit (about 7.6 to 7.8 overall). The perceived chance for arrest for drunk driving was also found to be in the same range (7.4 to 7.4 overall). Respondents reported the likelihood of getting a ticket for safety belt nonuse to be about the same as speeding at 10 mph over the limit (5.0 to 5.7 overall). The perceived chance of getting a ticket for aggressive driving was slightly higher than that for driving 10 mph over the limit but slightly lower than that for driving 15 mph over the limit (5.9 to 6.3 overall). There were no statistically significant differences found by subgroup on these items and few notable differences. Differences that should be examined more closely in future studies (by over-

sampling small subpopulations) include safety belt use (blacks and persons in rural areas reported slightly higher chance of ticket), drunk driving (blacks and persons in rural areas reported slightly higher chance of ticket), and aggressive driving (blacks reported slightly higher chance of ticket).

The perceived chance of getting a ticket on a given road varies according to the chance that an officer is present to observe the violation and the chance that a ticket would be issued given an officer is present. Rather than have subjects estimate this two-part probability, we chose to ask the two component questions (each important in their own right) and combine them statistically. The "joint probability" of getting a ticket was calculated by multiplying the chance of getting a ticket given a police officer is present and the reported chance that a police officer is present on the road type queried. These probabilities range from 1.0 (100% certain to get a ticket) and 0.0 (0% chance of getting a ticket). For example, if a given item had a 0.46 joint probability it would mean that event has a 46% chance of occurring based on the respondents' answers to the chance of getting a ticket when an officer is present and the chance that an officers would be present on that road type.

The pattern of results for these joint probability items differed little from those in the chance of getting a ticket given an officer is present. This isn't surprising given that the joint probability included chance of getting a ticket as part of the formula used for estimating the joint probabilities. However, the joint probability results tended to reduce the differences observed between populations subgroups when compared to the chance of getting a ticket given an officer is present. This was not true for all items, and none of the differences reached statistical significance; however, we think that this recalculation of ticket probability was a valuable component of the survey design and analysis and provided important, new data for understanding the complex relationships between police presence and chance of getting a ticket.

The perceived chance of being convicted of the traffic offense queried was high for each violation type and varied little between violations (6.7 to 7.2 overall). There were no differences between population subgroups for any of the chance of conviction items. Similar results were found for the severity of punishment given a person is found guilty of the violation charged.

In sum, the results of this survey provide a basis from which future PTS activities may be planned and evaluated. Based on these results, future studies should examine more closely the relationship between state geographic region (rural versus metropolitan), race (black versus nonblack), and perceived PTS activity levels. A better understanding of these relationships may provide the information necessary to overcome perceived harassment among some population subgroups and may help PTS program planners better understand how PTS programming may affect the important issues related to deterring drivers from violating traffic laws.

1.0 Introduction

The original intent for this project was to provide baseline data necessary for evaluating the impact of the Michigan Office of Highway Safety Planning (OHSP), Police Traffic Services (PTS) program area. As described in the FY 2000 OHSP Highway Safety Plan, the program goals for the PTS program were to increase the perceived threat of arrest, conviction, and severe sanction for violations of Michigan's vehicle code. As originally planned, this survey project would have provided the baseline from which PTS program efforts would be judged in future years by comparing the results of this survey to results from annual repetitions of the survey that were planned for future years.

During the planning process by OHSP for FY 2001, the program goals for the PTS program were changed such that the data collected from this survey may not be used as a baseline for comparison in subsequent years. Instead, the results of this survey are presented in such a way that OHSP can better understand the relationship between driver perceptions of PTS and specific driver characteristics. The characteristics explored in this report are: driver sex, age, race, annual miles driven, and region of the state from which each respondent was sampled.

Survey results are presented as charts in the body of this report. These charts show a range for each response including the mean (center point with value in box) and the bars representing the mean plus and minus one standard deviation. Specific figures for subgroup sample size, mean (average) response, and standard deviation of the specific subgroup means are presented in the appendixes. Following the report sections containing charts and their interpretation is a brief discussion summarizing the results and providing an overview of the findings and possible implications thereof.

2.0 Methods

A telephone survey was developed to obtain the current perceptions of Michigan residents of police enforcement of Michigan traffic laws and to provide a benchmark for possible future assessments of Michigan police traffic services. The survey instrument was designed with a series of close-ended questions with possible responses on a 0-to-10 point scale on the following topics:

- presence of police on freeways, two-lane highways, local streets, and in construction zones
- chances of getting a ticket for speeding on freeways and two-lane highways at various speeds, if police are present
- chances of getting a ticket for speeding in construction zones, if police are present
- chances for getting a ticket for running red lights on two-lane highways and local streets if police are present
- chances of getting a ticket for not wearing safety belts on freeways, two-lane highways, and local streets if police are present
- chances of getting arrested for drunk driving on freeways, two-lane highways, and local streets if police are present
- chances for getting a ticket for aggressive driving on freeways, two-lane highways, and local streets if police are present
- chances of being convicted for speeding, aggressive driving, running red lights, safety belt nonuse, drunk driving
- severity of punishment for speeding, aggressive driving, running red lights, safety belt nonuse, drunk driving.

The 0-to-10 point scale was selected because most people have some experience using this type of scale and because this scale provides a useful and efficient method to measure changes in perceptions of police traffic services in the future. The survey instrument is shown in Appendix A.

Because the survey obtains a respondents' perceptions of police presence on various types of roads as well as perceptions of getting a ticket for various infractions, it is possible to derive the respondent's perceived probability of getting a ticket for each particular infraction by multiplying the two former values together and converting to a 0-1 scale.

The instrument also contains questions about the respondent's demographics such as age, race, zip code, and miles driven per year. This allows the responses to each question and the derived probabilities of getting a ticket for various infractions to be examined by sex, age, race, miles driven per year, and by the respondents' residential area.

MORPACE International, Inc., of Farmington Hills, Michigan, a professional survey research company was retained to carry out the survey. MOREPACE programmed a computer assisted telephone interview (CATI) and developed random-digit-dial (RDD), probability-proportionate-to-size (PPS) stratified sample for this study. The sampling design is shown in Appendix B. MOREPACE conducted 30 pretest interviews on May 25 and May 26, 2000 and conducted the telephone survey of 750 representative Michigan drivers, age 18 and older between June 1 and June 19, 2000. The interviews were conducted during the evening hours to ensure that employed people would be adequately represented in the sample. The average interview length was 10 minutes. The response rate was 34.8%. Sample disposition is shown in Appendix C.

3.0 Results--Police Presence

3.1 On Roads

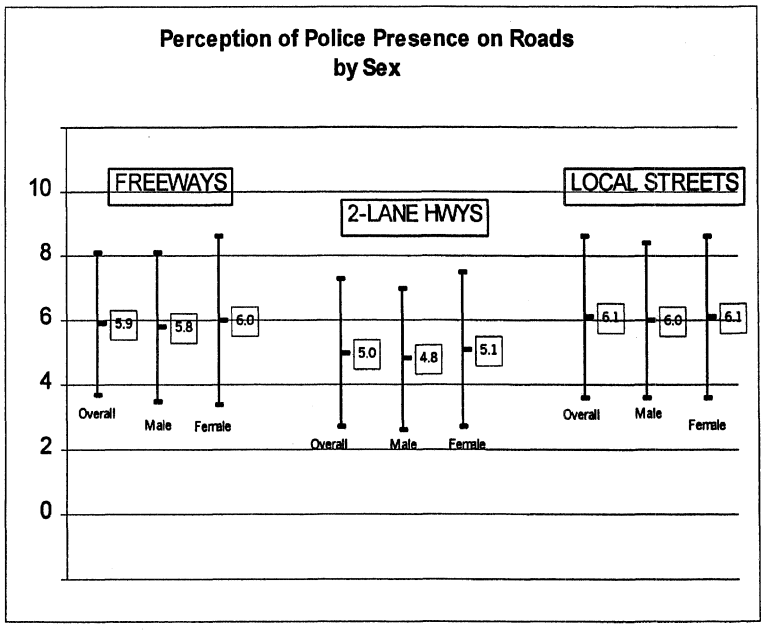
Survey Language:

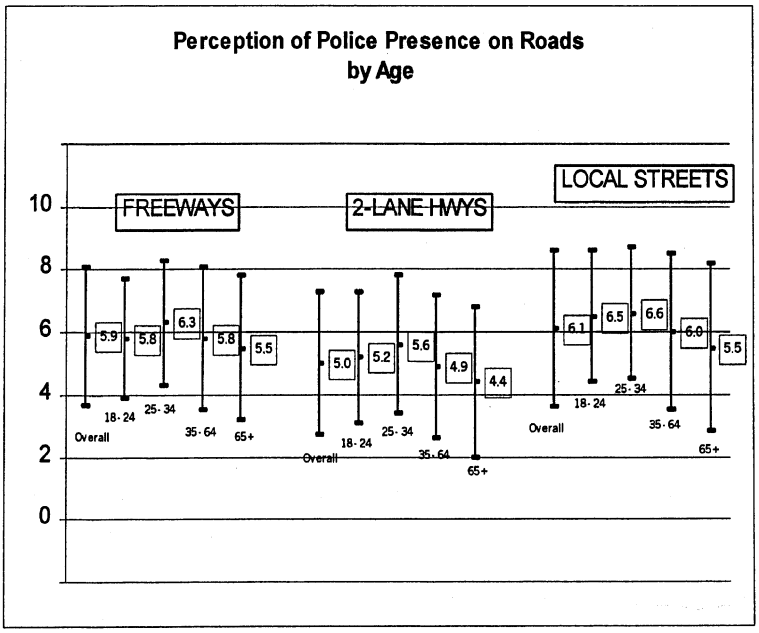
First we'd like to ask you about police presence on various types of roads. A 0 (zero) to 10 scal will be used, where zero (0) means never and 10 means always. Please rate each of the following questions with a number between 0 and 10.

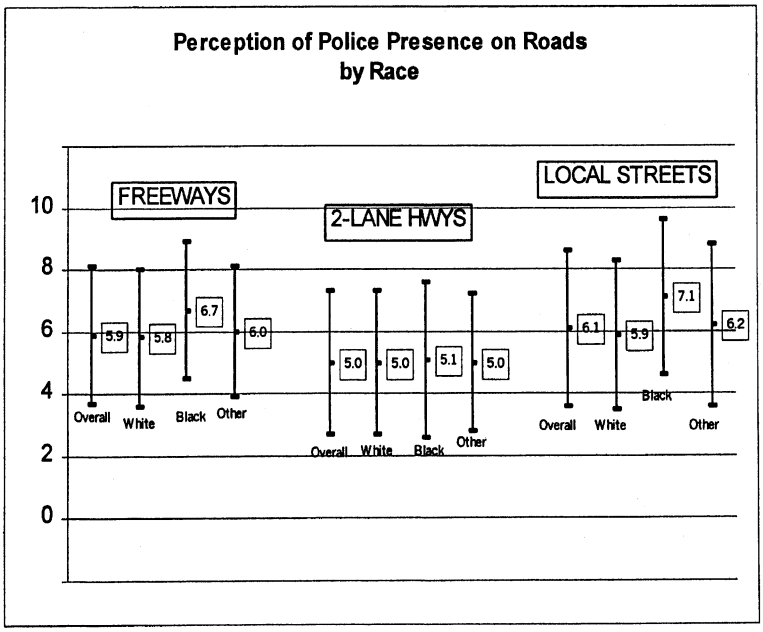
PRESENCE OF POLICE ON FREEWAYS

Q1A. How often do you see police patrolling FREEWAYS in Michigan? Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75.
(INTERVIEWER NOTE: 0 means never and 10 means always.

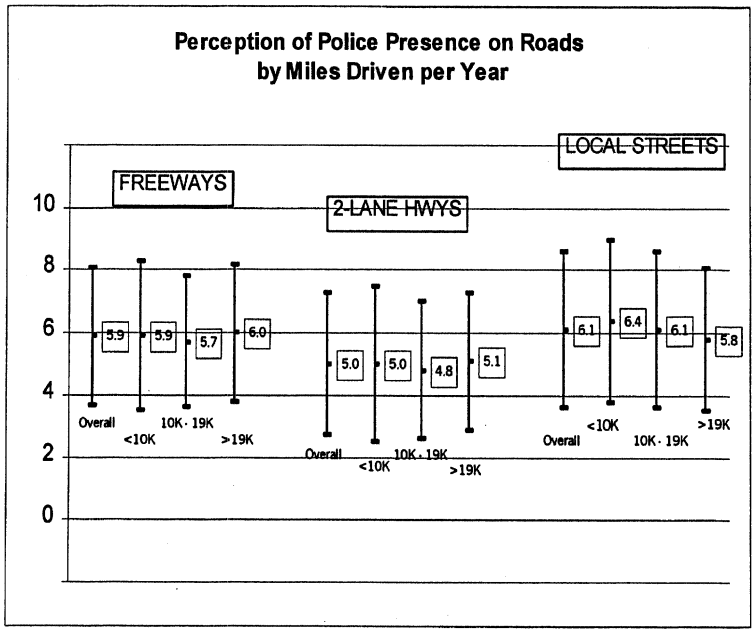
This chart shows that males and females each agree that police presence is generally higher on freeways and local streets than on 2-lane highways. Although the difference across road types is consistent, the perceived difference was not statistically significant.

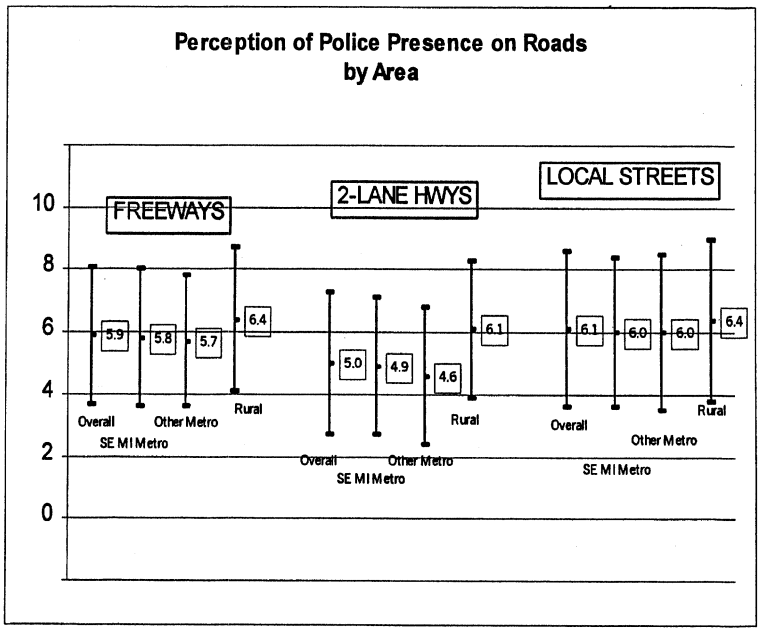






The pattern of higher perceived police presence on freeways and local streets holds true for age and race categories. Although not statistically significant, members of the highest age group (65+) perceived police presence to be lowest, and members of the self-identified "black" racial group consistently reported police presence to be higher than the other racial categories for all road types.





Perceived police presence varied little by annual miles driven. However, persons from rural areas perceived police presence to be higher on freeways and 2-lane highways than did persons from metropolitan areas, but this difference was not statistically significant.

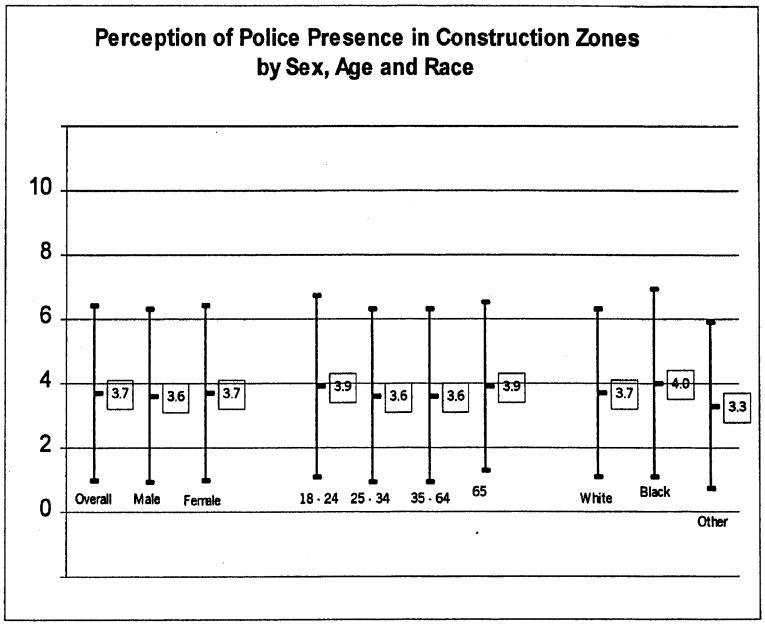
3.2 In Construction Zones

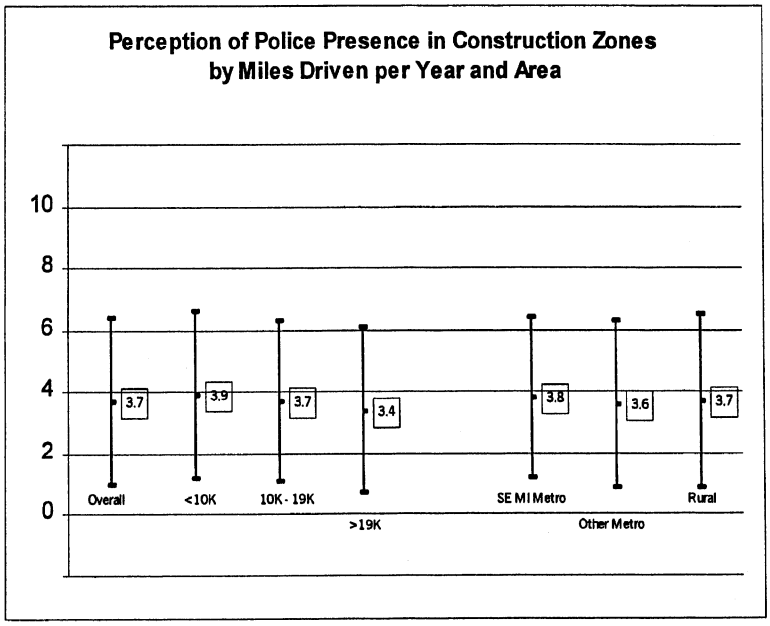
Survey Language:

PRESENCE OF POLICE IN CONSTRUCTION ZONES

Q1D. How often do you see police patrolling CONSTRUCTION ZONES in Michigan? (INTERVIEWER NOTE: Construction zones are defined as sections of road marked with orang signs, cones, or barrels. 0 means never and 10 means always.)

There is little systematic variation within and between the population subgroups described in these charts. Note however that the presence of police in construction zones (3.7 out of 10, overall) is lower than that on freeways, 2-lane highways, and local streets (5.9, 5.0, and 6.1 respectively).





4.0 Results--Chance of Speeding Ticket Given Officer Present

4.1 70 MPH Freeways

Survey Language:

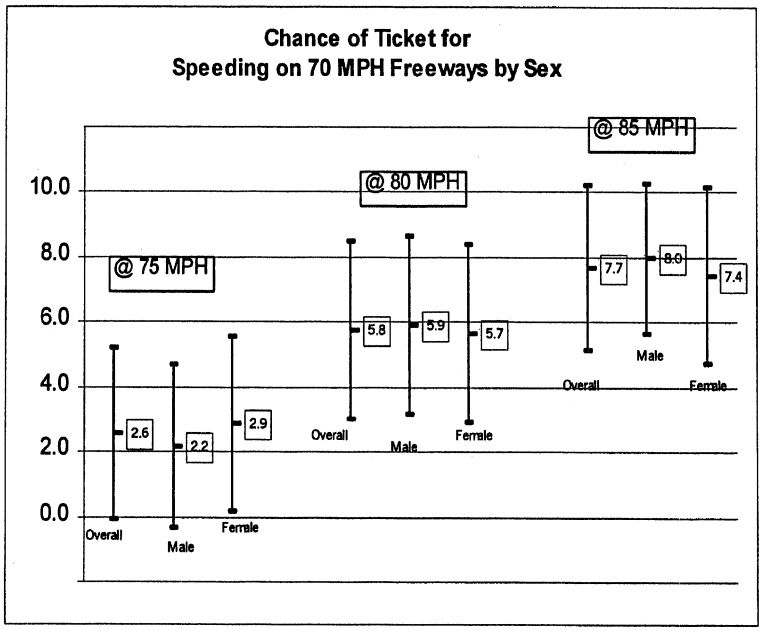
Now we'd like to ask you about the chances of being ticketed for speeding in Michigan. Pleas assume that the police are present and are watching traffic. We will again use a scale from 0 (zero) to 10 for each of the questions. Zero (0) means never and 10 means always.

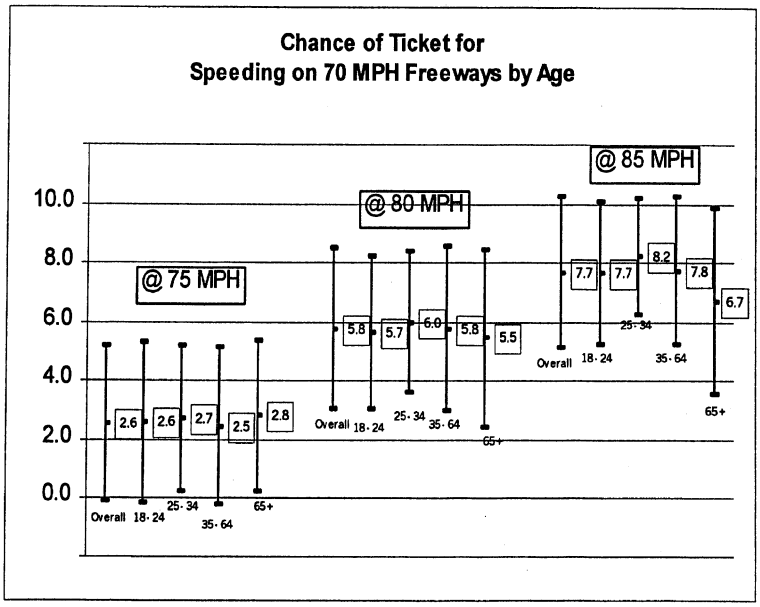
SPEEDING ON 70 MILE PER HOUR FREEWAYS

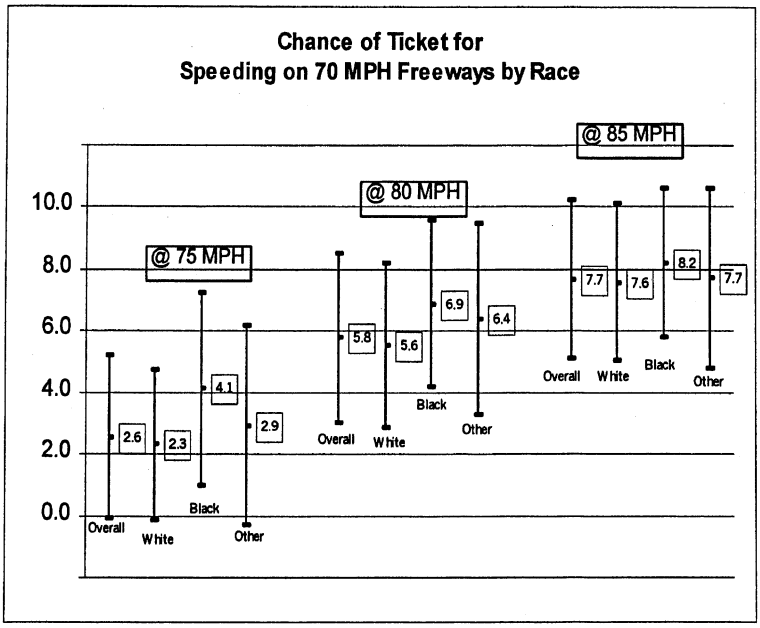
Q2. A car is driving on a FREEWAY in Michigan where the speed limit is 70 MILES PER HOUR. On a scale from 0 to 10, how often will the driver of that car be ticketed for speeding if the car is going...

(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a speeding crackdown. 0 means never and 10 means always.)

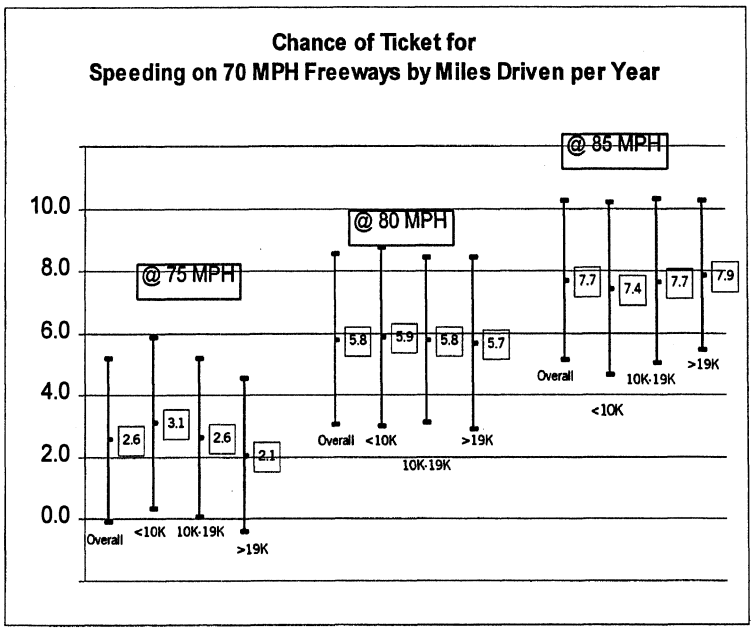
This chart shows that people believe that the chance of getting a ticket at 75 mph is significantly less than that of 80 or 85 mph on freeways with a 70 mph speed limit. There are no significant differences between the responses of male versus female respondents.

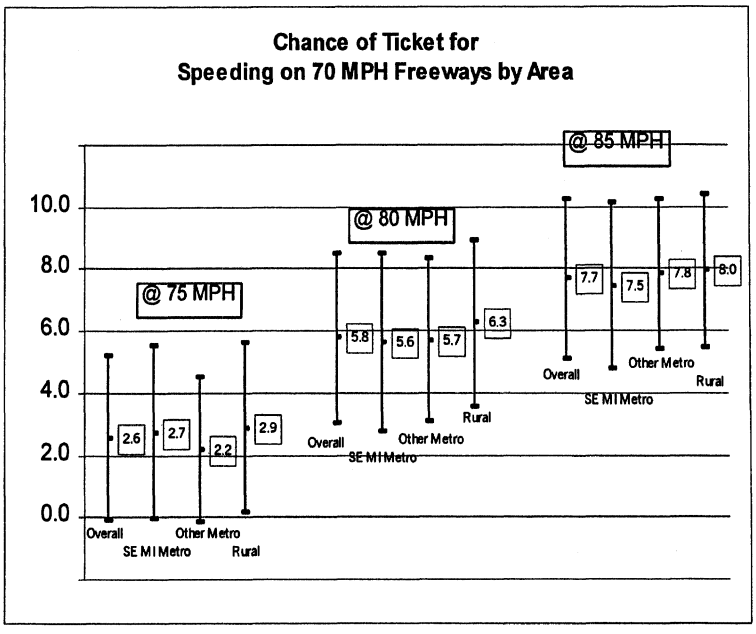






As was the case for the previous chart, respondents believe in general that the chance of a ticket at 75 mph is lower than that at 80 or 85 mph. There were no consistent differences when the data were examined by age group. Although the differences were not statistically significant, "black" respondents reported a higher chance of getting a ticket at 75 and 80 mph than did whites. The lack of statistical significance may be due in part to the relatively small sample size for blacks. It would be beneficial if future surveys increased the number of blacks surveyed to determine if this apparent difference is true or merely a statistical artifact.





Again we see a difference in the chance of being ticketed between the 75 mph travel speed and the 80 and 85 mph speeds. The chance of being ticketed did not vary between the reported miles driven or the region of the state from which respondents were sampled.

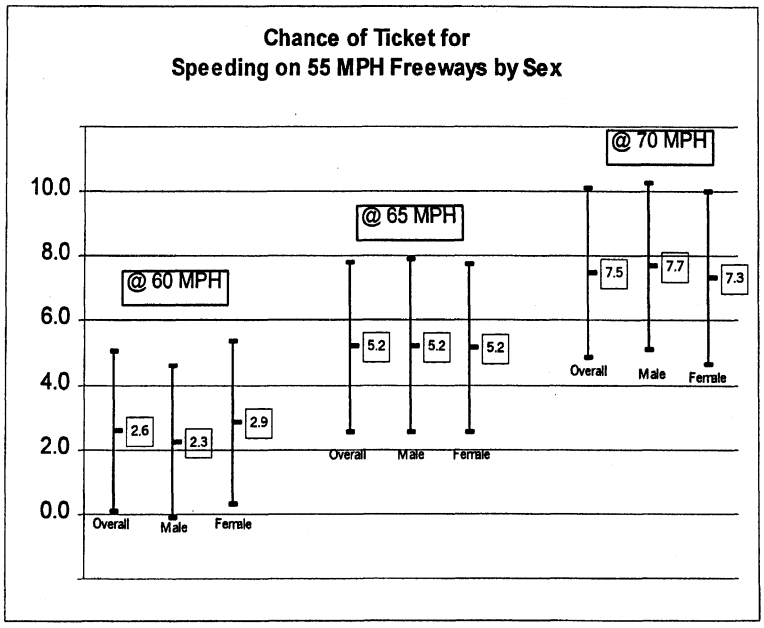
4.2 55 MPH Freeways

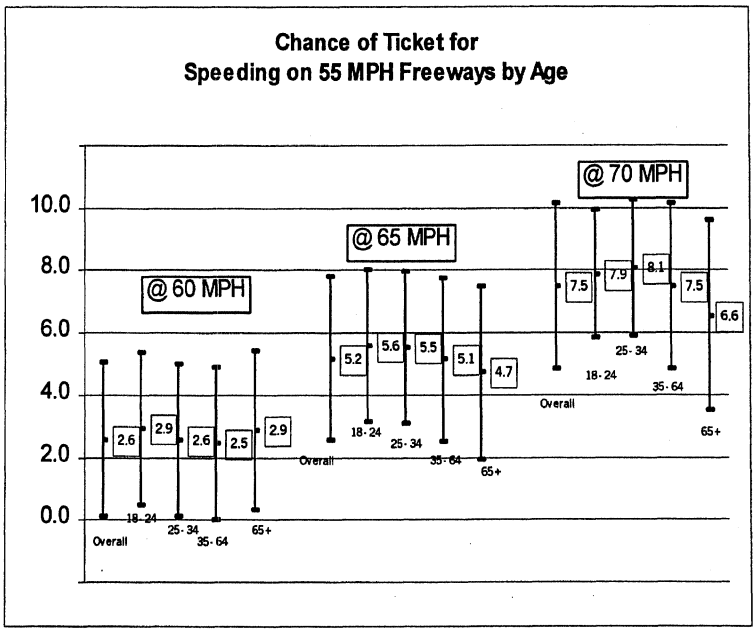
SPEEDING ON 55 MILE PER HOUR FREEWAYS

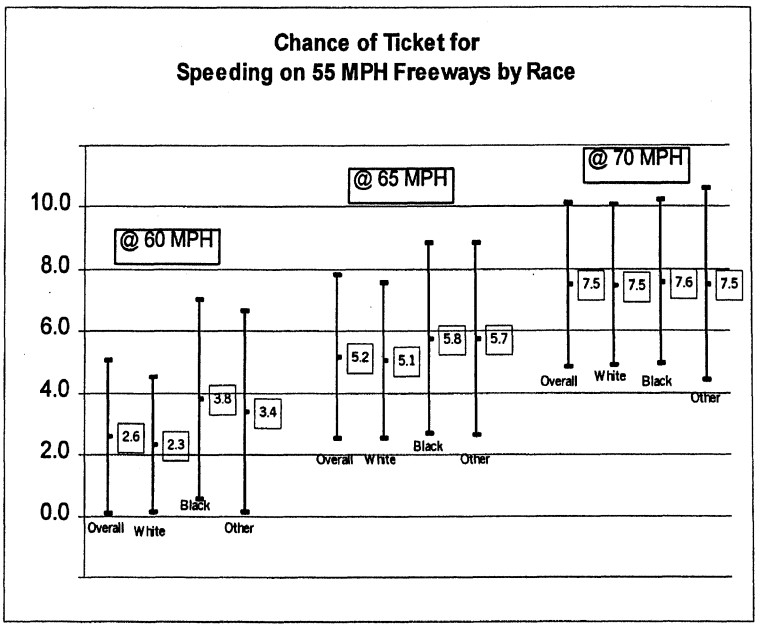
Q3. This time a car is driving on a FREEWAY in Michigan where the speed limit is 55 MILES PE HOUR. On a scale from 0 to 10, how often will the driver of that car be ticketed for speeding i the car is going...

(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a speeding crackdown. 0 means never and 10 means always.)

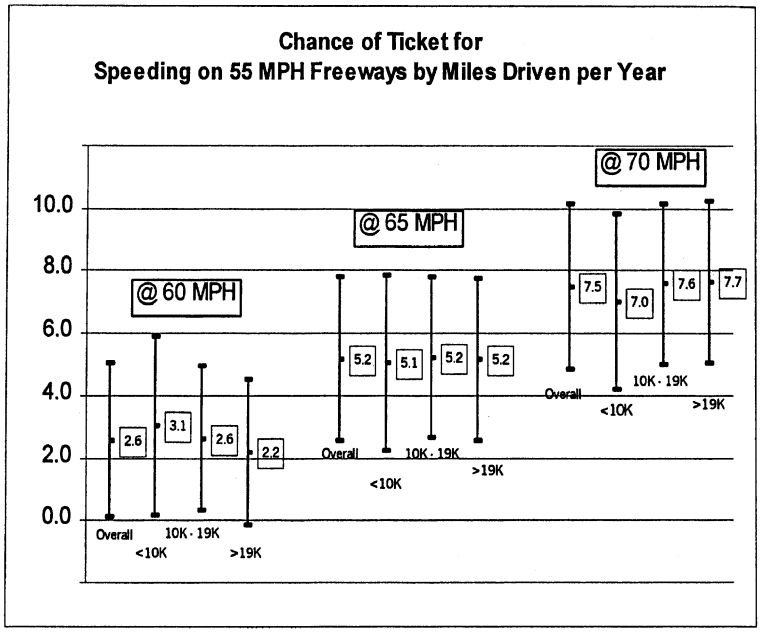
This chart shows that unlike the previous item in which only the lowest speed queried differed from the other two, higher speeds, the chance of being ticketed increased about the same amount from 60 to 65 mph and from 65 to 70 mph. However, while the differences are consistent, the observed differences are not statistically significant.

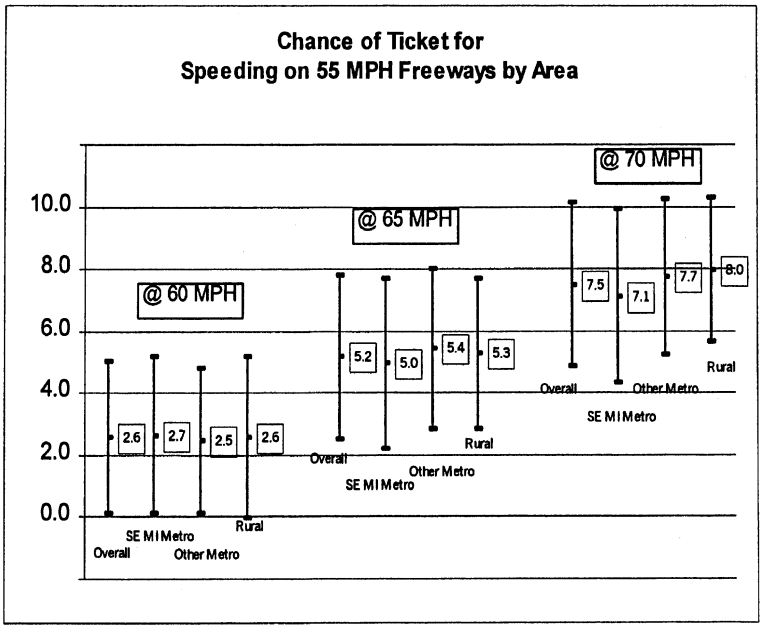






In the first chart on this page we see that there are no statistically significant differences in responses based on respondent age. The next chart shows that nonwhites rated the chance of getting a ticket at 60 and 65 mph as being higher than did whites. While not statistically significant at 60 and 65 mph, even this apparent difference was not present for the 70 mph item.





There were no significant differences in responses based on annual miles driven or area of the state surveyed.

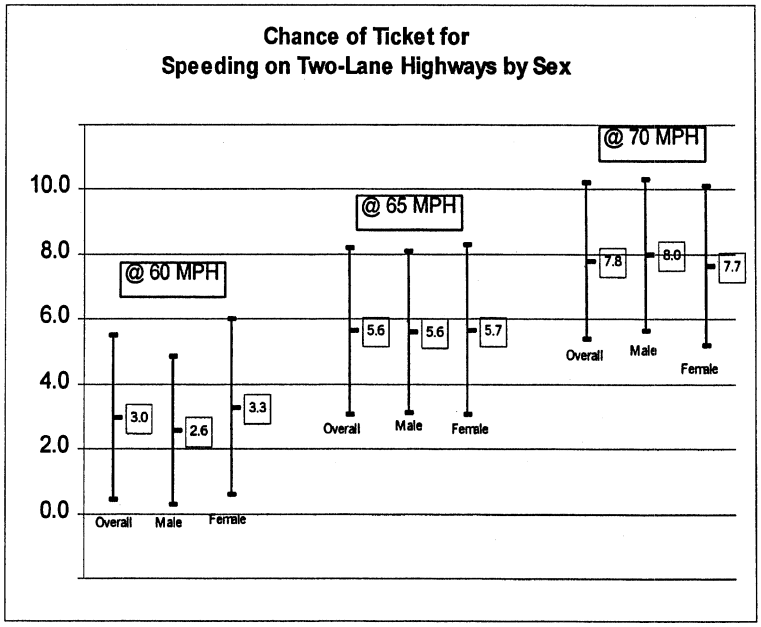
4.3 2-Lane Highways

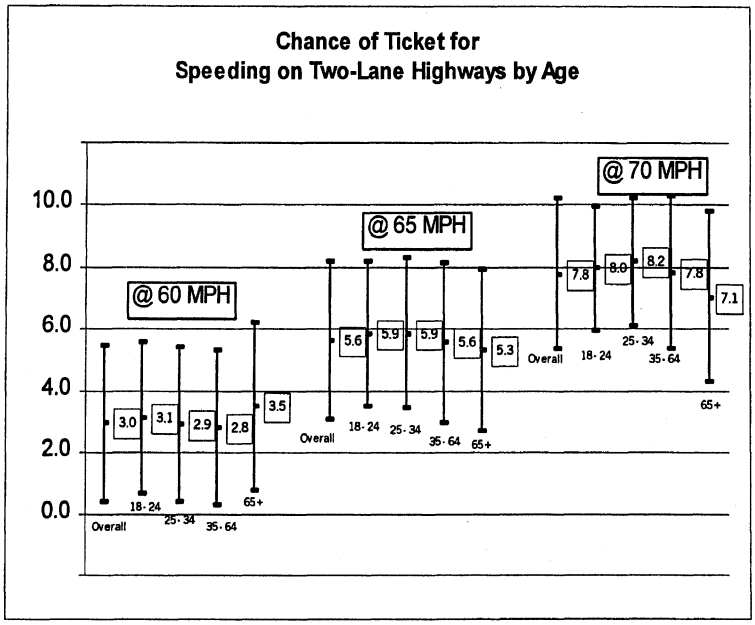
SPEEDING ON TWO-LANE HIGHWAYS

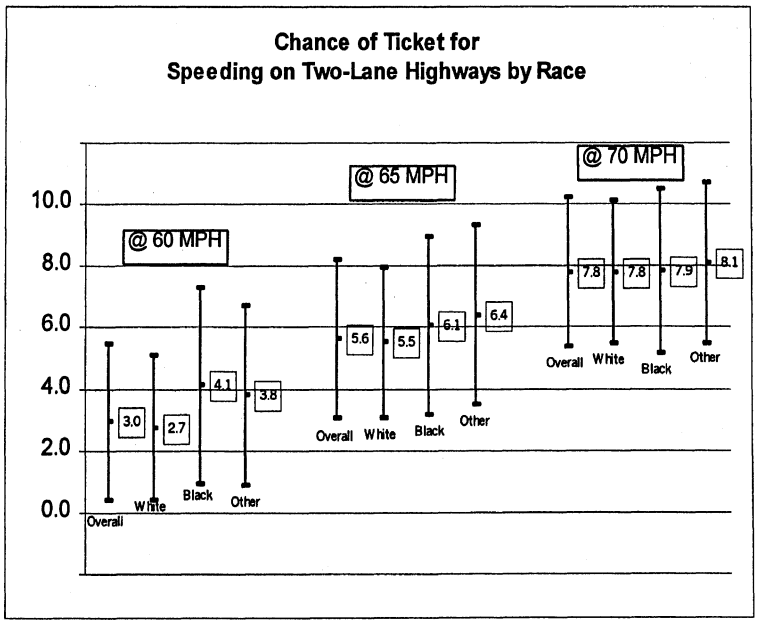
Q4. Now the car is driving on a TWO-LANE HIGHWAY in Michigan where the speed limit is 55 MILES PER HOUR. On a scale from 0 to 10, how often will the driver of that car be ticketed for speeding if the car is going...

(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a speeding crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

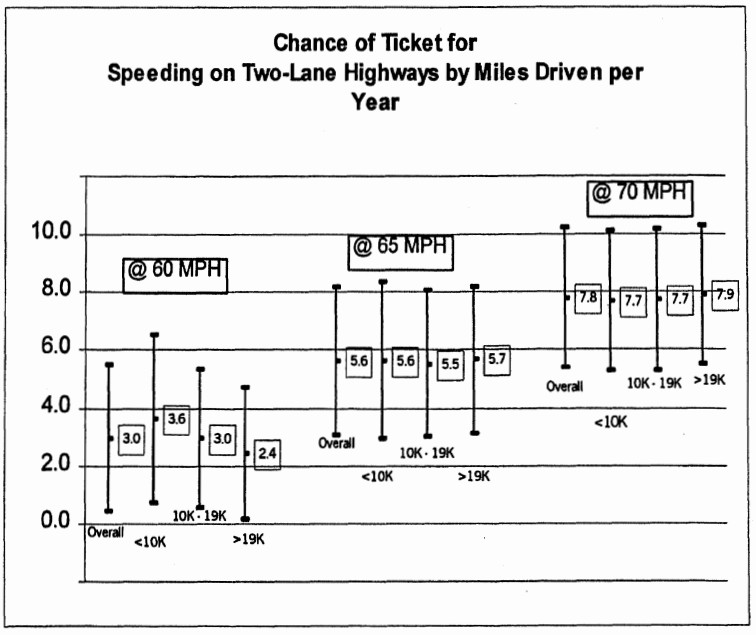
The pattern of data for this item closely resembles that of the previous item. That is, there are no differences in responses between males and females, but the reported chance of getting a ticket increases about the same amount from 60 to 65 mph and from 65 to 70 mph. Again, these differences are not-statistically significant.

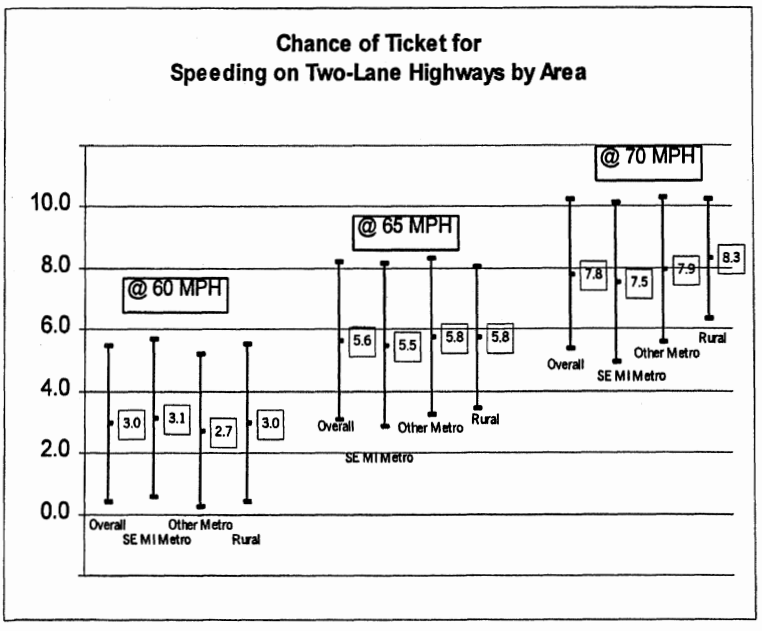






As was the case for 55 mph freeways, there are no differences in responses between the age groups. Again while it appears that there are differences between perceptions of whites and nonwhites at 60 and 65 mph, with nonwhites reporting a greater chance of ticket than whites, these differences are not statistically significant.





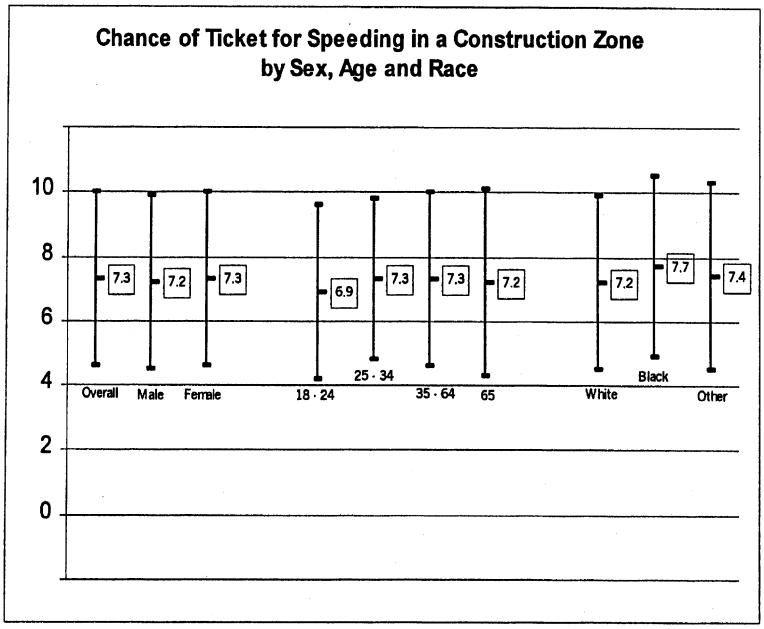
No significant differences were observed between respondents based on annual mileage or region of the state sampled.

4.4 In a Construction Zone

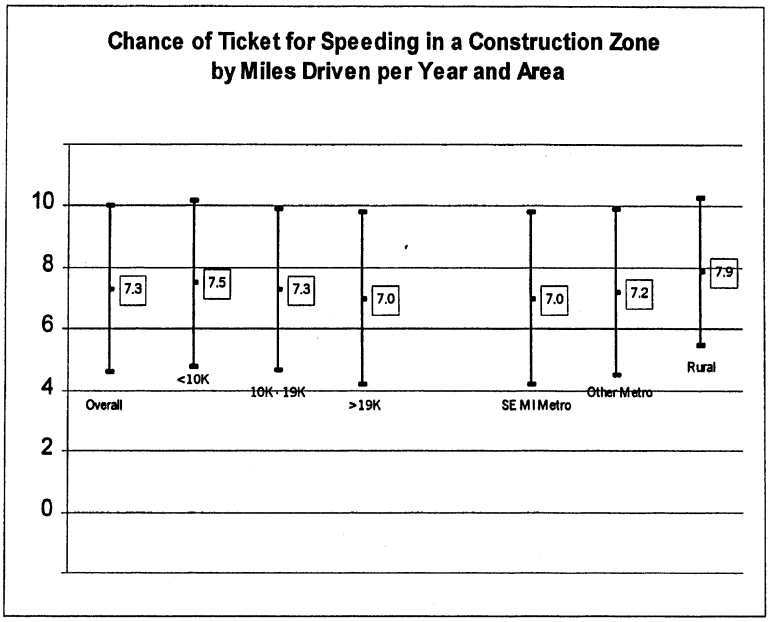
SPEEDING IN CONSTRUCTION ZONES ON FREEWAYS

Q5. If a car is driving 10 miles or more above the posted speed limit in a CONSTRUCTION ZONE on a FREEWAY in Michigan, how often will the driver of that car be ticketed for speeding in a construction zone?

(INTERVIEWER NOTE: Construction zones are defined as sections of road marked with orang signs, cones, or barrels. Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a speeding crackdown. 0 means never and 10 means always.)



Compared to the other roads examined, the chance of getting a ticket in a construction zone is perceived to be higher for all groups examined. However, the differences between group categories on this item were small and not statistically significant.



5.0 Results--Chance of Other Ticket Given Officer Present

5.1 Chance of Ticket for Running a Red Light

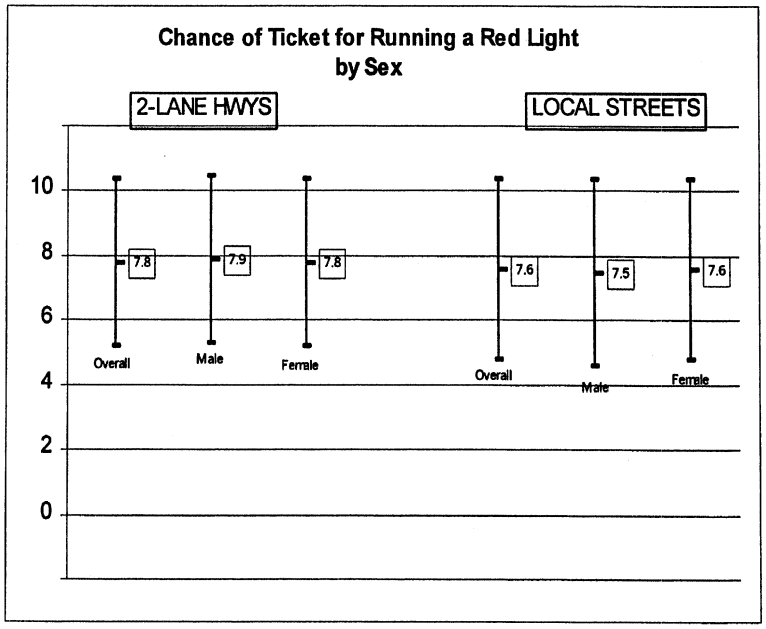
RUNNING RED LIGHTS ON LOCAL STREETS

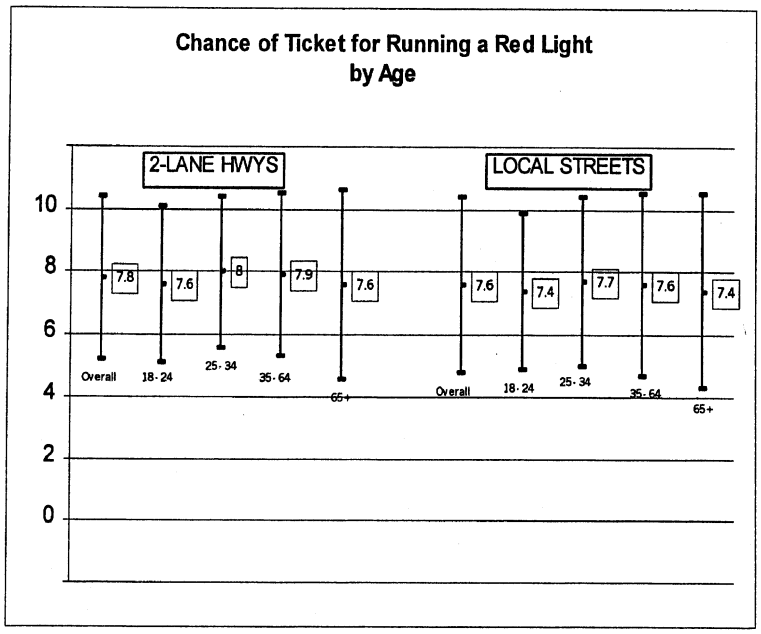
Q6A. If a car is driving in your area on a MAJOR LOCAL STREET and drives through a RED LIGHT, how often will the driver of that car be ticketed for running the red light?
(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a red light crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

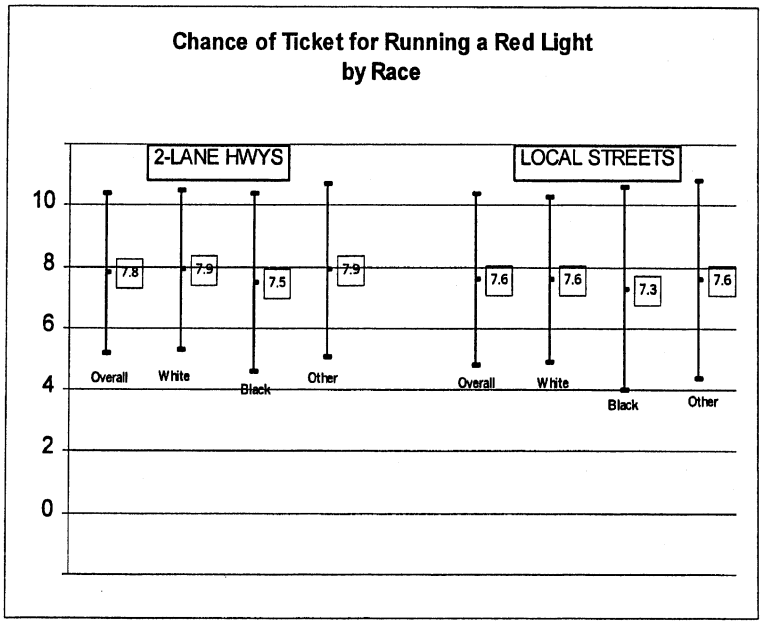
RUNNING RED LIGHTS ON TWO-LANE HIGHWAYS

Q6B. If a car is driving in your area on a TWO-LANE HIGHWAY with a speed limit of 50 or 55 miles per hour and drives through a RED LIGHT, how often will the driver of that car be ticketed for running the red light?
(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a red light crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

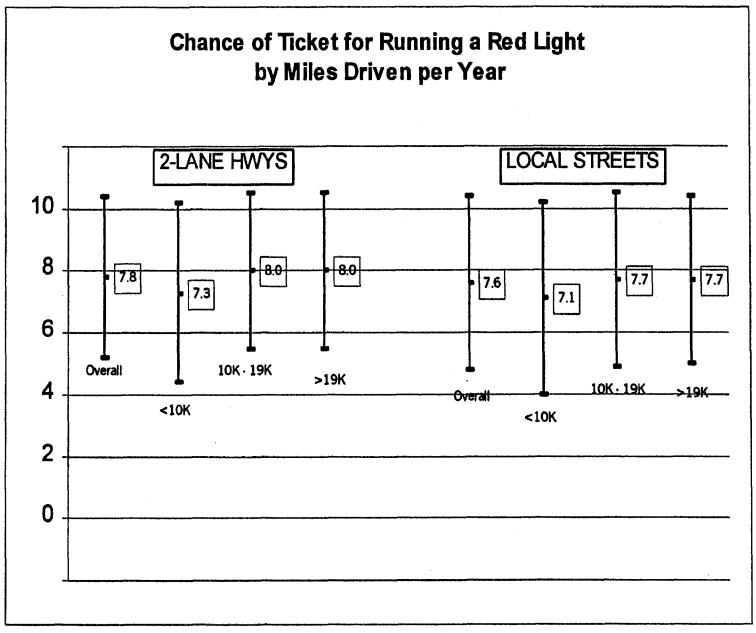
This chart shows a high likelihood of getting a ticket for running a red light and no differences between the population subgroups examined.

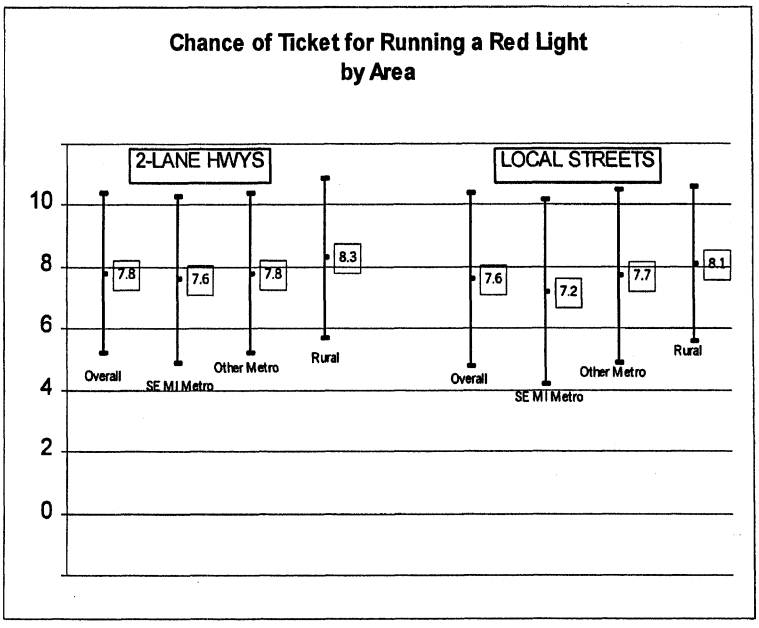






These charts show a high likelihood of getting a ticket for running a red light and no differences between the population subgroups examined.





Again, these charts show a high likelihood of getting a ticket for running a red light and no differences between the population subgroups examined.

5.2 Chance of Ticket for Safety Belt Nonuse

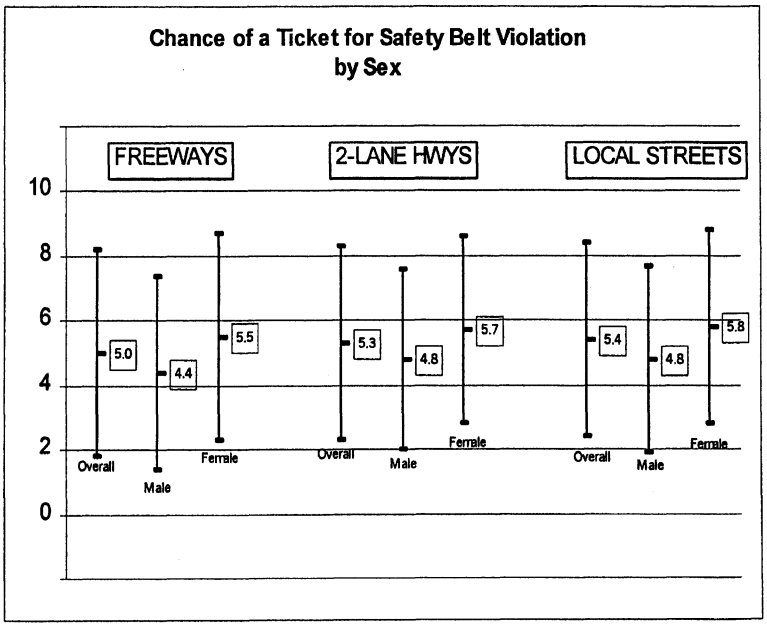
NOT WEARING SEAT BELTS ON FREEWAYS

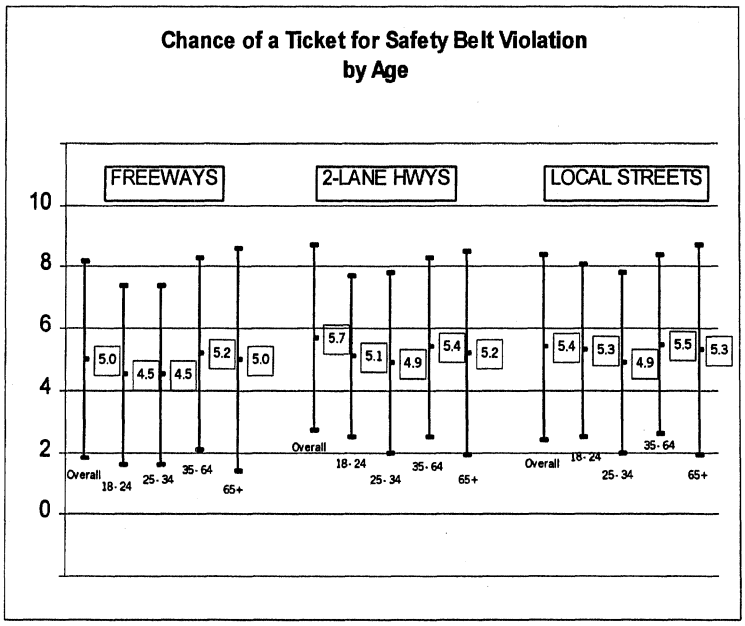
Q7A. How often will a driver not wearing a seat belt be ticketed on a FREEWAY in Michigan?
(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a seat belt crackdown. 0 means never and 10 means always.)

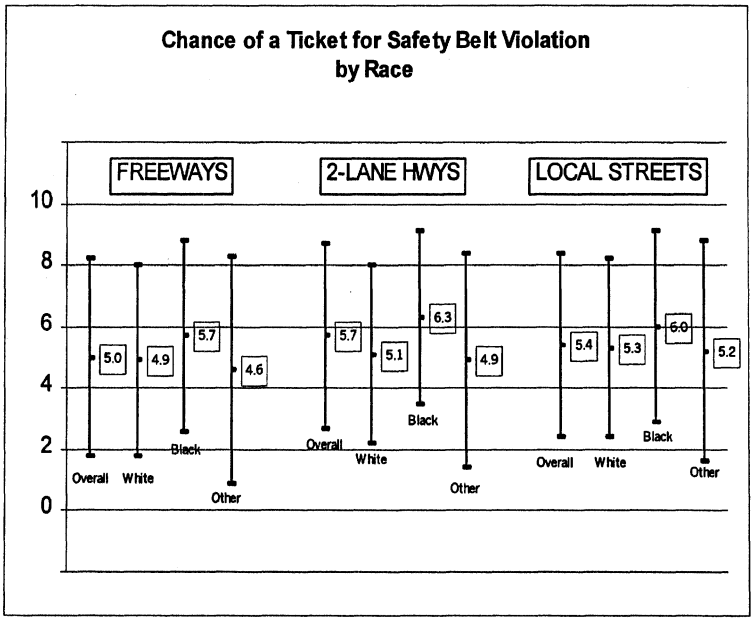
Q7B. How often will a driver not wearing a seat belt be ticketed on a MAJOR LOCAL STREET in Michigan?
(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a seat belt crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always).

Q7C. How often will a driver not wearing a seat belt be ticketed on a TWO-LANE HIGHWAY with a 50 or 55 mile per hour speed limit in Michigan?
(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a seat belt crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

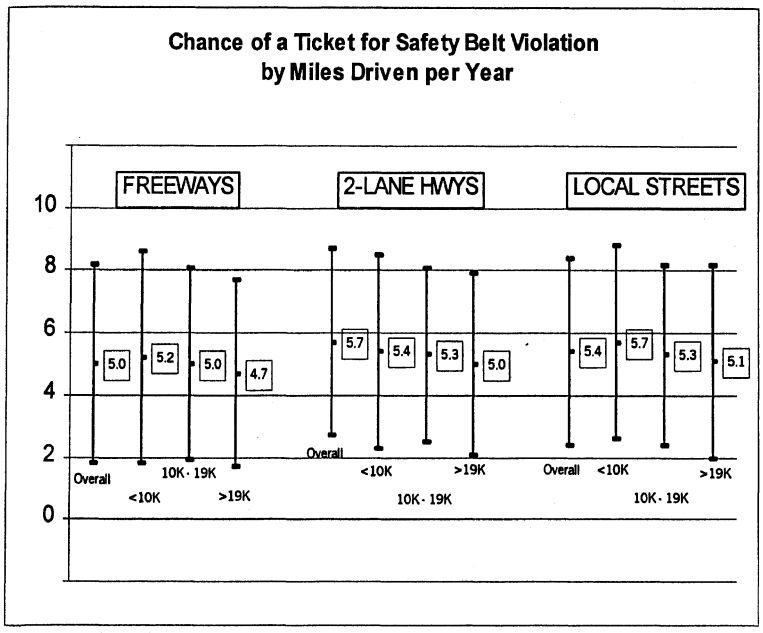
This chart shows the chance of getting a ticket for safety belt nonuse is lower than that of being ticketed for running a red light and that the difference in perceived chance of being ticketed for belt nonuse between men and women is small and not statistically significant for this item.

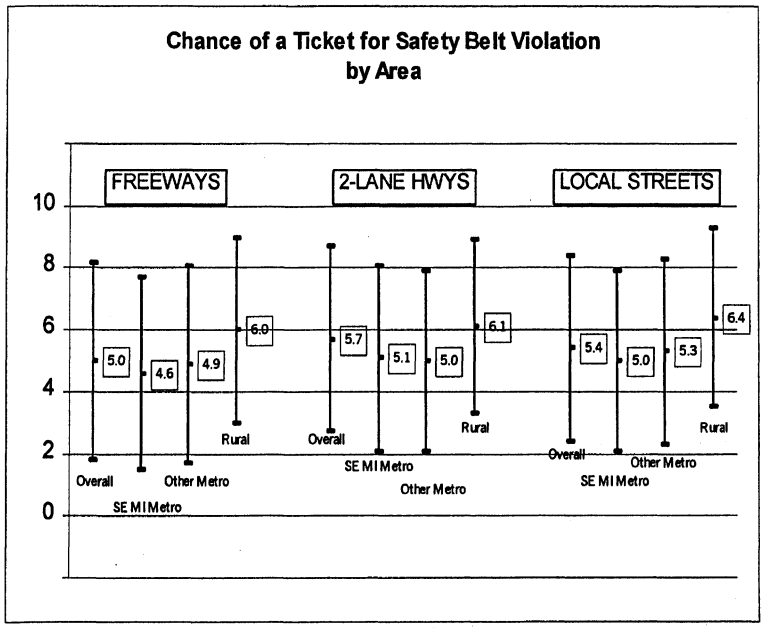






The first chart on this page shows small and nonsignifcant differences in responses based on age group. While not statistically significant, the second chart shows that blacks consistently rated the chance of getting a ticket for belt nonuse as higher than each of the other racial groups. This lack of statistical significance may be due in part to the small number of persons who identified themselves as black in this survey. In future surveys, a larger number of blacks could be sampled to increase the survey's statistical power in order to better examine the possible difference between blacks and nonblacks identified in this survey.





Small, nonsignificant differences are observed between groups based on annual miles driven. As was the case for race, there is an apparent but statistically nonsignificant difference between the perceived risk of ticket for belt nonuse between persons in metropolitan areas and rural areas, with those in rural areas rating the chance of ticket higher than those from urban areas.

5.3 Chance of Arrest for Drunk Driving

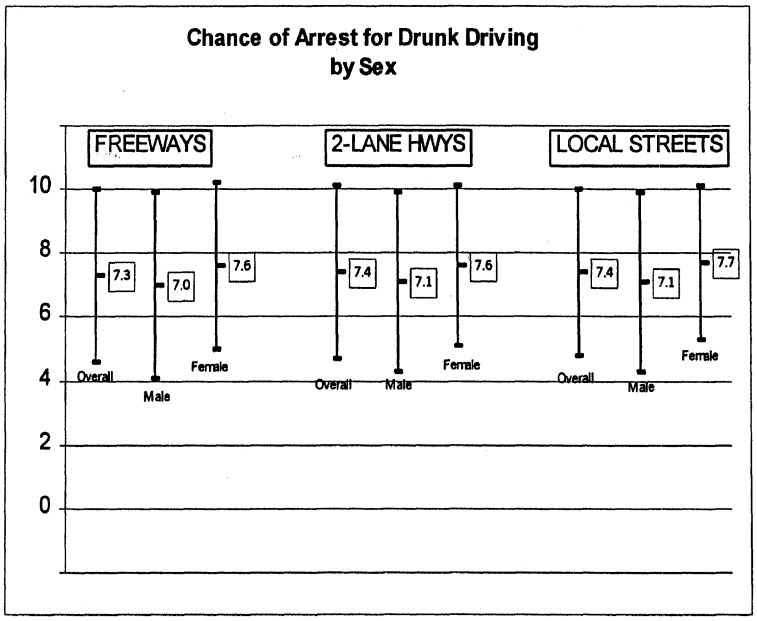
DRUNK DRIVING ON FREEWAYS

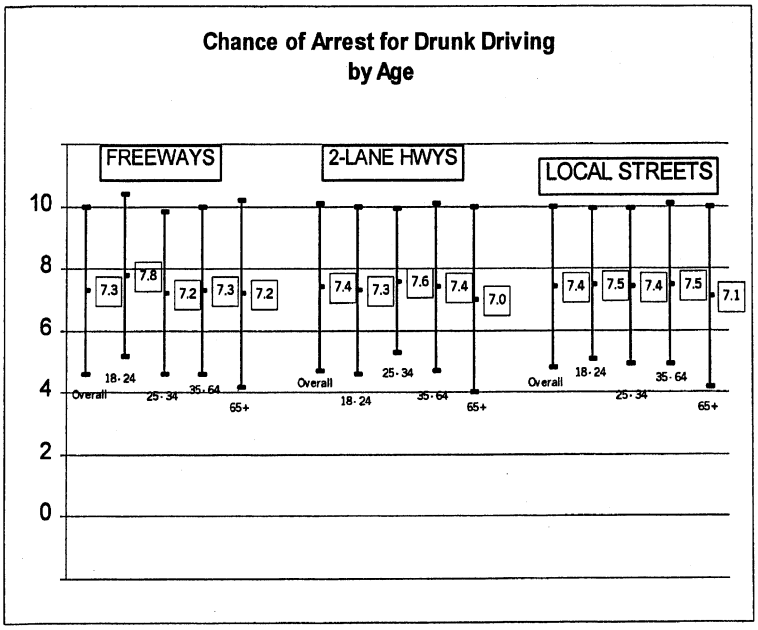
Q8A. How often do you think a driver who is legally drunk (a driver with a blood alcohol level of 0.10 or greater) will be arrested, if driving on a FREEWAY in Michigan?
(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a drunk driving crackdown. 0 means never and 10 means always.)

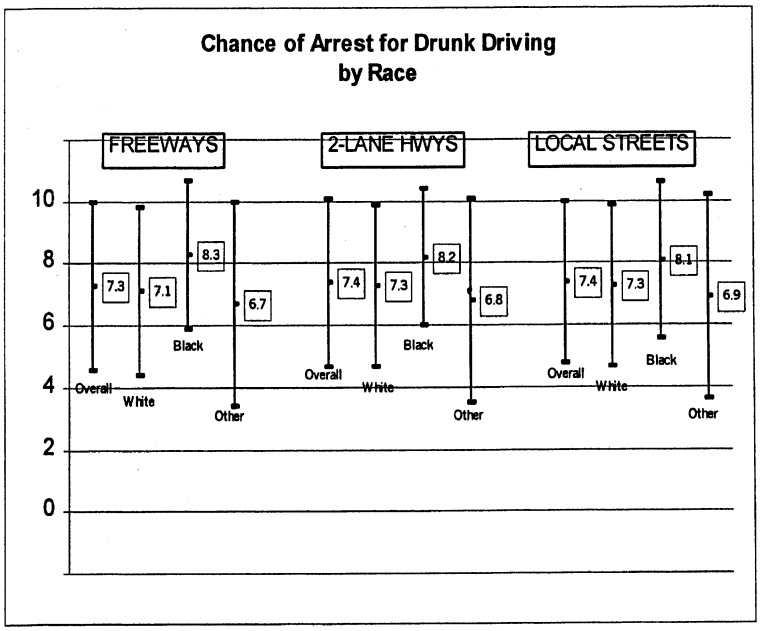
Q8B. How often do you think a driver who is legally drunk will be arrested, if driving on a MAJO LOCAL STREET in Michigan?
(INTERVIEWER NOTE: Drunk driving is defined as driving with a blood alcohol level of 0.10 or greater. Assuming police are present and watching traffic generally, not as part of a drunk driving crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

Q8C. How often do you think a driver who is legally drunk will be arrested, if driving on a TWO-LANE HIGHWAY with a 50 or 55 mile per hour speed limit in Michigan?
(INTERVIEWER NOTE: Drunk driving is defined as driving with a blood alcohol level of 0.10 or greater. Assuming police are present and watching traffic generally, not as part of a drunk driving crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

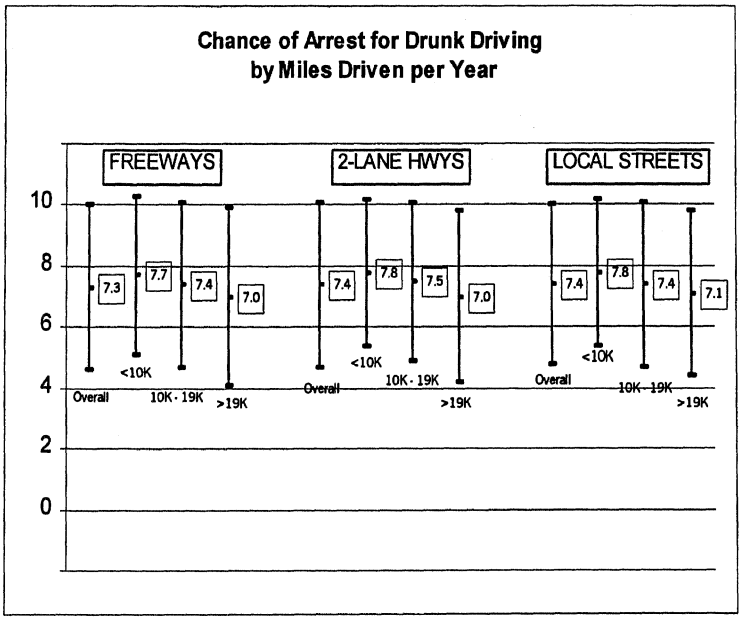
This chart shows that the perceived chance of getting arrested for drunk driving is relatively high and does not differ between men and women.

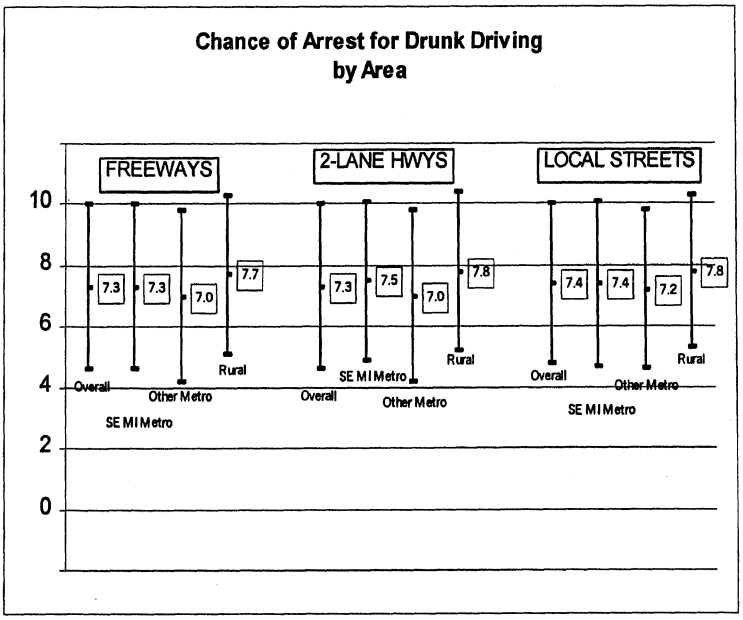






There are no differences between age groups in perceived chance of arrest for drunk driving. However, blacks consistently rated the chance of arrest higher than the other racial groups (but these differences were not statistically significant and future surveys should consider increasing the number of blacks surveyed to improve the statistical ability to detect differences between these groups).





There are no statistically significant differences between groups based on annual miles driven or region of the state surveyed. However, future studies may wish to examine more closely the small but consistent difference observed between rural and metro area regions to determine if the difference in perceived chance of drunk driving arrest between these groups is real or simply due to random variation that occurs in any survey.

5.4 Chance of Ticket for Aggressive Driving

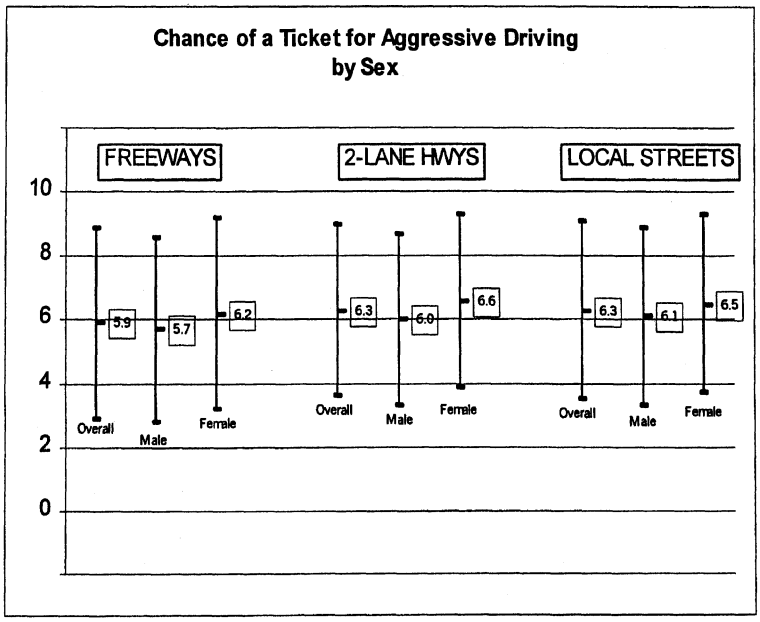
AGGRESSIVE DRIVING ON FREEWAYS

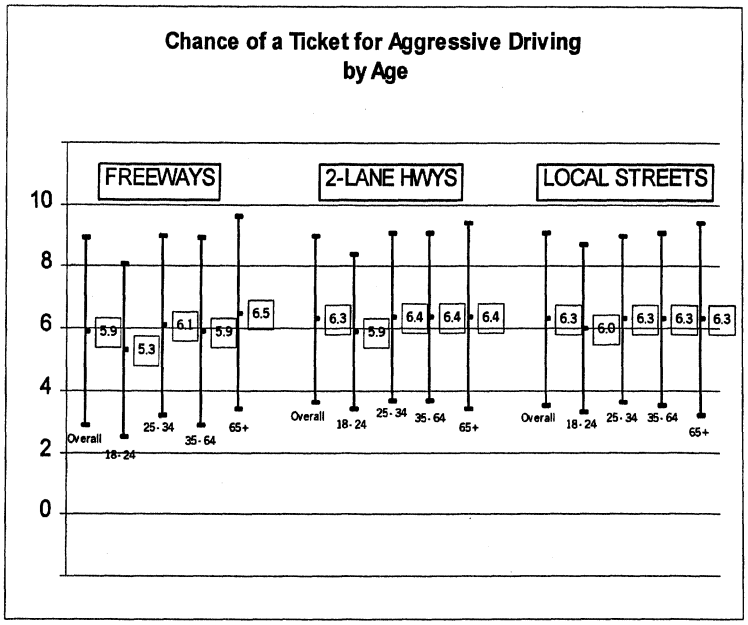
Q9A. How often do you think a person driving very aggressively will be ticketed on a FREEWAY in Michigan? By aggressive driving, I mean excessive lane changing, tailgating, flashing lights, passing on the right, and so forth.
(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of an aggressive driving crackdown. 0 means never and 10 means always.)

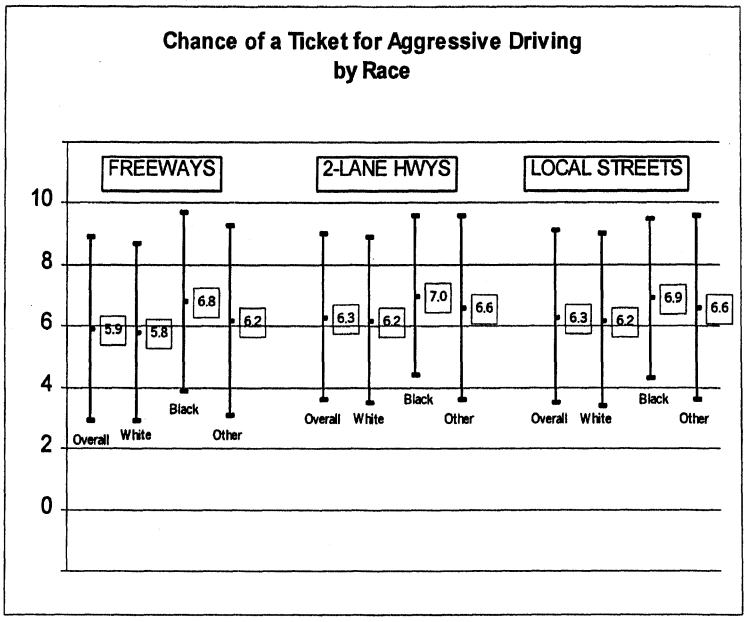
Q9B. How often do you think a person driving very aggressively will be ticketed on a MAJOR LOCA STREET in Michigan?
(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, passing on the right, and so forth. Assuming police are present and watching traffic generally, not as part of an aggressive driving crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

Q9C. How often do you think a person driving very aggressively will be ticketed on a TWO-LANE HIGHWAY with a speed limit of 50 or 55 miles per hour in Michigan?
(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, and so forth. Assuming police are present and watching traffic generally, not as part of an aggressive driving crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

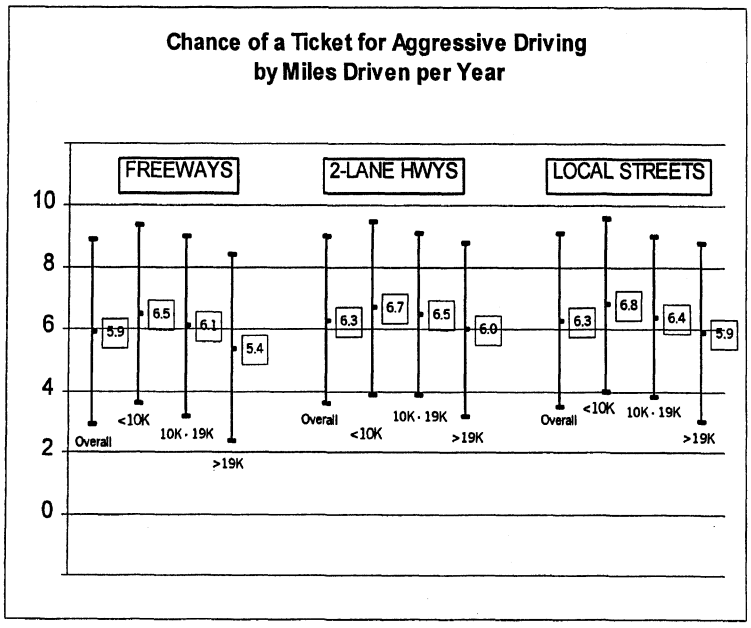
This chart shows the perceived chance of getting a ticket for an aggressive driving action is less than that for drunk driving, running a red light and speeding 10 or more mph over the limit, but more than that of belt nonuse. Small nonsignificant differences were observed between men and women.

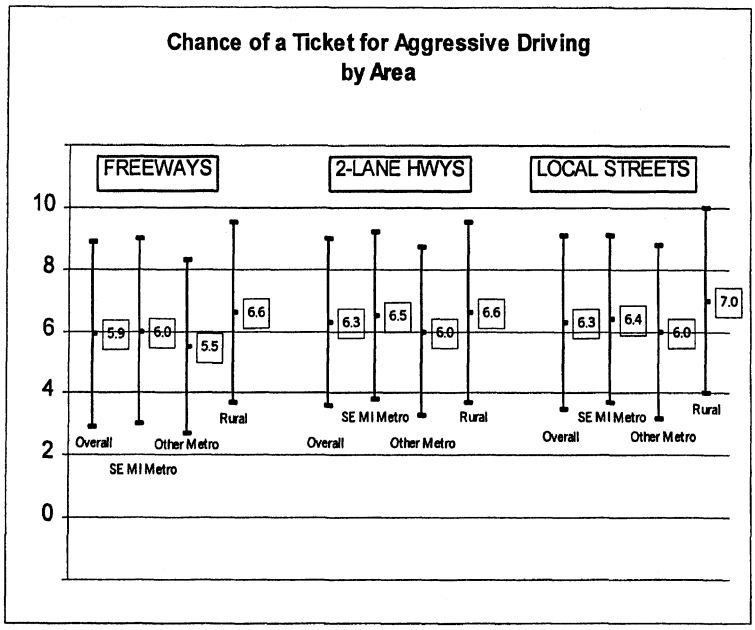






Small, inconsistencies and nonsignificant differences in responses were observed between age groups. Responses from blacks were generally higher than that of other groups but this difference was nonsignificant and smaller than the difference between racial groups observed for other items.





Small and statistically nonsignificant differences were observed for these items based on annual miles driven and region of the state sampled.

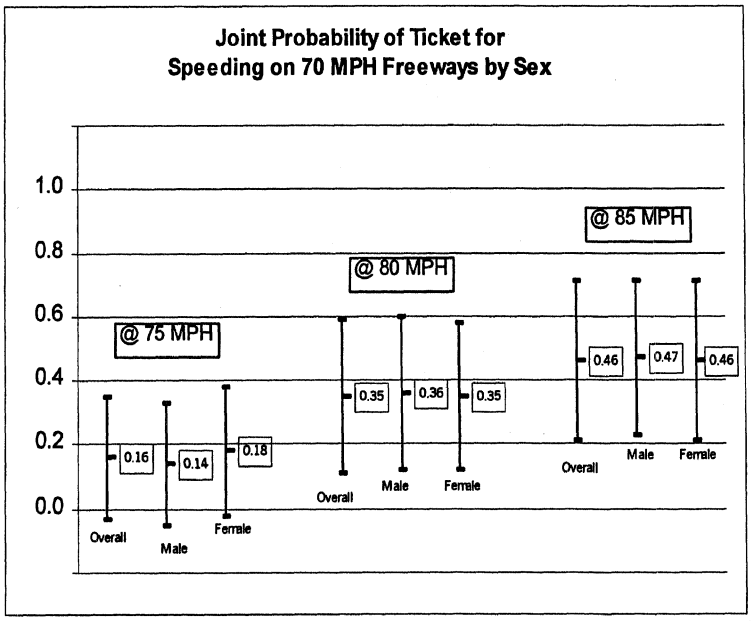
6.0 Results--Joint Probability of Getting a Speeding Ticket

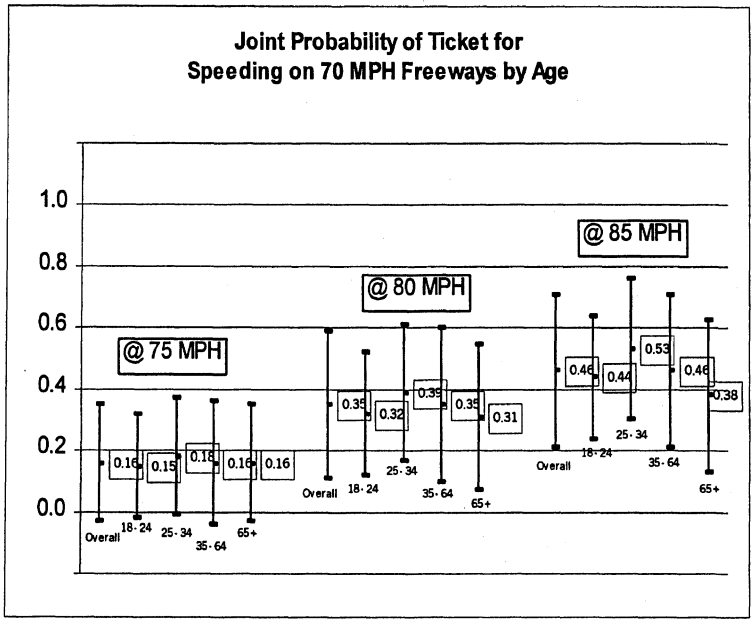
The chance of getting a ticket on a given road varies according to the chance that an officer is present to observe the violation and the chance that a ticket would be issued given an officer is present. Rather than have subjects estimate this two-part probability, we chose to ask the two component questions (each important in their own right) and combine them statistically.

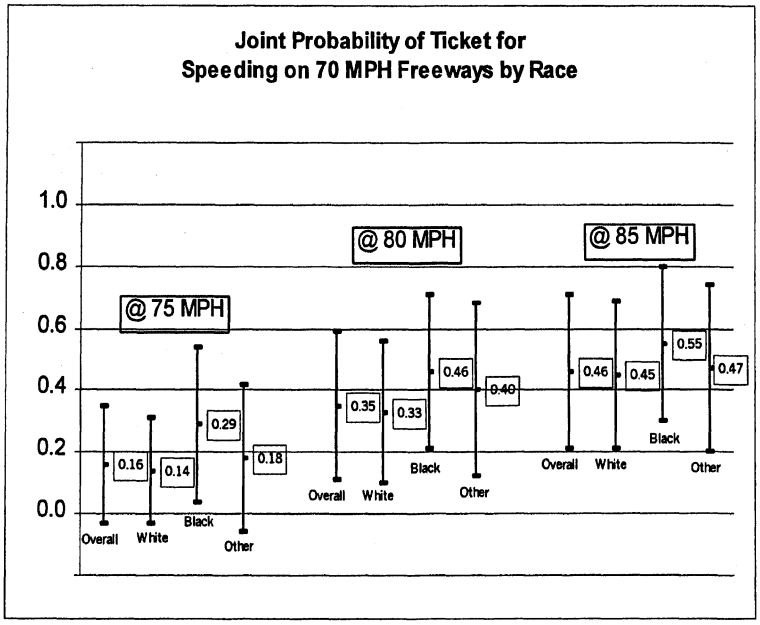
In order to estimate the perceived chance of getting a ticket on a given road type, we combined the answers from two items to create a new joint probability. For the following charts, the "joint probability" of getting a ticket was calculated by multiplying the chance of getting a ticket given a police officer is present and the reported chance that a police officer is present on the road type queried. These probabilities range from 1.0 (100% certain to get a ticket) and 0.0 (0% chance of getting a ticket). For example, if a given item had a 0.46 joint probability it would mean that event has a 46% chance of occurring based on the respondents' answers to the chance of getting a ticket when an officer is present and the chance that an officers would be present on that road type.

6.1 70 MPH Freeways

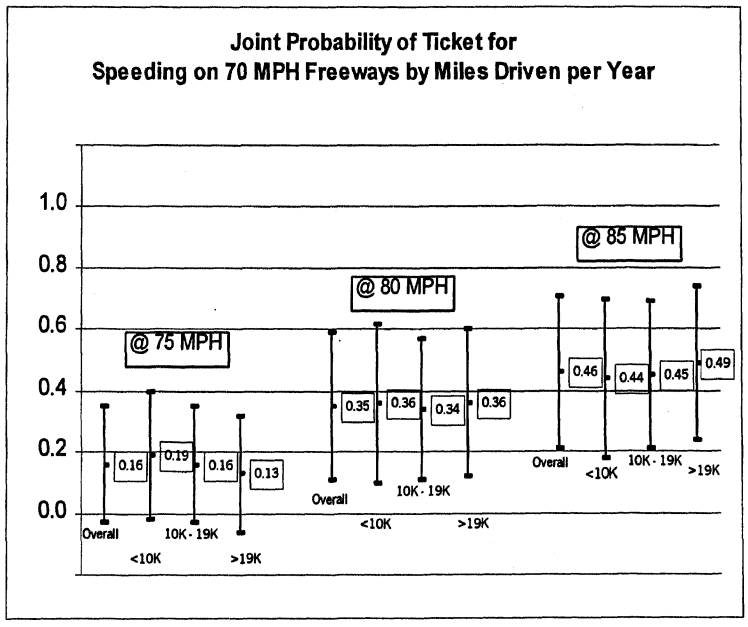
This chart shows that the probability of getting a speeding ticket on 70 mph freeways increases steadily from about 0.16 (16%) at 75 mph to about 0.46 (46%) at 85 mph. There were no differences in probability of getting a ticket based on sex.

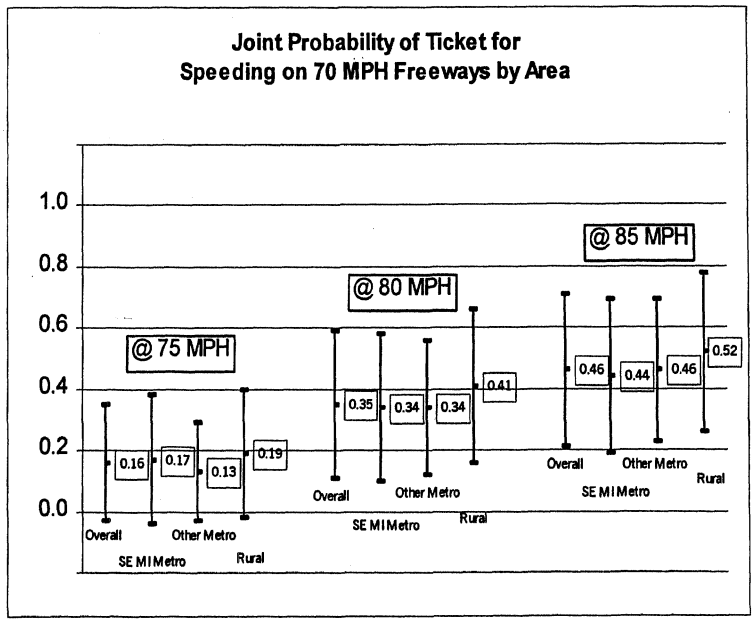






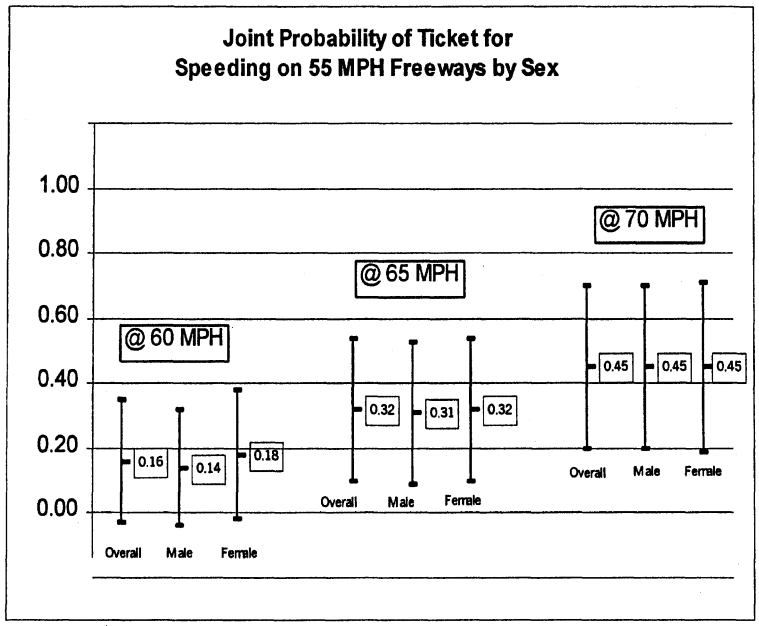
These charts also show the gradual increase in ticket probability as travel speed increases. However, there are no statistically significant differences between members of the age or race subgroups examined. Note that while not statistically significant, blacks report nearly twice the probability of getting a ticket a 75 mph (5 mph over the limit) as nonblacks, and that this differential decreases as travel speed increases. This pattern may reach statistical significance in future surveys if the sample size of blacks is increased through an oversampling of this important subgroup.



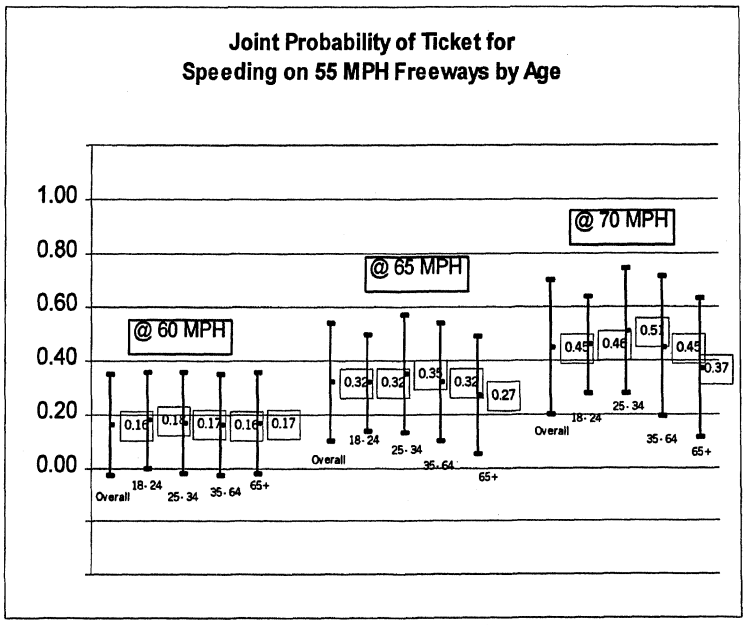


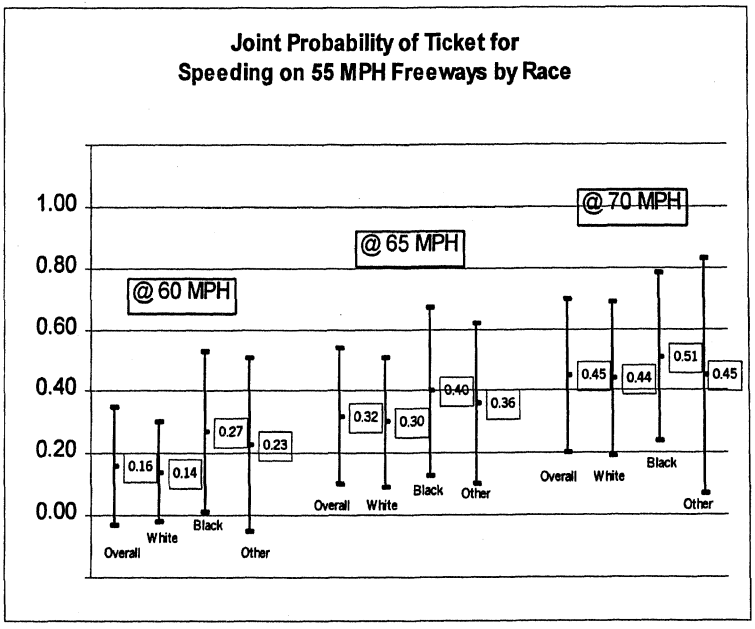
These charts also show the gradual increase in ticket probability as travel speed increases. There were no significant differences between members of the miles driven or state region subgroups.

6.2 55 MPH Freeways

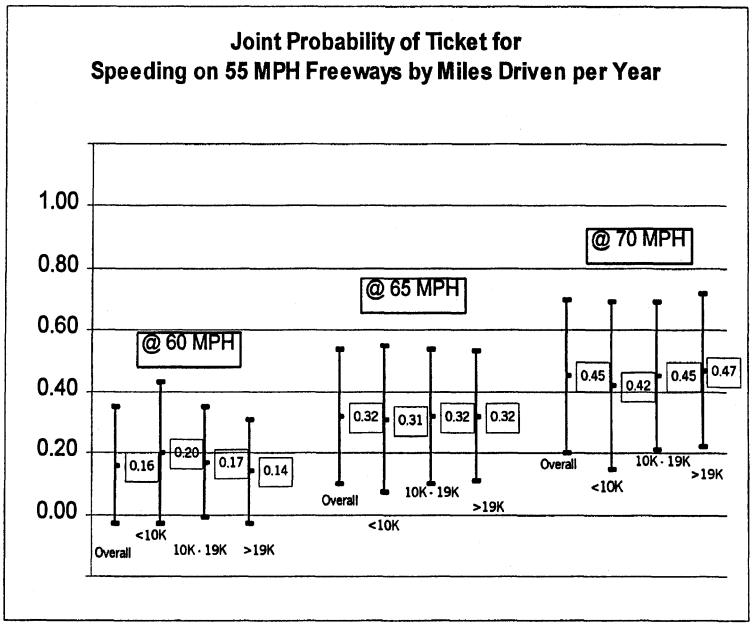


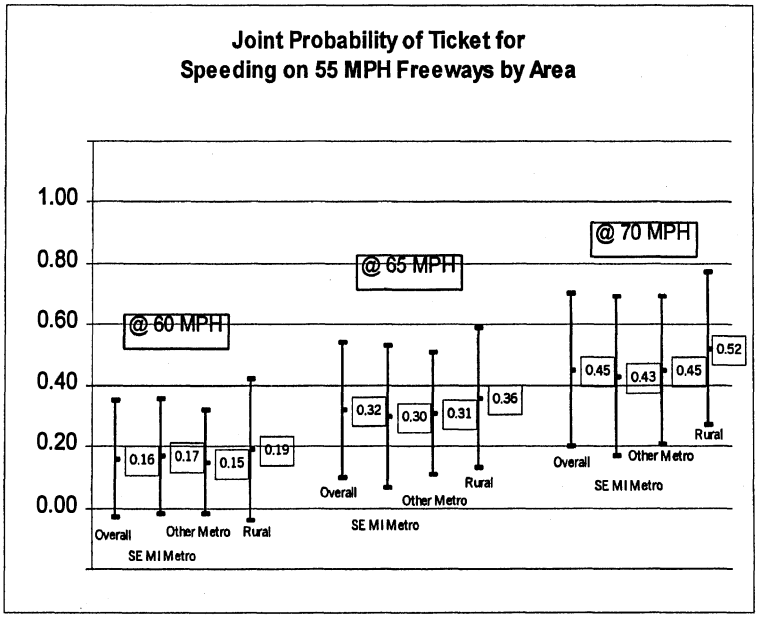
This chart again shows the probability of getting a ticket increases with driving speed and no difference in the estimated probability based on sex of the respondent.





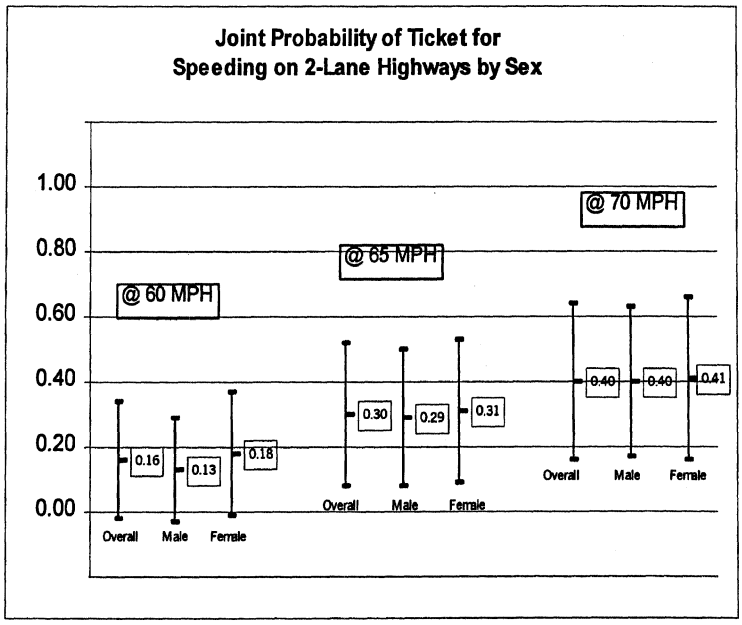
There were no significant differences observed between these subgroups. However, the pattern of probabilities based on race noted in the 70 mph freeways subsection is somewhat smaller for 55 mph freeways. Also note that the 'other' race category is closer to that of blacks in this subsection compared to 70 mph freeways.



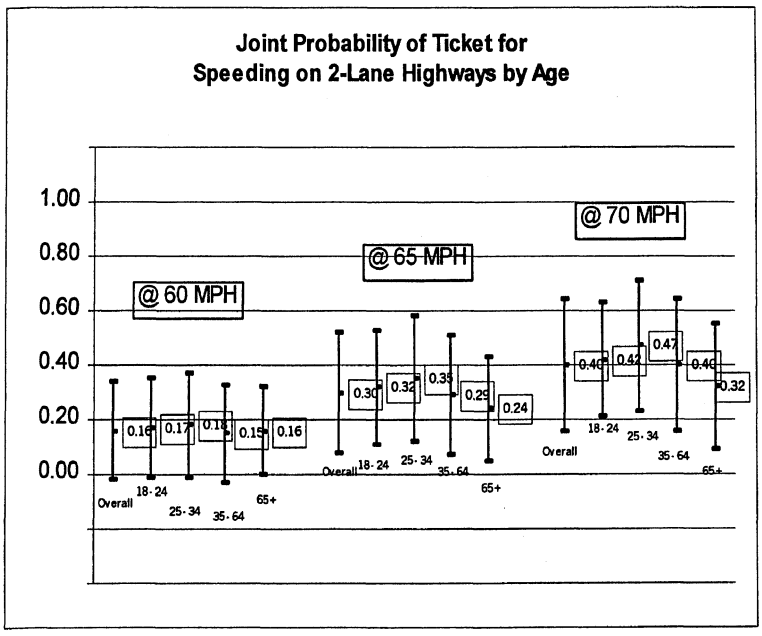


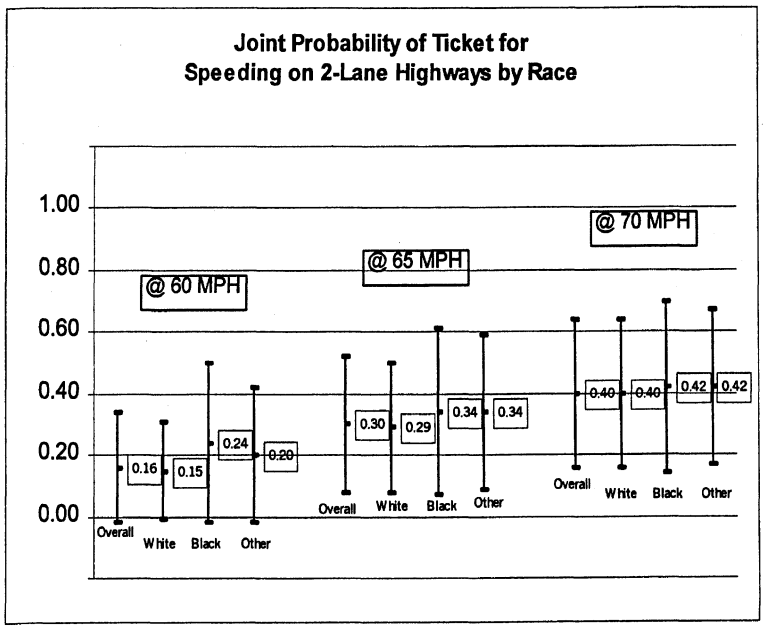
There were no significant differences observed between members of the miles driven or state region sub-groups.

6.3 2-Lane Highways

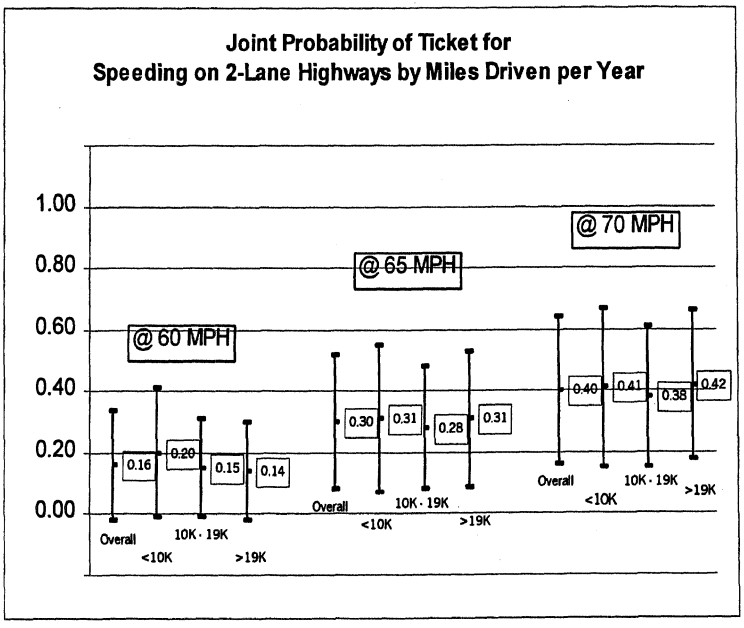


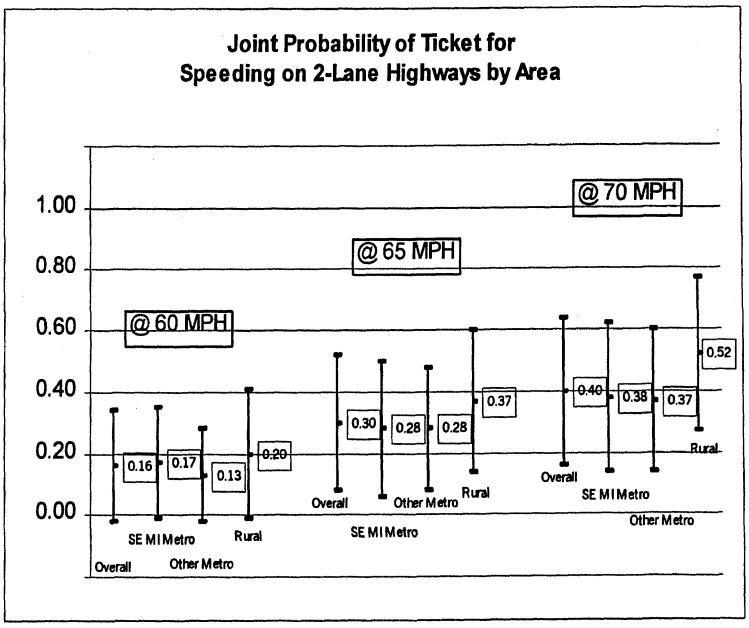
This item also shows the gradual increase in ticket probability as travel speed increases. There was no significant difference between men and women on this item.





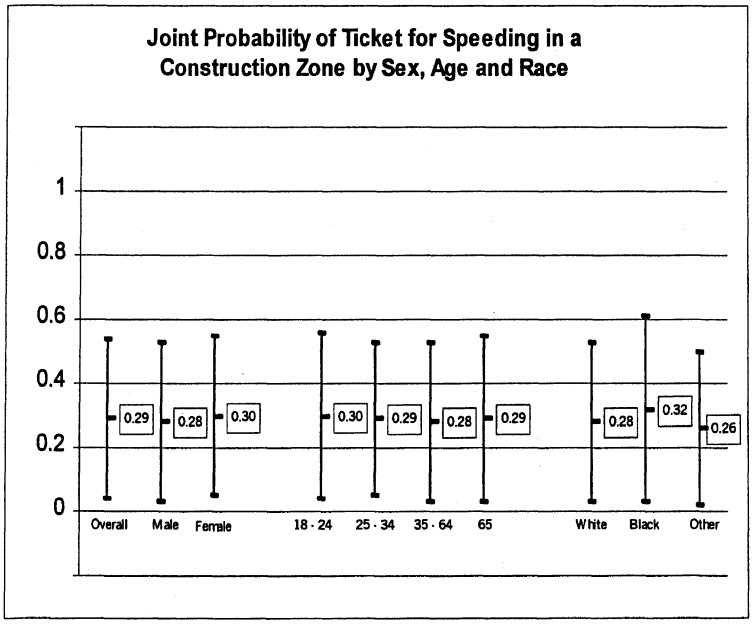
The gradual increase with travel speeds is again clear in these charts, but there was no observed difference by respondent age. Moreover, the differences observed between racial subgroups in the previous subsections has become even smaller in this item.

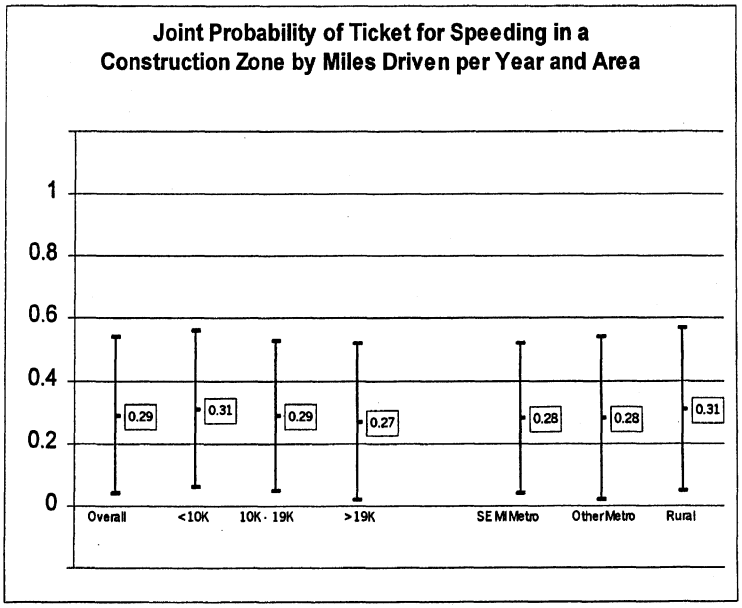




No significant differences were observed between members of the annual miles driven or the state region sub-groups.

6.4 In Construction Zone

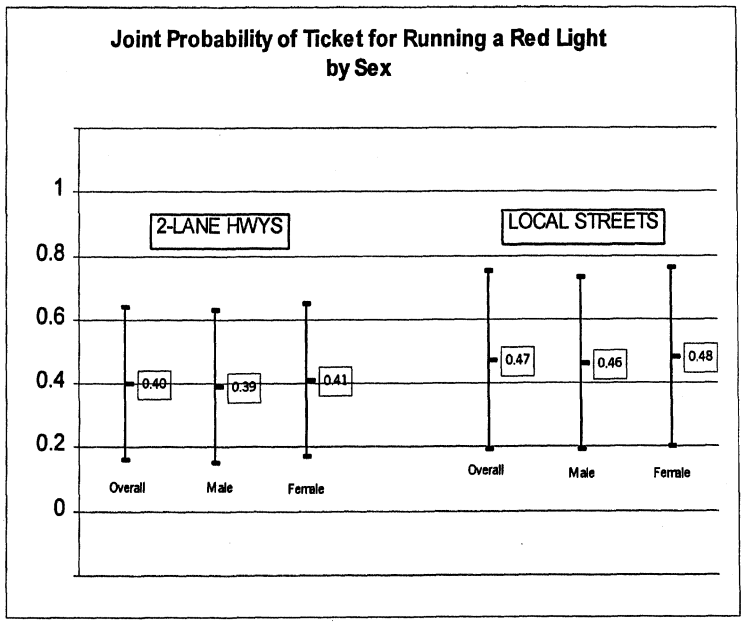




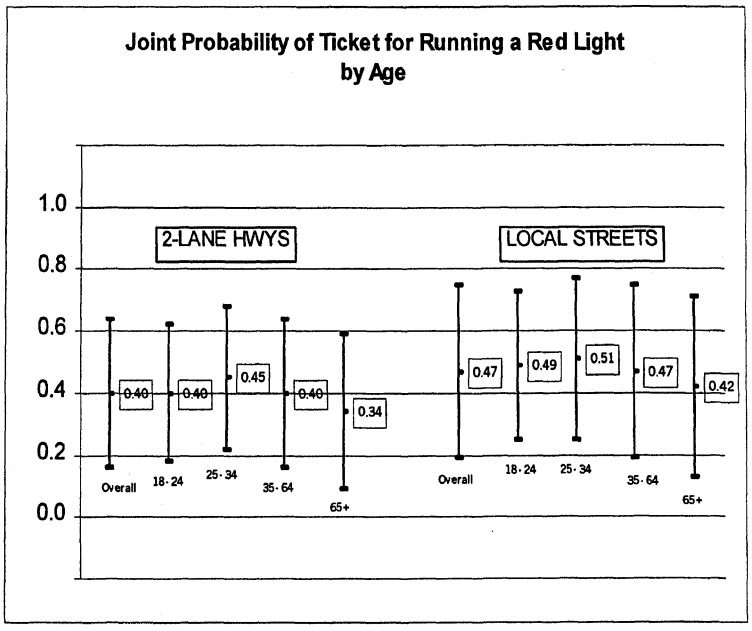
There were no significant differences in probability of getting a ticket for speeding in a construction zone when examined by sex, age, race, mileage driven or state region.

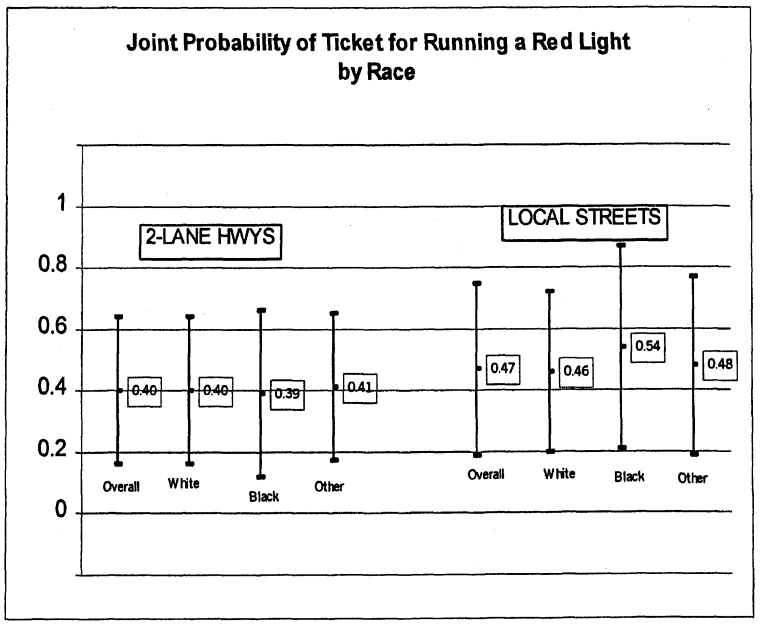
7.0 Results--Joint Probability of Other Ticket

7.1 Joint Probability for Running a Red Light Ticket

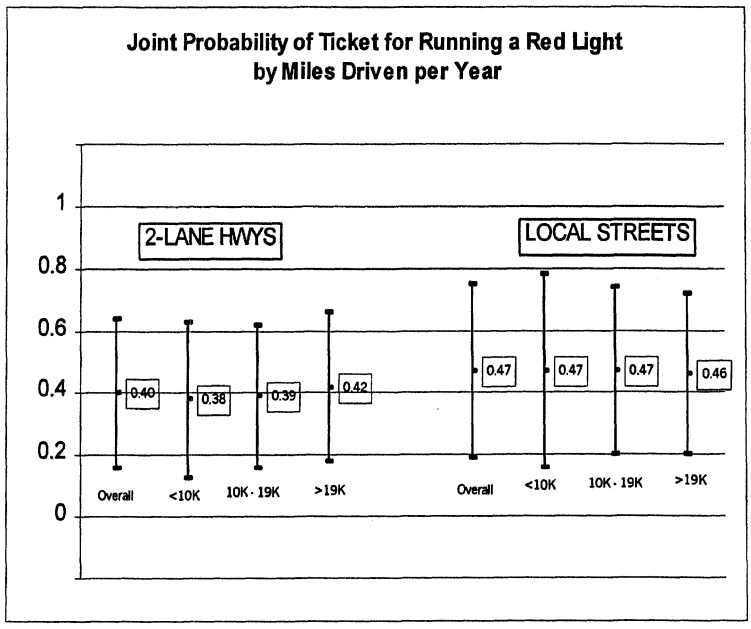


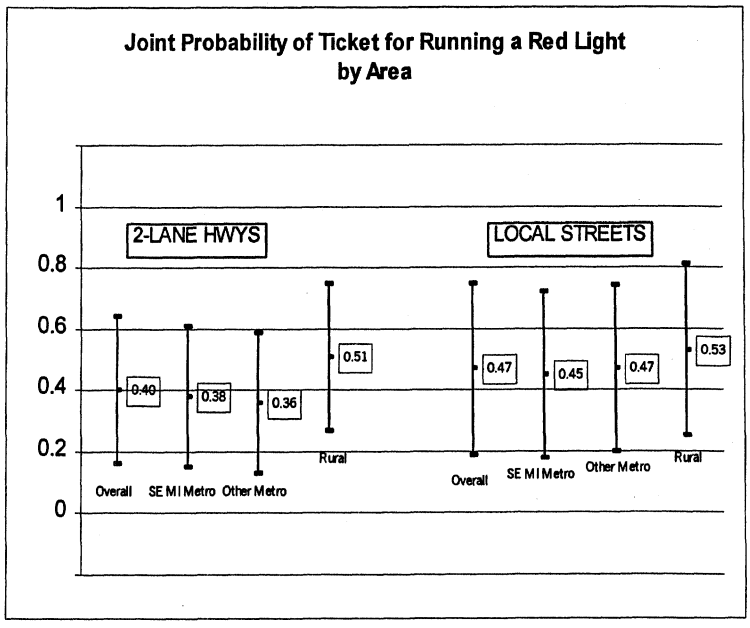
No significant difference was observed by road class or sex.





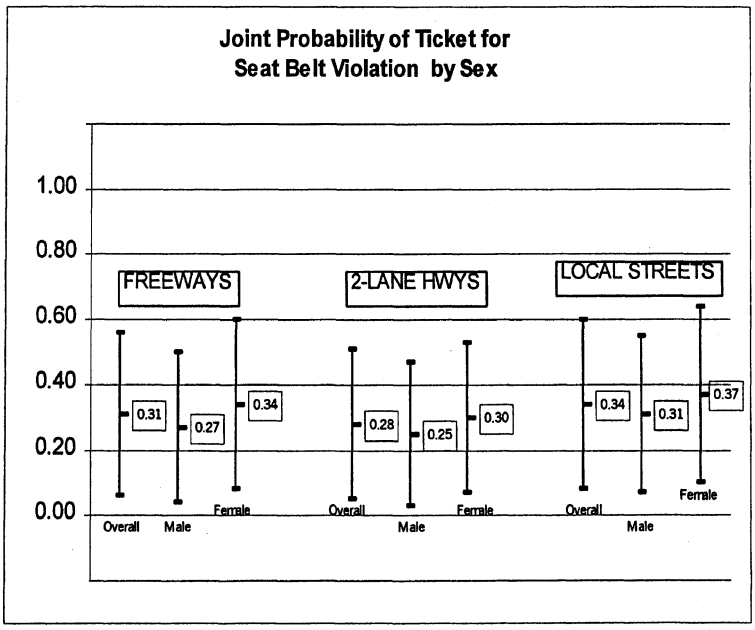
No significant difference was observed by age or racial group.



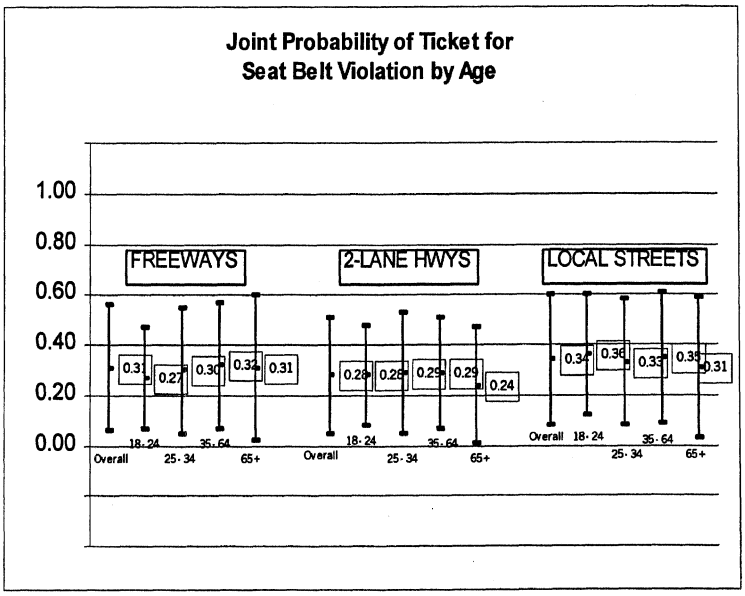


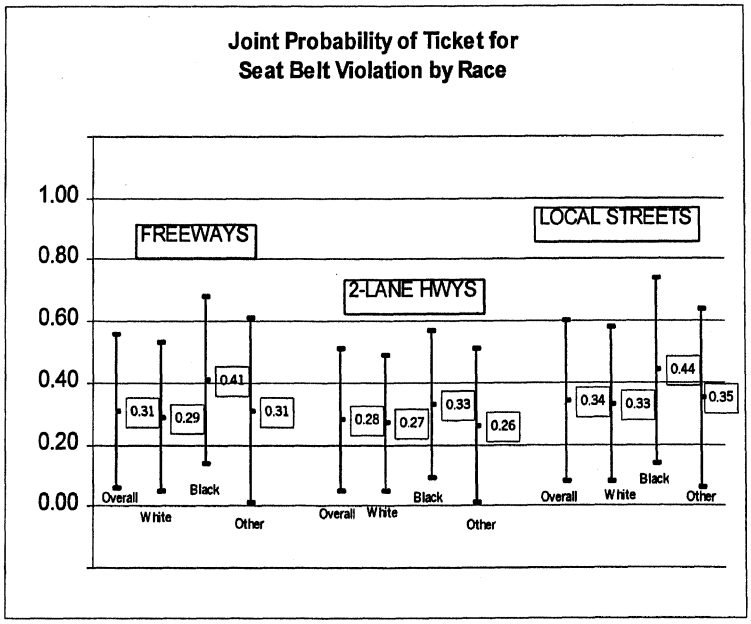
No significant difference was noted by annual miles driven or state region.

7.2 Joint Probability for Safety Belt Nonuse Ticket

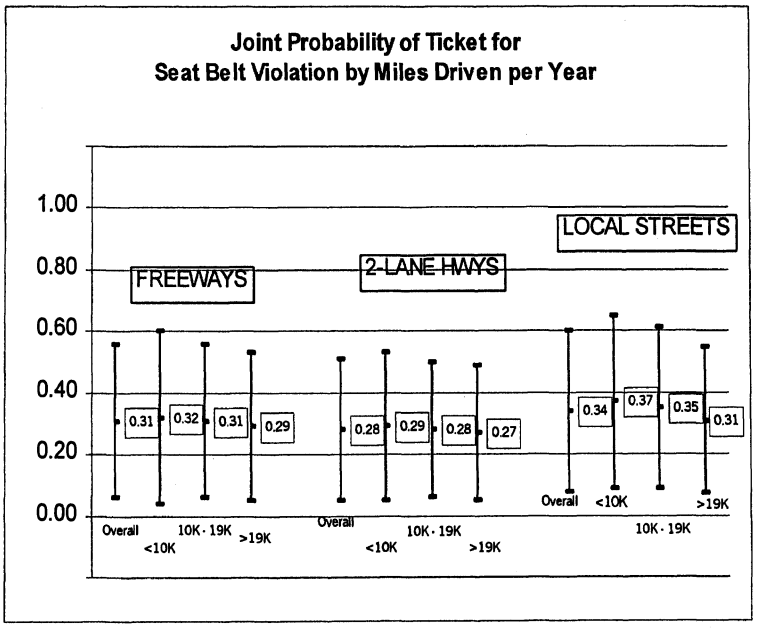


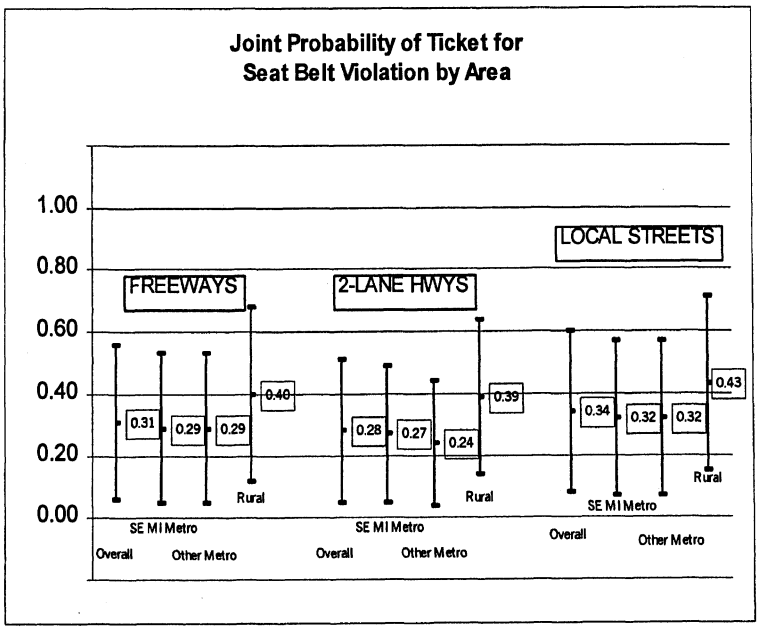
No significant difference was observed between road type or sex.





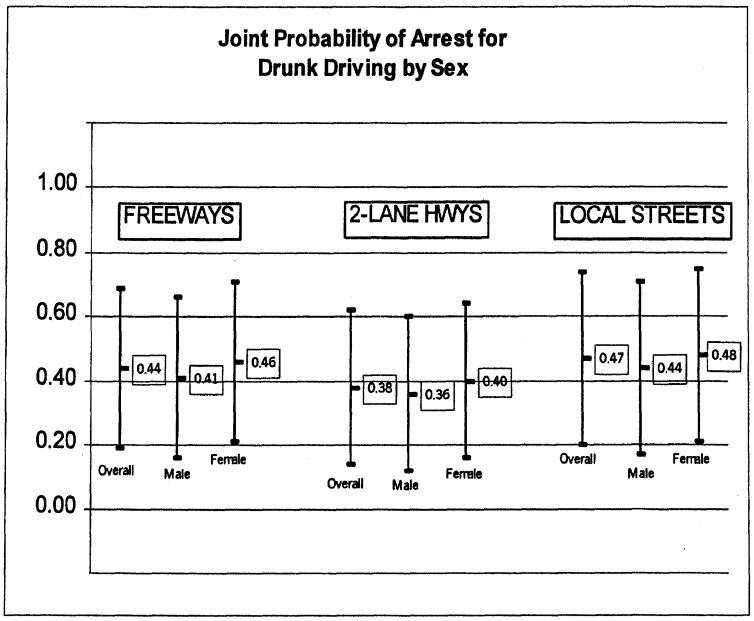
No significant difference was observed between age groups or race.



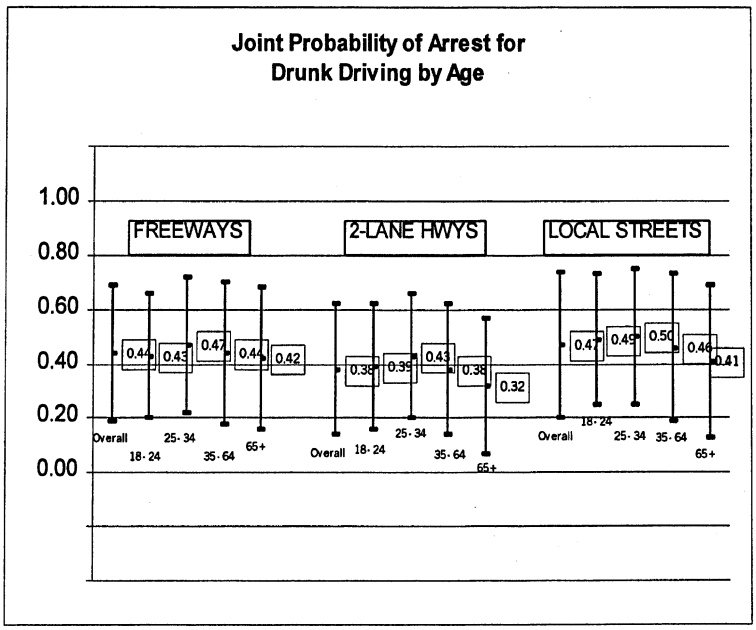


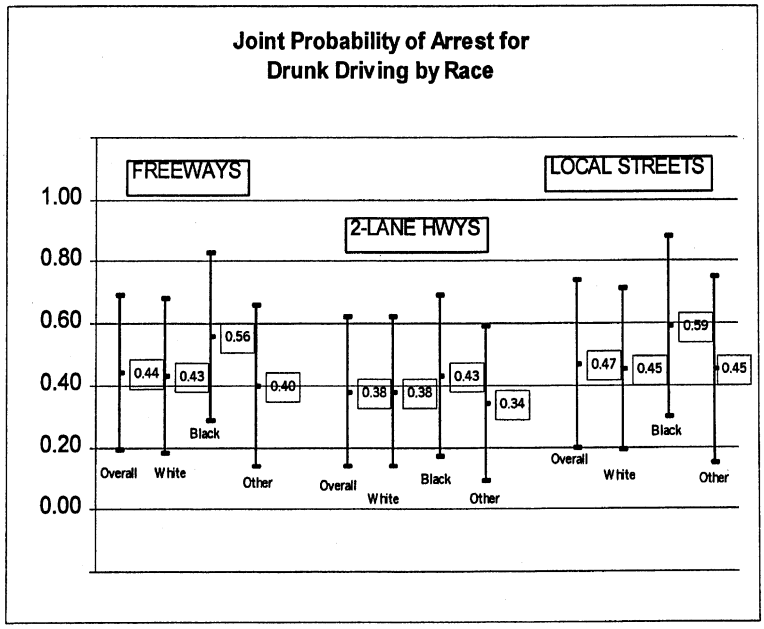
No statistically significant difference was observed between members of the annual miles driven or state region groups. However, persons from rural regions consistently estimated a greater (but not statistically significant) probability of getting a ticket than persons from metropolitan regions. Again, future studies should consider increasing the sampling of persons from rural regions to increase the statistical power required to better explore the potential difference between metropolitan and rural residents.

7.3 Joint Probability for Drunk Driving Arrest

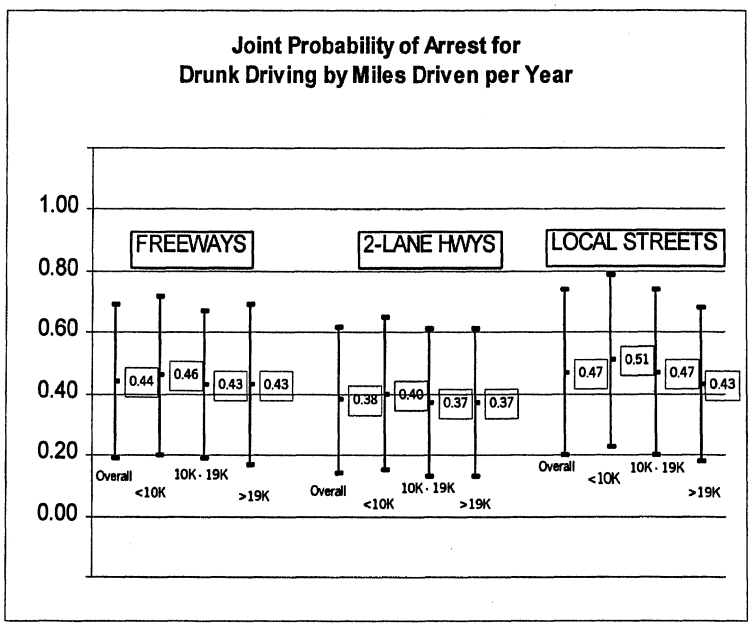


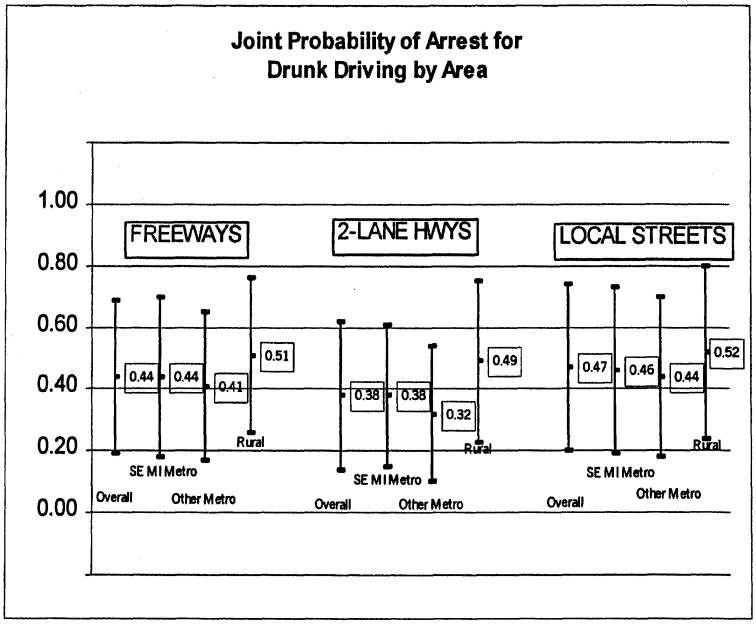
There are no significant differences in this item by road type or sex.





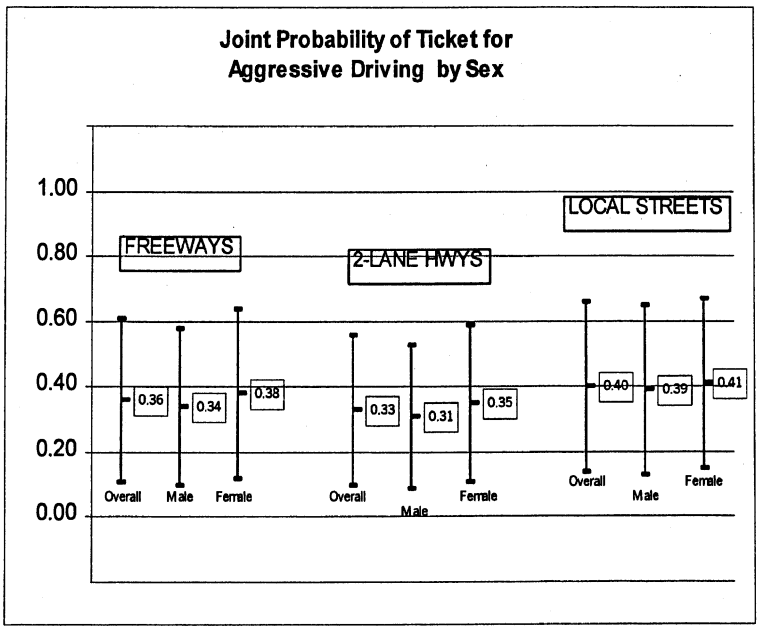
There are no statistically significant differences in this item when examined by age group or race. However, once again we see evidence that blacks may perceive the probability of getting arrested for drunk driving on freeways and local streets as being somewhat higher than for the other race groups. Oversampling this racial group in future surveys should provide a better understanding of this relationship.



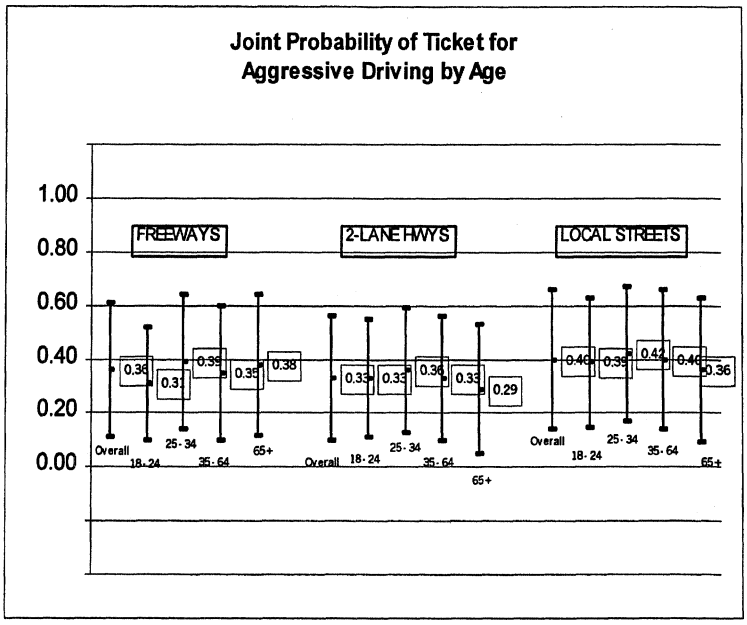


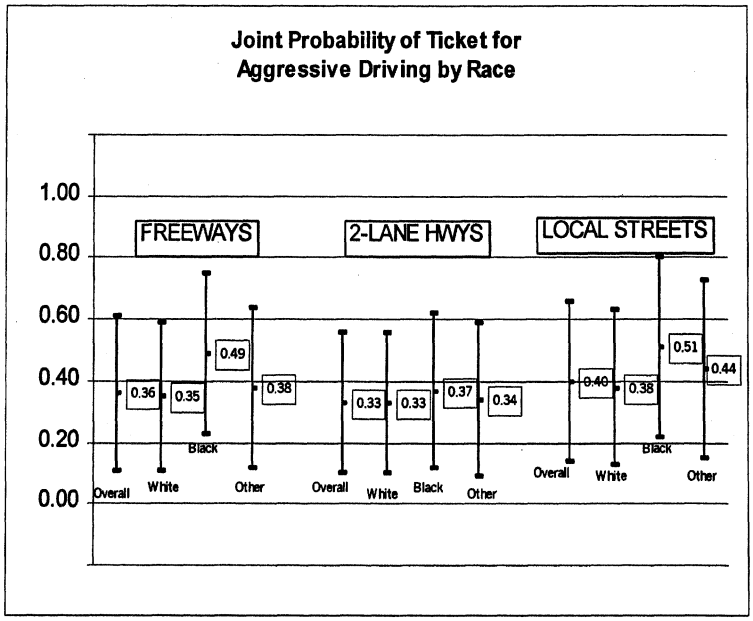
There were no statistically significant differences between groups based on annual miles driven or region of the state. However, persons from rural areas may perceive a slightly greater risk of arrest, especially on 2-lane highways, than persons from metropolitan areas. Again, special sampling to better represent persons from rural areas may serve to better understand this relationship in the future.

7.4 Joint Probability for Aggressive Driving Ticket

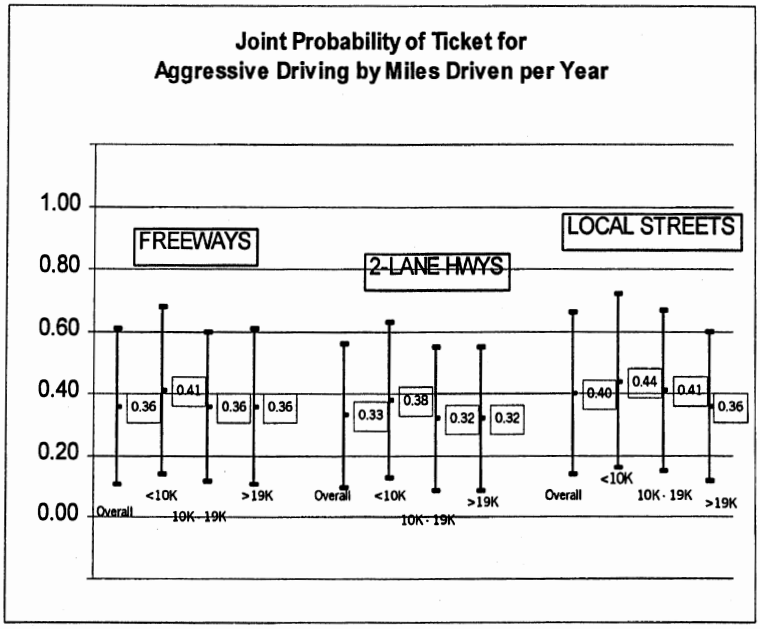


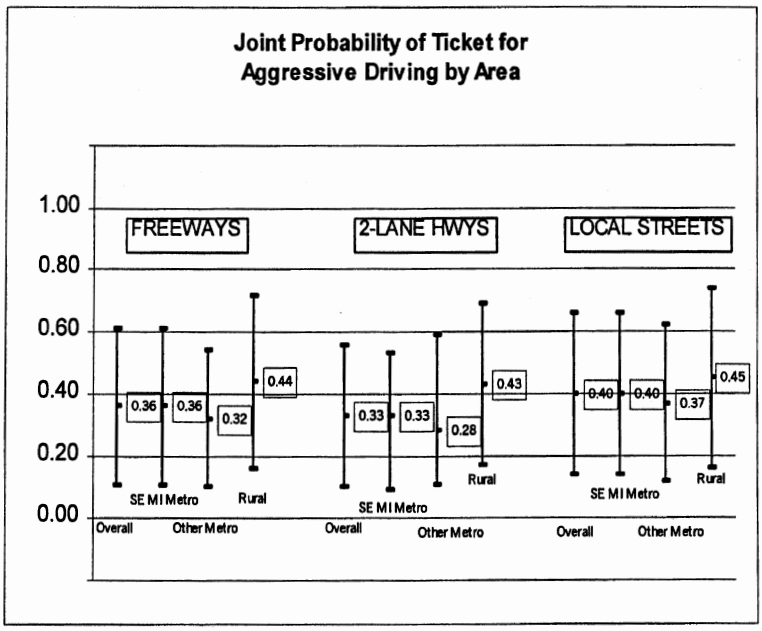
No significant differences were observed for this item between road types or sex.





No statistically significant differences were noted by age group or race. However, we again see that blacks may perceive a greater probability of getting an aggressive driving ticket, especially on freeways and local streets. Only providing for an oversampling of blacks in future surveys will permit a better examination of this issue.





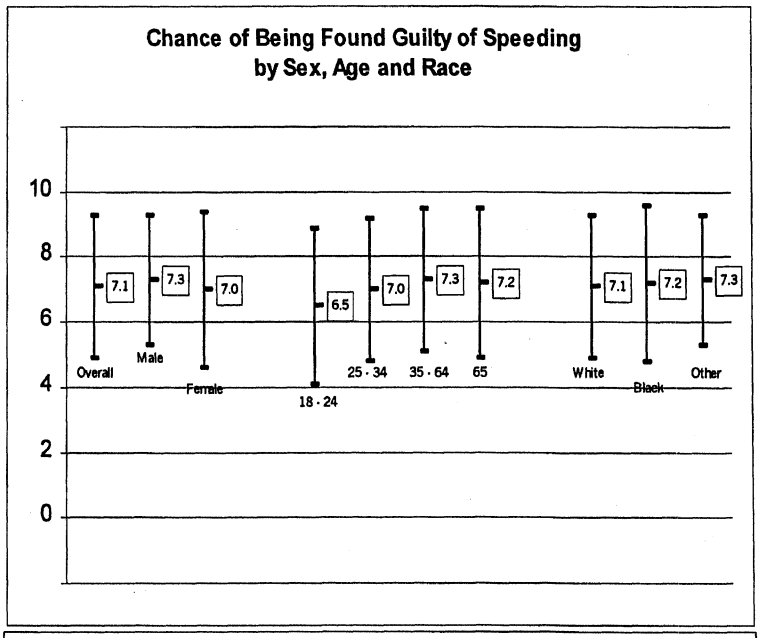
Although none of the differences between the population subgroups were statistically significant, persons from rural areas may perceive a higher probability of ticket for aggressive driving than persons from metropolitan areas. As stated earlier, future surveys may consider oversampling persons from rural areas to better examine this issue.

8.0 Results--Chance of Being Found Guilty for Violation

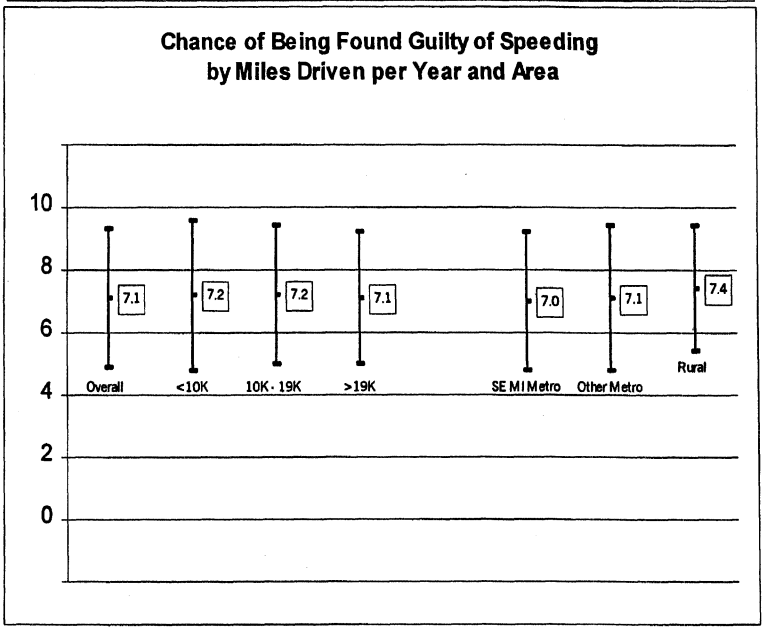
8.1 Speeding

FOUND GUILTY OF SPEEDING

Q10B. How often do you think a person who goes to court after being ticketed for SPEEDING will be found guilty of that offense?
(INTERVIEWER NOTE: 0 means never and 10 means always.)



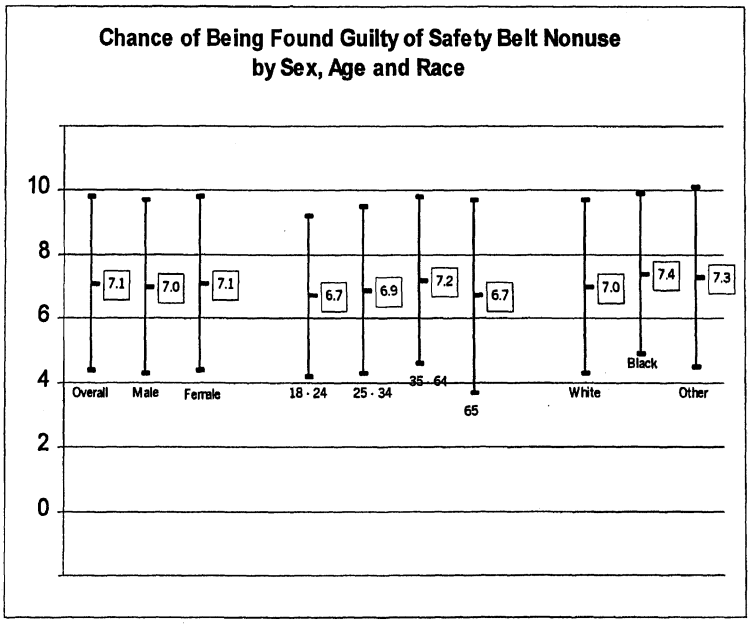
These charts show that people think it is quite likely that they would be convicted of speeding if they contested the charge in court. No statistically significant differences were observed by sex, age, race, annual miles driven, or regions of the state.



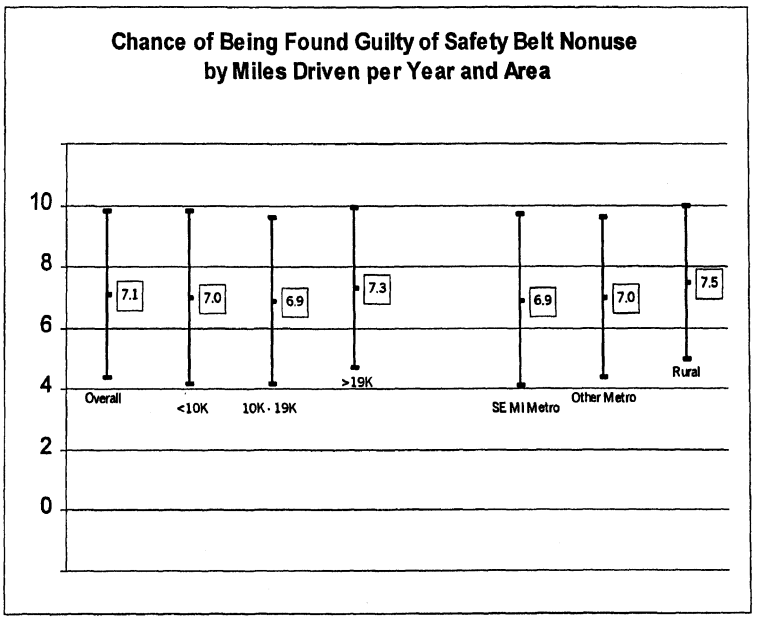
8.2 Safety Belt Nonuse

FOUND GUILTY OF NOT USING A SEAT BELT

Q10C. How often do you think a person who goes to court after being ticketed for NOT USING A SEAT BELT will be found guilty of that offense?
(INTERVIEWER NOTE: 0 means never and 10 means always.)



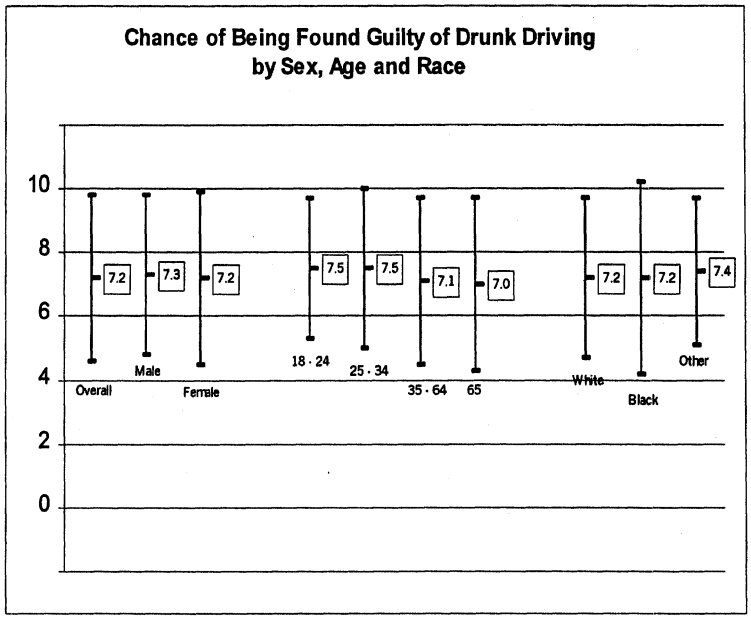
These charts show that the chance of being found guilty of safety belt nonuse is quite high and does not vary between members of each of the subgroups examined.



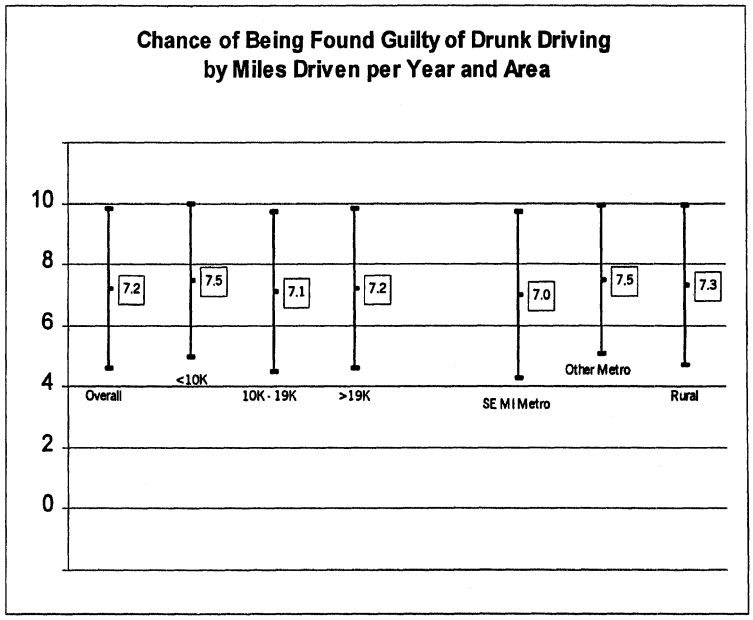
8.3 Drunk Driving

CONVICTED OF DRUNK DRIVING

Q10A. How often do you think a person who was arrested for DRUNK DRIVING (with a blood alcohol level of 0.10 or greater) will be convicted of that offense?
(INTERVIEWER NOTE: 0 means never and 10 means always.)



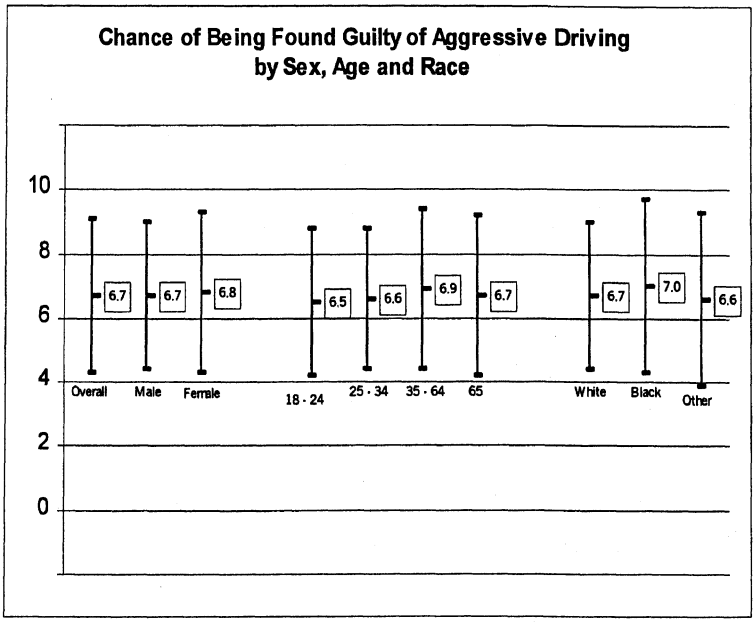
These charts again show a high perceived chance of being convicted for drunk driving and no significant differences between members of the subgroups examined.



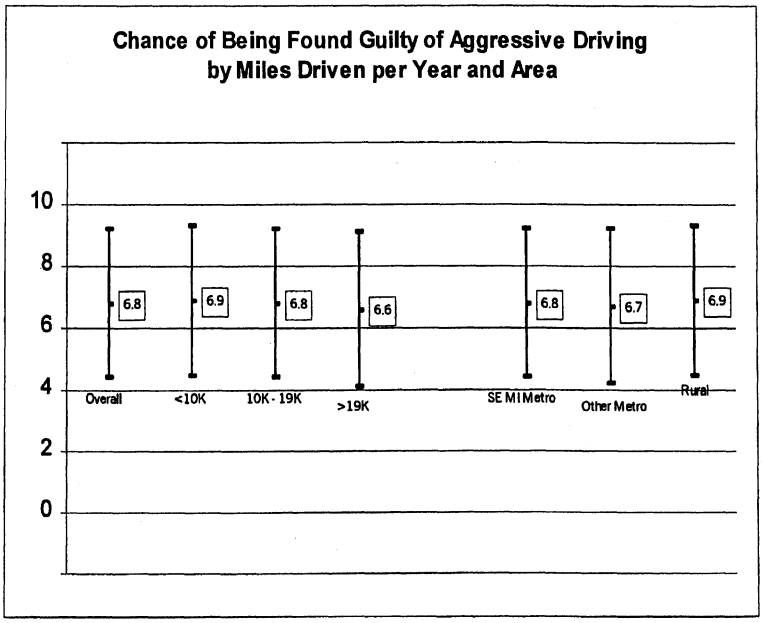
8.4 Aggressive Driving

FOUND GUILTY OF AGGRESSIVE DRIVING

Q10D. How often do you think a person who goes to court after being ticketed for AGGRESSIVE DRIVING will be found guilty of that offense?
(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, passing on the right, and so forth. 0 means never and 10 means always.)



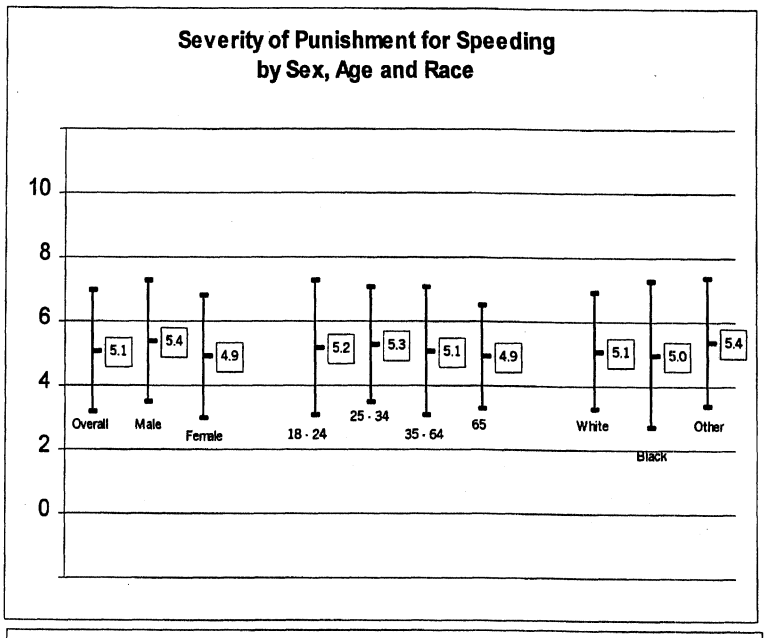
These charts again show a high perceived chance of being convicted for aggressive driving and no significant differences between members of the subgroups examined.



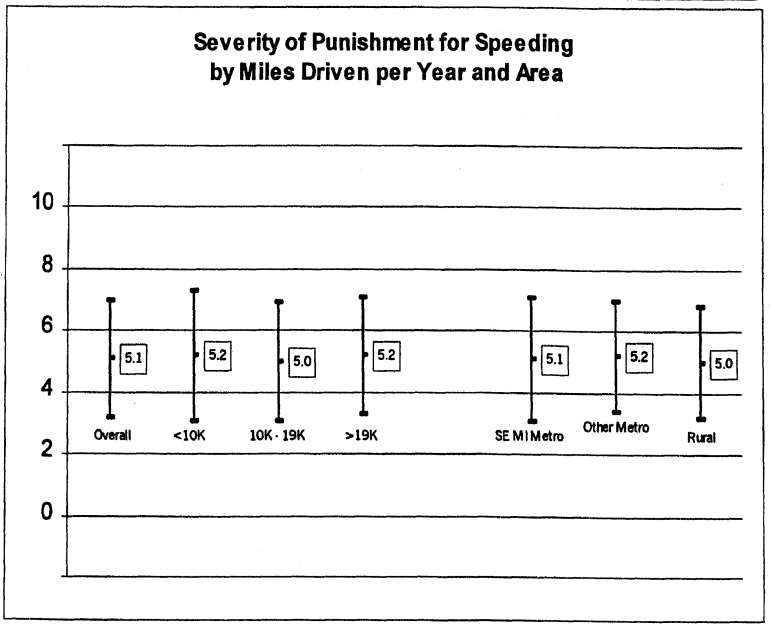
9.0 Results--Perceived Severity of Punishment

9.1 Speeding

SPEEDING PUNISHMENT
Q11B. If a person is found guilty of SPEEDING, how would you rate the punishment they will probably receive?
(INTERVIEWER NOTE: 0 means too lenient, 10 means too severe, and 5 means about right.)



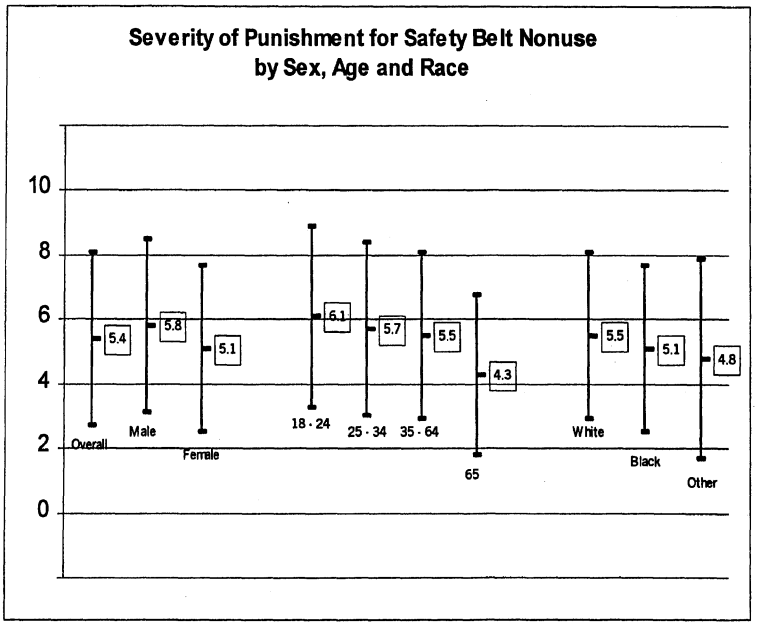
These charts show that the perceived severity of punishment for speeding is very close to 5 (recall that 5 means 'about right', see question above) and does not vary between population subgroups.



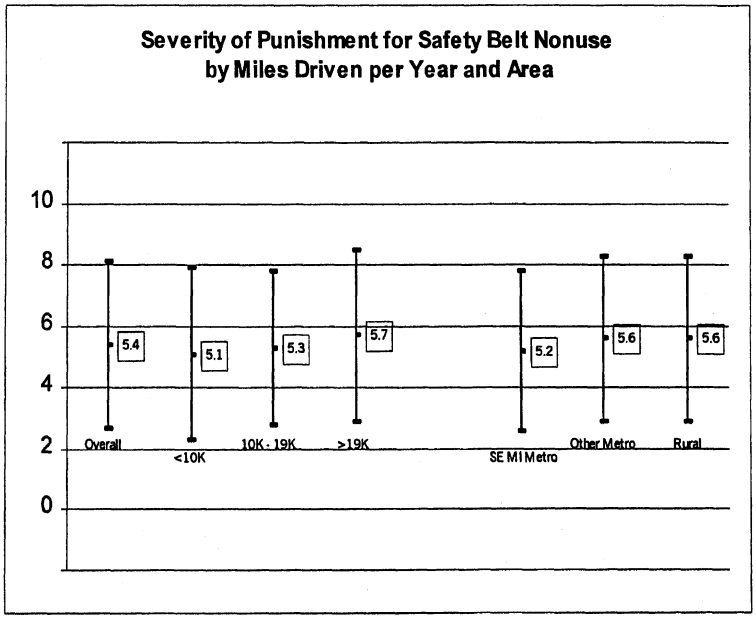
9.2 Safety Belt Nonuse

NOT USING A SEAT BELT PUNISHMENT

Q11C. If a person is found guilty of NOT USING A SEAT BELT, how would you rate the punishment they will probably receive?
(INTERVIEWER NOTE: 0 means too lenient, 10 means too severe, and 5 means about right.)



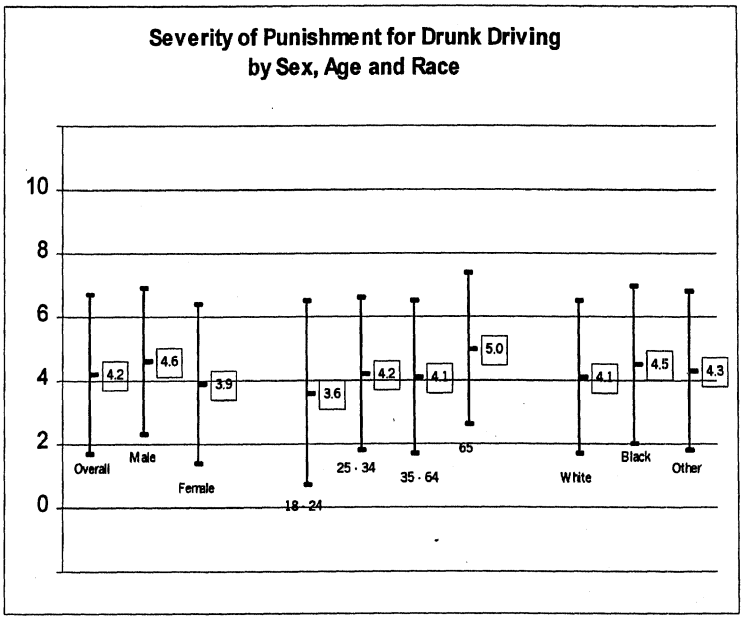
These charts show that the perceived severity of punishment for safety belt nonuse is slightly more than 5 (about right) for most groups and does not vary between population subgroups.



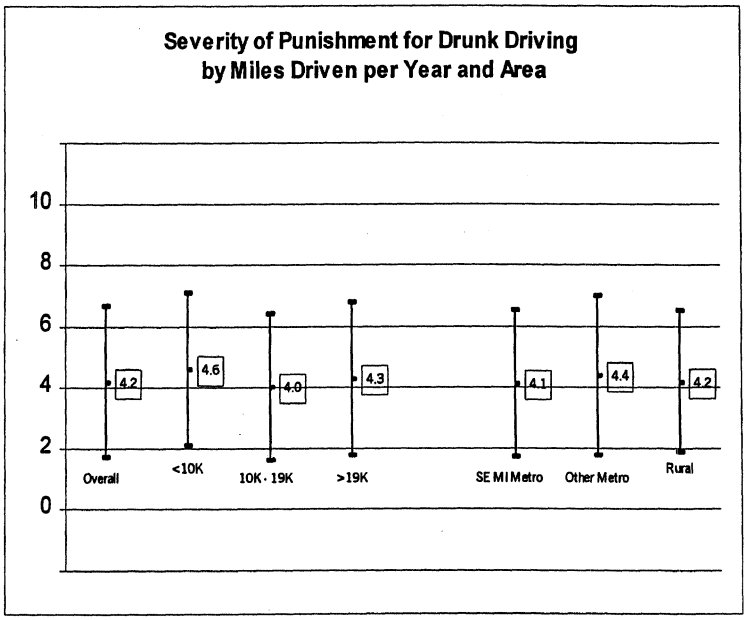
9.3 Drunk Driving

DRUNK DRIVING SENTENCE

Q11A. If a person is convicted of DRUNK DRIVING, how would you rate the sentence they will probably receive?
(INTERVIEWER NOTE: Drunk driving is defined as driving with a blood alcohol level of 0.10 or greater. 0 means too lenient, 10 means too severe, and 5 means about right.)



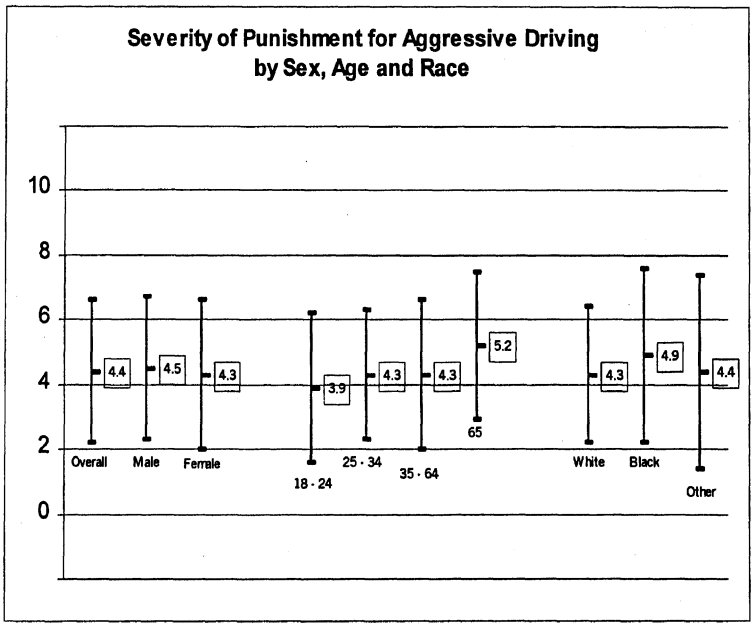
These charts show that the perceived severity of punishment for drunk driving is close to 4 for most groups (leaning toward too lenient) and does not vary between population subgroups.



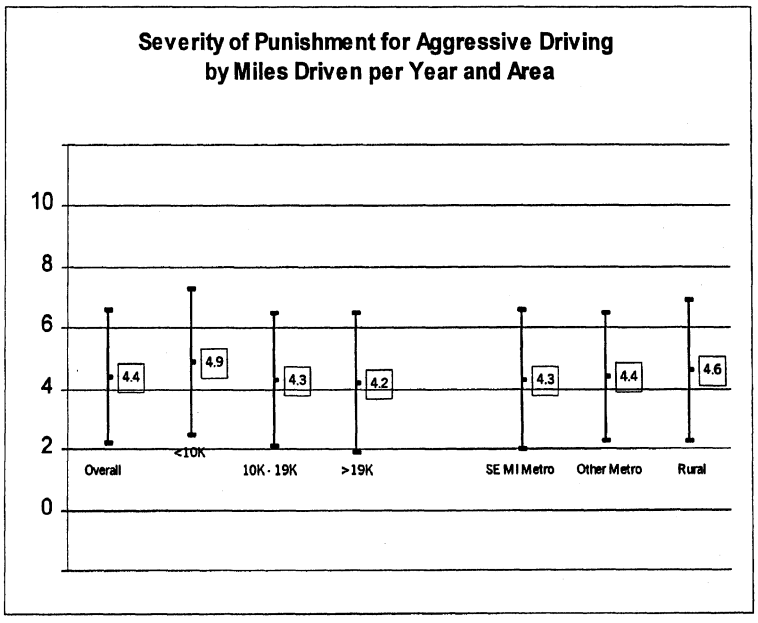
9.4 Aggressive Driving

AGGRESSIVE DRIVING PUNISHMENT

Q11D. If a person is found guilty of AGGRESSIVE DRIVING, how would you rate the punishment they will probably receive?
(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, passing on the right, and so forth. 0 means too lenient, 10 means too severe, and 5 means about right.)



These charts show that the perceived severity of punishment for aggressive driving is close to 4 for most groups (leaning toward too lenient) and does not vary between population subgroups.



10.0 Discussion

Perceptions of police presence varied little between road types (between 5.0 and 6.1 overall), however, police presence in construction zones was generally lower than that of the road types (3.7 overall). Although the comparisons were not statistically significant, blacks consistently reported higher levels of police presence on freeways and local streets than did nonblacks (5.9 versus 6.7 on freeways and 6.1 versus 7.1 on local streets). If this survey is repeated in the future, the survey team should consider oversampling blacks to provide a sufficient sample size to better examine the nature of the apparent differences.

When the chance of getting a speeding ticket when an officer is present was examined, we find that the perceived chance of being ticketed is quite low at 5 mph over the limit, increases quickly at 10 mph over the limit, and increases still further at 15 mph over the limit. The most notable differences among the population subgroups examined were again those of blacks versus nonblacks. While these differences were not statistically significant they are of interest, particularly given the national attention being given to issues of police harassment. Specifically, blacks reported a higher chance of getting a ticket at 5 mph over the limit than did the other races, but did not differ as much from the other races at 10 mph and 15 mph over the limit. This may indicate at some level a heightened perception of police activity among blacks at what may be considered marginal levels of speeding.

The perceived chance of getting a ticket for running a red light are comparable to those for driving 15 mph over the speed limit (about 7.6 to 7.8 overall). The perceived chance for arrest for drunk driving was also found to be in the same range (7.4 to 7.4 overall). Respondents reported the likelihood of getting a ticket for safety belt nonuse to be about the same as speeding at 10 mph over the limit (5.0 to 5.7 overall). The perceived chance of getting a ticket for aggressive driving was slightly higher than that for driving 10 mph over the limit but slightly lower than that for driving 15 mph over the limit (5.9 to 6.3 overall). There were no statistically significant differences found by subgroup on these items and few notable differences. Differences that should be examined more closely in future studies (by oversampling small subpopulations) include safety belt use (blacks and persons in rural areas reported slightly higher chance of ticket), drunk driving (blacks and persons in rural areas reported slightly higher chance of ticket), and aggressive driving (blacks reported slightly higher chance of ticket).

The chance of getting a ticket on a given road varies according to the chance that an officer is present to observe the violation and the chance that a ticket would be issued given an officer is present. Rather than have subjects estimate this two-part probability, we chose to ask the two component questions (each important in their own right) and combine them statistically. The "joint probability" of getting a ticket was calculated by multiplying the chance of getting a ticket given a police officer is present and the reported chance that a police officer is present on the road type queried. These probabilities range from 1.0 (100% certain to get a ticket) and 0.0 (0% chance of getting a ticket). For example, if a given item had a 0.46 joint probability it would mean that event has a 46% chance of occurring based on the respondents' answers to the chance of getting a ticket when an officer is present and the chance that an officers would be present on that road type.

The pattern of results for these joint probability items differed little from those in the chance of getting a ticket given an officer is present. This isn't surprising given that the joint probability included chance of getting a ticket as part of the formula used for estimating the joint probabilities. However, the joint probability results tended to reduce the differences observed between populations subgroups when compared to the chance of getting a ticket given an officer is present. This was not true for all items, and none of the differences reached statistical significance; however, we think that this recalculation of ticket probability was a valuable component of the survey design and analysis and provided important, new data for understanding the complex relationships between police presence and chance of getting a ticket.

The perceived chance of being convicted of the traffic offense queried was high for each violation type and varied little between violations (6.7 to 7.2 overall). There were no differences between population subgroups for any of the chance of conviction items. Similar results were found for the severity of punishment given a person is found guilty of the violation charged.

In sum, the results of this survey provide a basis from which future PTS activities may be planned and evaluated. Based on these results, future studies should examine more closely the relationship between state geographic region (rural versus metropolitan), race (black versus nonblack), and perceived PTS activity levels. A better understanding of these relationships may provide the information necessary to overcome perceived harassment among some population subgroups and may help PTS program planners better understand how PTS programming may affect the important issues related to deterring drivers from violating traffic laws.

Appendix A

Survey Instrument

THE UNIVERSITY OF MICHIGAN
TRANSPORTATION RESEARCH INSTITUTE
POLICE TRAFFIC SERVICES SURVEY

INT. Hello, my name is _____ from MORPACE International, a survey research firm in Farmington Hills. On behalf of the University of Michigan Transportation Research Institute, we are conducting a brief survey about traffic law enforcement in Michigan. We would appreciate your input in this voluntary survey.

All information collected will be treated confidentially. This is not a sales call and no sales calls will result from the interview. For quality control purposes, this call may be monitored.

Are you a licensed driver in the state of Michigan, at least 18 years of age or older?

(IF ASKED: Interview length is approximately 8 minutes. The Office of Highway Safety and Planning is sponsoring UMTRI's research.)

0	Yes	**(CONTINUE)**
0	No	**(Ask to speak to adult over 18, repeat intro. If unavailable, schedule callback.)**
0		
0 99	Refused	**(TERMINATE)**
0		
0		

Sex

QA. Record sex (BY OBSERVATION).

01 Male
02 Female

PRESENCE OF POLICE

INT1. First we'd like to ask you about police presence on various types of roads. A 0 (zero) to 10 scale will be used, where zero (0) means never and 10 means always. Please rate each of the following questions with a number between 0 and 10.

PRESENCE OF POLICE ON FREEWAYS

Q1A. How often do you see police patrolling FREEWAYS in Michigan? Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75.
(INTERVIEWER NOTE: 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

PRESENCE OF POLICE ON TWO-LANE HIGHWAYS

Q1B. How often do you see police patrolling TWO-LANE HIGHWAYS in Michigan, where the speed limit is 50 or 55 miles per hour?
(INTERVIEWER NOTE: Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

PRESENCE OF POLICE ON LOCAL STREETS

Q1C. How often do you see police patrolling MAJOR LOCAL STREETS in Michigan?
(INTERVIEWER NOTE: Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

PRESENCE OF POLICE IN CONSTRUCTION ZONES

Q1D. How often do you see police patrolling CONSTRUCTION ZONES in Michigan?
(INTERVIEWER NOTE: Construction zones are defined as sections of road marked with orange signs, cones, or barrels. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

SPEEDING

INT2. Now we'd like to ask you about the chances of being ticketed for speeding in Michigan. Please assume that the police are present and are watching traffic. We will again use a scale from 0 (zero) to 10 for each of the questions. Zero (0) means never and 10 means always.

SPEEDING ON 70 MILE PER HOUR FREEWAYS

Q2. A car is driving on a FREEWAY in Michigan where the speed limit is 70 MILES PER HOUR. On a scale from 0 to 10, how often will the driver of that car be ticketed for speeding if the car is going... (INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a speeding crack-down. 0 means never and 10 means always.)

A. 75 miles per hour?

B. 80 miles per hour?

C. 85 miles per hour?

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

SPEEDING ON 55 MILE PER HOUR FREEWAYS

Q3. This time a car is driving on a FREEWAY in Michigan where the speed limit is 55 MILES PER HOUR. On a scale from 0 to 10, how often will the driver of that car be ticketed for speeding if the car is going... (INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a speeding crackdown. 0 means never and 10 means always.)

A. 60 miles per hour?

B. 65 miles per hour?

C. 70 miles per hour?

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

SPEEDING ON TWO-LANE HIGHWAYS

Q4. Now the car is driving on a TWO-LANE HIGHWAY in Michigan where the speed limit is 55 MILES PER HOUR. On a scale from 0 to 10, how often will the driver of that car be ticketed for speeding if the car is going...

(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a speeding crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

A. 60 miles per hour?

B. 65 miles per hour?

C. 70 miles per hour?

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

CONSTRUCTION ZONES ON FREEWAYS

INT3. For the next few questions, we will again use a scale from 0 (zero) to 10, where zero (0) means never and 10 means always. Please continue to assume that police are present and watching traffic.

SPEEDING IN CONSTRUCTION ZONES ON FREEWAYS

Q5. If a car is driving 10 miles or more above the posted speed limit in a CONSTRUCTION ZONE on a FREEWAY in Michigan, how often will the driver of that car be ticketed for speeding in a construction zone? (INTERVIEWER NOTE: Construction zones are defined as sections of road marked with orange signs, cones, or barrels. Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a speeding crackdown. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

RED LIGHTS

RUNNING RED LIGHTS ON LOCAL STREETS

Q6A. If a car is driving in your area on a MAJOR LOCAL STREET and drives through a RED LIGHT, how often will the driver of that car be ticketed for running the red light?
(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a red light crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

RUNNING RED LIGHTS ON TWO-LANE HIGHWAYS

Q6B. If a car is driving in your area on a TWO-LANE HIGHWAY with a speed limit of 50 or 55 miles per hour and drives through a RED LIGHT, how often will the driver of that car be ticketed for running the red light? (INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a red light crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

SEAT BELTS

INT4. Now we'd like to ask a few questions about seat belts. For the next set of questions, we will continue to use a 0 (zero) to 10 scale and assume that police are present and watching traffic.

NOT WEARING SEAT BELTS ON FREEWAYS

Q7A. How often will a driver not wearing a seat belt be ticketed on a FREEWAY in Michigan? (INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a seat belt crack-down. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

NOT WEARING SEAT BELTS ON LOCAL STREETS

Q7B. How often will a driver not wearing a seat belt be ticketed on a MAJOR LOCAL STREET in Michigan? (INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a seat belt crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

NOT WEARING SEAT BELTS ON TWO-LANE HIGHWAYS

Q7C. How often will a driver not wearing a seat belt be ticketed on a TWO-LANE HIGHWAY with a 50 or 55 mile per hour speed limit in Michigan?
(INTERVIEWER NOTE: Assuming police are present and watching traffic generally, not as part of a seat belt crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

DRUNK DRIVING

INT5. The next few questions are about drunk driving. We will use the same 0 (zero) to 10 scale for these questions. We will also assume that police are present and watching traffic.

DRUNK DRIVING ON FREEWAYS

Q8A. How often do you think a driver who is legally drunk (a driver with a blood alcohol level of 0.10 or greater) will be arrested, if driving on a FREEWAY in Michigan?
(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of a drunk driving crackdown. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

DRUNK DRIVING ON LOCAL STREETS

Q8B. How often do you think a driver who is legally drunk will be arrested, if driving on a MAJOR LOCAL STREET in Michigan?
(INTERVIEWER NOTE: Drunk driving is defined as driving with a blood alcohol level of 0.10 or greater. Assuming police are present and watching traffic generally, not as part of a drunk driving crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

DRUNK DRIVING ON TWO-LANE HIGHWAYS

Q8C. How often do you think a driver who is legally drunk will be arrested, if driving on a TWO-LANE HIGHWAY with a 50 or 55 mile per hour speed limit in Michigan?
(INTERVIEWER NOTE: Drunk driving is defined as driving with a blood alcohol level of 0.10 or greater. Assuming police are present and watching traffic generally, not as part of a drunk driving crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

AGGRESSIVE DRIVING

INT6. Now we have a few questions about aggressive driving. We will continue to use the 0 (zero) to 10 scale and assume that police are present and watching traffic.

AGGRESSIVE DRIVING ON FREEWAYS

Q9A. How often do you think a person driving very aggressively will be ticketed on a FREEWAY in Michigan? By aggressive driving, I mean excessive lane changing, tailgating, flashing lights, passing on the right, and so forth.
(INTERVIEWER NOTE: Freeways are high-speed highways with on and off ramps, such as I-94, I-96, and I-75. Assuming police are present and watching traffic generally, not as part of an aggressive driving crackdown. 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

AGGRESSIVE DRIVING ON LOCAL STREETS

Q9B. How often do you think a person driving very aggressively will be ticketed on a MAJOR LOCAL STREET in Michigan?

(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, passing on the right, and so forth. Assuming police are present and watching traffic generally, not as part of an aggressive driving crackdown. Major local streets are main thoroughfares in an area, not subdivision or neighborhood streets. 0 means never and 10 means always.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

AGGRESSIVE DRIVING ON TWO-LANE HIGHWAYS

Q9C. How often do you think a person driving very aggressively will be ticketed on a TWO-LANE HIGHWAY with a speed limit of 50 or 55 miles per hour in Michigan?

(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, and so forth. Assuming police are present and watching traffic generally, not as part of an aggressive driving crackdown. Two-lane highways have one lane of traffic in each direction. 0 means never and 10 means always.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

CONVICTION

INT7. The next set of questions is about the likelihood of being convicted or found guilty in a court of law for different driving offenses. The same 0 (zero) to 10 scale will be used.

CONVICTED OF DRUNK DRIVING

Q10A. How often do you think a person who was arrested for DRUNK DRIVING (with a blood alcohol level of 0.10 or greater) will be convicted of that offense?
(INTERVIEWER NOTE: 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

FOUND GUILTY OF SPEEDING

Q10B. How often do you think a person who goes to court after being ticketed for SPEEDING will be found guilty of that offense?
(INTERVIEWER NOTE: 0 means never and 10 means always.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

FOUND GUILTY OF NOT USING A SEAT BELT

Q10C. How often do you think a person who goes to court after being ticketed for NOT USING A SEAT BELT will be found guilty of that offense?
(INTERVIEWER NOTE: 0 means never and 10 means always.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

FOUND GUILTY OF AGGRESSIVE DRIVING

Q10D. How often do you think a person who goes to court after being ticketed for AGGRESSIVE DRIVING will be found guilty of that offense?
(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, passing on the right, and so forth. 0 means never and 10 means always.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

SENTENCING

INT8. Our last set of questions is about punishment for driving offenses. Our 0 (zero) to 10 scale is different for these questions. 0 (zero) means too lenient, 10 means too severe, and 5 means about right.

DRUNK DRIVING SENTENCE

Q11A. If a person is convicted of DRUNK DRIVING, how would you rate the sentence they will probably receive?
(INTERVIEWER NOTE: Drunk driving is defined as driving with a blood alcohol level of 0.10 or greater. 0 means too lenient, 10 means too severe, and 5 means about right.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

SPEEDING PUNISHMENT

Q11B. If a person is found guilty of SPEEDING, how would you rate the punishment they will probably receive?
(INTERVIEWER NOTE: 0 means too lenient, 10 means too severe, and 5 means about right.)

97	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
98	Don't Know
99	Refused

NOT USING A SEAT BELT PUNISHMENT

Q11C. If a person is found guilty of NOT USING A SEAT BELT, how would you rate the punishment they will probably receive?
(INTERVIEWER NOTE: 0 means too lenient, 10 means too severe, and 5 means about right.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

AGGRESSIVE DRIVING PUNISHMENT

Q11D. If a person is found guilty of AGGRESSIVE DRIVING, how would you rate the punishment they will probably receive?
(INTERVIEWER NOTE: Aggressive driving is defined as excessive lane changing, tailgating, flashing lights, passing on the right, and so forth. 0 means too lenient, 10 means too severe, and 5 means about right.)

97 0
01 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 10

98 Don't Know
99 Refused

DEMOGRAPHICS

INT9. Now I just need to ask you a few demographic questions for statistical purposes.

AGE

Q12A. What is your age?
(INTERVIEWER NOTE: Do not read list. Prompt with categories, if necessary.)

01 18 - 24 years old
02 25 – 34 years old
03 35 – 44 years old
04 45 – 54 years old
05 55 – 64 years old
06 65 – 74 years old
07 75 years and older

99 Refused

RACE

Q12B. What is your racial or ethnic background?
(INTERVIEWER NOTE: Do not read list. Prompt with categories, if necessary.)

01 Asian American
02 Black/African American
03 Caucasian/White
04 Hispanic/Latino/Spanish
05 Native American
06 Other

99 Refused

MILES DRIVEN PER YEAR

Q12C. Approximately how many miles per year do you drive?
(INTERVIEWER NOTE: Do not read list. Prompt with categories, if necessary.)

01 Less than 5,000
02 5,000 to 7,999
03 8,000 to 9,999
04 10,000 to 11,499
05 11,500 to 12,500
12,501 to 13,999
14,000 to 15,999
16,000 to 19,000
More than 19,000

98 Don't Know
99 Refused

ZIP CODE

Q12D. What is your zip code?

_____

99998 Don't Know
99999 Refused

END. That completes the interview. Thank you for your time and participation!

Appendix B

Sample Design

The sample design stratified the counties of Michigan into five groups and allocated sample to each stratum, proportional to the adult population in the area. The five groups were:

1. City Of Detroit
2. Detroit Metro
3. Downstate Metro
4. Lower Rural
5. Upper Lower/Upper Peninsula

The Downstate Metro area (Stratum 3) included counties for the following metropolitan areas:

- Ann Arbor (Lenawee, Livingston, and Washtenaw counties)
- Flint (Genesee county)
- Grand Rapids (Allegan, Kent, Muskegon, and Ottawa counties)
- Jackson (Jackson county)
- Kalamazoo (Calhoun, Kalamazoo, and Van Buren counties)
- Lansing (Clinton, Eaton, and Ingham counties)
- Saginaw/Bay City/Midland (Bay, Midland, and Saginaw counties)

Population estimates for July 1, 1998, were obtained from the www.census.gov website (Source: Population Estimates Program, Population Division, U.S. Census Bureau, Washington, DC 20233). Population estimates for the counties were provided by age group, which allowed for subtraction of the 0-4 and 5-17 years of age population groups from the total population to determine the adult population (residents 18 years of age or older). For the City of Detroit stratum, the proportion of adults in Wayne county was used to estimate the proportion of adults. (73.4% (1554168 / 2118129 = .734) of Wayne county residents are at least 18 years of age, so it is assumed that 73.4% of City of Detroit residents (970197 *.734 = 711877) are 18 years of age or older). The population estimates are shown below in Table 1.

Table 1
Population Estimates by County

COUNTY/CITY	STATE	COUNTY FIPS CODE	TOTAL	0-4 YRS.	5-17 YRS.	ADULTS	STRATUM
CITY OF DETROIT	MI	--	970,196			711,877	1
LAPEER	MI	087	88,270	5,678	19,787	62,805	2
MACOMB	MI	099	787,698	46,634	134,859	606,205	2
MONROE	MI	115	143,499	9,708	30,423	103,368	2
OAKLAND	MI	125	1,176,488	74,952	209,150	892,386	2
SAINT CLAIR	MI	147	159,769	10,800	32,900	116,069	2
WAYNE	MI	163	2,118,129	150,179	413,782	1,554,168	
BALANCE OF WAYNE *	MI	163	1,147,933			842,291	2
ALLEGAN	MI	005	101,662	7,669	22,552	71,441	3
BAY	MI	017	110,048	6,946	21,322	81,780	3
CALHOUN	MI	025	141,005	9,282	27,776	103,947	3
CLINTON	MI	037	63,379	4,189	13,542	45,648	3
EATON	MI	045	101,090	6,304	20,828	73,958	3
GENESEE	MI	049	436,084	29,581	89,650	316,853	3
INGHAM	MI	065	285,214	19,259	50,105	215,850	3
JACKSON	MI	075	156,157	10,127	29,534	116,496	3
KALAMAZOO	MI	077	229,660	14,993	40,364	174,303	3
KENT	MI	081	545,166	43,253	110,331	391,582	3
LENAWEE	MI	091	98,412	6,467	20,657	71,288	3
LIVINGSTON	MI	093	146,165	9,686	31,049	105,430	3
MIDLAND	MI	111	81,842	5,365	16,184	60,293	3
MUSKEGON	MI	121	166,748	12,007	34,106	120,635	3
OTTAWA	MI	139	224,357	17,331	47,676	159,350	3
SAGINAW	MI	145	210,101	14,331	43,231	152,539	3
VAN BUREN	MI	159	75,666	5,298	16,538	53,830	3
WASHTENAW	MI	161	303,069	18,545	46,612	237,912	3
ARENAC	MI	011	16,413	980	3,340	12,093	4
BARRY	MI	015	54,535	3,553	11,278	39,704	4
BERRIEN	MI	021	160,245	10,422	31,994	117,829	4
BRANCH	MI	023	43,634	2,950	8,824	31,860	4
CASS	MI	027	49,693	3,077	9,959	36,657	4
CLARE	MI	035	29,578	1,979	5,775	21,824	4
GLADWIN	MI	051	25,333	1,585	4,919	18,829	4
GRATIOT	MI	057	40,126	2,514	8,194	29,418	4
HILLSDALE	MI	059	46,614	3,176	9,685	33,753	4

HURON	MI	063	35,303	2,180	7,118	26,005	4
IONIA	MI	067	61,700	4,293	13,131	44,276	4
ISABELLA	MI	073	58,026	3,469	10,059	44,498	4
LAKE	MI	085	10,475	644	2,038	7,793	4
MASON	MI	105	27,950	1,751	5,488	20,711	4
MECOSTA	MI	107	40,006	2,389	7,029	30,588	4
MONTCALM	MI	117	60,559	4,200	12,900	43,459	4
NEWAYGO	MI	123	45,784	3,458	10,041	32,285	4
OCEANA	MI	127	24,833	1,793	5,460	17,580	4
OSCEOLA	MI	133	22,106	1,489	4,985	15,632	4
SAINT JOSEPH	MI	149	61,226	4,308	13,021	43,897	4
SANILAC	MI	151	42,975	2,867	9,222	30,886	4
SHIAWASSEE	MI	155	72,569	4,654	15,571	52,344	4
TUSCOLA	MI	157	58,181	3,677	12,568	41,936	4
ALCONA	MI	001	11,108	504	1,801	8,803	5
ALGER	MI	003	9,887	507	1,836	7,544	5
ALPENA	MI	007	30,405	1,745	6,093	22,567	5
ANTRIM	MI	009	21,522	1,342	4,175	16,005	5
BARAGA	MI	013	8,413	490	1,611	6,312	5
BENZIE	MI	019	14,678	885	2,577	11,216	5
CHARLEVOIX	MI	029	24,436	1,640	4,815	17,981	5
CHEBOYGAN	MI	031	23,738	1,415	4,621	17,702	5
CHIPPEWA	MI	033	37,968	2,011	6,667	29,290	5
CRAWFORD	MI	039	14,150	921	2,738	10,491	5
DELTA	MI	041	38,947	2,245	7,955	28,747	5
DICKINSON	MI	043	27,074	1,639	5,304	20,131	5
EMMET	MI	047	28,677	1,921	5,599	21,157	5
GOGEBIC	MI	053	17,097	852	2,916	13,329	5
GRAND TRAVERSE	MI	055	74,134	4,994	14,746	54,394	5
HOUGHTON	MI	061	35,719	2,002	6,255	27,462	5
IOSCO	MI	069	25,111	1,793	4,462	18,856	5
IRON	MI	071	12,883	602	2,188	10,093	5
KALKASKA	MI	079	15,568	1,086	3,464	11,018	5
KEWEENAW	MI	083	2,077	105	354	1,618	5
LEELANAU	MI	089	19,142	1,251	3,537	14,354	5
LUCE	MI	095	6,640	353	1,248	5,039	5
MACKINAC	MI	097	11,097	649	2,111	8,337	5
MANISTEE	MI	101	23,330	1,247	4,171	17,912	5
MARQUETTE	MI	103	61,565	3,868	11,646	46,051	5
MENOMINEE	MI	109	24,468	1,379	4,964	18,125	5
MISSAUKEE	MI	113	13,892	962	3,121	9,809	5

MONTMORENCY	MI	119	10,011	518	1,800	7,693	5
OGEMAW	MI	129	21,193	1,288	4,228	15,677	5
ONTONAGON	MI	131	7,878	413	1,388	6,077	5
OSCODA	MI	135	8,882	545	1,533	6,804	5
OTSEGO	MI	137	22,129	1,507	4,723	15,899	5
PRESQUE ISLE	MI	141	14,424	761	2,739	10,924	5
ROSCOMMON	MI	143	23,467	1,166	3,706	18,595	5
SCHOOLCRAFT	MI	153	8,805	447	1,698	6,660	5
WEXFORD	MI	165	29,185	2,040	6,183	20,962	5
COLUMN TOTAL			11,935,371	657,085	1,894,530	8,819,795	
TOTAL (TRUE)			9,817,242	506,906	1,480,748	7,265,627	

* Not including City of Detroit

CITY OF DETROIT

The City of Detroit was defined as RDD households with exchanges in the following zip codes:

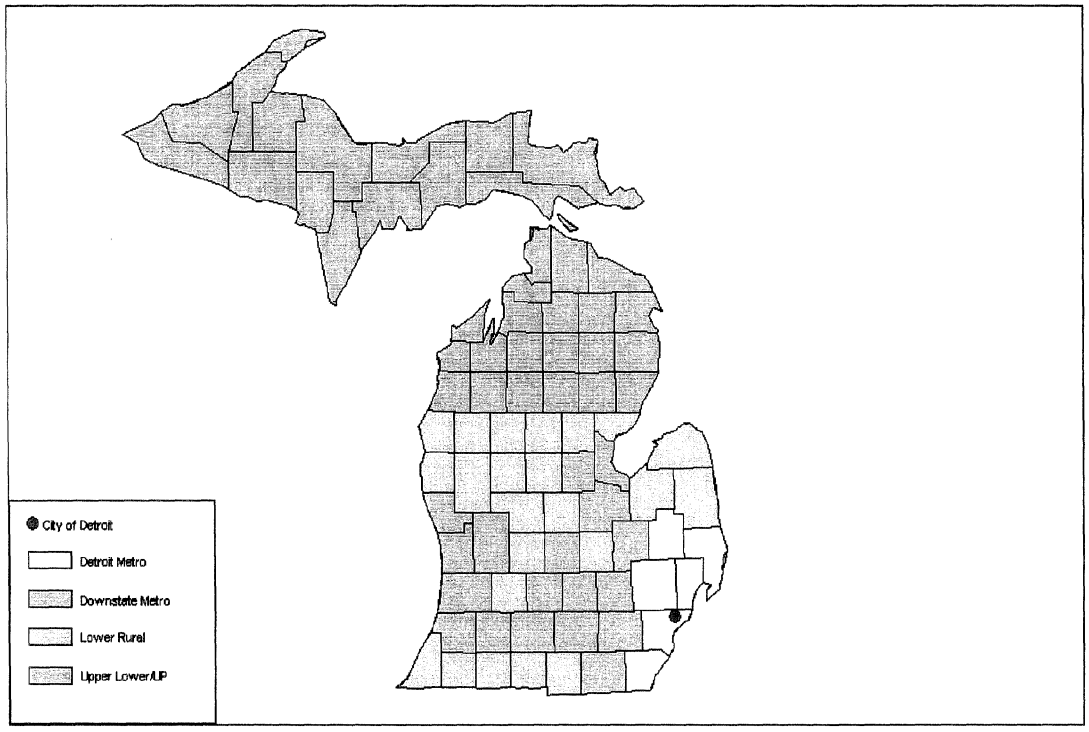
48201	48212	48226
48202	48213	48227
48203	48214	48228
48204	48215	48229
48205	48216	48234
48206	48217	48235
48207	48218	48238
48208	48219	48239
48209	48221	48240
48210	48223	
48211	48224	

The number of interviews completed in each area was determined as follows:

AREA	STRATUM	ADULT POPULATION	% OF ADULT POPULATION	COMPLETES
CITY OF DETROIT	1	711,877	10%	73
DETROIT METRO	2	2,623,124	36%	271
DOWNSTATE METRO	3	2,553,135	35%	264
LOWER RURAL	4	793,857	11%	82
UPPER LOWER/UP	5	583,634	8%	60
TOTAL		7,265,627	100%	750

The following map of Michigan depicts the areas.

UMTRI POLICE TRAFFIC SERVICES SURVEY



Appendix C

Sample Disposition

Telephone numbers were attempted up to six times. Interviews in which more than 15% of the core (not demographic) questions were answered "Don't know" or "refused" were discarded. The final sample disposition was as follows:

Sample Category	Disposition Code	Frequency	Percent
Eligible		***2,158***	***38%***
Completed Interview	I	750	13%
Discarded Interview	P	19	0%
Refused	R	1,317	23%
Respondent Terminated Mid-Survey	NC	33	1%
Language Barrier/Deaf	O	39	1%
Ineligible		***1,294***	***23%***
Question Terminated		26	0%
Disconnected/Changed/New Number		634	11%
Wrong Number/Business Number		634	11%
Unknown		***2,202***	***39%***
No Answer/Busy	U	1,244	22%
Answering Machine	U	735	13%
Respondent Scheduled for Callback	U	223	4%
		5,654	**100%**

The response rate for this survey calculated using the following relationship:

$$RR=I/[(I+P)+(R+NC+O)]$$

which yields a response rate of 34.8%.

Appendix D

Means, Standard Deviations and Sample Size for Perception of Police Presence on Roads and In Construction Zones

	Freeways			Two-lane Roads			Local Streets			Construction Zones		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	5.9	2.2	728	5.0	2.3	742	6.1	2.5	747	3.7	2.7	733
Male	5.8	2.3	336	4.8	2.2	337	6.0	2.4	339	3.6	2.7	338
Female	6.0	2.6	392	5.1	2.4	405	6.1	2.5	408	3.7	2.7	395
18 - 24	5.8	1.9	65	5.2	2.1	66	6.5	2.1	66	3.9	2.8	66
25 - 34	6.3	2.0	137	5.6	2.2	137	6.6	2.1	139	3.6	2.7	138
35 - 64	5.8	2.3	414	4.9	2.3	424	6.0	2.5	427	3.6	2.7	419
65 +	5.5	2.3	105	4.4	2.4	108	5.5	2.7	108	3.9	2.6	103
White	5.8	2.2	583	5.0	2.3	599	5.9	2.4	599	3.7	2.6	587
Black	6.7	2.2	83	5.1	2.5	82	7.1	2.5	85	4.0	2.9	84
Other	6.0	2.1	50	5.0	2.2	49	6.2	2.6	51	3.3	2.6	51
< 10K mi/yr	5.9	2.4	147	5.0	2.5	155	6.4	2.6	156	3.9	2.7	147
10K - 19K mi/yr	5.7	2.1	303	4.8	2.2	304	6.1	2.5	307	3.7	2.6	305
> 19K mi/yr	6.0	2.2	262	5.1	2.2	267	5.8	2.3	267	3.4	2.7	265
SE MI Metro	5.8	2.2	336	4.9	2.2	337	6.0	2.4	343	3.8	2.6	335
Other Metro	5.7	2.1	260	4.6	2.2	263	6.0	2.5	263	3.6	2.7	261
Rural	6.4	2.3	132	6.1	2.2	142	6.4	2.6	141	3.7	2.8	137

Appendix E

Means, Standard Deviations and Sample Size for Chance of Ticket for Speeding on 70-MPH Freeways

70-MPH Freeways									
	75 mph			80 mph			85 mph		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	2.6	2.6	748	5.8	2.7	747	7.7	2.6	747
Male	2.2	2.5	340	5.9	2.7	340	8.0	2.3	341
Female	2.9	2.7	408	5.7	2.8	407	7.4	2.7	406
18 - 24	2.6	2.7	66	5.7	2.6	66	7.7	2.4	66
25 - 34	2.7	2.5	139	6.0	2.4	139	8.2	2.0	139
35 - 64	2.5	2.7	427	5.8	2.8	426	7.8	2.5	425
65 +	2.8	2.6	109	5.5	3.0	109	6.7	3.2	110
White	2.3	2.4	600	5.6	2.7	599	7.6	2.6	601
Black	4.1	3.1	85	6.9	2.7	85	8.2	2.4	84
Other	2.9	3.2	51	6.4	3.1	51	7.7	2.9	51
< 10K mi/yr	3.1	2.8	156	5.9	2.9	156	7.4	2.8	156
10K - 19K mi/yr	2.6	2.5	309	5.8	2.7	309	7.7	2.6	308
> 19K mi/yr	2.1	2.5	266	5.7	2.8	265	7.9	2.4	266
SE MI Metro	2.7	2.8	343	5.6	2.9	343	7.5	2.7	342
Other Metro	2.2	2.3	263	5.7	2.6	264	7.8	2.4	264
Rural	2.9	2.7	142	6.3	2.7	140	8.0	2.5	141

Appendix E continued

Means, Standard Deviations and Sample Size for Chance of Ticket for Speeding on 55-MPH Freeways

55-MPH Freeways									
	60 mph			65 mph			70 mph		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	2.6	2.5	748	5.2	2.6	748	7.5	2.6	748
Male	2.3	2.4	341	5.2	2.7	341	7.7	2.6	340
Female	2.9	2.5	407	5.2	2.6	407	7.3	2.7	408
18 - 24	2.9	2.4	194	5.6	2.5	66	7.9	2.1	66
25 - 34	2.6	2.4	139	5.5	2.5	139	8.1	2.2	139
35 - 64	2.5	2.5	426	5.1	2.6	426	7.5	2.7	427
65 +	2.9	2.6	110	4.7	2.8	110	6.6	3.1	109
White	2.3	2.2	600	5.1	2.5	600	7.5	2.6	600
Black	3.8	3.2	85	5.8	3.1	85	7.6	2.7	85
Other	3.4	3.3	51	5.7	3.1	51	7.5	3.1	51
< 10K mi/yr	3.1	2.9	748	5.1	2.8	155	7.0	2.8	155
10K - 19K mi/yr	2.6	2.3	308	5.2	2.6	309	7.6	2.6	309
> 19K mi/yr	2.2	2.3	267	5.2	2.6	267	7.7	2.6	267
SE MI Metro	2.7	2.5	344	5.0	2.7	344	7.1	2.8	344
Other Metro	2.5	2.3	264	5.4	2.6	263	7.7	2.5	263
Rural	2.6	2.6	140	5.3	2.4	141	8.0	2.3	141

Appendix E continued

Means, Standard Deviations and Sample Size for Chance of Ticket for Speeding on 2-Lane Highways

Two-Lane Highways									
	60 mph			65 mph			70 mph		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	3.0	2.5	749	5.6	2.6	749	7.8	2.4	748
Male	2.6	2.3	341	5.6	2.5	341	8.0	2.3	341
Female	3.3	2.7	408	5.7	2.6	408	7.7	2.5	407
18 - 24	3.1	2.5	66	5.9	2.4	66	8.0	2.0	66
25 - 34	2.9	2.5	138	5.9	2.4	139	8.2	2.1	139
35 - 64	2.8	2.5	428	5.6	2.6	427	7.8	2.4	427
65 +	3.5	2.7	110	5.3	2.6	110	7.1	2.8	109
White	2.7	2.4	601	5.5	2.4	601	7.8	2.3	600
Black	4.1	3.2	85	6.1	2.9	85	7.9	2.7	85
Other	3.8	2.9	51	6.4	2.9	51	8.1	2.6	51
< 10K mi/yr	3.6	2.9	157	5.6	2.7	157	7.7	2.4	156
10K - 19K mi/yr	3.0	2.4	309	5.5	2.5	309	7.7	2.5	309
> 19K mi/yr	2.4	2.3	266	5.7	2.5	266	7.9	2.4	266
SE MI Metro	3.1	2.6	344	5.5	2.7	344	7.5	2.6	343
Other Metro	2.7	2.5	263	5.8	2.5	263	7.9	2.4	263
Rural	3.0	2.6	142	5.8	2.3	142	8.3	2.0	142

Appendix E continued

Means, Standard Deviations and Sample Size for Chance of Ticket for Speeding in Construction Zones

Construction Zone			
	Mean	Std. Dev.	N
Overall	7.3	2.7	744
Male	7.2	2.7	339
Female	7.3	2.7	405
18 - 24	6.9	2.7	66
25 - 34	7.3	2.5	136
35 - 64	7.3	2.7	427
65 +	7.2	2.9	108
White	7.2	2.7	596
Black	7.7	2.8	85
Other	7.4	2.9	51
< 10K mi/yr	7.5	2.7	155
10K - 19K mi/yr	7.3	2.6	308
> 19K mi/yr	7.0	2.8	264
SE MI Metro	7.0	2.8	343
Other Metro	7.2	2.7	262
Rural	7.9	2.4	139

Appendix F

Means, Standard Deviations and Sample Size for Chance of Ticket for Running a Red Light on Two-lane Highways and Local Streets

	Two-Lane Highway			Local Streets		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	7.8	2.6	749	7.6	2.8	749
Male	7.9	2.6	341	7.5	2.9	341
Female	7.8	2.6	408	7.6	2.8	408
18 - 24	7.6	2.5	66	7.4	2.5	66
25 - 34	8.0	2.4	139	7.7	2.7	139
35 - 64	7.9	2.6	427	7.6	2.9	427
65 +	7.6	3.0	110	7.4	3.1	110
White	7.9	2.6	601	7.6	2.7	601
Black	7.5	2.9	85	7.3	3.3	85
Other	7.9	2.8	51	7.6	3.2	51
< 10K mi/yr	7.3	2.9	157	7.1	3.1	156
10K - 19K mi/yr	8.0	2.5	308	7.7	2.8	309
> 19K mi/yr	8.0	2.5	267	7.7	2.7	267
SE MI Metro	7.6	2.7	343	7.2	3.0	344
Other Metro	7.8	2.6	264	7.7	2.8	264
Rural	8.3	2.6	142	8.1	2.5	141

Appendix G

Means, Standard Deviations and Sample Size for Chance of Ticket for Aggressive Driving

	Freeways			Two-Lane Highways			Local Streets		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	5.9	3.0	748	6.3	2.7	747	6.3	2.8	749
Male	5.7	2.9	340	6.0	2.7	341	6.1	2.8	341
Female	6.2	3.0	408	6.6	2.7	406	6.5	2.8	408
18 - 24	5.3	2.8	66	5.9	2.5	66	6.0	2.7	66
25 - 34	6.1	2.9	138	6.4	2.7	137	6.3	2.7	139
35 - 64	5.9	3.0	427	6.4	2.7	427	6.3	2.8	427
65 +	6.5	3.1	110	6.4	3.0	110	6.3	3.1	110
White	5.8	2.9	600	6.2	2.7	600	6.2	2.8	601
Black	6.8	2.9	85	7.0	2.6	84	6.9	2.6	85
Other	6.2	3.1	51	6.6	3.0	51	6.6	3.0	51
< 10K mi/yr	6.5	2.9	157	6.7	2.8	156	6.8	2.8	157
10K - 19K mi/yr	6.1	2.9	309	6.5	2.6	309	6.4	2.6	309
> 19K mi/yr	5.4	3.0	265	6.0	2.8	265	5.9	2.9	266
SE MI Metro	6.0	3.0	344	6.5	2.7	343	6.4	2.7	344
Other Metro	5.5	2.8	264	6.0	2.7	263	6.0	2.8	264
Rural	6.6	2.9	140	6.6	2.9	141	7.0	3.0	141

Appendix H

Means, Standard Deviations and Sample Size for Chance of Ticket for Driving Without a Safety Belt

	Freeways			Two-Lane Highways			Local Streets		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	5.0	3.2	722	5.3	3.0	733	5.4	3.0	733
Male	4.4	3.0	329	4.8	2.8	335	4.8	2.9	335
Female	5.5	3.2	393	5.7	2.9	398	5.8	3.0	398
18 - 24	4.5	2.9	65	5.1	2.6	65	5.3	2.8	65
25 - 34	4.5	2.9	137	4.9	2.9	136	4.9	2.9	137
35 - 64	5.2	3.1	412	5.4	2.9	420	5.5	2.9	419
65 +	5.0	3.6	101	5.2	3.3	105	5.3	3.4	105
White	4.9	3.1	577	5.1	2.9	586	5.3	2.9	585
Black	5.7	3.1	85	6.3	2.8	84	6.0	3.1	85
Other	4.6	3.7	49	4.9	3.5	51	5.2	3.6	51
< 10K mi/yr	5.2	3.4	147	5.4	3.1	150	5.7	3.1	150
10K - 19K mi/yr	5.0	3.1	300	5.3	2.8	305	5.3	2.9	305
> 19K mi/yr	4.7	3.0	258	5.0	2.9	261	5.1	3.1	261
SE MI Metro	4.6	3.1	331	5.1	3.0	334	5.0	2.9	335
Other Metro	4.9	3.2	256	5.0	2.9	258	5.3	3.0	258
Rural	6.0	3.0	135	6.1	2.8	141	6.4	2.9	140

Appendix I

Means, Standard Deviations and Sample Size for Chance of Ticket for Drunk Driving

	Freeways			Two-Lane Highways			Local Streets		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	7.3	2.7	741	7.4	2.7	744	7.4	2.6	744
Male	7.0	2.9	335	7.1	2.8	335	7.1	2.8	336
Female	7.6	2.6	406	7.6	2.5	409	7.7	2.4	408
18 - 24	7.8	2.6	66	7.3	2.7	66	7.5	2.4	66
25 - 34	7.2	2.6	138	7.6	2.3	139	7.4	2.5	139
35 - 64	7.3	2.7	424	7.4	2.7	426	7.5	2.6	425
65 +	7.2	3.0	107	7.0	3.0	107	7.1	2.9	108
White	7.1	2.7	594	7.3	2.6	597	7.3	2.6	597
Black	8.3	2.4	85	8.2	2.2	85	8.1	2.5	85
Other	6.7	3.3	51	6.8	3.3	51	6.9	3.3	51
< 10K mi/yr	7.7	2.6	157	7.8	2.4	157	7.8	2.4	157
10K - 19K mi/yr	7.4	2.7	305	7.5	2.6	305	7.4	2.7	306
> 19K mi/yr	7.0	2.9	263	7.0	2.8	266	7.1	2.7	265
SE MI Metro	7.3	2.7	341	7.5	2.6	342	7.4	2.7	343
Other Metro	7.0	2.8	263	7.0	2.8	262	7.2	2.6	262
Rural	7.7	2.6	137	7.8	2.6	140	7.8	2.5	139

Appendix J

Means, Standard Deviations and Sample Size for Chance of Guilt

	Speeding			Aggressive Driving			Safety Belt Nonuse			Drunk Driving		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	7.1	2.2	743	6.7	2.4	743	7.1	2.7	734	7.2	2.6	738
Male	7.3	2.0	337	6.7	2.3	339	7.0	2.7	330	7.3	2.5	334
Female	7.0	2.4	406	6.8	2.5	404	7.1	2.7	404	7.2	2.7	404
18 - 24	6.5	2.4	66	6.5	2.3	66	6.7	2.5	65	7.5	2.2	66
25 - 34	7.0	2.2	138	6.6	2.2	138	6.9	2.6	137	7.5	2.5	137
35 - 64	7.3	2.2	425	6.9	2.5	424	7.2	2.6	420	7.1	2.6	422
65 +	7.2	2.3	108	6.7	2.5	108	6.7	3.0	105	7.0	2.7	108
White	7.1	2.2	598	6.7	2.3	595	7.0	2.7	588	7.2	2.5	594
Black	7.2	2.4	84	7.0	2.7	85	7.4	2.5	84	7.2	3.0	85
Other	7.3	2.0	51	6.6	2.7	51	7.3	2.8	51	7.4	2.3	49
< 10K mi/yr	7.2	2.4	154	6.9	2.4	155	7.0	2.8	153	7.5	2.5	154
10K - 19K mi/yr	7.2	2.2	306	6.8	2.4	307	6.9	2.7	302	7.1	2.6	304
> 19K mi/yr	7.1	2.1	266	6.6	2.5	265	7.3	2.6	262	7.2	2.6	264
SE MI Metro	7.0	2.2	341	6.8	2.4	343	6.9	2.8	335	7.0	2.7	337
Other Metro	7.1	2.3	260	6.7	2.5	259	7.0	2.6	260	7.5	2.4	260
Rural	7.4	2.0	142	6.9	2.4	141	7.5	2.5	139	7.3	2.6	141

Appendix K

Means, Standard Deviations and Sample Size for Severity of Punishment

	Speeding			Aggressive Driving			Safety Belt Nonuse			Drunk Driving		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Overall	5.1	1.9	746	4.4	2.2	738	5.4	2.7	740	4.2	2.5	739
Male	5.4	1.9	341	4.5	2.2	336	5.8	2.7	337	4.6	2.3	337
Female	4.9	1.9	405	4.3	2.3	402	5.1	2.6	403	3.9	2.5	402
18 - 24	5.2	2.1	66	3.9	2.3	66	6.1	2.8	66	3.6	2.9	66
25 - 34	5.3	1.8	139	4.3	2	137	5.7	2.7	137	4.2	2.4	138
35 - 64	5.1	2	424	4.3	2.3	418	5.5	2.6	422	4.1	2.4	419
65 +	4.9	1.6	110	5.2	2.3	110	4.3	2.5	108	5	2.4	110
White	5.1	1.8	599	4.3	2.1	592	5.5	2.6	594	4.1	2.4	594
Black	5	2.3	84	4.9	2.7	83	5.1	2.6	83	4.5	2.5	84
Other	5.4	2	51	4.4	3	51	4.8	3.1	51	4.3	2.5	51
< 10K mi/yr	5.2	2.1	155	4.9	2.4	155	5.1	2.8	155	4.6	2.5	155
10K - 19K mi/yr	5	1.9	309	4.3	2.2	306	5.3	2.5	305	4	2.4	306
> 19K mi/yr	5.2	1.9	265	4.2	2.3	260	5.7	2.8	263	4.3	2.5	262
SE MI Metro	5.1	2	340	4.3	2.3	340	5.2	2.6	338	4.1	2.4	339
Other Metro	5.2	1.8	264	4.4	2.1	258	5.6	2.7	261	4.4	2.6	261
Rural	5	1.8	142	4.6	2.3	140	5.6	2.7	141	4.2	2.3	139