

# 2006 - BASELINE SURVEY OF ATTITUDES TOWARD MOTORCYCLES

## COLORADO DEPARTMENT OF TRANSPORTATION

Prepared for:

Colorado Department of Transportation

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## Colorado Department of Transportation Motorcycle Survey

#### **INTRODUCTION**

#### **BACKGROUND AND OBJECTIVES**

In July 2006, Colorado Department of Transportation retained Corona Research to examine public opinions regarding motorcycles and motorcyclists. For cost-efficiency purposes, this survey was conducted in two segments: one in July of 2006 and the other in September of 2006. both segments were conducted with a statewide random sample of residents.

Each segment was conducted concurrently along with a survey of public awareness and reaction to DUI-related media and outreach programs. The July survey was conducted prior to a major media campaign, and the September survey was conducted after the completion of that campaign. Because the DUI campaign did not focus on any issues specific to motorcycles, it was deemed reasonable to conduct the surveys of motorcycle issues and DUI issues concurrently. Additionally, it was deemed reasonable to combined the July and September survey results for the motorcycle-related questions in order to develop a larger sample and improve the statistical confidence in the survey.

#### METHODOLOGY

The surveys were conducted by telephone, using a randomly generated sample of telephone numbers for urban, rural and young males ages 18 to 34. Urban residents were defined as those residents living on Colorado's Front Range, defined as the following counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Pueblo and Weld. Rural residents were defined as anyone living outside of these Front Range counties.

In order to gather statistically significant information for rural populations and for young males, those two groups were intentionally oversampled in the survey. Specific quotas included:

- 968 surveys specifically from Front Range communities
- 664 surveys specifically from non-Front Range communities
- 525 surveys of young males from throughout the state (which are also included in the above figures)

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Motorcyclists were not included in the survey, but only to the extent that they naturally occurred in the selection process. A completely independent survey of motorcyclists was conducted and is documented in a separate report. Additionally, Corona prepared a geographic portrait of motorcycle ownership in the state, which is provided in a third report. All of these analyses were conducted between July and September of 2006.

A copy of the survey instrument for this study is presented in an appendix to this report. Note that responses to questions about DUI media programs are documented in yet another separate report.

Telephone surveys, like any other type of survey, do not precisely reflect the entire population when merely summed and totaled. Women, for example, are more likely to respond to telephone surveys than are men, and older people are more likely to respond than are younger people. In this particular study, young males and rural populations were intentionally oversampled, and were thus overrepresented in the raw data. Other biases could occur as well. To account for this factor, the study team developed a unique weighting factor for every single response that adjusted that person's representation in the survey to account for age, gender, and region of residence. The responses of some respondents who have traits that were underrepresented in the group of survey participants were therefore weighted more heavily than the responses of people whose traits were overrepresented among the survey participants. For this reason, the survey findings represent a much more complex, but also more accurate analysis than would a mere tabulation of the raw data. Weighting factors ranged from 0.33 for (overrepresented) rural females ages 55-64 to 3.4 for (underrepresented) urban females ages under 25 and urban males ages 35-44.

#### MARGINS OF ERROR AND SEGMENTATION

A total of 1,632 surveys were completed, resulting in a margin of error of (plus or minus) 2.5 percent. This represents a very strong one-time survey.

During the course of the survey, Corona gathered information on several personal attributes of survey respondents, including their age, gender, race/ethnicity, education and marital status. It is possible to segment findings among these groups with varying degrees of confidence; this report provides information for each question for the total population, as well as gender breakdowns (male vs. female), age breakdowns (Under 35 vs. 35 or Older), geographic breakdowns (urban vs. rural), and special tabulations for men under the age of 35.

Shown on the following page is a table of the margins of errors for each subgroup within a segmentation. Generally, it is preferred that a segment margin of error be 10 percent or lower, but higher margins of error up to 18 percent can provide value if they show a strong pattern. Margins of error above 18 percent mean that the results should generally be disregarded, but large noted differences may nonetheless point out initial findings that can inform the direction of subsequent research. Additionally, even if individual margins of error are large, a pattern across a continuous range of segments (e.g., age or income categories) can be informative. However, due to the size of the sample in this survey, the results for each demographic group are very strong.

These tables do not provide margins of error for segments that refused to answer a demographic question, such as people who refused to provide their ages. Those refusals typically represent less than one percent of the survey population, with the exception of household income, where approximately eight percent of respondents declined to answer.

## Segmentation Margins of Error

(Smaller margins of error are represent more confidence in the findings.)

Subpopulation	Margin of Error
Under 35	3.77
35 and Over	3.19
Male	3.15
Female	3.8
Young Male	4.28
Urban	3.15
Rural	3.8

## **REPORT LAYOUT**

Key Findings are presented on the following pages, and represent some important global findings of the survey. Within the main body of the survey report, eight sections are presented:

- Section 1 presents the general driving habits of the respondents, as well as what type of motorcycle they drive.
- Section 2 examines the survey respondents' opinions and attitudes towards motorcycle safety
- Section 3 summarizes respondents' demographic characteristics including gender, race, age, education and marital status.

Please note that all references to "motorcycles," "bikes", or "motorcycles and scooters" refers to any or all motorcycles and/or motor scooters.

**Reporting Note:** On all graphs, the labels for all figures under two percent are deleted for better legibility of the graph. Also, the bars in graphs represent actual figures, while the labels are rounded to the nearest whole number. Therefore, some graphs may not appear to add to 100 percent due to this rounding.

## **KEY FINDINGS**

While many conclusions and implications can be discerned from the survey findings, several stand out as being of particular interest. These key findings are discussed below in the order in which they are presented in the report.

- 1. Motorcycles are a common secondary means of transportation. While only about one percent of Colorado residents use a motorcycle as their primary means of transportation, 1 percent have ridden some type of motorcycle or scooter in the past 30 days. *Source: Exhibit 1-1.*
- 2. The most common motorcycle usage is riding small off-road bikes. Riding off-road motorcycles smaller than 600cc was the most common type of motorcycle usage in the last 30 days, while riding off-road motorcycles 600cc or larger was the least common. Road motorcycles, both large and small were slightly behind small off-road motorcycles in terms of usage. *Source: Exhibits 1-2 through 1-7.*
- 3. **Respondents believed that riders of sport motorcycles were the least safe of all riders.** Seventy percent of respondents believed that riders of sport motorcycles (i.e. Ninja style) were unsafe compared to riders of other styles of motorcycles. At least one half of the respondents considered other types of riders to be at least somewhat safe. This represented a very large difference in opinions. *Source: Exhibit 2-1.*
- 4. **Respondents believed that motorcycle riders are more likely to drive safely and defensively compared to drivers of vehicles.** When compared to drivers of other vehicles, motorcycle drivers were considered by the majority of respondents to be more likely to drive safely and defensively. *Source: Exhibit 2-2.*
- 5. Drivers are more likely to assume blame by the car in a car-motorcycle crash. When respondents were asked who's typically at fault in an accident, the majority indicated that it was equally split between driver and rider. However, those who did assign "typical" blame were more likely to blame the car by a three to one margin. *Source:* Exhibit 2-3.
- 6. The majority of survey participants considered motorcycles a safe means of transportation, as well as believing that motorcycle riders operate their bikes in a safe manner. The majority or respondents felt motorcycles were safe and that they were operated in a safe manner. Still, nearly half of respondents at least somewhat agreed that they felt nervous driving near a motorcycle and indicated that they had difficulty spotting them. *Source: Exhibit 2-4.*
- 7. **Respondents believed that helmets and training were the most important elements for ensuring motorcyclist safety.** While the vast majority of respondents believed that wearing a helmet, as well as training, were the most important elements of rider safety, less than half

actually believed riders received enough training. Young males were less likely than other subpopulations to see the value in every safety feature except loud pipes, though a majority of even this group saw a high or moderate value in all of the tested features (helmets, protective clothing, headlight modulators, training for motorcyclists, and strict enforcement of traffic laws for motorcyclists. Loud pipes were seen to be of high or moderate value by 46 percent of all respondents and 52 percent of young males. *Source: Exhibit 2-5.* 

8. Support for a helmet law was also high among respondents. Sixty-four percent of respondents indicated they would strongly support a helmet law. An additional 16 percent would somewhat support a law. *Source: Exhibits 2-4 through 2-6.* 

## SECTION 1 DRIVING HABITS

This section of the survey examines survey respondents' driving habits and includes how often they drive and what type of vehicle they drive most often. Results are examined in the context of motorcycle ridership where appropriate.

## ROUGHLY ONE PERCENT OF RESPONDENTS RIDE A MOTORCYCLE AS THEIR PRIMARY VEHICLE

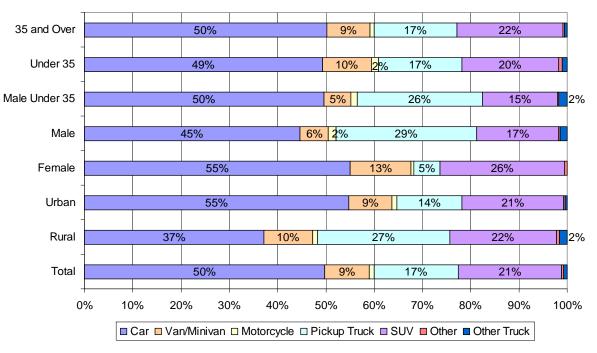
The majority of respondents drive a car as their primary vehicle. Motorcycles were the primary vehicle of approximately 1 percent of respondents.

Respondents under 35 and males were more likely (2 percent) to ride a motorcycle as their primary vehicle. Females were the least likely subpopulation to ride a motorcycle as their primary vehicle.

However, as noted in the following exhibits, motorcycle and scooter ridership is actually greater than the numbers shown here, apparently because many motorcycle riders use motorcycles or scooters as secondary transportation.

## Exhibit 1-1 Vehicle Driven

## (Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?.)



## Percent of Population that Specifically Drives a Motorcycle Most Often

Total	Rural	Urban	Female	Male	Male Under 35	Under 35	35 and Over
1.05%	1.08%	1.03%	0.46%	1.63%	1.43%	1.53%	0.82%

## FIFTEEN PERCENT OF RESPONDENTS HAVE RIDDEN SOME TYPE OF MOTORCYCLE OR SCOOTER IN THE PAST 30 DAYS

15.3 percent of respondents had ridden some type of motorcycle or scooter during the past 30 days.

Overall, respondents were most likely to ride smaller motorcycles within each category (off-road or public roadway). Smaller off-road bikes (less than 600cc) were most popular overall, followed by smaller road bikes (less than 900cc).

Scooters were ridden by only 2.9 percent of the population. Larger offroad bikes (600cc or more) were the only type of motorcycle ridden less (2.8 percent), though not significantly.

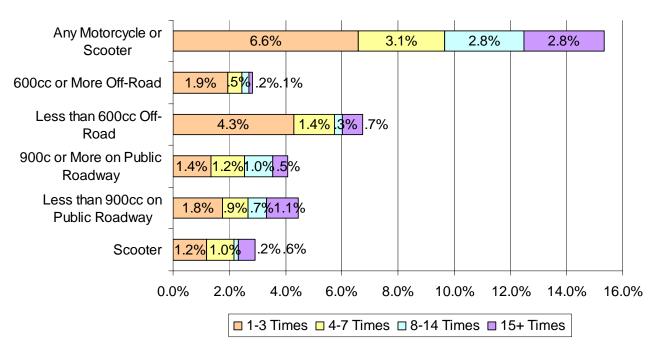


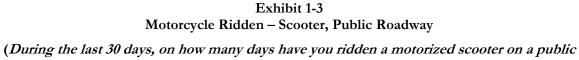
Exhibit 1-2 Motorcycle – Scooter Ridden, All Respondents

Please note that some labels has been shifted to the right for better clarity.

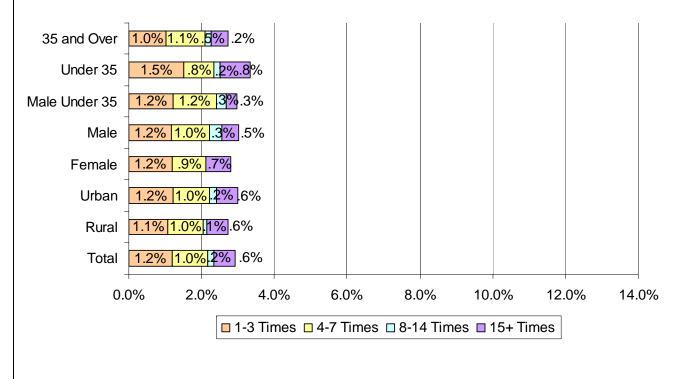
## APPROXIMATELY 3 PERCENT OF RESPONDENTS HAVE RIDDEN A MOTORIZED SCOOTER IN THE PAST 30 DAYS

Compared to other types of motorcycles (shown in subsequent exhibits), scooter ridership is proportionally low.

Additionally, there was little variation by subpopulation in terms of ridership, ranging from 2.8 percent for rural populations and respondents age 35 and older, up to 3.3 percent for respondents under 35 years old.



roadway?.)

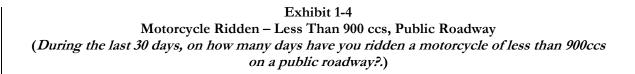


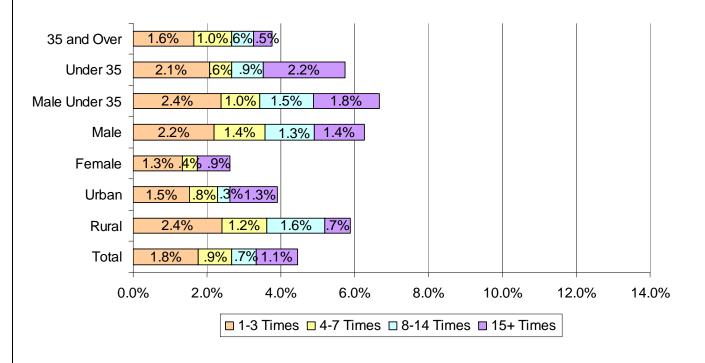
## RESPONDENTS WERE SLIGHTLY MORE LIKELY TO RIDE ROAD BIKES LESS THAN 900CC THAN THEY WERE TO RIDE BIKES THAT WERE 900CC OR LARGER

Generally, respondents were more likely to respond that they had ridden a motorcycle on a public roadway that was smaller than 900cc than larger bikes (shown in the next exhibit). Males were the most likely to have ridden this size range of bike on a public roadway.

Ridership ranged from 2.6 percent among females to 6.7 percent among males under 35.

Motorcycles under 900cc were still less popular than off-road bikes smaller than 600cc.



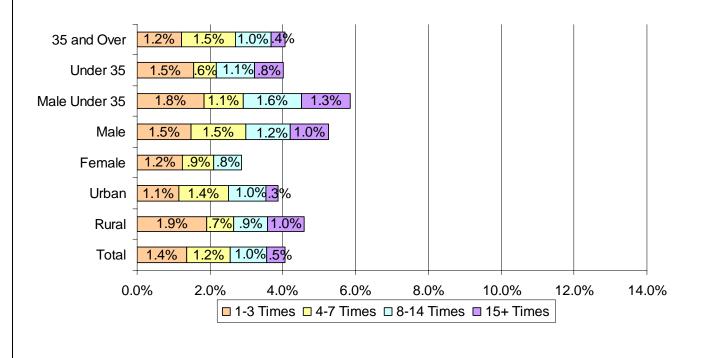


## YOUNG MALES WERE MOST LIKELY TO HAVE RIDDEN A MOTORCYCLE 900CC OR LARGER ON PUBLIC ROADWAYS

Nearly 6 percent of male respondents had ridden a motorcycle of size 900cc or more in the previous 30 days. Overall, slightly more than 4 percent of all respondents had done the same. Females were least likely with only 2.9 percent having ridden this type of motorcycle.

## Exhibit 1-5 Motorcycle Ridden – 900 ccs or More, Public Roadway

(During the last 30 days, on how many days have you ridden a motorcycle of 900ccs or more on a public roadway?.)



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## RIDING SMALLER MOTORCYCLES OFF-ROAD WAS MOST COMMON AMONG ALL RESPONDENTS

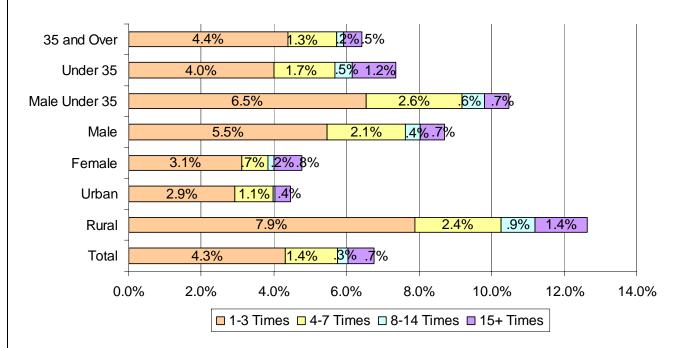
More common than any on-road usage was off-road usage with small bikes. Respondents were more likely to have had ridden a motorcycle or allterrain vehicle of less than 600ccs offroad than any other motorcycle/road option. This held true across all subpopulations as well.

Both rural respondents and male respondents under the age of 35 were the most likely to have ridden a motorcycle less than 600ccs off-road, while urban respondents were the least likely. However, urban respondents still chose riding a 600cc motorcycle offroad more than any other option.

It is likely that the higher percent of rural respondents is at least partially due to respondents' proximity to off-road riding areas. More than one in eight (12.6 percent) of rural respondents have ridden a small bike off-road in the past 30 days.

## Exhibit 1-6 Motorcycle Ridden – Less than 600 ccs, Off-Road

(During the last 30 days, on how many days have you ridden a motorcycle or all-terrain vehicle of less than 600ccs off-road?.)



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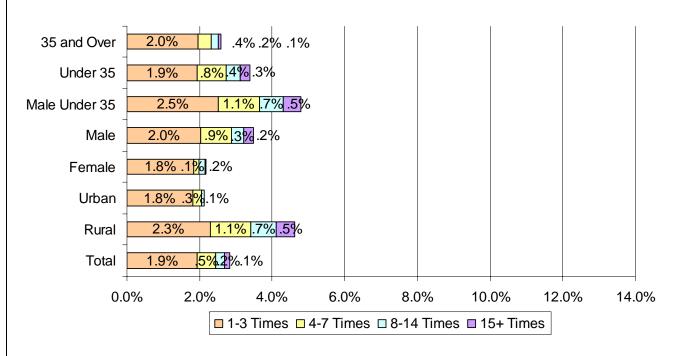
## RIDING LARGER OFF-ROAD MOTORCYCLES WERE THE LEAST COMMON ACTIVITY AMONG ALL MOTORCYCLE OPTIONS

Though smaller off-road bikes in Exhibit 1-6 were the most popular type of motorcycle ridden, motorcycles or all-terrain vehicles of 600ccs or more were the least ridden type of motorcycle in the previous 30 days for respondents overall. This may likely be a factor of fewer off-road bikes being 600cc or larger.

Male respondents under 35 were the most likely to have responded that they have recently ridden a motorcycle of 600cc or more off-road.

## Exhibit 1-7 Motorcycle Ridden - 600 ccs or More, Off-Road

(During the last 30 days, on how many days have you ridden a motorcycle or all-terrain vehicle of 600ccs or more off-road?.)



Please note that the top set of labels has been shifted to the right for better clarity.

## SECTION 2 MOTORCYCLE SAFETY ATTITUDES AND OPINIONS

This section of the survey examines the survey respondents' opinions and attitudes towards motorcycle safety, including attitudes towards different types of riders and general safety precautions taken by both motorcycle riders and vehicle drivers.

## RIDERS OF SPORT MOTORCYLES WERE CONSIDERED TO BE THE MOST UNSAFE TYPE OF RIDER

More then a third of respondents considered percent) sport (35 motorcycle riders to be "very unsafe." Another 35 percent considered them to be "somewhat unsafe." Off-road motorcycle riders were also considered to be unsafe, though to a lesser extent. Less than half considered them to be "very" or "somewhat" unsafe. Nearly 10 percent considered motorized scooters to be "very" unsafe and an additional 18 percent considered scooter riders "somewhat" unsafe.

The safest riders were considered to be riders of touring bikes, cruisers and standard motorcycles. Eighty five percent or more of respondents indicated that these riders were "somewhat" or "very" safe.

In nearly every category, males and males under 35 were more likely than other groups to consider riders to be "very safe".

## Exhibit 2-1 Types of Motorcycle Riders

. . . .

(Please tell)	me if you	think	the	typical	<i>riders</i>	of these	vehicl	es t	end to	o be:)	

		Very Unsafe Riders	Somewhat Unsafe Riders	Somewhat Safe Riders	Very Safe Rider
	Total	5%	9%	51%	35%
	Rural	4%	9%	52%	35%
	Urban	5%	9%	51%	35%
Cruisers	Female	7%	11%	52%	30%
Cruisers	Male	3%	7%	51%	39%
	Male Under 35	2%	7%	49%	42%
	Under 35	3%	9%	51%	37%
	35 and Over	6%	9%	51%	34%
	Total	9%	18%	50%	23%
	Rural	8%	17%	51%	23%
	Urban	9%	18%	50%	23%
	Female	11%	19%	49%	22%
Motorized scooters	Male	7%	17%	52%	25%
	Male Under 35	5%	16%	49%	30%
	Under 35	6%	17%	51%	26%
	35 and Over	10%	18%	50%	22%
	Total	15%	31%	45%	10%
	Rural	14%	32%	42%	12%
	Urban	15%	30%	46%	9%
	Female	18%	30%	44%	8%
Off-road motorcycles	Male	11%	32%	45%	12%
	Male Under 35	5%	32%	45%	18%
	Under 35	10%	33%	44%	13%
	35 and Over	17%	30%	45%	8%
	Total	35%	35%	24%	6%
	Rural	30%	32%	29%	8%
	Urban	36%	35%	23%	6%
	Female	37%	34%	23%	6%
Sport motorcycles	Male	33%	35%	25%	7%
	Male Under 35	32%	33%	27%	8%
	Under 35	34%	34%	25%	7%
	35 and Over	35%	35%	24%	6%
	Total	4%	12%	60%	25%
	Rural	4%	10%	57%	29%
	Urban	4%	12%	61%	23%
	Female	6%	14%	58%	22%
Standard motorcycles	Male	2%	9%	62%	28%
	Male Under 35	1%	9%	59%	31%
	Under 35	2%	11%	60%	27%
	35 and Over	5%	12%	60%	24%
	Total	5%	9%	42%	44%
	Rural	<u> </u>	9%	42%	44%
	Urban	<u> </u>	9%	45%	41%
	Female	<u> </u>	<u> </u>	41%	44%
Touring or sport touring motorcycles	Male				
		2%	8%	39%	51%
	Male Under 35	2%	10%	36%	51%
	Under 35	4%	10%	41%	43%
	35 and Over	6%	9%	42%	45%

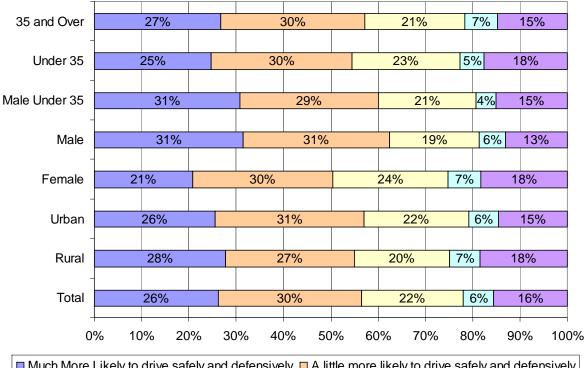
## MORE THAN HALF OF RESPONDENTS BELIEVED MOTORCYCLE RIDERS ARE MORE LIKELY TO DRIVE SAFELY AND DEFENSIVELY THAN DRIVERS IN VEHICLES

Despite some riders as being seen as "unsafe" in the previous exhibit, more than half (56 percent) of the respondents indicated that riders were "much more" or "a little more" likely to drive safely and defensively. Males, who are also more likely to be riders themselves, were the most likely to share this view.

Females, on the other hand, were the least likely to believe motorcycle riders drove more safely and defensively than their vehicle counterparts. Even so, 51 percent believed that motorcycle riders drive more safely and defensively than vehicle drivers.

## Exhibit 2-2 Motorcycle Riders Compared to Vehicle Drivers: Safety

(Compared to people who drive in vehicles such as cars, trucks, and vans, do you think motorcycle riders are:)



Much More Likely to drive safely and defensively
A little more likely to drive safely and defensively
A little less likely to drive safely and defensively
Much less likely to drive safely and defensively
There is no difference between the 2 groups

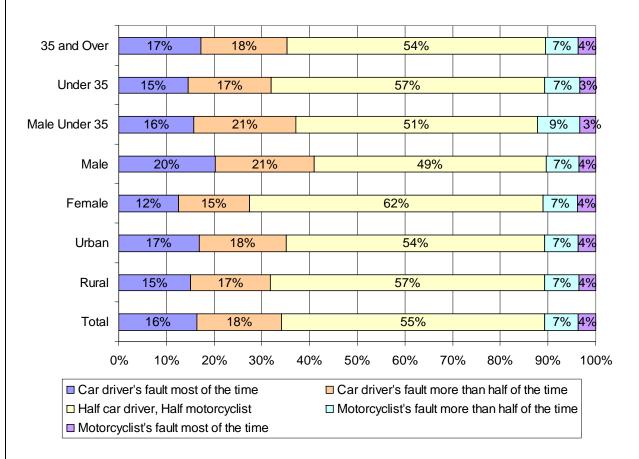
## RESPONDENTS WERE MORE LIKELY TO BLAME CAR-MOTORCYCLE CRASHES ON THE CAR

More than half (55 percent) of respondents believed that blame could be assigned to the driver of the car half of the time, and to the rider of the motorcycle half of the time.

However, when respondents did choose the driver or rider to be more likely at blame, they most often indicated that the driver of the car was most likely to be at blame at least more than half of the time (34 percent compared to 11 percent, combined). Male respondents were most likely to have this view (41 percent).

## Exhibit 2-3 Motorcycle Riders Compared to Vehicle Drivers: Fault in Accidents

(When thinking about wrecks where a car and motorcycle collide, and where blame can be assigned to operator error, which of the following five responses do you think is most true?)



#### RESPONDENTS TYPICALLY AGREED THAT MOTORCYCLES ARE A SAFE MEANS OF TRANSPORTATION

Respondents were more likely to agree than disagree with the statements, "motorcycles are a safe means of transportation" and "motorcycle riders operate their bikes in a safe manner." This was true of all subpopulations that were examined.

On the other hand, respondents were often concerned about driving on the road with motorcycles. Forty-five and forty-eight percent, respectively, as least somewhat agreed with the statements, "I am nervous when driving near a motorcyclist" and "I have trouble seeing motorcycle drivers on the road." A full 50 percent of respondents age 35 and over report that they have trouble seeing motorcyclists on the road.

Respondents were nearly split on the statement, "Motorcycle riders receive the training they need to drive safely," with slightly more disagreeing than agreeing with this statement.

## Exhibit 2-4 Statements About Motorcycles and Motorcycle Riders

		Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	No Opinio
	Total	14%	20%	51%	15%	0%
Aotorcycle riders operate their bikes n a safe manner am nervous when driving near a notorcyclist Aotorcycle riders receive the training	Rural	13%	19%	50%	18%	0%
	Urban	14%	21%	51%	14%	0%
Motorcycles are a safe means of	Female	17%	21%	51%	10%	1%
transportation	Male	10%	20%	50%	20%	0%
	Male Under 35	7%	18%	54%	20%	0%
	Under 35	11%	20%	53%	16%	1%
	35 and Over	15%	21%	50%	15%	0%
	Total	4%	18%	66%	12%	1%
Motorcycle riders operate their bikes in a safe manner	Rural	5%	14%	64%	16%	1%
	Urban	3%	19%	66%	10%	1%
	Female	4%	20%	65%	10%	1%
	Male	3%	16%	66%	14%	1%
	Male Under 35	3%	16%	66%	14%	1%
	Under 35	3%	19%	66%	11%	1%
	35 and Over	4%	17%	65%	13%	1%
	Total	31%	24%	23%	22%	1%
	Rural	39%	23%	20%	17%	1%
	Urban	27%	24%	24%	24%	1%
I am nervous when driving near a	Female	22%	21%	25%	31%	1%
motorcyclist	Male	39%	26%	22%	12%	1%
,	Male Under 35	45%	22%	22%	10%	1%
	Under 35	36%	22%	23%	18%	1%
	35 and Over	28%	24%	23%	24%	1%
	Total	19%	27%	30%	12%	13%
	Rural	22%	25%	26%	14%	13%
	Urban	17%	27%	32%	11%	13%
Motorcycle riders receive the training	Female	21%	25%	28%	11%	16%
they need to drive safely	Male	17%	28%	32%	13%	10%
	Male Under 35	14%	26%	37%	16%	6%
	Under 35	18%	24%	34%	13%	11%
	35 and Over	19%	27%	28%	12%	14%
	Total	26%	24%	33%	15%	1%
	Rural	30%	24%	30%	14%	2%
	Urban	25%	25%	34%	16%	1%
I have trouble seeing motorcycle	Female	24%	23%	33%	18%	1%
drivers on the road	Male	28%	26%	33%	13%	0%
	Male Under 35	31%	31%	29%	9%	0%
	Under 35	27%	28%	31%	13%	1%
	35 and Over	26%	23%	33%	17%	1%

## HELMETS AND TRAINING WERE CONSIDERED THE MOST IMPORTANT SAFETY ELEMENTS TO MOTORCYCLE RIDERS

Helmets, training, use of protective clothing, and strict enforcement of laws were all considered by more than 70 percent of respondents to be of high value in ensuring the safety if riders. Use of headlight modulators to "strobe" lights were also considered to be of high value, though by a smaller majority (59 percent).

Loud exhaust pipes were considered of no value by one quarter of respondents.

It is interesting to note that males under 35 assigned a lower value to nearly every safety feature, as compared to every other subpopulation. The only feature where they had above-average regard was loud exhaust pipes.

## Exhibit 2-5 Elements of Motorcycle Safety

(How important are each of the following elements in ensuring the safety of motorcycles on Colorado Roadways?)

		Colorad	io Roadways?)			
		No Value	Low Value	Moderate Value	High Value	No Opinio
	Total	4%	3%	10%	83%	1%
	Rural	5%	3%	12%	79%	1%
	Urban	4%	3%	9%	84%	0%
Use of helmets by motorcycle riders	Female	2%	2%	7%	88%	1%
Use of heimers by motorcycle huers	Male	6%	4%	12%	77%	1%
	Male Under 35	6%	6%	14%	74%	0%
	Under 35	4%	4%	12%	79%	0%
	35 and Over	4%	3%	8%	84%	1%
	Total	3%	4%	19%	75%	1%
Use pf protective clothing such as	Rural	4%	4%	20%	71%	1%
	Urban	2%	3%	18%	76%	0%
	Female	2%	4%	13%	81%	0%
jackets	Male	4%	3%	24%	68%	1%
	Male Under 35	4%	5%	29%	62%	0%
	Under 35	3%	6%	23%	68%	0%
	35 and Over	2%	3%	17%	78%	1%
	Total	4%	7%	26%	59%	4%
	Rural	4%	6%	23%	62%	5%
	Urban	4%	7%	27%	58%	4%
Use of headlight modulators to	Female	2%	4%	20%	69%	5%
strobe" lights for greater visibility	Male	6%	9%	32%	49%	4%
	Male Under 35	9%	10%	34%	46%	1%
	Under 35	6%	8%	29%	56%	2%
	35 and Over	3%	6%	24%	61%	5%
	Total	1%	2%	14%	82%	1%
	Rural	1%	3%	13%	82%	1%
	Urban	1%	2%	14%	82%	1%
Training for motorcyclists about riding		1%	2%	10%	86%	1%
in the vicinity of other riders	Male	1%	3%	17%	78%	1%
	Male Under 35	1%	4%	18%	77%	1%
	Under 35	1%	4%	14%	81%	0%
	35 and Over	1%	2%	14%	82%	1%
	Total	26%	26%	27%	19%	1%
	Rural	31%	26%	23%	19%	2%
	Urban	25%	27%	29%	19%	1%
Loud exhaust pipes on motorcycles to		20%	28%	30%	20%	2%
increase awareness of other drivers	Male	33%	25%	24%	17%	1%
	Male Under 35	23%	25%	30%	22%	0%
	Under 35	19%	22%	33%	25%	1%
	35 and Over	30%	28%	24%	16%	2%
	Total	2%	4%	19%	73%	1%
	Rural	3%	4%	21%	70%	2%
	Urban	2%	5%	18%	74%	1%
Strict enforcement of traffic laws for	Female	1%	3%	15%	80%	1%
motorcyclist	Male	4%	6%	23%	66%	1%
motoroyonat	Male Under 35	5%	9%	23%	56%	1%
	Under 35	3%	7%	25%	77%	2%
	35 and Over	2%	3%	16%	64%	1%
	55 and Over	∠70	370	1070	0470	1 70

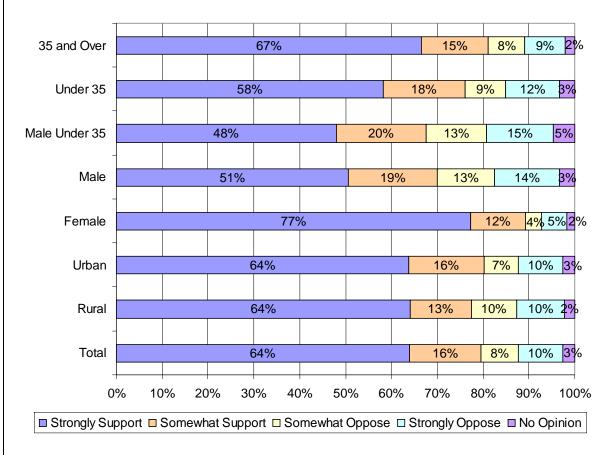
## THE MAJORITY OF RESPONDENTS WOULD SUPPORT A HELMET LAW

Sixty-four percent of respondents indicated they would strongly support a helmet law. An additional 16 percent would somewhat support a law.

Female and older respondents were most likely to indicate support for a law. Males and younger respondents were the most likely to oppose such a law. However, over two-thirds of every population would at least somewhat support a law, and a majority of every subpopulation except males under 35 (48 percent) would strongly support it.

## Exhibit 2-6 Support for Helmet Law

(Colorado does not currently have a law requiring motorcycle riders and their passengers to wear a helmet while riding on roadways. Would you:)



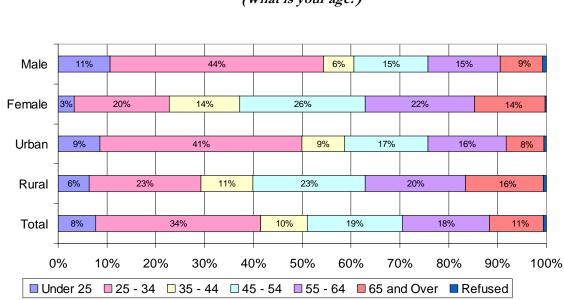
## SECTION 3 DEMOGRAPHICS

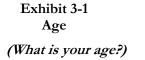
In this section, respondents were asked to provide information about demographic information including age, race, education and marital status. Gender was defined by the interviewer.

Demographic information is reported in raw form, meaning no weights have been applied to adjust the data. In all of the analyses, statistical adjustments were made to ensure that the survey reflected the state's population in terms of age, gender, and urban/rural status. These adjustments also tend to correct for response biases in other demographic identifiers.

## YOUNG MALES WERE INTENTIONALLY OVERSAMPLED TO PROVIDE GREATER STATISTICAL STRENGTH

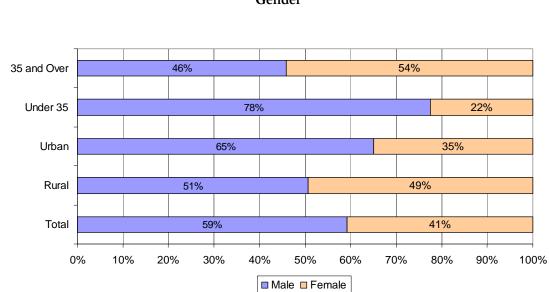
This data is in raw form and has not been adjusted by any weighting. The large amount of respondents especially males—between the ages 25 and 34 reflect the oversampling by the research team of this demographic to provide stronger statistical results.





## MALES WERE OVER REPRESENTED IN THIS SURVEY

This data is in raw form and illustrates the oversampling of males. In a normal telephone survey, female respondents are typically over represented. These disproportions, of course, are corrected in the analysis via statistical weightings.



## Exhibit 3-2 Gender

#### RESPONDENTS WERE PREDOMINATLY WHITE

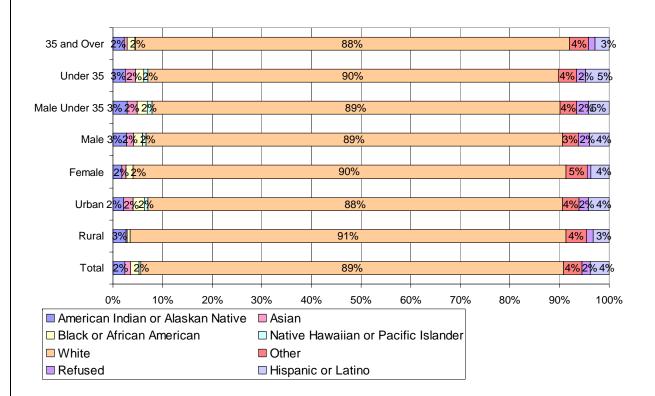
Eighty nine percent of survey respondents were white. Hispanic respondents compromised 4 percent of the total sample and were the largest minority represented.

Other minority populations each represented four percent or less of respondents.

As expected, minority populations tend to be underrepresented, which is generally true on surveys for a variety of reasons. For example, the Hispanic population was at 17 percent statewide in 2000.

## Exhibit 3-3 Race/Ethnicity

(Which of the following racial categories describes you?)

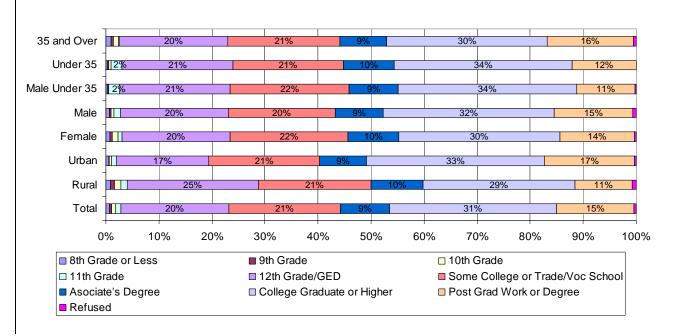


## MORE THAN THREE-QUARTERS OF THE SAMPLE HAD AT LEAST SOME COLLEGE OR TRADE SCHOOL

More than three quarters of respondents had at least some college or trade/vocational school. Urban respondents were the most likely to have completed at least some college, while rural and younger respondents were the least likely.

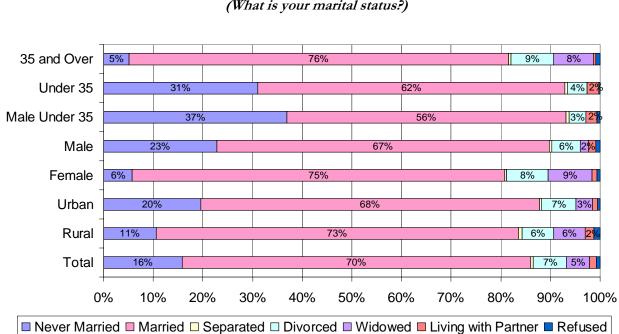
It should be noted that some proportion of the population under 35 has likely not had the time to complete a college degree, and so will skew toward lower education levels.

## Exhibit 3-4 Education (What is highest grade or year school you have completed?)



#### THE VAST MAJORITY OF RESPONDENTS ARE MARRIED OR HAVE BEEN MARRIED

Seventy percent of respondents are currently married, with another 12 percent having been married in the past. Respondents 35 and over were the most likely to be married, while on the other hand, younger respondents, especially males, were the least likely to be married.



## Exhibit 3-5 Marital Status (What is your marital status?)

## APPENDIX: SURVEY INSTRUMENT

## CDOT DUI PRE/POST-SURVEY, 2006

INTERVIEWER: When instructed to read answer choices, read all choices except "Don't Know"

## INTRODUCTION

Hello, I'm \_\_\_\_\_\_ calling for the Colorado Department of Transportation. We are conducting a study of Coloradans' driving habits and attitudes. The interview is voluntary and completely confidential. It only takes about10 minutes to complete. May I begin?

- A. In order to meet our quotas, could I speak to a man in your household who is between the ages of 18 and 34?
  - a. Respondent is the person SKIP TO Q1
  - b. Other respondent comes to phone
  - c. Respondent is not available **ARRANGE CALLBACK**
  - d. No such person. IF UNDER QUOTAS FOR GENERAL POPULATION SURVEY, ASK "Then I can conduct the survey with anyone else age 18 or older. Are you 18 or older?"
    a. Pafwad
  - e. Refused
- B. Hello, I'm \_\_\_\_\_\_ calling for the Colorado Department of Transportation. We are conducting a study of Coloradoans' driving habits and attitudes. The interview is voluntary and completely confidential. It only takes about10 minutes to complete. Could we begin now?

#### GENERAL DRIVING BACKGROUND QUESTIONS

- 1. How often do you drive a motor vehicle? Almost every day, a few days a week, a few days a month, a few days a year, or do you never drive? (READ LIST)
  - a. Almost every day
  - b. Few days a week
  - c. Few days a month
  - d. Few days a year
  - e. Never SKIP TO 3
  - f. Other (SPECIFY)
  - g. Don't know
  - h. Refused
- 2. Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck? (NOTE: IF RESPONDENT DRIVES MORE THAN ONE VEHICLE OFTEN, ASK:) "What kind of vehicle did you LAST drive?" (READ LIST)
  - a. Car
  - b. Van or minivan
  - c. Motorcycle

- d. Pickup truck
- e. Sport Utility Vehicle
- f. Other
- g. Don't know
- h. Refused

#### MOTORCYCLE QUESTIONS

I'd like to ask a few questions now about motorcycles and scooters on Colorado roads.

- 3. During the last 30 days, on how many days have you done each of the following? [READ RESPONSES, RECORD FOR EACH CATEGORY]
  - a. Ridden a motorized scooter on a public roadway.
  - b. Ridden a motorcycle of less than 900 ccs on a public roadway.
  - c. Ridden a motorcycle of 900 ccs or more on a public roadway.
  - d. Ridden a motorcycle or All-Terrain Vehicle of less than 600 ccs offroad.
  - e. Ridden a motorcycle or All-Terrain Vehicle of 600 ccs or more offroad.
- 4. I'm going to read a list of six major types of motorcycles. Please tell me if you think that the typical riders of these vehicles tend to be very safe riders, somewhat safe riders, somewhat unsafe riders, or very unsafe riders. [READ RESPONSES, RECORD FOR EACH CATEGORY]
  - a. Cruisers designed for general transportation
  - b. Motorized scooters designed for general transportation
  - c. Offroad motorcycles designed for use on trails and natural areas
  - d. Sport motorcycles designed for speed, maneuverability, and acceleration
  - e. Standard motorcycles designed for general transportation
  - f. Touring or sport-touring motorcycles designed for highway use
- 5. Compared to people who drive in vehicles such as cars, trucks, and vans, do you think motorcycle riders are: [READ RESPONSES]
  - a. Much more likely to drive safely and defensively
  - b. A little more likely to drive safely and defensively
  - c. A little less likely to drive safely and defensively
  - d. Much less likely to drive safely and defensively
  - e. There is no difference between the two groups.
- 6. When thinking about wrecks where a car and motorcycle collide, and where blame can be assigned to operator error, which of the following five statements do you think is most true? [READ RESPONSES]
  - a. It's the car driver's fault most of the time.
  - b. It's the car driver's fault more than half of the time.
  - c. Half the time it's the car driver's fault, and half the time it's the motorcyclist's fault.
  - d. It's the motorcyclist's fault more than half of the time.
  - e. It's the motorcyclist's fault most of the time.
- 7. I will now read some statements about motorcycles and motorcycle riders. For each statement please respond that you either strongly agree, somewhat agree, somewhat disagree, or strongly disagree.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Opinion
a. Motorcycles are a safe means of transportation.					
b. Motorcycle riders operate their bikes in a safe manner.					
c. I am nervous when driving near a motorcyclist					
d. Motorcycle riders receive the training they need to drive safely.					
e. I have trouble seeing motorcycle riders on the road					

8. How important are each of the following elements in ensuring the safety of motorcycles on Colorado roadways? Please answer high value, moderate value, low value, or no value.

TT 1	3 6 1	-		2.7
Hıgh	Moderate	Low	No	No
Value	Value	Value	Value	Opinion
, and	, unde	, arao	, arac	opinion
	High Value	$\mathbf{O}$	0	0

- 9. Colorado does not currently have a law requiring motorcycle riders and their passengers to wear a helmet while riding on roadways. Would you:
  - a. Strongly support a helmet law?
  - b. Somewhat support a helmet law?
  - c. Somewhat oppose a helmet law?
  - d. Strongly oppose a helmet law?
  - e. Have no opinion on the issue?

## GENERAL TRAFFIC ENFORCEMENT QUESTIONS

I'd like to ask some questions now about traffic law enforcement and traffic safety.

- 10. In thinking about the past 30 days, do you think that the enforcement of traffic laws has: [READ OPTIONS]
  - a. Increased a lot
  - b. Increased a little
  - c. Remained about the same
  - d. Decreased a little
  - e. Decreased a lot
  - f. Don't Know/No Opinion
- 11. Do you recall hearing or seeing any of the following slogans in the past 30 days? Please answer yes or no.

## READ LIST AND MULTIPLE RECORD

- a. Friends don't let friends drive drunk
- b. Click it or ticket
- c. Buckle Up America
- d. You drink, you drive, you lose
- e. Over the Limit. Under Arrest.
- f. Make a pact, make a plan
- g. Buckle Up or Pay the Price
- h. Refused
- i. None of the above [SKIP TO Q13]

## 12. Where did you see or hear these messages? [DO NOT READ--MULTIPLE RESPONSE]

- a. TV
- b. Radio
- c. Friend/Relative
- d. Newspaper
- e. Personal observation/on the road
- f. Billboard/signs
- g. I'm a police officer/judge
- h. Electronic Road Sign
- i. Other (specify\_\_\_\_)
- j. Don't know
- k. Refused
- 13. [IF PREVIOUS = a OR b.] Was the (tv/radio) message a commercial (or advertisement), was it part of a news program, or was it something else? **CHECK ALLTHAT APPLY** 
  - a. Commercial/Advertisement/
  - b. Public Service Announcement
  - c. News story/news program
  - d. Something else (specify): \_\_\_\_\_
  - e. Don't know
  - f. Refused

#### GENERAL ALCOHOL USE QUESTIONS

Now I'd like to some questions about alcohol use and drinking and driving. All responses are voluntary on your part. We'll begin by asking about alcohol use.

- 14. During the past 30 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?
  - a. Yes
  - b. No **SKIP TO Q20**
  - c. (VOL) Don't Know SKIP TO Q20
  - d. (VOL) Refused. SKIP TO Q20
- 15. How many days out of the past 30 days did you drink alcoholic beverages? \_\_\_\_\_(Range=0-30) DON'T KNOW=31 REFUSED=32
- 16. In the past month, on how many days did you have 5 or more drinks in one sitting? OPEN ENDED. RECORD RESPONSE.
- 17. Compared to other months during the past year, would you say that the number of days you drove after drinking any amount of alcohol was lower than usual, higher than usual or the same as usual during the past 30 days?
  - a. Higher Than Usual
  - b. Lower Than Usual
  - c. Same as Usual
  - d. (VOL) Don't Know
  - e. (VOL) Refused
- 18. [IF LOWER] What caused the number of days that you drove after drinking to decrease? DO NOT READ. MULTIPLE RESPONSE.
  - a. Noticed increased enforcement
  - b. News stories
  - c. Friends
  - d. Family
  - e. Media Advertisements
  - f. Drank less
  - g. Better planning beforehand
  - h. Used mass transportation
  - i. Other \_
  - j. Don't Know
  - k. Refused
- 19. How many drinks would you feel comfortable having within a 2-hour time period and still feel safe to drive a vehicle?

\_\_\_\_Drinks (consider a drink as either 1 beer, 1 glass of wine or 1 shot of liquor).

- 20. Are you familiar with the term 'blood alcohol content'?
  - a. Yes
  - b. No **SKIP TO 22**
  - c. Refused **SKIP TO 22**
- 21. What is the lowest blood alcohol content for which you can be arrested for driving under the influence? (Record verbatim, with no coaching. Record responses such as "oh two' or "one five' as .02 and .15.)

#### ENFORCEMENT

- 22. Suppose you drove a motor vehicle after drinking alcohol, and the amount of alcohol in your body was more than what the law allows for drivers. How likely is it that the police would stop you? Would the police be
  - a. Very Likely To Stop You
  - b. Somewhat Likely To Stop You,
  - c. Somewhat Unlikely To Stop You; or
  - d. Very Unlikely To Stop
  - e. (VOL) Don't Know
  - f. (VOL) Refused
- 23. In the past 30 days, have you seen or heard anything about police setting up increased enforcement or DUI checkpoints to catch drivers who were driving while under the influence of alcohol or driving drunk?
  - a. Yesb. Noc. Don't knowd. Refused
- 24. [IF YES TO PREVIOUS] Where did you see or hear these messages? [DO NOT READ--MULTIPLE RESPONSE]
  - a. TV
  - b. Radio
  - c. Friend/Relative
  - d. Newspaper
  - e. Personal observation/on the road
  - f. Billboard/signs
  - g. I'm a police officer/judge
  - h. Electronic Road Sign
  - i. Other (specify\_\_\_\_)
  - j. Don't know
  - k. Refused

- 25. In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement such as a DUI checkpoint set up to catch drivers who were driving while under the influence of alcohol or driving drunk?
  - a. Yes b. No c. Don't know d. Refused
- 26. What do you think are the consequences of being arrested for drinking and driving? [DO NOT READ. ALLOW MULTIPLE RESPONSES. RECORD IN ORDER MENTIONED. PROBE ONCE FOR ADDITIONAL RESPONSES WITH 'ANYTHING ELSE?' WHEN THE RESPONDENT STOPS TALKING.]

**Ticket/Fines/Court Fines** Probation supervision fee/Community Supervision fee Fee to get license back Victim Assistance Fund/Law Enforcement Assistance Fund/Victim Compensation Fund Alcohol Evaluation Restitution cost for chemical testing/urine tests Lawyer Insurance increase/go up Bail Alcohol classes/alcohol education classes Lost time from work/lose job Tow car/impound car/car storage fee Driver's license retesting Brain injury surcharge Fee for getting a new license Victim Impact Panel assessment Jail Alternate transportation Lose license/have to get rides to work **Embarrass** family Shame Other [SPECIFY] (VOL) Don't know (VOL) Refused

27. How much do you think a DUI would cost, if you added up all the expenses?

\_\_\_\_\_Range \$0 to \$99,997

## (VOL) Don't know ... DK (VOL) Refused .... Ref

#### **BELIEFS AND OPINIONS**

- 28. In your opinion, should Colorado enforce drinking and driving laws more strictly, less strictly or the same as they do now?
  - a.More strictlyb.Samec.Less strictlyd.Don't knowe.Refused

a.

29. How strongly do you agree or disagree with the following statements? Please respond that you either strongly agree, somewhat agree, somewhat disagree, or strongly disagree.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Opinion
a. Driving after drinking is a personal decision and should not be illegal.					
b. One drink does not harm a person's driving ability.					
c. Everyone drives once in a while after they've drunk a little too much, and that's okay.					
d. People should not be allowed to drive if they have been drinking any alcohol at all.					

#### DEMOGRAPHICS

Now, I need to ask you some basic information about you and your household. Again, I would like to remind you that all of your responses are completely confidential.

- 30. Have you ever received a DUI/DWAI?
  - a. Yes
  - b. No
- 31. What is your age?
  - a. Age\_\_\_\_
  - b. Refused
- 32. Which of the following racial categories describes you? You may select more than one. **[READ** LIST--MULTIPLE RECORD]
  - a. American Indian or Alaskan Native
  - b. Asian
  - c. Black or African American

- d. Hispanic
- e. Native Hawaiian or other Pacific Islander
- f. White
- g. Other(SPECIFY) \_\_\_\_\_
- h. Refused

## 33. What is the highest grade or year of school you completed?

- a. 8th grade or less
- b. 9th grade
- c. 10th grade
- d. 11th grad
- e. 12th grade/GED
- f. Some college or trade/vocational school
- g. Associate's Degree
- h. College graduate or higher
- i. Post-graduate work or degree (Master's Degree, Ph.D., or professional degrees such as law or medicine
- j. Refused
- 34. What is your current Marital Status?
  - a. Never Married
  - b. Married
  - c. Separated
  - d. Divorced
  - e. Widowed
  - f. Living with a partner

## 35. FROM OBSERVATION, ENTER SEX OF RESPONDENT

- a. Male
- b. Female