

CHAPTER VIII.

FREQUENCY AND PATTERN OF UNSAFE DRIVING

PAST YEAR UNSAFE DRIVING

Aside from their experience with what they considered unsafe or aggressive driving by others, the national sample of drivers was asked how often they, personally, drove in a manner that would be considered unsafe. Specifically, the survey respondents were asked: "Thinking back over the past year, when was the most recent time that you...?" The answers were classified as, "today," "within the past week," "within the past month," "more than a month ago" or "not in the past year."

In order to minimize interview length and respondent burden, the items dealing with different driving behaviors were administered as part of split-half (and split-quarter) sub-samples. Thirteen of the items were asked of half of the sample, and eight of the items were asked of only a quarter of the sample. Each of the sub-samples was a random subset of a national sample and was, therefore, a national sample in themselves which produced estimates for each item projectable to the population within the limits of sampling error. Moreover, since the smallest sample size was 1,500 drivers, the sampling precision for these estimates is quite good. (This is discussed in more detail in Appendix A.)

The most frequent of the 21 unsafe driving behaviors measured in the survey is, "**entering an intersection just as the light was turning from yellow to red.**" Three out of 10 drivers (30%) report that they have done this within the past week (see Table 8-1, next page, or Figure 8-1, page 123). Over half (52%) have entered an intersection as the light was changing to red within the past month. Seven out of 10 drivers (71%) have done this within the past year.

The next most frequent unsafe driving behavior, at least on a weekly basis, is, "**slowing but not completely stopping at a stop sign.**" A quarter (26%) of drivers report that they have done this in the past week. Another 12% have done so in the past month. Half (51%) of drivers report they have slowed, but not stopped at a stop sign in the past year.

The other most common unsafe driving behaviors related to speeding. Nearly a quarter (23%) of this national sample of drivers report **driving 10 miles per hour over the speed limit on an interstate** highway in the past week. About the same proportion (22%) reported **driving 10 miles per hour faster than most other vehicles were going** within the past week. One in six drivers (16%) reported **driving 10 miles per hour over the speed limit on rural roads within the past week**. And, about one in eight drivers (13%) reported **driving 10 miles per hour over the speed limit in a residential** area within the past week. In terms of past year behaviors, 60% have driven 10 miles per hour over the speed limit on interstate highways, 52% on rural roads and 40% in residential neighborhoods. Similarly, over half of all drivers (56%) have driven 10 miles an hour faster than most other vehicles were going at some point in the past year.

TABLE 8-1

Prevalence of Unsafe Driving Behaviors in the Past Year by Most Recent Occurrence

Qx: Thinking back over the past year, when was the most recent time that you ...?

Base: Total population of drivers.

Unweighted N: A=1,489; B=1,511; C=1,467; D=1,533; AC=2,956; AD=3,022; BD=3,044.

	Unweighted N□	Total in Past Year	Most recent occurrence			
			Today	Past Week	Past Month	Past Year
Entered an intersection just as the light was turning from yellow to red	BD	71%	9%	21%	22%	19%
Drove 10 miles an hour over the speed limit on an interstate highway	A	60%	7%	16%	17%	20%
Drove 10 mph faster than most other vehicles were going	AD	56%	8%	14%	16%	18%
Went 10 mph over the speed limit on a two lane rural road	D	52%	5%	11%	17%	19%
Slowed but didn't completely stop at a stop sign	BD	51%	11%	15%	12%	14%
Went 10 mph over the speed limit in a residential neighborhood	C	40%	5%	8%	10%	16%
Drove through traffic switching quickly back and forth between lanes	BD	32%	2%	6%	8%	16%
Drove 20 mph over the speed limit on an interstate highway	BD	29%	2%	5%	7%	15%
Drove 20 mph over the speed limit on a rural road	C	26%	2%	4%	7%	13%
Drove through a light that was already red before you entered an intersection	AC	23%	1%	3%	6%	14%

TABLE 8-1, continued

Prevalence of Unsafe Driving Behaviors in the Past Year by Most Recent Occurrence						
	Unweighted N□	Total in Past Year	Most recent occurrence			
			Today	Past Week	Past Month	Past Year
Tailgated another vehicle on a highway with one lane in each direction	AC	23%	2%	3%	6%	12%
Drove 20 miles an hour faster than most other vehicles were going	BD	21%	1%	3%	6%	10%
Made an angry, insulting or obscene gesture or comment toward another driver so that they heard or saw it	BD	20%	2%	4%	6%	8%
Cut in front of another car in order to make a turn	BD	18%	1%	2%	4%	11%
Made a U-turn where a sign said not to	A	16%	1%	2%	5%	8%
Drove through a stop sign without slowing	AC	15%	1%	3%	3%	7%
Crossed railroad tracks when the red light was blinking	A	13%	*	2%	3%	8%
Passed a vehicle in a no-passing zone	B	10%	*	1%	2%	7%
Used the shoulder to pass in heavy traffic	BD	10%	1%	2%	3%	5%
Drove when affected by alcohol	AC	8%	*	1%	2%	5%
Raced another driver	AC	6%	1%	1%	1%	3%

Total may not equal sum of the parts due to rounding.

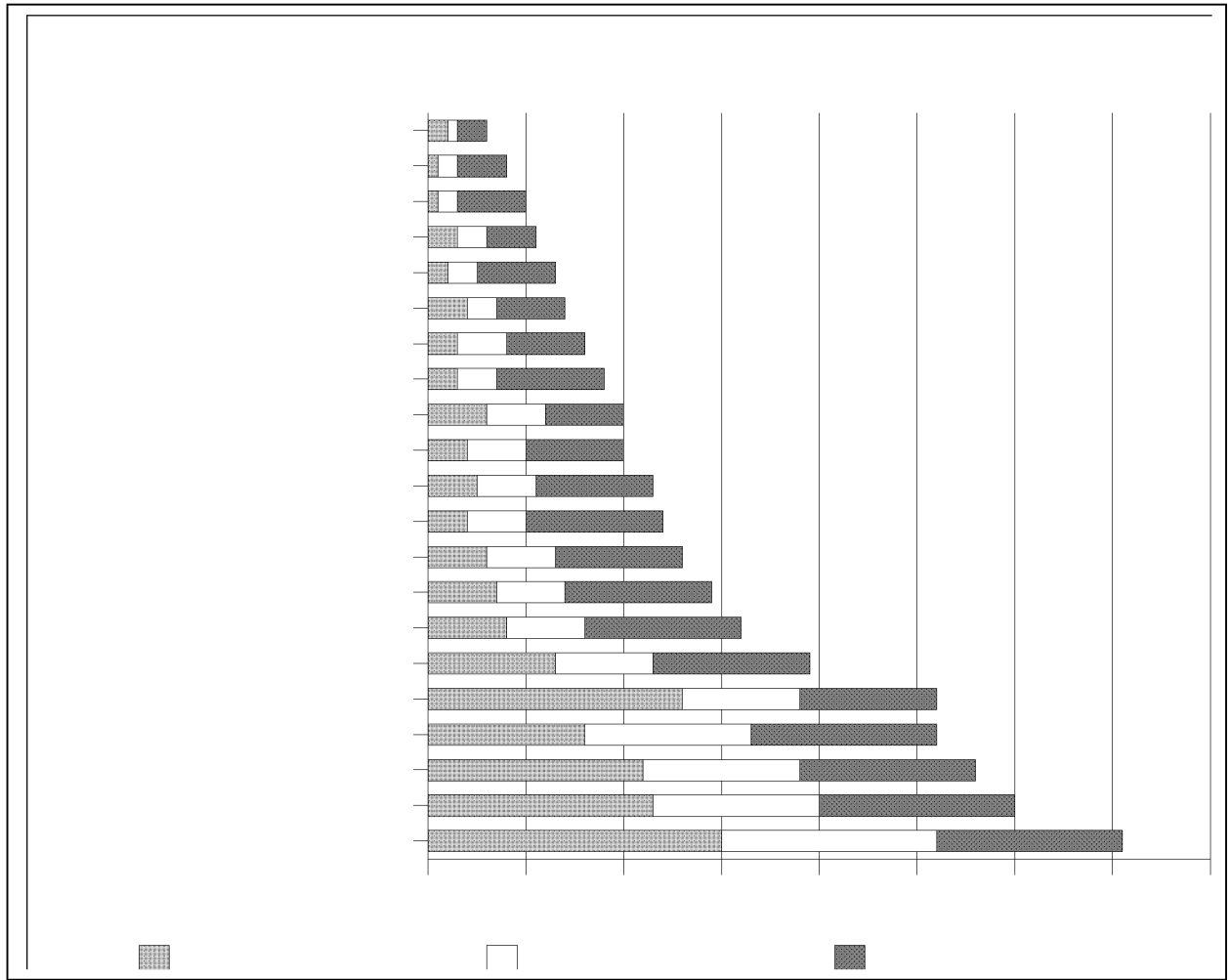
Although they occur less frequently, at least one in five drivers report that in the past year they **have driven through traffic by switching quickly back and forth between lanes (32%), driven 20 miles per hour over the speed limit on an interstate highway (29%), driven 20 miles per hour over the limit on a rural road (26%), tailgated on a two-lane highway (23%), drove through a light that was already red before you entered the intersection (23%), driven 20 miles per hour faster than most other vehicles were going (21%) or made an angry, insulting or obscene gesture or comment to another driver (20%).**

Less than one in five drivers report that at any time during the past year that they have: **cut in front of another car in order to make a turn (18%); made a U-turn where a sign said not to (16%); drove through a stop sign without slowing (15%); crossed**

railroad tracks when the red light was blinking (13%); used the shoulder to pass in heavy traffic (10%); or passed a vehicle in a no passing zone (10%).

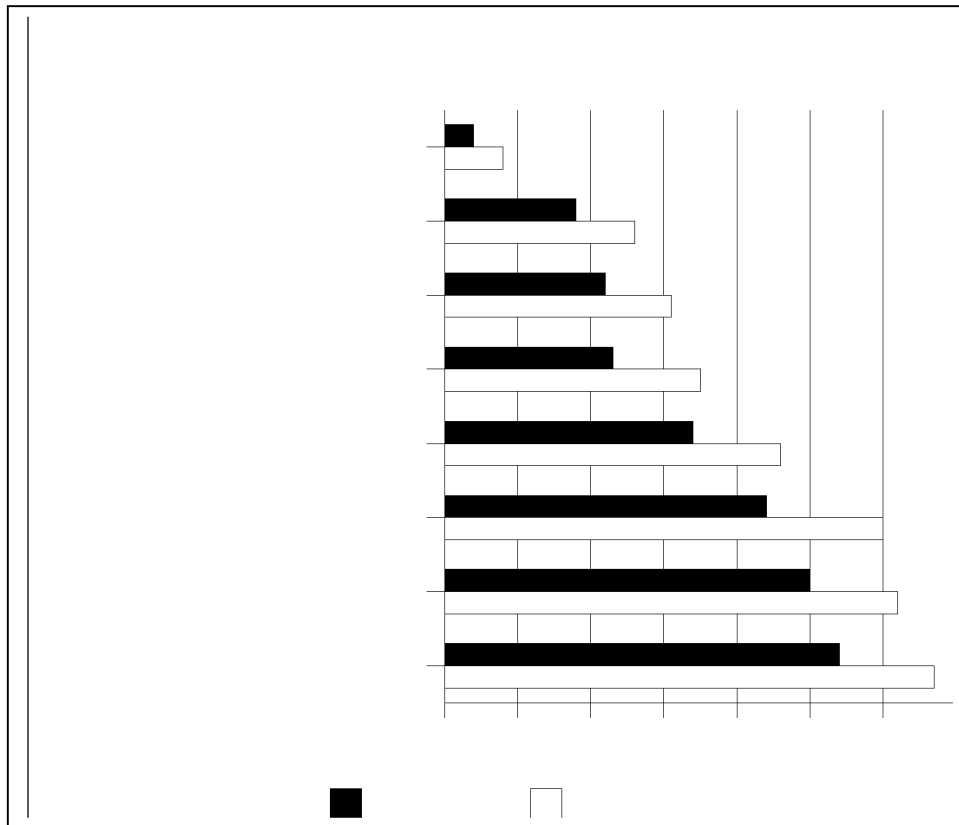
In only two of 21 types of unsafe driving behaviors did fewer than one in 10 drivers report that they had not done this in the past year. The least commonly reported types of unsafe driving in the past year were: **driving when affected by alcohol (8%), and racing another driver (6%).**

FIGURE 8-1Qx: Thinking back over the past year, when was the most recent time that you ... ?
Base: Total population of drivers.
Unweighted N: A=1,489; B=1,511; C=1,467; D=1,533; AC=2,956; AD=3,022; BD=3,044.



There are significant differences by gender in the frequency of speeding behaviors. Men are more likely than women to report exceeding the speed limit and the speed of other traffic in every category tested (see Figure 8-2). Twice as many men (8%) as women (4%) report racing another driver in the past year. About 50% more men (26%) than women (18%) report driving 20 miles an hour faster than most other vehicles in the past year; driving 20 miles per hour over the speed limit on an interstate (35%-23%); and driving 20 miles per hour over the speed limit on rural roads (31%-22%). However, although more men than women report exceeding posted speed limits and traffic speed by 10 miles an hour, the difference between male and female drivers diminishes at these lower speeds.

FIGURE 8-2

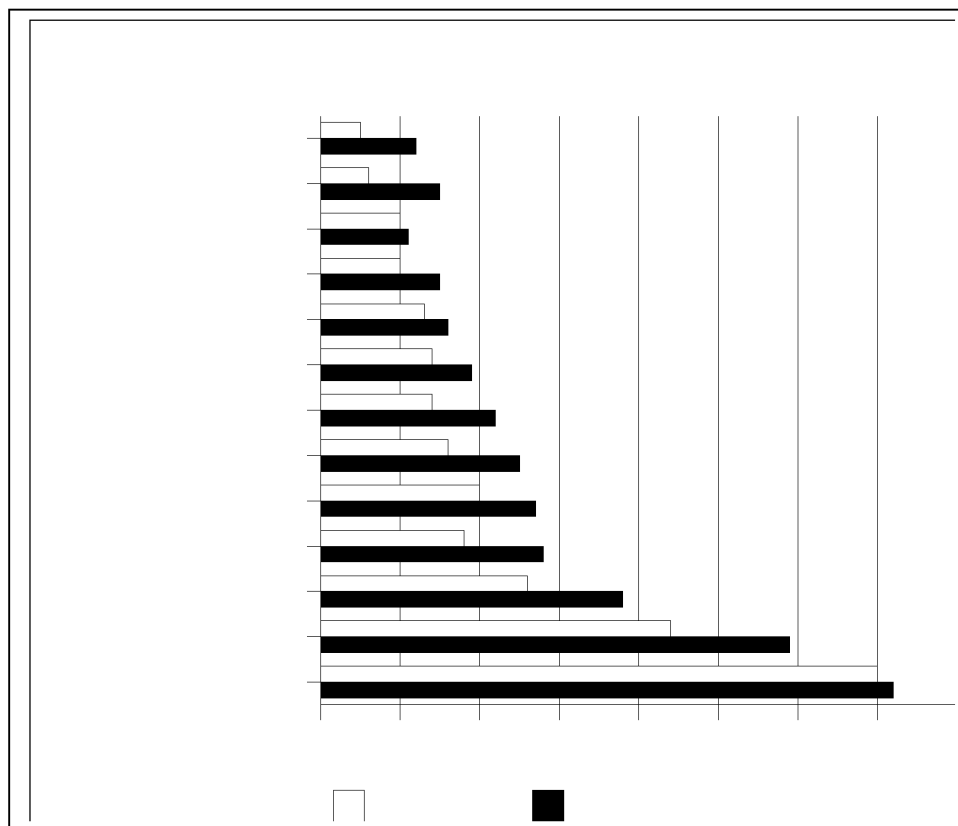


Qx: Thinking back over the past year, when was the most recent time that you...?

Base: Total population of drivers.

Similarly, the proportion of men who report other (than speeding) unsafe driving behaviors in the past year was larger than the proportion of women (see Figure 8-3). In the lowest incidence driving behaviors — driving when affected by alcohol (12%-5%) and passing in a no passing zone (15%-6%) — male drivers are more than twice as likely as female drivers to have done this in the past year. Male drivers are about 50% more likely than female drivers to: cut in front of another vehicle to make a turn (22%-14%); to make angry, insulting or obscene gestures or comments to other drivers (25%-16%); to tailgate on a two-lane highway (28%-18%) and to drive through traffic by switching back and forth quickly between lanes (38%-26%). In a few areas, however, there is virtually no difference between male and female drivers, e.g., passing on a shoulder (11%-10%) and entering an intersection as the light is turning red (72%-70%).

FIGURE 8-3



Qx: Thinking back over the past year, when was the most recent time that you ... ?

Base: Total population of drivers.

The frequency with which different age groups report past year experience with different types of speeding is charted below (see Table 8-2). For all groups, the incidence of past year speeding declines as the speed increases from 10 miles per hour over the speed limit or prevailing traffic to 20 miles per hour over the speed limit or prevailing traffic. Within specified speed ranges, past year incidence varies with road type. However, the notable finding is the relatively clearly defined pattern of speeding by age group. Racing another driver decreases precipitously with age, from 26% for driver 16 to 20, to 12% for those 21 to 24, and then trailing off to single digits.

TABLE 8-2

Speeding in the Past Year by Age								
Qx: Thinking back over the past year, when was the most recent time that you ...?								
Base: Total population of drivers.								
Unweighted N: A=1,489; B=1,511; C=1,467; D=1,533; AC=2,956; AD=3,022; BD=3,044.								
	Unweighted N	Age						
		16-20	21-24	25-34	35-44	45-54	55-64	65+
Drove 10 MPH over the speed limit on an interstate highway	A	75%	73%	74%	63%	56%	45%	37%
Drove 10 MPH faster than most vehicles were going	AD	82%	78%	69%	58%	51%	39%	28%
Drove 10 MPH over the speed limit on a two-lane rural road	D	80%	59%	58%	55%	52%	42%	22%
Drove 10 MPH over the speed limit in a residential neighborhood	C	69%	63%	45%	37%	31%	36%	25%
Drove 20 MPH over the speed limit on an interstate highway	BD	53%	54%	38%	27%	20%	18%	13%
Drove 20 MPH over the speed limit on a rural road	C	49%	39%	37%	26%	20%	14%	9%
Drove 20 MPH faster than most vehicles were going	BD	45%	37%	26%	19%	15%	11%	10%
Raced another driver	AC	26%	12%	7%	4%	3%	1%	1%

TABLE 8-3

Unsafe Driving Behavior in the Past Year by Age								
Qx: Thinking back over the past year, when was the most recent time that you ...?								
Base: Total population of drivers.								
Unweighted N: A=1,489; B=1,511; C=1,467; D=1,533; AC=2,956; AD=3,022; BD=3,044.								
	Unweighted N	Age						
		16-20	21-24	25-34	35-44	45-54	55-64	65+
Entering an intersection just as the light was turning red.	BD	79%	81%	74%	72%	71%	65%	61%

Drove through a stop sign without slowing	<i>AC</i>	81 %	71 %	61 %	50 %	44 %	40 %	31%
Switching back and forth between lanes	<i>C</i>	63 %	60 %	45 %	29 %	24 %	16 %	8%
Tailgated on a highway with one lane in each direction	<i>AC</i>	44 %	37 %	30 %	30 %	23 %	15 %	6%
Drove through a red light	<i>AC</i>	44 %	33 %	28 %	21 %	19 %	20 %	12%
Made an angry, insulting or obscene gesture or comment toward another driver	<i>BD</i>	37 %	39 %	31 %	18 %	13 %	13 %	6%
Cut in front of another car in order to make a turn	<i>BD</i>	39 %	40 %	24 %	16 %	10 %	9%	7%
Made an illegal U-turn	<i>A</i>	29 %	32 %	21 %	14 %	14 %	7%	5%
Drove through a stop sign without slowing	<i>BD</i>	46 %	19 %	13 %	13 %	10 %	8%	13%
Crossed railroad tracks when the red light was blinking	<i>A</i>	10 %	18 %	16 %	14 %	14 %	7%	6%
Passed a vehicle in a no-passing zone	<i>B</i>	21 %	21 %	13 %	10 %	7%	8%	2%
Used the shoulder to pass	<i>BD</i>	18 %	20 %	12 %	10 %	8%	7%	5%
Drove when affected by alcohol	<i>AC</i>	13 %	14 %	14 %	8%	7%	*	1%

* Less than 0.5%.

The frequency with which different age groups report past year experience with different types of unsafe driving behavior is shown in Table 8-3. The types of unsafe driving activities are ordered from most common to least common. What is significant is the relatively clearly defined pattern of unsafe driving by age. As with speeding behaviors, each 10-year age cohort tends to have a lower incidence rate. The exception is occasional overlap of the 16-20 year-old and 21-24 year-old behaviors. Also, stop sign violations stand out as unusually common to 16-20 year-olds, compared to other types of unsafe driving behaviors.

PERCEIVED RISK AND RISK-TAKING BEHAVIOR

One important question in considering why drivers undertake unsafe behaviors is whether they perceive those behaviors as risky or safe. Drivers in the current survey were asked about how safe or unsafe they considered 21 driving behaviors. Subsequently, they were asked how often they personally had done these acts in the past year. The correlation between the perceived safety/risk of a driving action and the frequency with which the same driver performs that action provides a means of evaluating the link between perceived risk and risk-taking behavior.

There is a relatively high and consistent correlation between the evaluation of the riskiness of most speeding behaviors and the reported frequency of those behaviors by drivers (see Table 8-4, next page). This suggests that speeding tends to be a calculated act. Those who believe it is relatively safe to exceed speed limits or the average speed of surrounding traffic are most likely to engage in that behavior. Those who believe that it is dangerous to exceed the speed limit or average traffic speed are least likely to engage in that behavior.

By contrast, there is a very weak correlation (.110) between the perceived risk of entering an intersection when the light is already red and the frequency of that behavior. This suggests that this type of unsafe driving behavior tends not to be calculated, at least in terms of risk.

The other unsafe driving behaviors fall between these two extremes. The reported frequency of slowing, but not stopping at stop signs, is relatively highly correlated (.381) with the perceived risk of the action. Other unsafe driving actions with at least moderate correlations with their perceived risk include: using a shoulder to pass in heavy traffic (.329), making an angry, insulting or obscene gesture or comment to another driver (.329), crossing railroad tracks when the red light is blinking (.325), and making an illegal U-turn (.323).

By contrast, much weaker correlations are found between the perceived risk and the frequency of behavior for: passing in a no-passing zone (.198); tailgating on two-lane highways (.204); cutting in front of another car to make a turn (.218); driving when affected by alcohol (.223); and entering an intersection when the light is changing to red (.248).

It should be noted that the overall size of these correlations is limited by the skewed marginal distribution of both the perceived risk and the frequency of these behaviors. Nonetheless, the variation in the pattern of correlation suggests that some types of unsafe driving behaviors may be more calculated than others. At the one extreme, many drivers who exceed posted speed limits do so, at least in part, because they believe it may not be dangerous. At the other extreme, most drivers who enter an intersection after the light has turned red may not have intended to do so.

TABLE 8-4

Correlation Between the Perceived Safety of Selected Driving

Behaviors and the Reported Frequency of those Behaviors by Drivers in the Past Year

Qx: During the past year how often have you.....?	<i>Unweighted N</i>	Correlation with How Safe
10 mph over speed limit on interstate	1,464	.431
10 mph over speed limit in residential area	1,439	.421
10 mph over speed limit on rural road	1,508	.412
20 mph over speed limit on rural road	1,432	.397
Slowed but didn't stop at stop sign	2,979	.381
10 mph faster than most other vehicle	1,423	.357
20 mph over speed limit on interstate	2,968	.348
Used shoulder to pass in heavy traffic	2,968	.329
Made an angry, insulting or obscene gesture or comment	2,966	.329
Crossed RR tracks when red light blinking	1,456	.325
Made a U-turn where a sign said not to	1,447	.323
Switching back and forth between lanes	1,455	.318
20 mph faster than most other vehicles	2,959	.301
Raced another driver	2,902	.281
Entered as light changing from yellow	2,951	.248
Drove when affected by alcohol	2,868	.223
Cut in front of another car to make a turn	2,957	.218
Drove thru stop sign without slowing	2,890	.204
Tailgated on highway with two lanes	2,873	.204
Passed a vehicle in no passing zone	1,470	.198
Drove thru light that was already red	2,890	.110

UNSAFE DRIVERS

The national sample of drivers were queried on the frequency with which they had done various driving acts within the past year. From these answers, we have learned the relative frequency with which drivers commit acts that might be considered unsafe. However, a single act probably does not constitute an unsafe driver classification. An unsafe driver would be someone who commits unsafe driving acts more than occasionally.

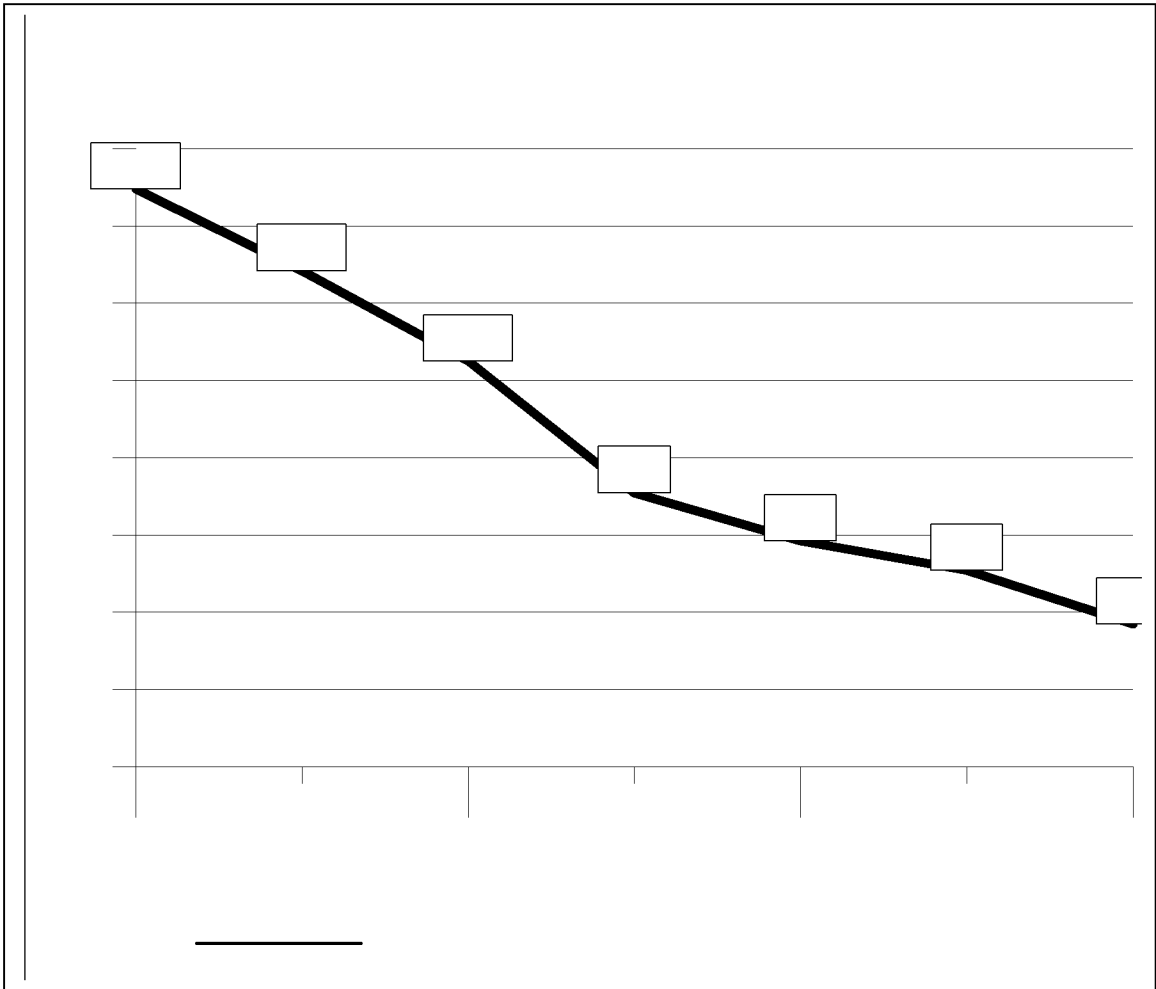
The survey data does not permit a precise estimate of the relative frequency of unsafe driving acts among all survey respondents. As noted earlier, half of the sample were asked about a total of eight different unsafe driving acts while the other half was asked about a total of nine unsafe driving acts. Moreover, since some of these driving acts are relatively common, while others are comparatively rare, any individual's score will depend somewhat on the particular driving acts about which he or she was asked.

In addition, our frequency measure is based on the most recent time that the individual committed the act, not the actual frequency. We have converted recency measures to frequency measures in the following manner. If the most recent time was today, we treat this as 150 times in the past year (i.e., every other day). If the most recent time was within the past week, we treat this as 52 times in the past year (i.e., at least once a week). If the most recent time was within the past month, we treat this as 12 times in the past year (i.e., at least once a month). If the most recent time was more than a month ago, we treat this as three times in the past year (i.e., every four months). Although not a precise measure of frequency of unsafe driving acts, this composite score permits some estimate of the magnitude of the problem. The score associated with a driver should not be considered exact. It assumes that the driver can accurately remember the most recent time and that this is indicative of how often a given behavior is encountered.

In the total sample of drivers, less than one in five (18%) reported that in the past year they had not done any of the eight or nine unsafe driving acts they were asked about. Half of the sample (51%) reported fewer than 24 unsafe driving acts in the past year (using our calculations) or about once every two weeks. A quarter of the drivers (26%) reported 204 or more unsafe driving acts during the past year, or about four times a week. At the furthest extreme, three percent of drivers reported more than 365 unsafe driving acts in the past year, or at least one a day.

Using the mean score on the composite measure of unsafe driving frequency, the relationship of unsafe driving actions with gender and age comes into sharp focus (see Figure 8-4, next page). The mean unsafe driving score for male drivers (mean=92) was nearly 40% higher than for female drivers (mean=66). The unsafe driving score is highest among the 16-20 year-old age group (mean=150). It then falls progressively with age to 128 for 21-24 year-olds, 105 for 25-34 year-olds, 71 for 35-44 year-olds, 58 for 45-54 year-olds, 51 for 55-64 year-olds and 37 for drivers aged 65 and older. In short, most drivers tend to mature out of unsafe driving behaviors as they grow older.

FIGURE 8-4



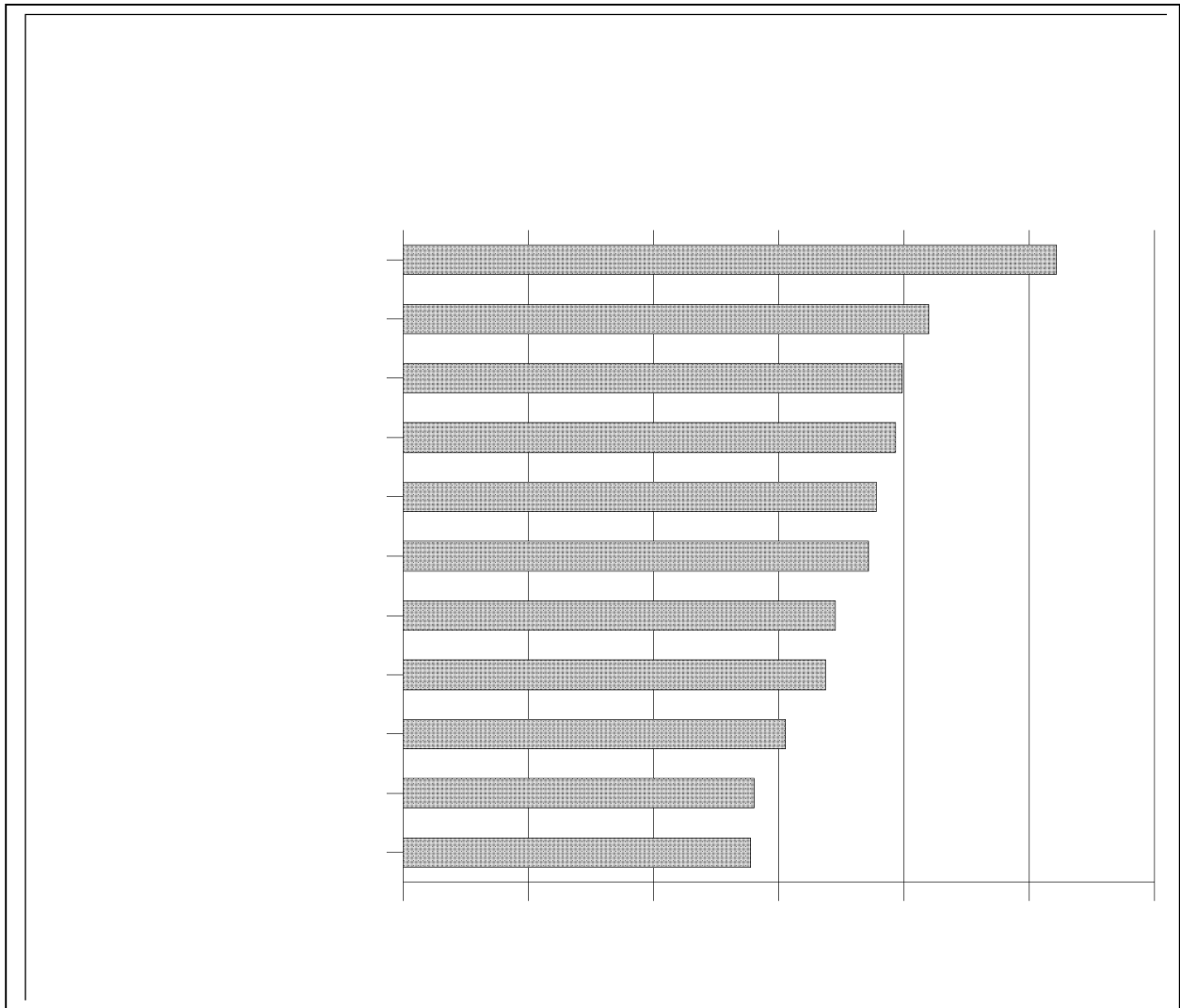
By contrast, there is relatively little relationship between unsafe driving score and educational attainment. The mean unsafe driving score is 78.6 for those with less than a high school degree, 67.42 for high school graduates, 78.9 for those with some college, and 80.3 for college graduates.

With the exception of the lowest income group, there is a direct relationship between household income and unsafe driving score. The unsafe driving score increases from 55.5 for drivers with household incomes of \$5,000-\$14,999, to 67.2 for those with incomes between \$15,000-\$29,999, to 70.2 for those with incomes between \$30,000-\$49,999, to 88.1 for those with incomes between \$50,000-\$74,999, to 91.8 for those with incomes of \$75,000-\$99,999, to 103.5 for those with incomes of \$100,000 or more. The exception to this pattern is the extremely high unsafe driving score (90.6) among those with household incomes under \$5,000.

Perhaps the most striking difference in unsafe driving scores is geographic. The average unsafe driving score across all drivers is 75.6. Drivers from two NHTSA regions report unsafe driving scores that are about a third less than the national average. These are the Mountain/Northern Plains states (Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming) with a score of 55.4 and the Northwest states (Alaska, Idaho, Oregon and Washington) with a score of 56.0. By contrast, drivers from one NHTSA region report unsafe driving scores about one third higher than the national average.

Drivers from the New England States (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont) report an average unsafe driving score of 104.3. Three other NHTSA regions with higher than average unsafe driving score are the South Atlantic/Gulf states, the South Central States and the Southwest/Pacific states. Earlier in this report it was noted that the regions with the highest rates of radar detectors were NHTSA the New England states, the South Atlantic/Gulf states, and the South Central states.

FIGURE 8-5



New England	Region I:	CT, ME, MA, NH, RI, & VT
New York/New Jersey	Region II:	NY & NJ
Mid-Atlantic	Region III:	DE, DC, MD, PA, VA, & WV
South Atlantic/Gulf	Region IV:	AL, FL, GA, KY, MS, NC, SC, & TN
North Central	Region V:	IL, IN, MI, MN, OH, & WI
South Central	Region VI:	AR, LA, NM, OK, & TX
Central Plains	Region VII:	IA, KS, MO, NE
Mountain/Northern Plains	Region VIII:	CO, MT, ND, SD, UT, & WY
Southwest/Pacific	Region IX:	AZ, CA, HI, & NV
Northwest	Region X:	AK, ID, OR, & WA

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SUMMARY

Within the past year, the majority of drivers have committed one or more unsafe driving actions. In the past month, over half of all drivers had entered an intersection just as

the light was turning from yellow to red. In the past year, over half of all drivers have driven 10 miles per hour over the speed limit on an interstate highway, driven 10 miles per hour faster than most other vehicles were going, driven 10 miles per hour over the limit on a two lane rural road, or slowed but did not completely stop at a stop sign. By contrast, in the last year only one driver in ten or fewer raced another car, drove when affected by alcohol, used the shoulder to pass in heavy traffic, or passed in a no passing zone. While drivers considered weaving in and out of traffic as among the most dangerous unsafe driving behaviors, almost one-third said they had done this within the past year. The frequency of these unsafe driving behaviors tended to peak in the younger age groups and decreased with age.