New Mexico
Sentencing Commission

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Bias Based Policing in Four New Mexico Counties:
Final Report

Introduction

In 2007, the New Mexico Legislature authorized funding for the New Mexico Sentencing Commission (NMSC) to conduct a statewide study of bias-based policing in New Mexico. The 2007 funding enabled NMSC to survey two New Mexico counties (Bernalillo County and Lea County) and review legal complaints against law enforcement agencies in those counties. In addition to the survey and legal review, NMSC completed a literature review of bias-based policing. Funding provided in 2008 allowed the NMSC to survey residents in Curry County and McKinley County. This study is important because it describes a relatively unexplored topic in New Mexico. Studies on racial profiling and police bias have been done around the nation, but until now driving behaviors and driver-police contacts for the state of New Mexico have not been studied. Researching driving behaviors and driver-police interactions is a base for further understanding the issue of racial profiling.

This report includes a brief literature review, an explanation of our research methodology, and a description of the complete findings from the two surveys. The results include a description of the driving behavior for drivers in the four counties surveyed (Bernalillo, Lea, Curry, and McKinley) in New Mexico. In addition to comparing descriptive information from the four counties we analyze data we collected from drivers who were stopped.

Literature Review

Introduction

Bias-based policing has received considerable attention from the media, academics, politicians, and government organizations in recent years.

Despite substantial public concern over the issue, much of the academic and government research on this topic fails to sufficiently explain why this occurs while implying or claiming racial discrimination is the primary cause. Racial bias can occur at various stages in the police-citizen interaction. Bias may be present in the decision to stop, search, warn, cite, arrest, or use force with a citizen.

Methodology Strategies

The literature contains considerable variation in data collection methods, the data items collected, ways to establish a baseline or benchmark to compare apparently disparate treatment, and conceptions of the dependent variable.

Data Collection

Police Stop Forms

One of the most common data collection methods is the use of stop forms by police. As of 2002, more than 400 police agencies were collecting stop data and 14 states had mandated the practice (McMahon 2002). While there is some variation in the items collected, most stop forms include information regarding the police organization; the time, place, and reason for the stop; demographic information (age, race, gender) of the officer and the stopped person(s); whether a search was conducted; the result of the search if it was conducted; and the disposition of the stop. Some (Liederbach et al. 2007) suggest the observed demeanor of the stopped person(s), whether the vehicle is for private or commercial purposes, and the condition of the vehicle should be included.

Survey

Another popular data collection method is the use of surveys. Currently, the federal Bureau of Justice Statistics (BJS) conducts surveys every 2-3 years on police-citizen contact. Charles et al. (2004) adapted the

BJS survey for a study in Virginia. A survey was also conducted in North Carolina in 2000(Smith et al. 2003).

Surveys provide a number of benefits. Perhaps the greatest advantage of this method is that it allows the researcher to account for more variables. As noted above, stop forms tend to include data regarding the police organization, the time, place, and reason for the stop, demographic information (age, race, gender) of the officer and the stopped person(s), whether a search was conducted, the results of the search if conducted, and the disposition of the stop. Additionally, with a survey driver behaviors can be measured including risky driving habits, methods used to avoid being pulled over, the number of miles driven, and geographical driving patterns. Surveys can be used to establish differences in driving behaviors across racial groups Also, other variables such as socio-economic status and car type can be accounted for with the survey method.

This method is not without drawbacks. Some research suggests that minorities tend to under-report socially undesirable behaviors at higher rates than whites (Tomaskovic-Devey et al. 2006). In a reverse record check of North Carolina drivers who had received a citation in the previous 12 month period, Tomaskovic-Devey et al. (ibid) found that African Americans admitted to being stopped 71% of the time and whites admitted to being stopped 77% of the time. Additionally, surveys can be expensive and time consuming.

Establishing a Baseline

One of the most important and vexing issues in racial profiling research is establishing a comparison group, or baseline, to contrast the rates of police action against minorities. This process can be both costly and time consuming.

One common, but inadequate method is the use of aggregate data from the U.S. Census Bureau to establish the proportion of the area that is minority, and then comparing that with stop rates and other police actions (Cordner 2001; Gaines 2003; Smith & Petrocelli 2001). This method has several problems. First, the U.S. Census Bureau only conducts a census every ten years. Second, different racial groups may not drive; much less break the law, in numbers proportionate to their representation in the general population. Third, Gaines (2003) has noted minorities tend to be underreported in the census data.

Another method is to compare police action rates to the composition of the driving age population from either the records of the Motor Vehicle Department or the National Personal Transportation Survey (Engel & Calnon 2004). While this is a better method because it distinguishes between those more likely to drive and those less likely to drive, it fails to consider possible disparities in offense rates.

Another method is the use of cameras (Lange 2005). One researcher (ibid) used cameras that were triggered by radar when a driver was 15 M.P.H. over the speed limit, a speed at which the police in the jurisdiction indicated they would be very likely to stop the driver. Additionally, the cameras were randomly triggered at different times. The photos were subsequently examined by a panel of research assistants to determine the race of the drivers.

Another direct observation method was to simply drive a car full of research assistants at the speed limit, or slightly above it, and observe the race of drivers that pass by (Meehan & Ponder 2002; Smith et al. 2003). In addition, in one study (Smith et al. 2003) the speed of the driver was estimated by measuring the time it took the passing vehicle to pass from the rear to the front bumper of the observation vehicle and apply a mathematical formula to determine the time and speed.

Smith et al. (2003) also suggest observing not-at-fault accident rates will provide a representative sample of the driving population for a particular area. Assuming all people are at the same risk of being in an accident for which they are not at fault, the demographic composition of not-at-fault drivers should reflect the driving population. The problem with using this method is similar to others in that it can provide insight into the driving population but not the offending population. Also, as the geographical unit of analysis gets smaller, so does the number of accidents. With fewer accidents, there is less certainty that the not-at-fault accidents provide a ‘natural’ random sample.

Another method employed recently by Riley et al. (2005) and Grogger & Ridgeway (2006), is called the ‘veil of darkness.’ With this method, stop rates for different racial groups during the day are compared with those made after dark. The underlying assumption is that for an officer to employ racial bias, he/she must be able to see the race of the driver or passenger(s). Therefore, the stop rates in the evening will not be bias driven. This method rests on a number of other assumptions. First, driving patterns and the racial distribution of drivers is the same during the day and after dark. Second, driving behavior by race is the same during the day and the night. Third, exposure to police by race is the same

during the day as after dark. Each of these assumptions can be controlled for statistically to varying degrees of certainty. Additionally, it is possible that police officers could use vehicle type, condition, or other characteristics as a proxy for race.

Finally, as noted above, a baseline of violators can be established using a survey. If the survey includes information on previous citations and driving behavior for a given population, a picture of the composition of the offending population can be established. However, as stated above, minorities tend to underreport socially unfavorable behaviors (Tomaskovic-Devey et al. 2006).

Previous Findings

Stops

In their examination of data from the Police-Public Contact Survey, 1999 (conducted by the federal Department of Justice) Lundman & Kaufman (2003) found African Americans were the most likely to be stopped followed by whites, Hispanics, and then all "other" races.

Examining survey data from North Carolina, Warren et al. (2006) found race was a significant predictor of stops by local police but not by Highway patrol officers.

In a study on racial bias in policing in North Carolina, Smith et al. (2003) found, based on stop form data, considerable disparity in stop rates existed along racial lines but that 60%-70% of the variation could be predicted by a number of contextual factors. From survey data (the same used by Warren et al. 2006) the researchers found African Americans reported more stops than whites, African Americans reported twice as many stops as whites by local police, and African Americans who reported more risky driving behaviors were more likely to be stopped.

In contrast, a number or researchers have found race was not a good predictor of stops. When controlling for driver behavior, Lange (2005) found African Americans were not stopped disproportionately to the percentage of the violating population they represented (on the New Jersey Turnpike). Hispanics, however, were over-represented among stops. Smith & Petrocelli (2001), in an examination of data from stop forms completed by the Richmond, VA police department found race was not a good predictor of stop rates. Additionally, Withrow (2004) found race was not the best predictor of stops.

Researchers have identified other important independent variables in predicting stop rates. One is the driver being younger (Cordner et al. 2002; Lundman & Kaufmann 2003; Warren et al. 2006). Another is the driver being male (Cordner 2002; Lundman & Kaufmann 2003; Smith et al. 2003; Warren et al. 2006). More stops were made during the late evening/early morning hours (Smith & Petrocelli 2001). Another important independent variable is the driver being a minority in the area regardless of race (Meehan & Ponder 2002; Withrow 2004; Cox et al. 2001). Driving behavior is also important (Lange 2005; Smith et al. 2003; Warren et al. 2006). Additionally, Lundman & Kaufmann (2003) found whether the driver had previous contact with the police, a smaller city, and the driver being of a higher socio-economic class to be important independent variables. Smith & Petrocelli (2006) found younger male officers were more likely to stop minorities at a disparate level (but this may have been because younger male officers were deployed in higher crime areas which may have been higher percentage minority). Also, a number of studies found officer race is not important in predicting disparate stop rates.

Citations, Arrests, and the Use of Force

Engel & Calnon (2004) found men, younger drivers, African Americans, Hispanics, drivers of races other than white, the driver having had fewer previous stops, and driving with fewer passengers to be positively associated with the issuance of a citation. African Americans were 47% more likely than whites to be issued a citation and Hispanics were 82% more likely than whites to be issued a citation. Ridgeway (2006) found minority drivers were treated equitably with regard to the issuance of a citation.

Males, younger drivers, African Americans, lower and middle class drivers and cases in which contraband was found were most likely to report being arrested in a study by Engel & Calnon (2004). African Americans were 79% more likely to be arrested than whites. Those pulled over for reasons other than speeding were more likely to be arrested.

Engel & Calnon (2004) found that men, younger drivers, lower and middle income drivers, and cases in which contraband was found were more likely to have had force used against them. African Americans were 2.1 times more likely to have force used against them than whites. Those pulled over for anything other than speeding were more likely to have had force used against them (ibid).

METHODOLOGY

In the first phase, we administered a survey in April 2008 to document the driving behavior, stop rates, and driver-police interactions among drivers in Bernalillo and Lea Counties, New Mexico. In the second phase, a similar survey was administered from late August 2008 to early October 2008 among a smaller sample of drivers in Curry and McKinley Counties.

The University of New Mexico Institute for Public Policy (IPP) collected the data for the survey using a computer assisted telephone interviewing (CATI) system and a list of random telephone numbers from the four counties. Before conducting the survey, we met with staff from IPP and tested the sequence and wording of survey questions and crafted the survey instrument using the literature review as a guide.

From the literature review we determined the most effective method for collecting information from the greatest number of individuals would be to conduct a random survey of drivers. A survey of drivers would provide a relatively unbiased baseline of driving behaviors and we would be able to collect information from drivers who had a recent traffic stop contact (within the last 12 months) with police. Using our survey, we acquired demographic information from all survey respondents, i.e., age, gender, education, ethnicity, and income. We also collected information related to the respondent's driving experience and behavior. Additionally, we asked drivers about the vehicle they typically drive. We asked "stopped drivers" about their experience with the police which allowed us to account for risky driving habits, the number of miles driven, and other behaviors we wished to examine. This information will allow us to establish differences in driving behaviors across racial groups which can possibly help explain disparate stop and search rates. We hope to create a profile of the "stopped" population for each of the four counties in our surveys. The Survey Instrument is attached to this document as Appendix E.

In the first phase, 2,412 respondents were surveyed with 2,294 completing the survey, a 95.1% completion rate. Approximately 57.4% of all the calls were to drivers in Bernalillo County (1,384) and 42.6% (1,028) to Lea County drivers.

In the second phase, we used a stratified sampling method to survey a larger percentage of stopped drivers. This common sampling technique, allowed us to sample 400 drivers in each county to obtain valid baseline information about the drivers. Once these numbers were reached in each county, only drivers who had been stopped in the past 12 months were surveyed. In this way, we were able to increase the number of drivers in our sample who had been stopped.

In the second phase, IPP interviewed 957 respondents with 907 completing the survey, a 94.8% completion rate, where 838 calls were completed before IPP started using the stopped screener. Of those completed interviews before the screener was applied, approximately 53% (442) were from Curry County and 47% (395) from McKinley County. A little less than 86% (60) of screened respondents who completed the survey were from McKinley County and slightly more than 14% (10) were from Curry County.

In total we completed 3,201 surveys of drivers in Bernalillo County, Lea County, McKinley County, and Curry County. Bernalillo accounted for the largest number (1,319) and percentage of surveys (41.2%), followed by Lea County with 975 surveys (30.1%), McKinley County with 455 surveys (14.2%), and Curry County with 452 surveys (14.1%).

Because the funding amount was smaller for the second survey of Curry and McKinley counties the total percent of completed surveys for these two counties is lower. For each county surveyed we were able to collect a sufficiently large sample of surveys for the analyses (Table 1).

RESULTS

In this section, we report the prevalence of racial profiling at different points during traffic stops in Bernalillo, Lea, Curry, and McKinley Counties. First, we analyze how representative our sample is by comparing age and gender from our sample to New Mexico Motor Vehicle Division (MVD) data, and race/ethnicity from our sample to U.S. Census data. Second, we describe the drivers in our sample, including the characteristics of their vehicles, and their driving habits and behaviors. Next, we analyze whether or not drivers who were stopped in the last 12 months are different from those who were not stopped. Then, we use a much more statistically sophisticated technique, logistic regression, to analyze what variables best predict whether or not a driver is likely to be stopped. We describe the result of the stops, reasons for the stop, and discuss searches, arrests, and the use of force.

SAMPLE COMPARED TO POPULATION

In Tables 1 and 2, the gender and age of the respondents who completed the survey (the sample) is compared to MVD data (the population of drivers). In short, the study sample is not representative of the driving population.

Table 1. Male and Female Percentages for All Four Counties (Bernalillo, Curry, Lea, and McKinley) From MVD Data and Survey Data

	All Four Counties	
Gender	MVD Data (%)	Survey Data (%)
Male	49.3	39.0
Female	50.7	61.0

Table 1 notes there are 10% fewer males in the sample compared to the population. Women are over-sampled, which could potentially lead to misleading results. Due to the size of the sample we do not believe this is likely. The only age category not over-sampled or under sampled is the "40 thru 49" group. Table 2 exhibits a pattern of under sampling in age groups younger than the "40 thru 49" group and over sampling in those age groups over this age category. There is an almost 14% difference between the sample and population for the "18 thru 29" age category.[1] This discrepancy can be attributed to coverage and non-response errors in phone surveys leading to disproportionately more completed surveys from females and the elderly (Groves 1990).
Table 3 compares the race/ethnicity of those who completed the survey with the Census percentages in the four counties. We used the Census to compare race/ethnicity because it is not measured in the MVD data. This table is useful because it provides a general idea of the racial/ethnic make-up of each of the four counties. However, our survey selected out non-drivers, whereas the Census data includes non-drivers.

The survey data does not match MVD or U.S. Census data, but as mentioned above the phone survey was the best method for our study considering stop forms are not in widespread use in New Mexico and time and financial constraints.

Table 2. Age Category Percentages for All Four Counties (Bernalillo, Curry, Lea, and McKinley) From MVD Data and Survey Data

	All Four Counties	
Age Categories	MVD Data (%)	Survey Data (%)
18 Thru 29	22.4	8.5
30 Thru 39	19.0	14.2
40 Thru 49	19.2	19.0
50 Thru 59	18.5	25.3
60 Thru 69	12.1	17.6
70 Thru High	8.8	15.4

Further Demographic Frequencies of Sample

We surveyed drivers in Lea and Bernalillo County to provide a baseline of information about driving habits, car characteristics, and driving behaviors. There were not enough respondents to the first survey who had been stopped to complete a detailed analysis. With the data from the Phase Two survey, we obtained a large enough sample to conduct more detailed and sophisticated analyses. We do not present our complete range of tables in the narrative of this report, but include them in the appendices.

In Appendix B, we present a set of tables, which briefly report driver characteristics and behaviors. To summarize, Lea County drivers reported driving the most miles per month and year, while Curry County drivers drove the fewest miles per month and year. Almost 70% of drivers in all four counties had a car that was bought in the year 2000 or later. The most common

Table 3. Race/Ethnicity Percentages in Bernalillo, Curry, Lea, and McKinley Counties From Census Data and Survey Data

	Bernalillo County		Curry County		Lea County		McKinley County	
Race/Ethnicity	Census Data (%)	Survey Data (%)	Census Data (%)	Survey Data (%)	Census Data (%)	Survey Data (%)	Census Data (%)	Survey Data (%)
White	45.1%	70.3%	53.2%	76.8%	47.9%	79.4%	12.3%	46.4%
African-American	3.6%	2.1%	7.2%	4.9%	5.0%	3.2%	0.9%	1.4%
Asian	2.2%	1.0%	2.8%	0.5%	0.5%	0.3%	0.7%	0.9%
Hispanic	44.9%	24.2%	34.9%	15.9%	45.6%	15.2%	13.0%	16.8%
Native American	4.8%	2.4%	1.5%	2.0%	1.3%	1.9%	74.5%	34.4%

Table 4. Stop Rates for All Drivers, Males, Females, Whites, African Americans, Hispanics, and Native Americans For All Counties, Bernalillo, Curry, Lea, and McKinley Counties.

	All Counties	Bernalillo County	Curry County	Lea County	McKinley County
All Drivers	14.7%	10.6%	17.6%	16.7%	20.2%
Gender					
Males	17.9%	12.0%	22.6%	20.7%	25.5%
Females	12.6%	9.7%	14.2%	14.1%	16.8%
Race/Ethnicity					
White	13.9%	10.2%	15.4%	16.0%	20.7%
African American	23.1%	16.0%	* 33.3%	** 24.1%	16.7%
Hispanic	12.9%	10.9%	14.3%	18.1%	9.1%
Native American*	20.7%	17.2%	12.5%	23.5%	21.6%

Notes: * 18 respondents. ** 29 respondents.

type of vehicle was a car. About a third of all drivers in the four counties had tinted windows, but other customizations (including engine, exhaust, hydraulics, etc.) were rare in all counties. Additionally, about 90% of all drivers reported the mechanical condition of their vehicle as being either "Good" or "Excellent". Similarly, the vehicle appearance was rated "High" by about 80% of respondents.

Driving behaviors including use of turn signals, seatbelt use, rolling through stop signs, etc., were reported as generally good by the respondents in all four counties. This rating may be partially a result of respondents reporting better driving behavior than they actually displayed on the road. In some analyses we used techniques to help control for this potential problem. Additionally, this social desirability is not a problem in the questions asked about speeding behavior. About 40% of respondents reported driving the speed limit on the Interstate, while about a third reported driving over the speed limit. On state highways, a majority of respondents (about 60%) reported driving over the speed limit, while only about a third reported driving the speed limit. Speeding behavior was the opposite on city streets compared to state highways, with a little over 60% driving the speed limit and a little under 30% driving above the speed limit.

Stops – How Stopped Drivers Are Different

The central research question underlying studies about racial profiling is whether or not stopped and non-stopped drivers are different. Table 4 shows stop rates for different groups (gender and race/ethnicity) in our study, as an initial step towards answering this question. More details are provided in Tables 10 through 13 in Appendix C of this report.

Table 4 shows the stop prevalence for different groups of drivers for all counties together and separately. This table displays the baseline stop rates for the different groups. For all drivers in all four counties the average stop rate was 14.7%. Specifically, the stop rate was as low as 10.6% in Bernalillo County and as high as 20.2% in McKinley County. Males were stopped at a higher rate than females in the four counties studied.

There is no clear pattern in the stop rates for the four racial/ethnic groups. For all four counties combined, Hispanics had the lowest stop rate (12.9%) and African-Americans had the highest stop rate (23.1%). However, when the counties were analyzed separately, this patterns did not hold. African-Americans had the highest stop rates in Curry and Lea Counties, and Native Americans had the highest rates in Bernalillo and McKinley Counties. Whites had the lowest stop rate in Bernalillo County and Lea County and Hispanics had the lowest rate in Curry and McKinley Counties. The most noticeable numbers in Table 4 are the stop rates for African-Americans in Curry and Lea counties (33.3% and 24.1% respectively). However, because there were few African-American respondents in each of these counties, the findings are not generalizable to the driving population. Later in the report we use a more sophisticated statistical technique to better understand if these rates actually mean racial profiling is occurring in Curry and Lea. There is not enough evidence in Table 4 to make a definitive conclusion about the differences in stop rates between the different groups.

Table 9 in Appendix C shows the variables that are significantly different in either all or one of the four counties between stopped and non-stopped drivers. This table shows the variable types, driving habits, and driving behavior that are significantly different between stopped and non-stopped drivers. Driving habits (years driven, driving reasons, miles driven per year, etc.) are significantly different between drivers who were

stopped and those who were not stopped; where drivers with more experience were less likely to be stopped and drivers who were on the road more miles per year were more likely to be stopped. Additionally, there is evidence that police stopped drivers because of their behavior; where those drivers who were consistently breaking traffic laws (e.g. speeding through yellow lights, not wearing seatbelts, etc.) were more likely to be stopped. The percentages of three ethnic groups, African-Americans, Native Americans, and Hispanics, were significantly different between stopped and non-stopped drivers. This finding is not evidence that racial profiling is occurring in any of these four counties because these tests are not controlling for other factors which may be influencing these relationships. In the next section, we will control for multiple variables, so it is possible to see the effects of each characteristic individually.

Stopped In the Last 12 Months

In this section, we used logistic regression to analyze the effects of multiple variables, i.e., demographics, vehicle characteristics, and driving behaviors, on the odds of being stopped in the last twelve months. Using logistic regression it is possible to profile the likelihood of being stopped within the last twelve months based on the relevant explanatory variables. Logistic regression helps us understand each explanatory variable's effect on the likelihood of being stopped, while controlling for all other variables.

Before describing the results, we provide a brief discussion on interpreting the results in Table 5. The "P-Values" column describes whether or not each explanatory variable is statistically important. In statistical analysis, there are generally accepted significance levels represented by the p-values 0.05, 0.01, and 0.001. The smaller the p-value, the more likely the explanatory variable affects the odds of being stopped in the last twelve months. The "Odds Ratio" column displays the effect of each explanatory variable on the likelihood of being stopped in the last twelve months. An odds ratio less than one, decrease the odds of being stopped in the last twelve months, while an odds ratio greater than one, increases the likelihood of being stopped in the last twelve months. An odds ratio of two means the odds of being stopped in the last twelve months would be double. Some explanatory variables, groupings of dichotomous variables, are interpreted differently than others in the analysis. These groupings can be seen in Table 5 with bolded headings: Education, Ethnicity/Race, County of Residence, and Type of Vehicle. These variables are different because they are analyzed as a group instead of as a single variable like the others in the analysis, where each of these groupings has a reference variable that is left out of the model; all of the variables in the group are analyzed against the reference variable. For example, all of the education variables (less than high school degree, some college, bachelor degree, and more than a bachelor degree) are analyzed against the reference category (high school degree/GED).

Table 5 models the probability of being stopped in the last twelve months. The explanatory variables used in the model were included because of theoretical importance or statistical importance. The most important part of the analysis is how increasing or decreasing values of the explanatory variables affects the probability of being stopped in the last twelve months.

In general, the logistic regression model presents evidence that county, type of vehicle, driving behavior, and education explain the probability of being stopped in the last twelve months. All of the education categories except "Less than High School Degree" are significantly different than the reference group "High School Degree/ GED". Additionally, all three of the significant categories have an odds ratio greater than one, which indicates those groupings are more likely than the reference category to be stopped in the last twelve months. Males were more likely than females to be stopped, but this difference was not statistically significant. Age was statistically significant with an odds ratio of less than one. As drivers got older they were less likely to be stopped. Income is not statistically significant and had an odds ratio below one.
Being African-American was weakly statistically significant in the model. No other racial/ethnic group was significant. This finding provides limited evidence that race/ethnicity specifically being African-American was related to being stopped and different than the reference group "White". Native American had an odds ratio greater than one and Hispanics were slightly less than one, but these differences were not statistically significant.

All three counties, Curry, Lea, and McKinley, were highly significant compared to Bernalillo County. Additionally, all three explanatory variables had high odds ratios with McKinley County having the second highest ratio in the model at 2.03. This means in the last twelve months residents in McKinley County were slightly more than twice as likely to be stopped compared to residents in Bernalillo County. The only reason for driving that is statistically significant is "To Visit A Friend", meaning in the last twelve months if you drove to visit a friend, you were significantly more likely to be stopped in the last twelve months.

Table 5. Logistic Regression Using the Following Variables to Explain Being Stopped in the Last 12 Months (Dependent Variable).

Variables		Odds Ratio	P-Values
Education			
Less than High School Degree		1.079	0.826
Some College	*	1.506	0.018
Bachelor Degree	***	1.963	0.000
More than a Bachelor Degree	**	1.921	0.003
Male		1.187	0.185
Age	***	0.979	0.000
Income		0.966	0.135
Ethnicity/Race (Dichotomous Variables)			
African-American		1.681	0.088
Hispanic		0.916	0.589
Native American		1.336	0.248
County of Residence (Dichotomous Variables)			
Lea County	***	1.910	0.000
Curry County	***	1.982	0.000
McKinley County	***	2.029	0.000
Reasons for Driving in The Last Week			
To Work		1.018	0.911
To Go Shopping		0.817	0.269
To Visit A Friend	**	1.388	0.008
For Work		0.861	0.269
Type of Vehicle (Dichotomous Variables)			
Car	**	1.932	0.009
Truck	**	2.055	0.007
SUV	**	1.940	0.014
Age of Vehicle (in Days)		0.715	0.937
Vehicle Appearance		0.938	0.235
Number of Vehicle Customizations		1.016	0.908
Vehicles with Tinted Windows	***	0.651	0.001
Miles Driven per Day	**	1.003	0.002
Speeding Behavior	***	1.089	0.000
Driving Behavior	***	1.253	0.000
Constant	***	0.030	0.000

Notes: * p < .05, ** p < .01, *** p < .001.
Reference Variables in Parentheses for the Following Categories: Education (High School Degree/GED), Ethnicity/Race (White), County (Bernalillo), and Type of Vehicle (Other Type of Vehicle; e.g. Motorcycle, Van, Etc.)
A control variable "Phase2Screener" has been omitted from this table to increase the readability of the table, but the full model can be seen as Table 14 in Appendix C.

The odds ratios of the three types of vehicles in the model, Cars, Trucks, and SUVs, were each significantly different than the reference group, "Other Type of Vehicle". "Trucks" had the highest odds ratio in the model. Age of vehicle, vehicle appearance, and number of vehicle customizations all had insignificant odds ratios. Vehicles with tinted windows had a significant odds ratio that was below one, where vehicles with tinted windows were significantly less likely to be stopped in the last twelve months. Additionally, the explanatory variable, miles driven per day, also had a significant odds ratio with an odds ratio slightly above one. Speeding behavior and driving behavior had highly significant odds ratios that were above one. The more one was speeding or driving badly, the more likely they were to be stopped.

In summary, the logistic regression model presented in Table 5 provides evidence about the reasons for being stopped in the last twelve months. A little over half of the explanatory variables in the model (15 out of 27) were statistically significant. These statistically significant variables were county of residence, speeding and driving behaviors, driving to visit a friend in the last week, type of vehicle, vehicles with tinted windows, miles driven per day, education, and age. Being African-American is weakly statistically significant in the model. No other racial/ethnic group was significant. This finding provides limited evidence that race/ethnicity specifically being African-American was related to being stopped. While this is true the most statistically significant explanatory variables were county of residence, type of vehicle, and speeding and driving behaviors.

Stop Reasons and Results

There are many points during police contacts with individuals when racial profiling could occur, including the reason for and the result of the stop. In Tables 6 and 7, a preliminary analysis of data collected on the reasons and results of stops is presented. While there is some potential for more sophisticated data analyses of the limited data regarding stops, time and funding constraints limited our ability to fully explore whether or not racial profiling occurred at these points during stops.

Table 6 is a cross tabulation of respondents race/ethnicity by the reported reason for being stopped. A little more than 50% of respondents report being stopped for "Speeding". The rates at which the different race/ethnicities were stopped were similar, with a few exceptions. First, Native Americans were stopped at "DWI Checkpoints" at a higher rate than any other racial/ethnic group. African Americans reported being stopped for "Speeding" at a much lower rate (35.0%) than the other race/ethnicities (around 50%). Native Americans reported being stopped for "Moving Violations" at a slightly lower rate (7%) than Hispanics and Whites (around 10%), while African Americans reported a higher rate (15%). Finally, African Americans reported being stopped for "Other Reasons" at a higher rate than all other races. With the very small sample size (only twenty stopped African American respondents)

Table 6. Respondents Race/Ethnicity by Reported Reason For Being Stopped

Stop Reason		Respondents Reported Race/Ethnicity				
		White	African American	Hispanic	Native American	Total
DWI Checkpoint	Count	40	1	5	11	57
	Percent	12.5%	5.0%	6.3%	19.3%	12.0%
Speeding	Count	172	7	46	29	254
	Percent	53.8%	35.0%	58.2%	50.9%	53.4%
Moving Viol.	Count	38	3	8	4	53
	Percent	11.9%	15.0%	10.1%	7.0%	11.1%
Non-Moving Viol.	Count	49	3	14	10	76
	Percent	15.3%	15.0%	17.7%	17.5%	16.0%
Other Reasons	Count	21	6	6	3	36
	Percent	6.6%	30.0%	7.6%	5.3%	7.6%
Total	Count	320	20	79	57	476
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Moving Violations Include: Failure to stop, lane violation, tail gaiting, and failure to signal.
Non-Moving Violations Include: Equipment violation, registration expired, seatbelt violation, and cell phone violation.

these findings cannot be generalized to the driver population of New Mexico. Because there are observed differences among respondents there is reason to believe there may be differences in the larger population. This finding warrants further study. The most cost efficient way to collect this type of information would be through the use of stop forms completed by law enforcement officers in New Mexico. Stop form data would provide a much larger pool of stops for study and analysis.

Table 7 is a cross tabulation of respondents race/ethnicity by the reported result of the stop. A little more than 45% of all stops resulted in a citation or ticket. Approximately 25% of stops resulted in a verbal warning and 1.3% resulted in an arrest. Among racial/ethnic groups the frequency of each type of stop result was similar. African Americans received verbal warnings (40.0%) at a much higher rate than any other race/ethnicity (around 25%) and African Americans were less likely to receive a citation or ticket. Additionally, African Americans had a higher percentage of arrests than any other race/ethnicity, but the count of arrests was about the same as the other race/ethnicities. Similar to Table 6 these findings are preliminary and deserve further study. This occurs because the sample size is small, especially for African Americans.

Both stop reasons and stop results could be a point during the stop that racial profiling could be occurring. However, because the number of individuals surveyed who reported being stopped is very small the results reported here cannot be generalized to the driving public in the four counties studied. With data from a stop form, it would be possible to more completely understand if racial profiling occurs during these points in stops.

Searches, Arrests, Police Use of Force

This section describes the respondent's answers to questions about searches, arrests, and the officer's use of force. Our analyses are descriptive and preliminary because the number of respondents who experienced any of these three types of actions was very small. Only 18 respondents were searched, 6 arrested, and 7 reported force was used against them by an officer.

Table 8 displays a comparison of respondents' (who were stopped in the past year) race/ethnicity by whether or not they were searched during the stop. The search rate of 3.5% of all respondents who reported being stopped is very small and varied by race/ethnicity. Neither of the two Asian Americans who reported being stopped was searched. Because of the small number of Asian Americans in the survey (21), only 2 of 21 reported being stopped, and neither reported being searched we cannot report on Asian American drivers

Table 7. Respondents Race/Ethnicity by Reported Result of the Stop

Stop Result		Respondents Reported Race/Ethnicity				
		White	African American	Hispanic	Native American	Total
Nothing Happened	Count	58	3	10	6	77
	Percent	18.2%	15.0%	12.7%	10.5%	16.2%
Verbal Warning	Count	80	8	18	13	119
	Percent	25.1%	40.0%	22.8%	22.8%	25.1%
Written Warning	Count	32	2	11	5	50
	Percent	10.0%	10.0%	13.9%	8.8%	10.5%
Citation or Ticket	Count	145	6	39	30	220
	Percent	45.5%	30.0%	49.4%	52.6%	46.3%
Arrested	Count	2	1	1	2	6
	Percent	0.6%	5.0%	1.3%	3.5%	1.3%
Something Else	Count	2	0	0	1	3
	Percent	0.6%	0.0%	0.0%	1.8%	0.6%
Total	Count	319	20	79	57	475
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8. Respondents Race/Ethnicity by Whether or Not the Respondent Was Searched				
Primary Race/Ethnicity of Respondent		Did the police officer search you, the vehicle, or anything else? No	Yes	Total
White	Count	311	7	318
	Percent	97.8%	2.2%	100.0%
Asian	Count	2	0	2
	Percent	100.0%	0.0%	100.0%
African American	Count	19	1	20
	Percent	95.0%	5.0%	100.0%
Hispanic	Count	76	3	79
	Percent	96.2%	3.8%	100.0%
Native American	Count	52	5	57
	Percent	91.2%	8.8%	100.0%
Something Else	Count	32	1	33
	Percent	97.0%	3.0%	100.0%
Declined to State	Count	0	1	1
	Percent	0.0 %	100.0%	100.0%
Total	Count	492	18	509
	Percent	96.5%	3.5%	100.0%

that were stopped and searched. Only 2.2% of Whites that reported being stopped were searched, 3.8% of stopped Hispanics, 5.0% of stopped African-Americans, and 8.8% of stopped Native Americans.[3]

Table 9 displays a cross-tabulation of respondents' (who were stopped in the past year) race/ethnicity by type of arrest. Similar to the limitations associated with Table 8, because so few respondents who were stopped reported being arrested very little that can be concluded from the information provided in Table 9.

Table 10 displays a cross-tabulation of race/ethnicity of respondents' stopped in the past year by the race/ethnicity of the officer the respondent reported using or threatening force. Again, the small number of respondents limits the analysis to a basic description. Three of the 7 respondent's were threatened or force was used against them by an officer of the same race/ethnicity as the respondent.

During this study we were only able to collect information on a small number of searches, arrests, and use of force incidents and so our findings are limited and not generalizable. These findings are important because

Table 9. Respondents Race/Ethnicity by Type of Arrest					
	Type of Arrest				
Primary Race/Ethnicity of Respondent	Warrant	Traffic Violation	DWI	Auto Theft	Total
White	1	1	0	0	2
Black or African American	0	0	1	0	1
Hispanic	0	0	0	1	0
Native American	1	0	1	0	2
Total	2	1	2	1	6

Table 10. Respondents Race/Ethnicity by the Race/Ethnicity of the Officer the Respondent Claimed To Have Threatened Or Used Force.					
	Officer's Race/Ethnicity				
Primary Race/ Ethnicity of Respondent	White	Hispanic	Native American	Other	Total
White	1	1	0	0	2
Black or African American	0	0	0	1	1
Hispanic	1	1	0	0	2
Native American	0	0	1	1	2
Total	2	2	1	2	7

of the potential for racial profiling at these points during stops. We understood that using a survey to study the prevalence of racial profiling in New Mexico would limit our ability to study these points in the stop. It would be best to study these points in traffic stops by law enforcement officers through the use of a "Stop Form". The prevalence of racial profiling at points after the initial stop deserves further study.

DISCUSSION

In this research project, we analyzed survey data collected in two phases. These analyses included:

- A comparison of the sample to the estimated driving population with a description of the sample.
- An in-depth analysis of the differences between stopped drivers and drivers who were not stopped in the last twelve months.
- A description of stop reasons and results.
- A description of searches, arrests, and the use of force.

The most important findings from each of these different analyses are discussed below.

Using MVD data and Census data, we found respondents completing the survey did not represent the age, gender, or race of the driving population in the four counties surveyed (Bernalillo, Curry, Lea, and McKinley). The reasons for this were discussed earlier and while a problem with telephone surveys this is not a problem with this study because we collected a large random sample. The frequency report for drivers in all four counties and drivers in each county is presented in the Appendices.

In our analysis of stops in the last twelve months, we found no strong evidence that racial profiling is occurring, when other factors (education, gender, age, income, county of residence, reasons for driving in the last week, type of vehicle, vehicle appearance, miles driven per day, and driving behavior) are controlled. We found a weak relationship between race/ethnicity, specifically being African American, and being stopped in the four county analyses. We did not have sufficient data by county to conduct county level analyses. Factors including county of residence, driving behavior and speeding, and type of vehicle were more influential than race/ethnicity in predicting whether one would have been stopped in the last twelve months.

The descriptive analysis of stop reasons and results provided initial evidence of trends that may be racial profiling during these two different points during stops. However, financial and time constraints prohibited any further analysis. Even though it is possible to analyze these points of the stop in more detail, the small number of respondents makes it unlikely any conclusive results would be reached. With more information, most productively collected from stop forms, a more conclusive result could be reached about the prevalence of racial profiling at the stop reason and result points of a stop.

Our analysis of searches, arrests, and the use of force was preliminary and limited to descriptions because the phone surveys did not provide us with a large enough sample and information about stops to use more sophisticated statistical techniques. Unfortunately, we were unable to collect a large enough sample on searches, arrests, and the use of force. Past studies and theoretical evidence suggest these three points could potentially be points during the stop where racial profiling would occur. However, the number of respondents stating they experienced any of these three outcomes is so low that it is not possible to detect trends within the data.

CONCLUSION

Several important findings resulted from this study of racial profiling during traffic stops, based on a survey of

residents in four New Mexico counties. First, we found limited evidence of racial profiling during traffic stops in the analysis of the four New Mexico counties. Second, we found county of residence, driving behavior, speeding behavior, education, and type of vehicle best profile routine traffic stops for drivers. It would be useful to further study the effect of county of residence. Third, while there is some evidence that racial profiling may be occurring after the stop and during subsequent searches, arrests, and use of force, the data we collected was limited, prohibiting a detailed analysis of racial profiling at these points in the stop. A large sample of stopped drivers is necessary to reliably and validly study racial profiling associated with a traffic stop. Fourth, we were able to document the driving behaviors and characteristics among drivers in the four New Mexico counties and importantly we were able to profile characteristics of stopped drivers. Fifth, we found our study sample was not representative of the driving population. There were 10% fewer males in the sample compared to the population and there were almost 14% fewer 18 to 29 year olds in the sample compared to the driving population.

We believe it would be useful to continue studying the issue of racial profiling in New Mexico to better understand whether racial profiling occurs after a traffic stop and to better understand the differences between counties. The use of a Stop Form by New Mexico law enforcement agencies would collect basic information on every traffic stop conducted by law enforcement officers in New Mexico and would provide basic information on every traffic stop by law enforcement officers in New Mexico and would provide a large number of stops with information on the result of each stop. This information could be studied and compared across counties, age, gender and race. This method, discussed earlier in this report, would allow the study of this issue to be expanded statewide.

Footnotes

[1] Two additional tables are provided in Appendix A, which display the differences between the sample and the population by county.

[2] Any analysis of stop reasons and results is limited by the number of respondents who reported being stopped in the last twelve months. There are potentially enough of these respondents to perform more sophisticated analysis. However, as the number of respondents decreases, any sophisticated analysis must be model checked much more as to make sure any conclusions are valid, which takes additional time.

[3] Addtional information about these searches is provided in Tables 15 & 16 in Appendix D.

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Appendix A
Sample Compared to Population

Table 1. One Sample T-tests Comparing the Differences of Age Category Percentages Between the MVD Data and the Survey Data For Each of the Four Counties (Bernalillo, Curry, Lea, and McKinley)

	Bernalillo County (Survey – MVD) Difference	Curry County (Survey – MVD) Difference	Lea County (Survey – MVD) Difference	McKinley County (Survey – MVD) Difference
18 Thru 29	*** - 13.88	*** - 14.50	*** - 13.63	*** - 10.31
30 Thru 39	*** - 4.74	* - 3.37	*** - 6.51	- 2.93
40 Thru 49	- 0.20	- 0.40	- 2.01	- 1.36
50 Thru 59	*** 6.81	*** 8.10	*** 6.83	* 4.40
60 Thru 69	*** 5.49	*** 5.87	*** 6.47	*** 6.34
70 Thru High	*** 6.52	** 4.29	*** 8.86	** 3.86

Table 2. Male and Female Percentages for All Four Counties (Bernalillo, Curry, Lea, and McKinley) From Both the MVD Data and Survey Data

	Bernalillo County		Curry County		Lea County		McKinley County	
	MVD	Survey	MVD	Survey	MVD	Survey	MVD	Survey
Male	49.41	39.7	48.85	40.1	50.87	39.0	46.23	39.2
Female	50.59	60.3	51.15	59.9	49.13	61.0	53.77	60.8

Note: All differences have a 0.001 p-value in 1-sample T-test analysis.

Appendix B
Frequencies

Table 3. Demographic Frequencies

	All Drivers	Bernalillo County Drivers	Lea County Drivers	Curry County Drivers	McKinley County Drivers
Education:					
High School Dropout	150(4.4%)	28 (2.0%)	69 (6.7%)	26 (5.5%)	27 (5.6%)
High School Degree	712 (21.2%)	218 (15.8%)	265 (25.9%)	116 (24.6%)	113 (23.4%)
Vocational Certification	135 (4.0%)	68 (4.9%)	37 (3.6%)	11 (2.3%)	19 (3.9%)
Some College	1,097(32.7%)	412 (29.8%)	378 (37.0%)	171 (36.2%)	136 (28.2%)
Bachelor Degree	710 (21.1%)	356 (25.8%)	167 (16.3%)	90 (19.1%)	96 (19.9%)
Master Degree	416 (12.4%)	210 (15.2%)	88 (8.6%)	47 (10.0%)	71 (14.7%)
Ph.D. or JD	138 (4.1%)	88 (6.4%)	19 (1.9%)	11 (2.3%)	20 (4.1%)
n	3,358	1,380	1,023	472	482
Gender:					
Female	2,037 (60.5%)	834 (60.3%)	625 (61.0%)	284 (59.9%)	293 (60.8%)
Male	1,328 (39.5%)	549 (39.7%)	400 (39.0%%)	190 (40.1%)	189 (39.2%)
n	3,365	1,383	1,025	475	482
Age:					
18 Thru 29	328 (10.0%)	114 (8.5%)	115 (11.5%)	45 (9.8%)	54 (11.6%)
30 Thru 39	455 (13.9%)	190 (14.2%)	123 (12.3%)	69 (15.0%)	73 (15.7%)
40 Thru 49	597 (18.3%)	253 (19.0%)	167 (16.6%)	85 (18.5%)	91 (19.5%)
50 Thru 59	810 (24.8%)	338 (25.3%)	244 (24.3%)	114 (24.8%)	114 (24.5%)
60 Thru 69	573 (17.5%)	235 (17.6%)	182 (17.2%)	80 (17.4%)	85 (18.2%)
70 Thru High	502 (15.4%)	205 (15.4%)	182 (18.1%)	66 (14.4%)	49 (10.5%)
n	3,265	1,384	1,004	459	466
Ethnicity:					
White	2,088 (62.0%)	854 (65.7%)	721 (74.8%)	315 (70.9%)	197 (44.1%)
Asian American	21 (.06%)	12 (0.9%)	3 (0.3%)	2 (0.5%)	4 (0.9%)
African American	80 (2.4%)	25 (1.9%)	29 (3.0%)	20 (4.5%)	6 (1.3%)
Hispanic	582 (17.3%)	296 (22.8%)	142 (14.7%)	70 (15.8%)	74 (16.6%)
Native American	199 (5.9%)	29 (2.2%)	17 (1.8%)	8 (1.8%)	145 (32.4%)
Something Else	186 (5.5%)	84 (6.5%)	52 (5.4%)	29 (6.5%)	21 (4.7%)
n	3,156	1,300	964	444	447
Income:					
Less than 10K	112 (4.1%)	29 (2.6%)	53 (6.4%)	15 (4.0%)	15 (3.8%)
10K to 20K	207 (7.6%)	63 (5.6%)	59 (7.1%)	48 (12.8%)	37 (9.3%)
20K to 30K	279 (10.3%)	102 (9.1%)	80 (9.7%)	36 (9.6%)	61 (15.3%)
30K to 40K	325 (12.0%)	137 (12.3%)	85 (10.3%)	52 (13.9%)	51 (12.8%)
40K to 50K	297 (10.9%)	112 (10.0%)	86 (10.4%)	44 (11.8%)	55 (13.8%)
50K to 60K	250 (9.2%)	93 (8.3%)	87 (10.5%)	33 (8.8%)	37 (9.3%)
60K to 70K	256 (9.4%)	120 (10.7%)	67 (8.1%)	26 (7.0%)	43 (10.8%)
70K to 80K	208 (7.7%)	95 (8.5%)	55 (6.6%)	32 (8.6%)	26 (6.5%)
80K to 90K	164 (6.0%)	66 (5.9%)	60 (7.2%)	19 (5.1%)	19 (4.8%)
90K to 100K	103 (3.8%)	44 (3.9%)	38 (4.6%)	11 (2.9%)	10 (2.5%)
More Than 100K	517 (19.0%)	256 (22.9%)	158 (19.1%)	58 (15.5%)	44 (11.1%)
n	2,718	1,117	828	374	398

Table 4. Driving Demographics Frequencies

	All Drivers	Bernalillo County Drivers	Lea County Drivers	Curry County Drivers	McKinley County Drivers
Years Driven					
1 Thru 9	173 (5.3%)	61 (4.6%)	66 (6.6%)	16 (3.5%)	30 (6.5%)
10 Thru 19	417 (12.9%)	163 (12.2%)	129 (13.0%)	69 (15.2%)	56 (12.1%)
20 Thru 29	484 (14.9%)	210 (15.8%)	116 (11.6%)	72 (15.9%)	86 (18.7%)
30 Thru 39	837 (25.8%)	356 (26.7%)	236 (23.7%)	117 (25.8%)	127 (27.5%)
40 Thru 49	665 (20.5%)	281 (21.1%)	208 (20.9%)	87 (19.2%)	89 (19.3%)
50 Thru High	667 (20.6%)	260 (19.5%)	241 (24.2%)	93 (20.5%)	73 (15.8%)
n	3,243	1,331	996	454	461
Reasons For Driving in The Last Week					
Drove To Work	2,180 (64.7%)	871 (62.9%)	630 (61.4%)	320 (67.4%)	358 (74.3%)
Drove To Go Shopping	2,935 (87.1%)	1,219(88.1%)	883 (86.1%)	417 (87.8%)	415 (86.1%)
Drove To See A Friend	1,972 (58.6%)	767 (55.4%)	640 (62.4%)	294 (61.9%)	271 (56.2%)
Drove As A Part Of Job Last Week	1,526 (45.3%)	569 (41.1%)	463 (45.1%)	227 (47.8%)	267 (55.4%)
Drove For None Of The Above Reasons	78(2.3%)	25 (1.8%)	21 (2.0%)	16 (3.4%)	16 (3.3%)
Did Not Drive	49 (1.5%)	27 (2.0%)	11 (1.1%)	3 (0.6%)	8 (1.7%)
Number Of Reasons For Driving Last Week					
Zero	30 (0.9%)	12 (0.9%)	16 (1.6%)	2 (0.4%)	0 (0.0%)
One	468 (14.4%)	210 (15.2%)	152 (14.8%)	55 (11.6%)	51 (10.6%)
Two	923 (28.5%)	413 (29.8%)	278 (27.0%)	124 (26.1%)	107 (22.2%)
Three	986 (30.4%)	402 (29.0%)	285 (27.7%)	145 (30.5%)	154 (32.0%)
Four	835 (25.8%)	296 (21.4%)	263 (25.5%)	130 (27.4%)	146 (30.3%)
None Of The Above	77 (2.3%)	24 (1.7%)	21 (2.0%)	16 (3.4%)	16 (3.3%)
Did Not Drive	49 (1.5%)	27 (2.0%)	11 (1.1%)	3 (0.6%)	8 (1.7%)
N	3,368	1,384	1,026	475	482
Miles Driven Per Week					
0 Thru 49	902 (28.9%)	348 (27.2%)	264 (28.3%)	157 (35.8%)	133 (28.5%)
50 Thru 99	649 (20.8%)	254 (19.9%)	199 (21.4%)	97 (22.1%)	99 (21.2%)
100 Thru 149	496 (15.9%)	233 (18.2%)	128 (13.7%)	74 (16.9%)	61 (13.1%)
150 Thru 199	191 (6.1%)	104 (8.1%)	41 (4.4%)	25 (5.7%)	21 (4.5%)
200 Thru 249	258 (8.3%)	110 (8.6%)	70 (7.5%)	22 (5.0%)	55 (11.8%)
250 Thru 499	370 (11.9%)	171 (13.4%)	112 (12.0%)	36 (8.2%)	51 (10.9%)
500 Thru High	250 (8.0%)	58 (4.5%)	118 (12.7%)	28 (6.4%)	46 (9.9%)
n	3,116	1,278	932	439	466
Miles Driven Per Year					
0 Thru 2499	610 (21.6%)	234 (19.8%)	186 (22.0%)	92 (23.5%)	98 (24.6%)
2500 Thru 4999	270 (9.6%)	97 (8.2%)	87 (10.3%)	39 (9.9%)	47 (11.8%)
5000 Thru 7499	329 (11.7%)	143 (12.1%)	90 (10.6%)	49 (12.5%)	47 (11.8%)
7500 Thru 9999	164 (5.8%)	87 (7.4%)	36 (4.3%)	26 (6.6%)	15 (3.8%)
10000 Thru 12499	521 (18.5%)	258 (21.9%)	132 (15.6%)	70 (17.9%)	60 (15.1%)
12500 Thru High	924 (32.8%)	361 (30.6%)	316 (37.3%)	116 (29.6%)	131 (32.9%)
n	2,818	1,180	847	392	398

Table 5. Car Characteristic Frequencies					
	All Drivers	Bernalillo County Drivers	Lea County Drivers	Curry County Drivers	McKinley County Drivers
Year of Vehicle					
Low Thru 1999	1,006 (30.8%)	422 (31.3%)	277 (28.0%)	151 (32.8%)	156 (33.1%)
2000 Thru 2004	1,226 (37.5%)	562 (41.7%)	330 (33.4%)	165 (35.9%)	168 (35.7%)
2005 Thru 2009	1,037 (31.7%)	365 (27.1%)	381 (38.6%)	144 (31.3%)	147 (31.2%)
n	3,269	1,349	988	460	471
Type of Vehicle					
Car	1,592 (48.7%)	735 (55.1%)	398 (40.7%)	236 (50.0%)	223 (46.5%)
Pick-Up	737 (22.6%)	198 (14.8%)	317 (32.4%)	102 (21.6%)	120 (25.0%)
SUV	658 (20.1%)	291 (21.8%)	198 (20.2%)	88 (18.6%)	80 (16.7%)
Van/MiniVan	213 (6.5%)	98 (7.3%)	45 (4.6%)	27 (5.7%)	43 (9.0%)
Motor Cycle / Scooter	19 (0.6%)	9 (0.7%)	5 (0.5%)	3 (0.6%)	2 (0.4%)
Other	47 (1.4%)	4 (0.3%)	15 (1.5%)	16 (3.4%)	12 (2.5%)
n	3,266	1,335	978	472	480
Percentage Of Vehicles With					
Tinted Windows	1,109 (34.1%)	400 (29.9%)	355 (36.1%)	181 (39.2%)	173 (37.0%)
Custom Rims	557 (17.4%)	189 (14.4%)	172 (17.9%)	90 (19.6%)	106 (23.0%)
Custom Paint	284 (8.7%)	80 (5.9%)	105 (10.7%)	53 (11.4%)	46 (9.7%)
Custom Stereo	537 (16.5%)	184 (13.7%)	181 (18.5%)	83 (17.9%)	89 (19.0%)
Custom Exhaust	313 (9.8%)	91 (6.9%)	105 (11.0%)	55 (12.0%)	62 (13.4%)
Custom Engine	223 (7.0%)	62 (4.7%)	72 (7.6%)	33 (7.3%)	56 (12.1%)
Low Rider	24 (0.7%)	9 (0.7%)	6 (0.6%)	5 (1.1%)	4 (0.9%)
Lift Kit	72 (2.3%)	23 (1.7%)	22 (2.4%)	11 (2.5%)	16 (3.6%)
Hydraulics	113 (3.6%)	49 (3.8%)	45 (4.8%)	7 (1.6%)	12 (2.6%)
Mechanical Condition					
Poor	37 (1.1%)	12 (0.9%)	13 (1.3%)	6 (1.3%)	6 (1.3%)
Fair	211 (6.5%)	83 (6.2%)	52 (5.3%)	23 (5.0%)	53 (11.3%)
Good	1,007 (30.9%)	402 (30.0%)	289 (29.3%)	145 (31.4%)	170 (36.3%)
Excellent	2,001 (61.5%)	841 (62.9%)	633 (64.1%)	288 (62.3%)	239 (51.1%)
n	3,256	1,338	987	462	468
Vehicle Appearance					
Poor	52(1.6%)	19 (1.4%)	19 (1.9%)	8 (1.7%)	6 (1.3%)
Fair	518 (16.0%)	235 (17.7%)	131 (13.3%)	64 (13.9%)	88 (18.8%)
Good	1,296 (40.0%)	516 (38.8%)	381 (38.8%)	185 (40.2%)	213 (45.6%)
Excellent	1,375 (42.4%)	560(42.1%)	452 (46.0%)	203 (44.1%)	160 (34.3%)
n	3,241	1,330	983	460	468

Table 6. Driving Behavior Frequencies					
	All Drivers	Bernalillo County Drivers	Lea County Drivers	Curry County Drivers	McKinley County Drivers
Use Turn Signals					
Never	8 (0.2%)	2 (0.2%)	4 (0.4%)	1 (0.2%)	1 (0.2%)
Sometimes	401 (12.4%)	157 (11.9%)	141 (14.4%)	51 (11.1%)	52 (11.3%)
Always	2,813 (87.3%)	1,165 (88.0%)	832 (85.2%)	407 (88.7%)	408 (88.5%)
n	3,222	1,324	977	459	461
Seatbelt Use					
Never	39 (1.2%)	11 (0.8%)	17 (1.7%)	7 (1.5%)	4 (0.9%)
Sometimes	166 (5.1%)	39 (2.9%)	85 (8.7%)	18 (3.9%)	24 (5.2%)
Always	3,027 (93.7%)	1,279 (96.2%)	878 (89.6%)	434 (94.6%)	435 (94.0%)
n	3,232	1,329	980	459	463
Roll Thru Stop Signs					
Never	1,954 (60.8%)	805 (60.8%)	592 (60.9%)	298 (65.2%)	258 (56.1%)
Sometimes	1,022 (31.8%)	445 (33.6%)	299 (30.8%)	127 (27.8%)	151 (32.8%)
Always	239 (7.4%)	75 (5.7%)	81 (8.3%)	32 (7.0%)	51 (11.1%)
n	3,215	1,325	972	457	460
Speed Thru Yellow Lights					
Never	1,188 (37.1%)	516 (39.2%)	343 (35.4%)	161 (35.2%)	168 (36.6%)
Sometimes	1,894 (59.1%)	766 (58.1%)	577 (59.5%)	276 (60.4%)	274 (59.7%)
Always	123 (3.8%)	36 (2.7%)	50 (5.2%)	20 (4.4%)	17 (3.7%)
n	3,205	1,318	970	457	459
Drives 5 Miles Over the Speed Limit					
Never	712 (22.1%)	221 (16.7%)	258 (26.4%)	133 (29.0%)	100 (21.7%)
Sometimes	2,109 (65.6%)	944 (71.4%)	597 (61.2%)	277 (60.5%)	290 (63.0%)
Always	396 (12.3%)	157 (11.9%)	121 (12.4%)	48 (10.5%)	70 (15.2%)
N	3,217	1,322	976	458	460
Lane Change Behavior					
Stay in same lane	1,190 (37.3%)	577 (43.9%)	316 (32.7%)	154 (34%)	143 (31.3%)
Change lanes	2,001 (62.7%)	736 (56.1%)	651 (67.3%)	299 (66%)	314 (68.7%)
N	3,191	1,313	967	453	457
Percentage of Drivers That:					
Roll Thru Stop Sign Last Week	515 (40.9%)	229 (44.3%)	149 (39.2%)	61 (38.4%)	76 (37.6%)
Sped Thru Yellow Light Last Week	819 (40.8%)	325 (40.9%)	267 (42.6%)	119 (40.3%)	108 (37.1%)
Notices Drivers Speeding	3,060 (95.9%)	1,288 (97.9%)	927 (95.9%)	413 (91.0%)	432 (95.2%)
Interstate Speed					
Under The Speed Limit	808 (25.7%)	304 (23.8%)	288 (29.9%)	121 (27.1%)	95 (20.9%)
The Speed Limit	1,241 (39.4%)	485 (37.9%)	428 (44.4%)	172 (38.5%)	156 (34.3%)
Over The Speed Limit	1,097 (34.9%	491 (38.4%)	247 (25.6%)	154 (34.5%)	204 (44.8%)
n	3,146	1,280	963	447	455
State Road Speed					
Under The Speed Limit	160 (5.0%)	63 (4.8%)	38 (3.9%)	28 (6.2%)	31 (6.8%)
The Speed Limit	1,123 (35.3%)	468 (35.8%)	328 (33.8%)	157 (34.7%)	170 (37.4%)
Over The Speed Limit	1,900 (59.7%)	775 (59.3%)	603 (62.2%)	267 (59.1%)	254 (55.8%)
n	3,183	1306	969	452	455
City Road Speed					
Under The Speed Limit	241 (7.5%)	59 (4.5%)	99 (10.1%)	40 (8.8%)	43 (9.3%)
The Speed Limit	2,053 (63.9%)	725 (55.0%)	700 (71.7%)	336 (73.7%)	291 (63.3%)
Over The Speed Limit	917 (28.6%)	534 (40.5%)	177 (18.1%)	80 (17.5%)	126 (27.4%)
n	3,211	1,318	976	456	460

Table 7. Stop Characteristic Frequencies

	All Drivers	Bernalillo County Drivers	Lea County Drivers	Curry County Drivers	McKinley County Drivers
Stopped In Last 12 Months					
No	2,680 (83.4%)	1,180 (89.4%)	813 (83.3%)	366 (80.4%)	320 (69.3%)
Yes	534 (16.6%)	140 (10.6%)	163 (16.7%)	89 (19.6%)*	142 (30.7%)*
n	3,214	1,320	976	455	462
Number of Stops In The Last 12 Months					
1	360 (67.5%)	109 (78.4%)	111 (68.1%)	48 (53.9%)	92 (64.8%)
2	103 (19.3%)	19 (13.7%)	32 (19.6%)	22 (24.7%)	30 (21.1%)
3	40 (7.5%)	7 (5.0%)	8 (4.9%)	10 (11.2%)	15 (10.6%)
4	15 (2.8%)	3 (2.2%)	6 (3.7%)	6 (6.7%)	0 (0.0%)
5 or More	15 (2.8%)	1 (0.7%)	6 (3.7%)	3 (3.4%)	5 (3.5%)
n	533	139	163	89	142
Number Of People In The Vehicle					
1	351 (66.2%)	95 (68.6%)	98 (60.1%)	63 (71.6%)	93 (66.4%)
2	105 (19.8%)	27 (19.3%)	41 (25.2%)	11 (12.5%)	26 (18.6%)
3	42 (7.9%)	10 (7.1%)	13 (8.0%)	8 (9.1%)	11 (7.9%)
4	19 (3.6%)	5 (3.6%)	5 (3.1%)	4 (4.5%)	5 (3.6%)
5 or More	13 (2.5%)	2 (1.4%)	6 (3.7%)		5 (3.6%)
n	530	140	163	87	140
Whether Stopped During The AM or PM					
AM	147 (28.3%)	38 (28.1%)	48 (30.0%)	30 (34.9%)	31 (22.3%)
PM	373 (71.7%)	97 (71.9%)	112 (70.0%)	56 (65.1%)	108 (77.7%)
n	520	135	160	86	139
Stopped For:					
DWI Checkpoint	63 (12.0%)	10 (7.2%)	12 (7.4%)	7 (8.1%)	34 (24.5%)
Equipment Violation	30 (6.5%)	8 (6.2%)	12 (8.0%)	5 (6.4%)	5 (4.7%)
Failure To Stop	28 (6.0%)	11 (8.5%)	8 (5.3%)	4 (5.1%)	5 (4.8%)
Expired Registration	22 (4.8%)	6 (4.6%)	6(4.0%)	6 (7.7%)	4 (3.8%)
Lane Violation	20 (4.3%)	4 (3.1%)	10 (6.7%)	2 (2.6%)	4 (3.8%)
Tail Gaiting	7 (1.5%)	3 (2.3%)	3 (2.0%)	0 (0.0%)	1 (1.0%)
Failure to Signal	6 (1.3%)	0 (0.0%)	1 (0.7%)	3 (3.8%)	2 (1.9%)
Seatbelt Violation	30 (6.5%)	7 (5.4%)	13 (8.7%)	6 (7.7%)	4 (3.8%)
Cell Phone Violation	2 (0.7%)	2 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Speeding	277 (60.0%)	78 (60.0%)	84 (56.0%)	47 (61.0%)	68 (64.8%)
Going 10MPH Over The Limit	129 (47.1%)	26 (33.3%)	42 (51.2%)	23 (47.9%)	38 (57.6%)

*NOTE: These numbers include those who were screened to have been stopped by the police

Table 8. Stop Result Frequencies					
	All Drivers	Bernalillo County Drivers	Lea County Drivers	Curry County Drivers	McKinley County Drivers
Stop Result					
Nothing Happen	69 (13.2%)	22 (15.8%)	26 (16.1%)	6 (7.1%)	15 (10.8%)
Verbal Warning	129 (24.6%)	30 (21.6%)	42 (26.1%)	22 (25.9%)	35 (25.2%)
Written Warning	55 (10.5%)	23 (16.5%)	9 (5.6%)	8 (9.4%)	15 (10.8%)
Citation Or Ticket	242 (46.2%)	61 (43.9%)	84 (52.2%)	43 (50.6%)	54 (38.8%)
Arrested	6 (1.1%)	3 (2.2%)	0 (0.0%)	1 (1.2%)	2 (1.4%)
Something Else	23 (4.4%)	0 (0.0%)	0 (0.0%)	5 (5.9%)	18 (12.9%)
n	524	139	161	85	139
Was The Vehicle Searched					
No	506 (96.6%)	133 (95.7%)	156 (96.9%)	84 (98.8%)	133 (95.7%)
Yes	18 (3.4%)	6 (4.3%)	5 (3.1%)	1 (1.2%)	6 (4.3%)
n	524	139	161	85	139
Officer Threatened Or Used Force					
No	518 (98.7%)	137 (97.9%)	160 (99.4%)	84 (98.8%)	137 (98.6%)
Yes	7 (1.3%)	3 (2.1%)	1 (0.6%)	1 (1.2%)	2 (1.4%)
n	525	140	161	85	139
Officer’s Police Agency					
State Police	153 (30.0%)	20 (14.9%)	51 (31.7%)	28 (33.7%)	54 (40.9%)
Sheriff's Department	67 (13.1%)	28 (20.9%)	19 (11.8%)	7 (8.4%)	13 (9.8%)
City Police	230 (45.1%)	73 (54.5%)	88 (54.7%)	41 (49.4%)	28 (21.2%)
Tribal	41 (8.0%)	8 (6.0%)	0 (0.0%)	2 (2.4%)	31 (23.5%)
Multiple agencies	5 (1.0%)	4 (3.0%)	0 (0.0%)	0 (0.0%)	1 (0.8%)
Some Other Law Enforcement Agency	14 (2.7%)	1 (0.7%)	3 (1.9%)	5 (6.0%)	5 (3.8%)
n	510	134	161	83	132
Number Of Officer’s Present At Stop					
1	410 (79.8%)	108 (79.4%)	131 (82.4%)	72 (84.7%)	99 (73.9%)
2	53 (10.3%)	17 (12.5%)	20 (12.6%)	8 (9.4%)	8 (6.0%)
3 Or More	51 (9.9%)	11 (8.1%)	8 (5.0%)	5 (5.9%)	27 (20.1%)
n	514	136	159	85	134
Officer’s Race					
White	227 (51.5%)	56 (48.7%)	84 (59.6%)	54 (74.0%)	33 (29.5%)
Black/African American	15 (3.4%)	3 (2.6%)	8 (5.7%)	4 (5.5%)	0 (0.0%)
Hispanic/Latino	112 (25.4%)	43 (37.4%)	43 (30.5%)	12 (16.4%)	14 (12.5%)
Native American	67 (15.2%)	10 (8.7%)	0 (0.0%)	2 (2.7%)	55 (49.1%)
Other	20 (4.5%)	3 (2.6%)	6 (4.3%)	1 (1.4%)	10 (8.9%)
n	441	115	141	73	112

Appendix C
Stops – How Stopped Drivers Are Different

Table 9. List of Variables by Variable Type That Are Significantly Different In Either All or One of the Four Counties Between Stopped and Non-Stopped Drivers.

	Demographics	Driving Demographics	Car Characteristics	Driving Behavior
1.	Education	Years Driven	Tinted Windows	Use Signals
2.	Male	Drove to Work	Lift Kit	Use Seatbelts
3.	Age	Drove to Shop	Hydraulics	Speeds Thru Yellow Lights
4.	African-American	Drove to See a Friend	Mechanical Condition	In the Last Week
5.	Native American	Drove as Part of Job	Vehicle Appearance	Rolls Stop Signs
6.	Hispanic	# of Driving Reasons		In the Last Week
7.		Miles Driven Per Month		Changes Lanes
8.		Miles Driven Per Year		Drives Over Speed Limit
9.				Interstate Speed
10.				State Highway Speed
11.				City Road Speed

Table 10. Two Sample T-Tests, Analyzing the Differences Between Stopped and Non-Stopped Drivers on Demographic Variables.

	Non-Stopped Drivers Compared to Stopped Drivers	Non-Stopped Drivers Compared to Stopped Drivers (Bernalillo County)	Non-Stopped Drivers Compared to Stopped Drivers (Lea County)	Non-Stopped Drivers Compared to Stopped Drivers (Curry County)	Non-Stopped Drivers Compared to Stopped Drivers (McKinley County)
Education	* - 0.16	- 0.11	- 0.12	** - 0.47	* - 0.41
Male	*** - 9.10	- 5.7	** - 11.30	- 12.00	* - 9.90
Age	*** 7.44	*** 6.09	*** 9.35	*** 9.01	** 4.65
Disabled	2.60	0.00	2.90	2.70	* 4.90
White Dummy Variable	4.01	1.67	2.77	7.25	- 6.73
Asian Dummy Variable	0.33	1.03	0.37	- 0.98	0.23
African American Dummy Variable	* - 1.64	- 1.14	- 1.66	** - 6.70	0.87
Hispanic Dummy Variable	3.00	- 1.11	- 1.65	-1.08	** 11.20
Native American Dummy Variable	*** - 5.78	- 1.62	- 0.90	- 0.67	- 3.05
Other Races Dummy Variable	- 0.01	1.16	1.07	- 1.33	- 2.53
Income	- 0.08	0.23	- 0.64	- 0.68	-0.22

Note: * p < .05, ** p < .01, *** p < .001.

Table 11. Two Sample T-Tests, Analyzing the Differences Between Stopped and Non-Stopped Drivers on Driving Demographic Variables.

	Non-Stopped Drivers Compared to Stopped Drivers	Non-Stopped Drivers Compared to Stopped Drivers (Bernalillo County)	Non-Stopped Drivers Compared to Stopped Drivers (Lea County)	Non-Stopped Drivers Compared to Stopped Drivers (Curry County)	Non-Stopped Drivers Compared to Stopped Drivers (McKinley County)
Years Driven	*** 6.68	*** 5.27	*** 8.71	*** 8.53	* 3.70
Drove to work in the last week	*** - 13.00	- 6.70	*** - 15.20	** - 15.6	* - 10.8
Drove to go shopping in the last week	0.00	2.60	1.60	- 0.80	* - 7.10
Drove to see a friend in the last week	*** - 9.20	*** - 14.70	* - 8.70	- 7.90	- 2.90
Drove as a part of job last week	*** - 9.50	0.10	** - 13.50	- 6.40	* - 10.10
Drove for none of the above reasons in the last week	1.10	1.10	1.70	- 0.00	2.70
Did not drive in the last week	1.20	1.10	0.90	- 0.80	2.20
Number of reasons for driving last week	*** - 0.26	- 0.13	*** - 0.29	** - 0.30	- 0.18
Miles driven per week	*** - 113.67	*** - 103.09	*** - 144.97	- 22.86	** - 139.91
Miles driven per year	*** - 7,350.92	*** - 6,718.12	*** - 7,075.27	*** 8,310.29	*** - 7,570.40

Note: * p < .05, ** p < .01, *** p < .001.

Table 12. Two Sample T-Tests, Analyzing the Differences Between Stopped and Non-Stopped Drivers on Car Characteristic Variables.

	Non-Stopped Drivers Compared to Stopped Drivers	Non-Stopped Drivers Compared to Stopped Drivers (Bernalillo County)	Non-Stopped Drivers Compared to Stopped Drivers (Lea County)	Non-Stopped Drivers Compared to Stopped Drivers (Curry County)	Non-Stopped Drivers Compared to Stopped Drivers (McKinley County)
Vehicle Age	0.13	0.57	- 0.72	0.37	0.21
Car Dummy Variable	2.88	- 0.62	3.02	- 3.63	5.87
Truck Dummy Variable	- 3.08	1.21	- 3.82	4.70	- 6.06
SUV Dummy Variable	- 1.07	- 1.87	- 1.13	- 5.26	- 0.73
Van Dummy Variable	1.30	0.97	1.79	- 3.19	0.61
Motor Cycle Dummy Variable	0.23	- 0.04	- 0.25	0.82	0.63
Other Vehicle Dummy Variable	- 0.26	0.35	0.04	0.18	- 0.32
Tinted Windows	3.00	1.04	6.07	- 1.27	* 10.63
Custom Rims	0.08	- 0.15	1.14	2.81	3.45
Custom Paint	- 0.64	- 1.68	2.08	2.35	1.27
Custom Stereo	- 3.04	- 4.97	- 2.44	4.96	3.55
Custom Exhaust	- 0.22	1.88	1.15	- 3.57	2.60
Custom Engine	0.70	1.16	4.13	2.84	3.69
Low Rider	- 0.04	- 0.03	- 0.12	- 0.03	0.23
Lift Kit	0.94	1.90	- 0.85	0.26	* 4.31
Vehicle has hydraulics	** 2.45	2.53	2.03	1.71	2.85
Vehicle Mechanical Condition	*** 0.13	** 0.18	0.05	** 0.20	3.85
Vehicle Appearance	* 0.08	* 0.15	0.03	0.12	0.02
Customization Index	0.02	0.02	0.11	- 0.11	0.30
Driving Vehicle Condition and Appearance Index	*** 0.23	** 0.33	0.07	* 0.36	0.08

Note: * p < .05, ** p < .01, *** p < .001.

Table 13. Two Sample T-Tests, Analyzing the Differences Between Stopped and Non-Stopped Drivers on Driving Variables.

	Non-Stopped Drivers Compared to Stopped Drivers	Non-Stopped Drivers Compared to Stopped Drivers (Bernalillo County)	Non-Stopped Drivers Compared to Stopped Drivers (Lea County)	Non-Stopped Drivers Compared to Stopped Drivers (Curry County)	Non-Stopped Drivers Compared to Stopped Drivers (McKinley County)
Use signals	*** 0.08	** 0.08	*** 0.12	*** 0.13	0.02
Uses seatbelts	*** 0.09	* 0.53	*** 0.16	*** 0.14	- 0.01
Speeds thru yellow lights	*** - 0.12	* - 0.10	* - 0.11	** - 0.17	* - 0.12
Sped thru a yellow light in the last week	*** - 13.80	** - 15.10	* - 11.20	* - 15.50	*** - 19.50
Rolls thru stop signs	*** - 0.13	*** - 0.20	** - 0.15	- 0.07	- 0.01
Rolled a stop sign in the last week	** - 9.60	- 5.50	* 13.9	* - 20.70	- 7.80
Change lanes	*** - 8.62	** - 12.85	- 6.02	- 7.55	- 0.90
Notices speeders	0.20	2.40	- 0.50	- 2.90	- 1.90
Drives 5 mph over the speed limit	*** - 0.23	** - 0.15	*** - 0.35	*** 0.30	** 0.17
Interstate Speed	*** - 2.16	*** - 2.25	*** - 2.74	*** -2.36	* - 1.12
State Highway Speed	*** - 2.07	*** - 1.65	*** - 3.23	*** - 2.64	* - 1.28
City Road Speed	*** - 1.14	*** -1.06	*** - 1.71	** - 0.95	*** - 1.50
Speeding Index	*** - 1.78	*** -1.61	*** - 2.56	*** - 2.10	*** - 1.27
Driving Behavior Index	*** - 0.66	*** - 0.58	*** - 0.90	*** - 0.80	** -0.35

Note: * p < .05, ** p < .01, *** p < .001.

Predicting Stops In the Last 12 Months

Table 14. Logistic Regression Using the Following Variables to Explain Being Stopped in the Last 12 Months (Dependent Variable).

Variables	B	SE	Sig.	Odds Ratio
Education (% With)				
Less than High School Degree	0.076	0.348	0.826	1.079
Some College	0.410	0.173	0.018	1.506
Bachelor Degree	0.674	0.192	0.000	1.963
More than a Bachelor Degree	0.653	0.221	0.003	1.921
Percent Male	0.171	0.129	0.185	1.187
Age	-0.021	0.005	0.000	0.979
Ethnicity/Race (%)				
African-American	0.520	0.305	0.088	1.681
Hispanic	-0.088	0.162	0.589	0.916
Native American	0.290	0.251	0.248	1.336
Income	-0.035	0.023	0.135	0.966
Reasons for Driving in The Last Week (%)				
To Work	0.018	0.162	0.911	1.018
To Go Shopping	-0.202	0.183	0.269	0.817
To Visit A Friend	0.328	0.125	0.008	1.388
To Go to Work	-0.150	0.136	0.269	0.861
Age of Vehicle (in Days)	-0.335	4.235	0.937	0.715
County of Residence (%)				
Lea County	0.647	0.147	0.000	1.910
Curry County	0.684	0.181	0.000	1.982
McKinley County	0.708	0.199	0.000	2.029
Miles Driven per Day	0.003	0.001	0.002	1.003
Type of Vehicle (%)				
Car	0.659	0.250	0.009	1.932
Truck	0.720	0.265	0.007	2.055
SUV	0.663	0.270	0.014	1.940
Vehicles with Tinted Windows (%)	-0.429	0.132	0.001	0.651
Number of Vehicle Customizations	0.016	0.135	0.908	1.016
Vehicle Appearance	-0.064	0.054	0.235	0.938
Speeding Behavior	0.085	0.020	0.000	1.089
Driving Behavior	0.226	0.049	0.000	1.253
Phase2Screener	22.714	4912.613	0.996	7317623506.979
Constant	-3.503	0.691	0.000	0.030
Included in Analysis	2,810			
Missing Cases	118			
Log-Likelihood	2018.475			
Cox & Snell R^2	0.156			
Nagelkerke R^2	0.265			
Percentage “No” Correct	99.3			
Percentage “Yes” Correct	16.8			
Overall Percentage Correct	85.9			

Note: * p < .05, ** p < .01, *** p < .001.
Reference Variables in Parentheses for the Following Categories: Education (High School Degree/GED), Ethnicity/Race (White), County (Bernalillo), and Type of Vehicle (Other Type of Vehicle; e.g. Motorcycle, Van, Etc.)

Appendix D
After the Stop: Searches, Arrests, and Use of Force

Table 15. Counts and Percentages of Why the Search Was Conducted.

	Count	Percentage
The Officer Asked for Consent and the Respondent Granted It	5	27.8
The Officer Smelled Alcohol or Drugs	3	16.7
Something Else	7	38.8
Declined to State	3	16.7
Total	18	100.0

Note: Something else included: Aggressive Policeman, Curiosity, DWB, He Just Looked In the Windows, I had a White Shirt and a tie, and No Insurance.

Table 16. Counts and Percentages for Length of Search

	Count	Percentage
0 to 10 Minutes	11	61.1%
11 to 20 Minutes	5	27.7%
31 Minutes or More	1	5.6%
Declined to State	1	5.6%
Total	18	100.0

Note: The mean, median, and mode all are in the 0 to 10 Minute Category.

Appendix E

NMSC Driving Survey

Question 1:
Do you drive a motorized vehicle, such as a car, truck, motorcycle or scooter?
[IF NO - classify as ineligible] Thank you for your time!

Question 2:
What is the highest level of education you have completed? Is it:
1 Elementary or some high school
2 High school graduate or GED
3 Trade or vocational certificate
4 Some college or Associates degree
5 Bachelor's Degree-BA or BS
6 Master's Degree-MA or MS, or
7 Ph.D. or J.D

Question 3: What was the highest grade you completed?

Question 4: As part of the survey, I am required to ask: are you male or female?
1 Male
0 Female

Question 5: What is the zip code at your residence?

Question 6: How old are you?

Question 7: At what age did you start driving?

Question 8: In the last week have you driven for any of the following reasons?
a. To get to work or school?
1 Yes
0 No
b. To go shopping?
1 Yes
0 No
c. To visit a friend?
1 Yes
0 No
d. As part of your job?
1 Yes
0 No
e. None of the Above
1 Yes
0 No
f. Did not Drive
1 Yes
0 No

Question 9: Approximately how many miles do you drive per week?

Question 10: To the best of your knowledge, about how many miles have you driven in the last 12 months?

Question 11: What is the YEAR of the motorized vehicle you drive most often?

Question 12: What is the MAKE of the motorized vehicle you drive most often?

Question 14: What is the color of the vehicle?

Does that vehicle have any of the following?

Question 15: Non-factory or after-market tinted windows?
1 Yes
0 No

Question 16: Non-factory or after-market rims or wheels?
1 Yes
0 No

Question 17: A custom paint job?
1 Yes
0 No

Question 18: A non-factory or after-market custom stereo system?
1 Yes
0 No

Question 19: A custom exhaust system or pipes?
1 Yes
0 No

Question 20: A non-factory or after-market high-performance engine?
1 Yes
0 No

Question 21: Is the vehicle a low-rider?
1 Yes
0 No

Question 22: Is the vehicle equipped with a lift kit?
1 Yes
0 No

Question 23: Is the vehicle equipped with hydraulics?
1 Yes
0 No

Question 24: For this question, please think about the mechanical condition of your vehicle, where excellent condition means the vehicle is in excellent working order and needs no repairs; good condition means the vehicle is free of any major service problems; fair condition means the vehicle needs to be serviced; and poor condition means the vehicle does not run well.

Thinking about the mechanical condition of your vehicle, would you describe it as excellent, good, fair, or poor?
4 Excellent
3 Good
2 Fair
1 Poor

Question 25: For this question, please think about the appearance of your vehicle, where excellent means the vehicle looks new and does not have cosmetic defects; good means the vehicle is free of any major cosmetic defects; fair means the vehicle has some cosmetic defects; and poor means the vehicle has severe cosmetic defects.

Thinking about the appearance of your vehicle, would you describe it as excellent, good, fair, or poor?
4 Excellent
3 Good
2 Fair
1 Poor

Question 26: Using a scale of Always, Sometimes, or Never, about how often would you say you use your turn signal when changing lanes or turning?

3 Always
2 Sometimes, or
1 Never

Question 27: About how often do you wear your seatbelt?

3 Always
2 Sometimes, or
1 Never

Question 28: How often would you say you roll through a stop sign, that is, not come to a complete stop before you proceed?

3 Always
2 Sometimes, or
1 Never

Question 29: In the last week have you rolled through a stop sign?

1 Yes
0 No

Question 30: Again, using the scale of Always, Sometimes, or Never, about how often would you say you speed up to get through a yellow light before it turns red?

3 Always
2 Sometimes, or
1 Never

Question 31: In the last week have you sped up to get through a yellow light before it turned red?

1 Yes
0 No

Question 32: Many people report they often drive above the speed limit. In your experience, have you noticed many people driving 5 miles per hour or more above the posted speed limit?

1 Yes
0 No

Question 33: Again, using the scale of Always, Sometimes, or Never, how often would you say you drive at least 5 miles per hour over the speed limit?

3 Always
2 Sometimes, or
1 Never

Question 34: About what speed do you tend to drive on interstate highways if the posted speed is 75 miles per hour?

Question 35: About what speed do you tend to drive on a state or county highway if the posted speed is 55 miles per hour and there is little traffic?

Question 36: About what speed do you tend to drive on a city or town road if the posted speed limit is 35 miles per hour and there is little traffic?

Question 37: Are you the type of driver that picks a lane and sticks with it, or are you more likely to change lanes as you need to?

1 Stay in same lane
2 Change lanes

Now I am going to ask you some questions regarding traffic stops. Please do not consider traffic stops for immigration or by any other federal agencies when answering these next questions.

Question 38: Thinking about the last 12 months, have you been stopped by tribal, local or state police, or county sheriffs while you were driving in New Mexico?

1 Yes
0 No

[IF Answer is No, the respondent skips all of the questions about stops and continues at Question 88]

Question 39: How many times have you been stopped by tribal, local or state police, or county sheriffs while you were driving during the past 12 months?

Now thinking of your last stop by tribal, local or state police, or county sheriffs:

Question 40: About what time did this stop occur?

Question 41: Was that in the a.m. or p.m?

1 a.m.
2 p.m.

Question 42: Including yourself, how many people were in the vehicle at the time you were stopped?

Question 43: When you got stopped, was the vehicle you were in the same vehicle you already told me about?

1 Yes
0 No

[IF Answer is No, the respondent skips all of the questions about the car the respondent was stopped in and continues at Question 59]

Question 44: What is the YEAR of the motorized vehicle that you were in when you got stopped?

Question 45: What is the MAKE of the motorized vehicle that you were in when you got stopped?

Question 46: What is the MODEL of the motorized vehicle that you were in when you got stopped?

Question 47: What is the color of the vehicle?

Does that vehicle have any of the following?

Question 48: Non-factory or after-market tinted windows?

1 Yes
0 No

Question 49: Non-factory or after-market rims or wheels?

1 Yes
0 No

Question 50: A custom paint job?

1 Yes
0 No

Question 51: A non-factory or after-market custom stereo system?

1 Yes
0 No

Question 52: A custom exhaust system or pipes?

1 Yes
0 No

Question 53: A non-factory or after-market high-performance engine?
1 Yes
0 No

Question 54: Is the vehicle a low-rider?
1 Yes
0 No

Question 55: Is the vehicle equipped with a lift kit?
1 Yes
0 No

Question 56: Is the vehicle equipped with hydraulics?
1 Yes
0 No

Question 57: For this question, please think about the mechanical condition of your vehicle, where excellent condition means the vehicle is in excellent working order and needs no repairs; good condition means the vehicle is free of any major service problems; fair condition means the vehicle needs to be serviced; and poor condition means the vehicle does not run well.

Thinking about the mechanical condition of your vehicle, would you describe it as excellent, good, fair, or poor?
4 Excellent
3 Good
2 Fair
1 Poor

Question 58: For this question, please think about the appearance of your vehicle, where excellent means the vehicle looks new and does not have cosmetic defects; good means the vehicle is free of any major cosmetic defects; fair means the vehicle has some cosmetic defects; and poor means the vehicle has severe cosmetic defects.

Thinking about the appearance of your vehicle, would you describe it as excellent, good, fair, or poor?
4 Excellent
3 Good
2 Fair
1 Poor

I'm going to ask you a few more questions about the last stop:

Question 59: Were you stopped at a DWI or sobriety checkpoint?
1 Yes
0 No

Next I'm going to read you a list of possible reasons you might have been stopped by someone from tribal, local, state or county law enforcement. Were you stopped for any of the following?

Question 60: An equipment violation, such as a broken headlight, taillight, license plate light, or broken windshield?
1 Yes
0 No

Question 61: For failure to stop at a red light or stop sign?
1 Yes
0 No

Question 62: Because the registration sticker on the license plate was expired?
1 Yes
0 No

Question 63: For a lane violation?
1 Yes
0 No

Question 64: For following too closely?
1 Yes
0 No

Question 65: For failure to signal?
1 Yes
0 No

Question 66: For a seatbelt violation?
1 Yes
0 No

Question 67: For a cell phone violation?
1 Yes
0 No

Question 68: For speeding?
1 Yes
0 No

Question 69: Were you going more than 10 miles per hour over the speed limit?
1 Yes
0 No

Question 70: Was there any other reason why you were pulled over?
1 Yes
0 No
[IF YES]: What would that be?

Now I'd like to ask you a few more questions about the stop:

Question 71: Did the police officer search you, the vehicle, or anything else?
1 Yes
0 No

Question 72: Which of the following best describes why the search was conducted?
1 The officer asked for consent and you granted it,
2 The officer smelled alcohol or drugs,
3 The officer saw alcohol, drugs or other evidence of illegal
4 A drug dog smelled something,
5 Or Something else

Question 73: Approximately how long did the search take?
1 0 to 10 minutes
2 11 to 20
3 21 to 30
4 or 31 minutes or more

Question 74: Did the officers find any of the following during the search:
0 Nothing
1 Alcohol
2 Drugs or paraphernalia
3 A weapon
4 Stolen Property
5 Currency
6 Or Something Else

Question 75: What was the result of the traffic stop? Did you get a:

0 None
1 Verbal Warning,
2 Written Warning,
3 Citation or Ticket,
4 Were you Arrested,
5 Or Something Else

Question 76: What were you charged with?

1 Outstanding warrant
2 Resisting arrest
3 Property crime
4 Offense against another person
6 A drug violation
7 A traffic violation
8 A DWI/DUI or BAC
9 or Something Else

The next set of questions are about your interactions with the officer or officers who stopped you.

Question 77: At any time during the stop, did the officer or officers use or threaten to use force against you?

1 Yes
0 No

Question 78: Did the officer:

1 Verbally threaten you
2 Push or grab you
3 Kick or hit you
4 Point a gun or shoot at you
5 None of the above
6 Use any other type of force against you

Question 79: [IF ANY OTHER FORCE]:What would that be?

Question 80: At any time during the stop did you:

1 Argue with the officer
2 Insult the officer
3 Curse at the officer
4 Verbally threaten the officer
5 Disobey or interfere with the officer
6 Try to get away
7 Push, grab, or hit the officer
8 Resist being handcuffed, arrested or searched
11 None of the above
12 or Something Else

Question 81: Looking back on this stop, do you feel the police behaved properly or improperly?

1 Properly
2 Improperly

Question 82: Did you take any formal action, such as filing a complaint or lawsuit, against the police for behaving improperly?

1 Yes
0 No

Question 83: With whom did you file a complaint or lawsuit?
1 Civilian Complaint Review Board
2 Law enforcement agency employing the officer(s)
3 Local prosecutor
4 Court
5 American Civil Liberties Union (ACLU)
6 Any other organization

Question 84: Was the officer who performed the traffic stop from:
1 The State Police
2 The Sherriff's Department
3 The City Police
4 Multiple agencies
5 Or some other law enforcement agency

Question 85: [IF SOME OTHER AGENCY]: What would that be?

Question 86: How many officers were present?

Question 87: What was the race or ethnicity of the officer who conducted the traffic stop?
1 White
2 Black/African American
3 Hispanic/Latino
4 Asian/Pacific Islander
5 Native American
6 Other

Finally, I need some basic background information about you.

Question 88: What is your religious affiliation?
1 Protestant
2 Christian
3 Catholic
4 Evangelical Christian
5 Jewish
6 Muslim
7 Hindu
8 Sikh
9 Buddhist
10 Other

Question 89: Do you have a disability that prevents you from performing activities of daily living?
1 Yes
0 No

Question 90: From the following options, do you primarily consider yourself to be:
1 White,
2 Asian or Pacific Islander;
3 Black or African American;
4 Hispanic
5 American Indian, Native American, or Alaskan Native; Or
6 Something Else

Question 91: [IF SOMETHING ELSE]: How would you describe your racial or ethnic background?

Question 92: Was the estimated annual income for your household for 2007 greater or less than $40,000?
0 Less than $40,000
1 More than $40,000

Question 93: I'm going to read you some broad income categories. Please STOP me when I get to the one that includes the estimated annual income for your household for 2007.
Was it:

1 Less than $10,000;
2 10 to less than 20;
3 20 to less than 30; or
4 30 to less than $40,000

Question 94: I'm going to read you some broad income categories. Please STOP me when I get to the one that includes the estimated annual income for your household for 2007.
Was it:

1 40 to $50,000;
2 50 to less than 60;
3 60 to less than 70;
4 70 to less than 80;
5 80 to less than 90;
6 90 to less than 100; or
7 More than $100,000

Question 95: Your answers have been very helpful to our research. Would it be possible to call back in a few months to ask you some follow-up questions?

1 Yes
0 No