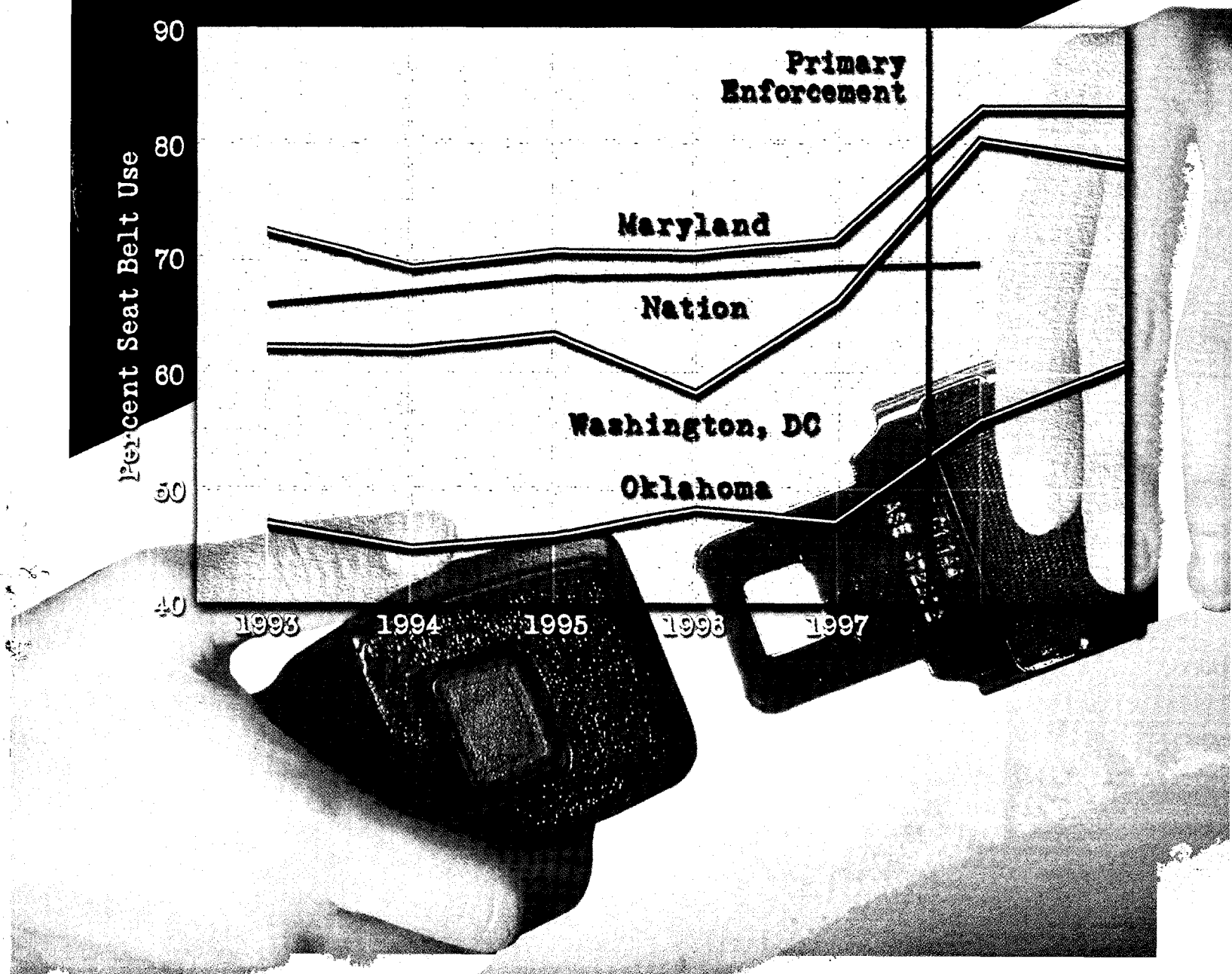
Evaluation of Maryland, Oklahoma and the District of Columbia's Seat Belt Law Change to Primary Enforcement

Final Report



Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DOT HS 809 213		

4. Title and Subtitle	5. Report Date
Evaluation of Maryland, Oklahoma and the District of Columbia's Seat Belt Law Change to Primary Enforcement	March 2001
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
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9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Preusser Research Group, Inc. 7100 Main Street Trumbull, CT 06611	
	11. Contract or Grant No. DTNH22-97-D-05018

12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
U.S. Department of Transportation National Highway Traffic Safety Administration 400 Seventh Street, S.W. Washington, D.C. 20590	
	14. Sponsoring Agency Code

15. Supplementary Notes

Dr. Linda Cosgrove served as the NHTSA Contracting Officer's Technical Representative for the study.

16. Abstract

Some states allow an officer to stop a motorist for an observed belt law violation alone (primary enforcement). Most require that the initial stop be made for some other violation before a belt citation can be issued (secondary enforcement). In 1997, Maryland, Oklahoma and the District of Columbia upgraded their seat belt laws from secondary to primary enforcement. Each had an increase in belt use after the law change. Increases ranged from 8 to 18 percentage points. Drivers surveyed at DMV offices indicated that they had knowledge of the new law, were more likely to wear their belts now than in the past and most strongly agreed that belts make vehicle trips safer. The number of citations issued by police increased as soon as primary enforcement became effective. In a number of locations, citation data that identified race confirmed there was either no difference in non-white versus white ticketing, comparing secondary to primary enforcement, or a greater increase in ticketing went to whites following the change to a primary enforcement law.

17. Key Words		18. Distribution Statement
Seat Belt	Evaluation	
Primary Enforcement	Legislation	

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified		

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

TECHNICAL SUMMARY

CONTRACTOR	CONTRACT NUMBER
Preusser Research Group, Inc.	DTNH22-97-D-05018
REPORT TITLE	REPORT DATE
Evaluation of Maryland, Oklahoma and the District of Columbia's Seat Belt Law Change to Primary Enforcement	March 2001
REPORT AUTHOR(S)	
Mark G. Solomon, David F. Preusser and William J. Nissen	

Background

Primary or standard enforcement means that a seat belt citation can be issued whenever law enforcement officers observe an unbelted driver or passenger. Secondary enforcement means a citation can be written only after a law enforcement officer stops a vehicle for another violation. In 1997, two states, Maryland and Oklahoma, and the District of Columbia upgraded their seat belt laws from secondary to primary enforcement. Maryland's law became effective October 1, 1997, Oklahoma's law took effect on November 1, 1997 and the District of Columbia's (DC) law took effect on October 9, 1997.

Objective

The objective of this study was to evaluate the change from secondary to primary enforcement in Maryland, Oklahoma, and DC with respect to observed belt use rates, driver reactions, law enforcement practices, citations issued and race.

Method

Statewide data and data for three study communities were collected in both Maryland and Oklahoma. District-wide data were collected in DC.

Historical statewide belt use rates were collected. Occupant belt use was observed in each study community. Driver surveys at Department of Motor Vehicle offices and interviews with police officers were conducted in each study community. Additionally, citation data with race identifiers were collected, where available.

(Continued on additional pages)

"PREPARED FOR THE DEPARTMENT OF TRANSPORTATION, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION UNDER CONTRACT NO.:DTNH22-97-D-05018. THE OPINIONS, FINDINGS, AND CONCLUSIONS EXPRESSED IN THIS PUBLICATION ARE THOSE OF THE AUTHORS AND NOT NECESSARILY THOSE OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION."

HS Form 321 July 1974

Belt Use

Seat belt use rates made small gains if any from 1993 through 1996 in the study states and DC; large gains occurred around the time primary enforcement laws went into effect in 1997. The national belt use rate changed little from 1993 to 1996, and increased moderately after that.

Front Seat Occupant Restraint Use

	Year						
	1993 (%)	1994 (%)	1995 (%)	1996 (%)	1997 (%)	1998 (%)	1999 (%)
Nation	66	67	68	66	67	69	
					Primary Laws		
Study States					Enacted	Enforced	
Maryland	72	69	70	70	71	83	83
Oklahoma	47	45	46	48	60	56	61
Washington D.C.	62	62	63	55	64	80	78

Every study community had positive increases in the belt use rate. From 1997 to 1998, rate increases ranged from a low of 8 percentage points in Comanche County, Oklahoma to 18 percentage points in Baltimore County, Maryland. Use rates continued to increase into 1999.

Percentage Point Change in Front Seat Occupant Belt Use

	1997 (%)	1998 (%)	1999 (%)	**Pct. Point Difference** 1997-98	**Pct. Point Difference** 1998-99
Maryland					
Howard County	79	92	93	+13	+1
Anne Arundel County	74	85	92	+11	+7
Baltimore County	63	81	92	+18	+11
Oklahoma					
Comanche County	58	66	76	+8	+10
Oklahoma County	50	66	69	+16	+3
Tulsa County	52	60	63	+8	+3
Washington D.C.					
District Observation Sites	67	79	80	+12	+1

Demographic information collected in Maryland and Oklahoma indicated that females were wearing seat belts more than males and that non-whites were wearing belts as much as whites. Pick-up truck drivers were less likely to be belted than drivers of other vehicle types.

DMV Driver Survey

Driver data collected in 1998, after the primary laws took effect, indicated that most respondents "strongly agree" that seat belts make vehicle trips safer (MD 71%; OK 70%; DC 73%). Most drivers reported that they wear a seat belt "always" when riding in a passenger vehicle (MD 85%; OK 72%; DC 78%). Many indicated an increase in use (MD 44%; OK 51%; DC 46%), and few indicated a decrease (MD 3%; OK 4%; DC 4%) during the preceding year. Females reported using belts more than males and non-whites were more likely than whites to have indicated an increase in use.

A majority of respondents understood that a primary law existed (MD 87%; OK 90%; DC 84%) and most believed there was at least a modest chance of receiving a seat belt ticket for non-compliance (MD 78%; OK 80%; DC 69%). Whites (MD 42%; OK 38%; DC 14%) indicated less belief that there was a high likelihood of getting a ticket compared to blacks (MD 50%; OK 51%; DC 42%) and other non-whites (MD 56%; OK 56%; DC 46%).

Respondents were able to recall that they saw, read or heard seat belt information (MD 48%; OK 64%; DC 46%). They most likely recalled a general belt safety message (MD 40%; OK 33%; DC 31%), an explanation of the new law (MD 39%; OK 44%; DC 22%) and a message about enforcement (MD 20%; OK 24%; DC 48%).

Citations Issued

The number of citations issued increased after primary enforcement became effective. In Maryland, Oklahoma and DC, the increase continued through the end of the study period. At the study community level, whether or not the increase continued depended on the particular community.

In some locations, citation data included race identifiers. These data confirmed that there was either no difference in non-white versus white ticketing, comparing secondary to primary enforcement, or a greater increase in ticketing went to whites following the change to a primary enforcement law.

Law Enforcement Interviews

Police believed that most motorists know that stops are permissible for a seat belt violation alone. Some police expressed that the motoring publics' desire not to receive a ticket was one of the reasons for increased belt use. Police also thought that higher fines would work better in raising belt use rates. However, they added that a higher fine could cause some police officers to write warnings instead of citations.

Police valued the primary enforcement law as a crime detection tool, but acknowledged that there are many other mechanisms to establish probable cause to stop a suspicious driver. Many expressed that the safety benefit of the law is more important than its use to establish probable cause for stops. Police were not aware of any organized resistance to the primary law.

Conclusions

The seat belt use rate went up in study locations with the implementation of a primary enforcement seat belt law. Motorists were aware of the law and indicated they were more likely to wear a seat belt compared to in the past. Police were in favor of primary enforcement laws over secondary.

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I. INTRODUCTION

This is the final report of a study entitled *Evaluation of Maryland, Oklahoma and the District of Columbia's Seat Belt Law Change to Primary Enforcement*. Work covered in this final report was carried out under Contract Number DTNH22-97-D-05018 (98-2).

Most seat belt laws passed by states allow only secondary enforcement. That is, a motorist can receive a citation for a belt law violation if and only if first stopped for some other violation. Some states have passed laws allowing for primary or standard enforcement meaning that a motorist can receive a citation for a belt law violation alone.

This report covers an evaluation of the effects of the change from secondary to primary seat belt law enforcement in Maryland, Oklahoma and the District of Columbia.

II. BACKGROUND

Primary enforcement, sometimes referred to as standard enforcement, means that a seat belt citation can be written whenever a law enforcement officer observes an unbelted driver or front seat passenger. Secondary enforcement means a citation can be written only after a law enforcement officer stops a vehicle for another traffic violation. Statewide observation surveys show that states with primary enforcement laws have higher belt use rates than states with secondary enforcement laws. Fourteen states and the District of Columbia had passed primary enforcement laws by the end of 1998. The 14 states with primary enforcement laws averaged 75% belt use, while the states with secondary enforcement averaged 61%, a 14 percentage point difference (NHTSA, 1999).

The national rate for seat belt use rose from 14% in 1983 to 69% in 1998 (NHTSA, 1999). This success can be attributed to the passage of mandatory seat belt laws and the active enforcement of these laws. In general, those states with primary laws have seen greater increases in belt use than those states with secondary laws.

In 1996, a NHTSA telephone survey found that 86% of the American public favored laws requiring drivers and front seat passengers to wear seat belts. More recently, a public opinion survey found a majority of Americans (66%) supported primary enforcement laws (NHTSA, 1999). Similar attitudes toward stronger seat belt laws have been measured as high as 73% (Traffic Safety Now, 1991).

In general, law enforcement agencies have welcomed primary enforcement laws. Law enforcement officers have consistently pointed out that secondary enforcement laws are difficult to enforce. They also believe that secondary laws contribute to confusion among officers, the judiciary and the public. Changing to primary enforcement, they say, elevates the importance of the law for both the motoring public and law enforcement (Ulmer, et al., 1994; Preusser and Preusser, 1997). Accordingly, people living in states with stronger seat belt laws are more likely to know what the law entails, believe wearing a seat belt is safer than not wearing one and believe enforcement action is more likely (NHTSA, 1996).

Vigorous enforcement leads to higher belt use rates, particularly in primary law states. Campbell (1988) measured the association between seat belt law enforcement and usage rates in eight states with primary enforcement laws and 11 states with secondary enforcement laws. The results indicated that increasing levels of enforcement were associated with increasing levels of belt use. This association was stronger in the primary law states than in the secondary law states. Similarly, a given level of enforcement was associated with higher belt use in primary law states than in secondary law states.

Ulmer et al. (1994) updated the earlier Campbell work using 1992 data. At that time, seven of Campbell's eight primary law states were still primary states. The results indicated a general trend toward increasing numbers of belt use citations and higher belt use rates in these states. In these seven states, belt use rates rose an average of approximately 13 percentage points, and enforcement rates were, on average, triple the rates reported earlier by Campbell. Again, primary laws were found to be associated with higher belt use rates than secondary laws, and higher enforcement levels whether primary or secondary, were associated with higher belt use rates.

There is also evidence that mandatory seat belt use laws in general, and primary laws in particular, reduce the severity of crash injury. For instance, Wagenaar, et al. (1988) used time series methods to evaluate the impact of the first eight mandatory use laws on traffic safety. A decline of almost 9% was reported in traffic fatalities following enactment of these laws. The primary law states experienced declines of almost 10% and secondary law states experienced declines of approximately 7%. A similar outcome was reported by Evans and Graham (1991) who studied traffic fatalities in five states with primary enforcement laws and 11 states with secondary laws. In the first full year following enactment of mandatory seat belt use laws, the primary law states experienced a reduction in motor vehicle occupant fatalities of more than 20% while the states with secondary laws experienced a decline of just 7%.

Some states that had originally passed a secondary law, later adopted primary enforcement. The first three to implement an uninterrupted change from secondary to primary were California, Louisiana and Georgia. The change from secondary to primary seat belt law enforcement was evaluated in California (Ulmer, et al., 1994), Louisiana (Preusser and Preusser, 1997) and Georgia (Ulmer, et al., in process). These studies measured the relative effect of primary versus secondary enforcement by focusing on observed belt use rates, motorist reactions, police officer reactions and citation levels, before and after the law change in several communities within each state.

On January 1, 1993, California became the first state to implement an uninterrupted change from secondary to primary seat belt law enforcement. Comprehensive enforcement and publicity programs supported implementation of the new law. In six study communities, the percentage of drivers observed wearing seat belts increased from 58% prior to the law change to 76% soon thereafter. Drivers surveyed at DMV offices indicated that they had knowledge of the new law and were likely to wear their belts more than in the past. The number of citations issued by law enforcement officers increased slightly after the change to primary enforcement. It is unlikely that the small increase in the number of citations, alone, accounted for the relatively large increase in observed belt use rates. Gains in belt use were more likely due to a highly publicized implementation combined with continued enforcement (Ulmer, et al., 1994).

On November 1, 1995, Louisiana became the second state to implement an uninterrupted change from secondary to primary enforcement. As had been the case in California, comprehensive enforcement and publicity programs introduced Louisiana's new law. In five study communities, belt use rose from 52% in the summer of 1994 to 68% in the spring of 1996, where it remained into the summer of 1996. Louisiana motorists received the new law favorably. Traffic and patrol officers also favored the change to primary enforcement. Louisiana, unlike California, experienced substantial increases in belt use ticketing by State Police and by the local departments. Trends toward increased ticket writing had begun well before 1995 and continued unabated into the period of primary enforcement. The Louisiana study concluded that primary enforcement creates a direct relationship between failure to comply with the belt law and possible enforcement actions and that failure to wear a seat belt becomes more of a *real* violation for both officer and motorist. The result of this relationship was increased seat belt use (Preusser and Preusser, 1997).

Georgia was the third state to go directly from secondary to primary enforcement when it passed a law on July 1, 1996. Shortly after the introduction of the law, the belt use rate increased by four percentage points in five selected study communities. Statewide, the increase was 11 percentage points. There was a clear increase in seat belt citations in study communities, more so than in California or Louisiana. However, there was less communication with the public. Rather, during the summer of

1996, most media and enforcement attention in Georgia focused on the Olympics (Ulmer, et al., in process).

Previous studies make it clear that primary seat belt laws lead to higher use rates. A strong law, in itself though, is not enough to persuade most motorists to buckle up. What works best is a strong law with adequate publicity and a public that believes the seat belt law is vigorously enforced (Cosgrove, in process).

Maryland, Oklahoma and the District of Columbia were next to upgrade their seat belt laws from secondary to primary enforcement (Figure 1). Maryland's primary belt law became effective on October 1, 1997. The law applies to front seat passengers and includes most motor vehicle types on Maryland roadways but exempts US Postal vehicles when on duty. The maximum penalty for violating the law is $25. Oklahoma enacted a primary enforcement law on May 29, 1997. The law applies only to front seat passengers. Unlike in other states, Oklahoma lowered the fine for failure to wear a seat belt from $32.50 under their secondary law to $20 under their primary law. The law continues to cover passenger vehicles, but does not cover US Postal Service vehicles on duty, trucks and truck tractors and vehicles primarily used on a farm. In Oklahoma, a local jurisdiction has the right to adopt, and thus enforce as a municipal ordinance, any traffic law passed by the State Legislature. Oklahoma City, the largest city in the state, had refused to enact the primary law. The District of Columbia's mandatory seat belt law took effect on October 1, 1997. The law applies to front seat occupants. It more than tripled the fine from its prior secondary status ($15 to $50) and added a two-point license penalty for DC drivers. Taxis were added to the list of vehicle types covered by the law and taxi drivers failing to post a required seat belt use sign in their cabs can be issued a $100 fine.

Primary Law States	Vehicles Covered	Vehicles Exempt	Amount of Penalty
Maryland	Passenger/multi-purpose- vehicle; truck; truck-tractor; bus	US Postal Service vehicle on duty	$25
Oklahoma	Passenger car; van; pick-up truck	US Postal Service vehicle on duty; Truck and truck tractor; Vehicle used on farm	$20
District of Columbia	Vehicle seating eight or less people		$50, plus 2 points; $100 taxi not posting sign

Figure 1. Seat Belt Use Law Provisions (as of December 1998)

The enactment of primary enforcement laws in Maryland, Oklahoma and DC provided an opportunity to evaluate effects, over time, in respective environments. Maryland is a relatively small state with many cities and a number of densely populated areas. Most of its larger cities have municipal police departments that enforce traffic laws. County police departments also enforce traffic laws. The Maryland State Police provide enforcement on Maryland highways. DC is a single, densely populated city. On any given weekday, DC has many commuting workers driving into the

city from both Maryland and Virginia. Three law enforcement agencies operate in DC in overlapping jurisdictions: the DC Metro Police; the National Park Police; and the Capitol Police. Each has the power to enforce traffic laws. Oklahoma is in a different geographic region of the country than Maryland and DC. The state has few densely populated areas. In Oklahoma, municipal police and county sheriff departments both have traffic enforcement powers. The State Police have enforcement powers on the state's highways.

All three locations are similar in that the statewide seat belt use rate improved little, if at all, in the years preceding the enactment of primary enforcement. Maryland remained above the national average, DC was just below and Oklahoma stayed far below. Each location passed a primary enforcement law as a measure to improve a virtually stationary use rate and each law is different. Maryland and DC's laws cover more vehicle types than the law in Oklahoma. Maryland did not change the fine level from when it was secondary, Oklahoma lowered the fine and DC was the only location to raise the fine and add points.

NHTSA requested an evaluation to assess changes when each state upgraded their seat belt laws from secondary to primary enforcement. The evaluation was to address the following general questions:

1. Does the seat belt usage rate increase after implementation of the primary law?

2. Are more seat belt citations issued by law enforcement officers?

3. Does public perception of risk of being cited change?

4. Do law enforcement attitudes toward the seat belt law change?

5. What public education (PI&E) campaigns do the public recall? Are they aware of the law change?

6. Are new enforcement strategies implemented that take advantage of the law and are they publicized?

7. Are there differential effects by ethnic group?

III. METHOD

Selection of Study Communities

Data were collected statewide and in three communities in Maryland and Oklahoma, and for the entire District of Columbia. Study communities were selected based on the following criteria:

- regional representation in each state for Maryland and Oklahoma; all of the District of Columbia;
- historical records of belt use that was included in the official usage surveys;
- local law enforcement agencies actively enforcing the seat belt law and willing to participate in interviews;
- accessible historical seat belt enforcement data and a willingness to provide future seat belt enforcement data.

In Maryland and Oklahoma, State Highway Safety Representatives helped develop a list of possible study communities according to these criteria and suggested Department of Motor Vehicle (DMV) licensing offices in each community that would conduct driver surveys. In DC, a Public Safety Representative did much-the-same as the State Highway Safety Representatives did in Maryland and Oklahoma.

Maryland

Anne Arundel, Baltimore (which does not include the city of Baltimore) and Howard Counties were the study communities in Maryland. These three counties are home to nearly 27% of the state's population. The aggregate population in the study communities is roughly 85% white, 12% black and 3% other. The breakdown is typical across the aggregate counties in Maryland (excluding the city of Baltimore) (U.S. Census, 1990).

The Maryland Motor Vehicle Administration was planning to have one DMV office (called MVA in Maryland) in Baltimore County and one in Howard County administer driver surveys. The Anne Arundel County MVA office was currently involved in other research, and therefore, a MVA office in nearby Beltsville was substituted.

County Police Departments serving these communities agreed to participate in interviews. Discussions were held at County Police Headquarters and at some satellite offices. Citation data were first sought from the County police departments, but eventually these data were obtained from the Administrative Office of the Courts.

Oklahoma

Three study communities were selected in Oklahoma. Tulsa is the largest of the three study communities. Situated in the Northeast, Tulsa has a population of about 500,000 and nearly 16% of the state's population. Edmund is a smaller city located near Oklahoma City in the center of the state in Oklahoma County. Lawton is the largest urban area in southwest Oklahoma. This city is in Comanche County and is home to Fort Sill Military Base, where a large proportion of residents are

transient. Still, the county has a permanent population of approximately 111,500 people. The racial breakdown of the study communities and the counties they are in is 79% white, 13% black and 8% other. The breakdown is similar to the state's race proportions of 82% white, 7% black and 10% other (U.S. Census, 1990).

The Department of Public Safety conducted driver surveys at one full-service DMV office in each community. The city police department in each study community allowed officers to participate in interviews and were willing to provide relevant citation data.

The District of Columbia

The total population of DC is roughly 607,000, of which 66% are black, 30% are white and 4% are other. The city has one centralized DMV facility with one satellite operation. Both facilities gathered driver survey data. Metro DC Police were willing to let numerous officers with a variety of ranks participate in interviews. Citation data were available through the Department of Public Safety.

Data Collection

This study collected belt use observations, driver surveys at DMV offices, and conducted interviews with law enforcement officers in each site.

Statewide Belt Use

NHTSA provided state reported belt use rates for all 50 states, DC, Puerto Rico and US territories from 1993 through 1999. Rates were also weighted to represent a national rate for years 1993 through 1998.

Historical Seat Belt Use Data

Annual Reports on seat belt use and survey methodologies were provided by the three jurisdictions. Reports dated from 1992 for Oklahoma, 1993 for Maryland and 1994 for DC. Point-by-point use data for the study communities were isolated from statewide totals. These data were compared to observations of seat belt use carried out for this study.

Observations of Seat Belt Use

In Oklahoma and DC, organizations that regularly do statewide seat belt use surveys carried out observations for this study. New recruits observed seat belt use in Maryland. All observers received training before beginning any observations.

This study measured belt use in the selected communities at the same observation sites used in annual statewide surveys (Appendix A). For most of the study communities, observation sites located within the jurisdiction of the study community were used with some exceptions. Because an abundance of observation sites existed in DC the number of sites used was reduced. Reduction of sites was a random process. In Oklahoma County, Oklahoma, only those sites outside of Oklahoma City limits were included.

In the observations conducted for this study, care was taken to follow the procedures used in the earlier state surveys. Historical site data including exact observation location, direction of traffic, the day of week and the time of day, were adhered to in so far as possible. The information was used to set up exactly when and where data collection activity would occur. Data collection forms and observation instructions were provided to observers (Appendix A) to ensure that the data collected

would be comparable to historical belt use data. The data collection form recorded vehicle type, driver and front outboard passenger belt use, gender and race. Observations in DC were done exactly same as they had been done in the past. They did not include recording vehicle type, gender, or race.

A one-page instruction form was used by observers. In general, the form indicated:

- Each observation period should be 45 minutes.
- Observed vehicle types included cars, pick-up trucks, sport utility vehicles and vans with no more than four tires; police, emergency and other vehicles with mounted colored lights, government vehicles and taxis were excluded.
- Observed occupants included drivers and outboard front seat passengers. Although children in a child safety seat were excluded, children not restrained by a child safety seat in the front seat were counted.
- On congested roadways, if traffic was moving too fast to observe every vehicle, a focal point up the road in the appropriate lane was selected. The focal point would indicate the next vehicle for observation after the last vehicle had been recorded.
- If rain, fog or inclement weather occurred, the observer waited 15 minutes to see if it would stop. If bad weather persisted, the observations were rescheduled.
- If construction compromised a site, the observer was told to move one block so that the same stream of traffic could be observed. If this was not feasible, an alternate site was selected.

Seat belt use observations for this study occurred during March 1999 in Maryland and during April 1999 in DC and Oklahoma.

The sampling error was estimated (95% confidence level) for the belt use rate calculated for each study community. The estimated error was smallest for the District of Columbia (0.4%) and largest for Lawton, OK (3.4%).

DMV Driver Surveys

DMV offices supported this study by conducting self-administered surveys of persons renewing or applying for driver licenses at a licensing office that serves the study community. The licensing office that serves Anne Arundel County, Maryland was involved in other research, and therefore, a licensing office in nearby Beltsville, MD was substituted. All other licensing offices for this study served the study communities to which they were located and all provided a full range of services, with the exception of Columbia Express in Howard County, MD. Driver license tests are not conducted in this office and first-time license applicants are absent in the data from this location.

The survey was for all persons who qualified for a driver license, including new drivers, license reinstatements, and transfers from other states. Drivers completed their survey while waiting for their photo identification to be processed at the end of their visit to the DMV. The purpose of the survey was to assess public knowledge and perceptions related to:

- the new seat belt law;
- changes motorists may have made in their patterns of seat belt use;
- how vigorously they felt their police agencies enforce the law;
- likelihood that the police would stop them;
- risk from not wearing a seat belt, and;
- sources of knowledge about the new seat belt law.

Survey forms are shown in Appendix B. The survey form used in DC differed from those used in Maryland and Oklahoma in that it asked motorists if they knew points can be assigned to a driver's record for belt law infractions in their jurisdictions. The DMVs were asked to conduct the survey during the time that observations of belt use were occurring. Two waves of surveys were completed. The first wave was conducted during March and April 1999 and the second wave during August 1999.

Law Enforcement Interviews

One law enforcement agency in each study community participated in interviews. Participants are listed in Table 1. Because many in the District's workforce commute from Maryland or Virginia, the DC Metro Police actually provide safety services for a much larger number than its residents during the work-day week.

Table 1. Interview Participants

	Resident Population
Maryland	4,781,468
Howard County Sheriff's Dept.	187,328
Anne Arundel County Sheriff's Dept.	427,239
Baltimore County Sheriff's Dept.	692,134
Oklahoma	3,144,585
Lawton Police Dept.	90,000
Edmund Police Dept.	69,000
Tulsa Police Dept.	380,000
District of Columbia	607,000
D.C Metro Police Dept.	607,000

Both supervisors and rank-in-file officers took part in discussion sessions. Sessions assessed law enforcement reactions to primary enforcement, and focused on law enforcement attitudes toward the new law, changes made in the enforcement of seat belt violations and the likelihood of stopping motorists solely for a seat belt violation. Topical guidelines for the interviews are in Appendix C. Interviews were held during the month of January 1999 in Maryland and DC and the first week of March 1999 in Oklahoma.

Citation Data

Citation data were analyzed on a pre-post basis. Law enforcement agencies in each study community agreed to attempt to provide monthly data on seat belt and all moving traffic citations issued for a one-to-two-year period prior to the change to primary enforcement through 1998. Race data were requested for the citations issued. In Maryland and Oklahoma, data on seat belt citations issued by the Highway Patrol were also sought. The following describes the data that were obtained.

Maryland

Maryland's statewide judicial records system provided a complete set of seat belt and moving traffic citation data. Monthly citation data were provided for 1996 through 1998 for each study community, the State Police and statewide. Race data associated with citation totals were also provided.

Oklahoma

Two local law enforcement agencies, Lawton and Tulsa, provided seat belt and total moving traffic citations by month for 1996 through 1998. Race data were not available for Lawton and Tulsa. Oklahoma State Police monthly citation data for 1996 through 1998 were obtained from the Department of Public Safety.

DC

The Department of Public Works provided monthly seat belt and moving traffic citation data for 1996 through 1998. Race data are not collected in DC during motor vehicle stops.

IV. RESULTS

Observations of Belt Use Results

The national seat belt use rate showed small, but positive, gains from 1993 through 1997 when it reached 67% (Table 2). Each of the study states mirrored this trend showing small gains, if any, in the statewide usage rates. Large gains occurred in Maryland, Oklahoma, and the District of Columbia soon after primary enforcement laws were enacted. The national rate did not experience a similar increase.

Table 2. Front Seat Occupant Restraint Use

	Year						
	1993 (%)	1994 (%)	1995 (%)	1996 (%)	1997 (%)	1998 (%)	1999 (%)
Nation	66	67	68	66	67	69	
					Primary Laws		
Study States					Enacted	Enforced	
Maryland	72	69	70	70	71	83	83
Oklahoma	47	45	46	48	60	56	61
Washington D.C.	62	62	63	55	64	80	78

Belt use in Maryland showed no improvement from 1993 to 1997, although the use rate continued to be about 3 percentage points above the national rate. In 1998, after the primary enforcement law took effect, belt use measured 83% for the state, 12 percentage points higher than the year before the law change and 14 points higher than the national average. The use rate measured in 1999 showed no change. Belt use in Oklahoma has been below the national use rate. Little change occurred in Oklahoma's use rate from 1993 through 1996, when the use rate ranged from 45 to 48%. Soon after primary enforcement was enacted, but before it was enforced, the statewide use rate measured 12 percentage points higher (60%) than the year before (48%) but still seven points below the national rate (67%). The use rate decreased in 1998 (56%), but was at its highest level in 1999 (61%). Belt use in the District of Columbia did not increase from 1993 to 1996. During that time, the use rate stayed below the national average. Belt observations in June 1997 measured belt use at 64%, 9 percentage points higher than when last measured. The 1997 measurement came just after primary enforcement was passed as a law but before it had become effective. An even larger increase in belt use was measured in 1998 (80%) after primary enforcement became effective. In just one year, DC's use rate rose from 64%, three percentage points below the national average, to 80%, 11 percentage points above the national average.

All three Maryland study communities had large gains in belt use after primary enforcement went into effect (Table 3). The year preceding primary enforcement, belt use in the three communities ranged from 63 to 79%. Belt use ranged from 81 to 92% after primary enforcement went into effect. Use rates measured at over 91% in all three of the study communities in March 1999. Once primary enforcement became effective in Oklahoma, belt use in the study communities measured higher than any previous year. In 1997, just before primary enforcement, belt use ranged

from 50 to 58%. In 1998, after primary enforcement had become effective, belt use ranged from 60 to 66%. Belt use was highest in 1999, ranging from 63 to 76%. The belt use rate for the Washington D.C. study sites closely resembled the District-wide rate over time. Once primary enforcement became law, belt use improved in all study sites.

Table 3. Percent Front Seat Occupant Belt Use

	1997 (%)	1998 (%)	1999 (%)
Maryland			
Howard County	79	92	93
Anne Arundel County	74	85	92
Baltimore County	63	81	92
Oklahoma			
Comanche County	58	66	76
Oklahoma County	50	66	69
Tulsa County	52	60	63
Washington D.C.			
District Observation Sites	67	79	80

Belt Use Demographics

Observation data collected for this study in March and April 1999 recorded demographics of belt use (Table 4). Observation data collected in Maryland and Oklahoma included information on vehicle type, driver sex and driver race. Observation data collected in DC did not record this information.

In Maryland, drivers of sport utility vehicles were more likely to be wearing a seat belt in comparison to drivers of passenger cars and vans (mini-vans and full sized vans). Maryland pick-up truck drivers buckled up less often. In Oklahoma, van drivers buckled up most often, followed by drivers in passenger cars and sport utility vehicles. The noticeably lower proportion of pick-up truck drivers wearing a seat belt in Oklahoma was most likely due to the fact that these drivers are exempted from enforcement if the pick-up is used on a farm. Females were observed wearing a seat belt more often than males. A slightly higher proportion of non-whites than whites were observed wearing a seat belt in Maryland. In Oklahoma, the same proportion of white and non-white drivers observed had buckled up.

Table 4. Percent Belt Use by Vehicle Type, Gender, and Race; 1999

	Vehicle Type				Driver Gender		Driver Race	
	Passenger car	Pick-up truck	Sport-utility	Van	Male	Female	White	Non-White
Maryland (4,945)	93 (3,156)	84 (584)	98 (526)	93 (679)	90 (2,902)	94 (2,042)	91 (3,962)	93 (982)
Oklahoma (3,707)	70 (2,227)	52 (851)	70 (232)	73 (397)	62 (2,225)	72 (1,448)	66 (3,154)	66 (542)

Motorist Knowledge and Opinions

Department of Motor Vehicle Offices supported this study by conducting two survey waves in each study community. Survey questionnaires asked motorists about their knowledge, their opinion, and behaviors about the new seat belt law.

Relationships were analyzed using chi-square to test statistical significance. Observable differences for the demographic variables *age*, *race*, *gender* and *miles driven* versus all other variables in the data set were examined for statistical significance at $p < .01$. If chi-square was not significant at $p < .01$, the statistical relationship was not mentioned below.

Demographics of Respondents

Table 5 shows a comparison of survey respondent age and gender to that of the licensed population. Young drivers under 26 years of age were over-represented and drivers age 50 years and older were under-represented. Overall, responses were weighted to reflect statewide distributions of licensed drivers by age. Table 5 shows that the proportion of male and female drivers in the survey group closely resembled the licensed population.

Table 5. Respondent Age and Gender Distributions (%)

	Maryland		Oklahoma		DC	
	Survey Respondents (944)	All Licensed Drivers* (3,346,622)	Survey Respondents (1,240)	All Licensed Drivers* (2,278,757)	Survey Respondents (521)	All Licensed Drivers* (356,181)
Age						
<26	20.7	11.4	38.5	15.3	19.0	10.1
26-39	35.0	33.2	29.0	28.3	43.6	39.7
40-49	23.2	22.1	23.1	19.6	18.0	20.5
50-59	11.4	15.5	6.2	14.6	12.1	13.9
60+	9.2	17.8	3.0	22.1	6.9	15.8
Gender						
Male	47.5	49.1	49.1	48.8	47.8	51.7
Female	52.5	50.9	48.9	51.2	51.6	48.3

*1997 data from U.S. DOT

Respondents described themselves in terms of race (Figure 2). The majority of respondents in Maryland and Oklahoma reported being white. Black was the next most common race category. The majority of respondents in DC reported being black; white was second most common. Some respondents reported themselves as other race categories.

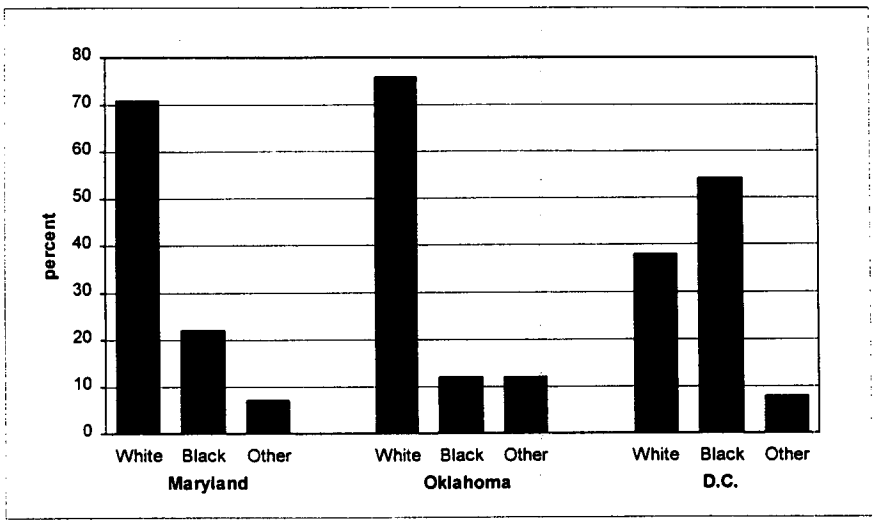

Figure 2. 1999 Survey of Drivers; Respondent Race

Respondents estimated the number of miles they drive in a year. A larger proportion of respondents in DC reported driving fewer miles than in Maryland and Oklahoma. DC respondents were least likely to accumulate over 15,000 miles per year; a majority drive 10,000 miles or less per year. Nearly one-third of respondents in Oklahoma drive over 15,000 miles; the remainder evenly distributed across the lesser mile categories. About one-fifth of the Maryland respondents drive less than 5,000 miles annually. The rest were evenly distributed across the higher mile categories.

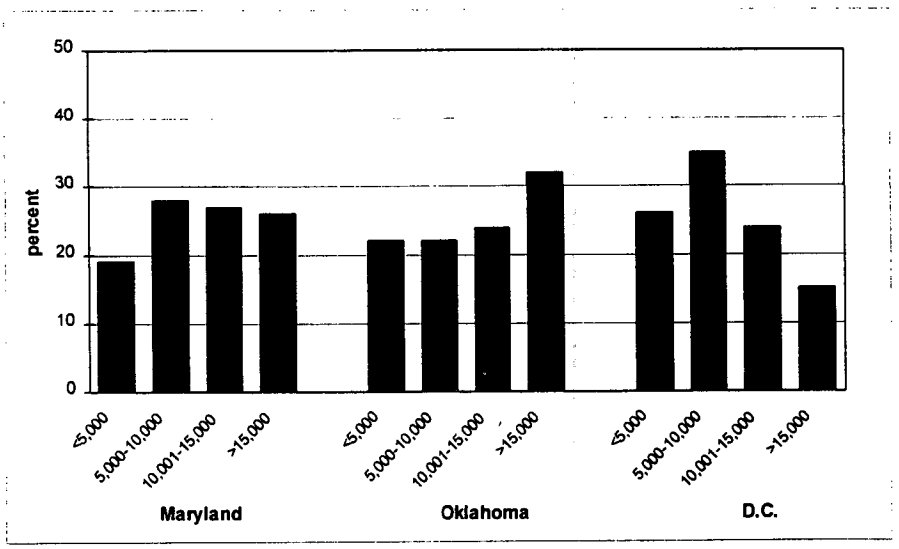

Figure 3. 1999 Survey of Drivers; Estimated Number of Miles Driven Last Year

Self Reported Belt Use

Most respondents indicated they "always" wear a seat belt when riding in a passenger vehicle (MD 85%; OK 72%; DC 78%). Responses varied by gender in all three study states (Table 6). Responses did not vary significantly as a function of race, age and miles driven.

Table 6. Reported Belt Use by State and Gender (%)

	Maryland (n=933)		Oklahoma (n=1,234)		DC (n=518)	
Male	78%	χ^2=21.09	66%	χ^2=10.68	69%	χ^2=14.37
Female	89%	df=1	75%	df=1	83%	df=1
		p<.001		p<.01		p<.001

Respondents reported how much they now wear a seat belt compared to past use. Very few indicated a decrease in use (MD 3%; OK 4%; DC 4%). Many indicated an increase in use (MD 44%; OK 51%; DC 46%) or to buckling up now as much as in the past (MD 53%; OK 46%; DC 49%). Responses varied as a function of race in all three states. Responses also varied as a function of miles driven (OK and DC) and age (OK). Black and other non-white respondents were more likely than white respondents to indicate that they buckle up more now as compared to the past (Table 7). In Maryland (χ^2=19.03, *df*=6, p<.01) and Oklahoma (χ^2=32.10, *df*=6, p<.001), respondents driving 10,000 miles or less per year (MD 48%; OK 59%) were more likely to wear a seat belt more now, as compared to those driving over 10,000 miles per year (MD 38%;OK 45%). In Oklahoma, a higher proportion of drivers under 40 years of age reported buckling up more now, as compared to drivers 40 years and older (57 versus 46%) (χ^2=22.77, *df*=8, p<.01).

Table 7. Percent Using Belts More Compared to Past Use by State and Race

	Maryland (n=910)		Oklahoma (n=1,205)		DC (n=496)	
White	40%	χ^2=18.64	51%	χ^2=31.18	24%	χ^2=82.35
Black	54%	df=4	60%	df=4	62%	df=4
Other	44%	p<.001	56%	p<.001	28%	p<.001

Most respondents strongly agreed that seat belts make trips safer (MD 71%; OK 70%; DC 73%), some reported somewhat agreeing (MD 21%; OK 25%; DC 17%) and few disagreed (MD 8%; OK 5%; DC 10%). Respondent age was related to responses in Oklahoma (χ^2=33.56, *df*=9, p<.001) but not in Maryland or DC. In Oklahoma, drivers age 40 years and older were more apt to strongly agree that belts decrease crash injury compared to younger drivers (75 versus 64%). Race was related to responses only in DC (χ^2=31.36, *df*=6, p<.001), where black drivers (62%) were less likely to strongly agree that belts make trips safer compared to white drivers (84%) or other non-white drivers (86%).

Knowledge of the Belt Law

Respondents were asked to select one of the following three statements as true: "police can give you a seat belt ticket: (1) only if they stop you for something else, (2) only if there has been an accident, or (3) whenever they see you not wearing your seat belt." Most respondents correctly selected (3), the correct response (MD 87%; OK 90%; DC 84%). Sex, age, race and miles driven were not significantly related to knowing the correct response.

Most respondents believed that a seat belt ticket would result in a fine (MD 67%; OK 67%; DC 68%). When asked to identify their state's existing fine level, respondents in Maryland (49%) and DC (50%) were more likely to indicate the accurate fine amount, compared to respondents in Oklahoma (34%). Few respondents believed that a belt ticket could be dismissed by going to court or traffic school (MD 7%; OK 9%; DC 6%). DC respondents also were asked if points can be assigned to a license for violating the law and only 22% answered "yes," the correct answer.

Risk of Getting a Ticket

Respondents in Maryland (47%) indicated a high likelihood (responses of "always" and "nearly always") of receiving a ticket when not wearing a seat belt. Fewer indicated there was a modest chance (response of "sometimes") of being ticketed (MD 31%). Oklahoma respondents were just as likely to report there is a high likelihood (40%) as there is a modest likelihood (40%). In Maryland and Oklahoma, fewer indicated that they would be ticketed seldom or never (MD 22%; OK 20%). DC driver responses were more evenly distributed (high likelihood 34%; modest 35%; not great 31%). Responses varied as a function of race (MD, OK and DC), miles (OK and MD), and age and sex (OK). Fewer whites indicated a high likelihood of getting a ticket, as compared to blacks and other non-whites (Table 8). More low mileage drivers (10,000 miles or less per year) in Maryland (51%) and Oklahoma (48%) reported there to be a high likelihood for ticketing, compared to higher mileage drivers (10,000+ miles per year) in Maryland (39%) and Oklahoma (39%). These results were significant (MD, χ^2=19.29, *df*=6, p<.01; OK, χ^2=36.80, *df*=6, p<.001). A larger proportion of Oklahoma drivers under age 50 (44%) indicated a high likelihood compared to drivers age 50+ (31%) (χ^2=20.77, *df*=8, p<.01).

Table 8. Percent that Believed there is a High Likelihood of a Belt Ticket by State and Race

	Maryland (n=912)		**Oklahoma** (n=1,219)		**DC** (n=504)	
White	42%	χ^2=13.53	38%	χ^2=25.03	14%	χ^2=71.81
Black	50%	df=4	51%	df=4	42%	df=4
Other	56%	p<.01	56%	p<.001	46%	p<.001

Drivers indicated how strictly they believed the local police enforce the seat belt law. Drivers in Maryland and Oklahoma also indicated this for their State Police. Table 9 shows that the majority of respondents in Maryland and Oklahoma believed local enforcement to be very or somewhat strict; even more believed that State Police enforcement was very or somewhat strict. DC drivers were evenly split in their perception of local police.

Table 9. Perceived Strictness of Enforcement by State (%)

	Maryland		Oklahoma		DC
	Local (930)	State	Local (1,228)	State	Local (510)
Very Strictly/ Somewhat Strictly	69%	71%	63%	65%	50%
Not Very/Rarely /Not at All	31%	29%	37%	35%	50%

Respondent race was related to perceived local police enforcement (Table 10). A larger proportion of black respondents and other non-white respondents perceived very strict enforcement, compared to white respondents when asked to report strictness of local enforcement.

Table 10. Percent Reporting Local Belt Enforcement is Very Strict by State and Race

	Maryland (n=888)		Oklahoma (n=1,201)		DC (n=483)	
White	22%	χ^2=31.47	19%	χ^2=15.86	4%	χ^2=71.81
Black	40%	df=4	27%	df=4	24%	df=4
Other	37%	p<.001	28%	p<.01	23%	p<.001

Respondent race was also related to perceived State Police enforcement in Maryland and Oklahoma (Table 11). When asked to report strictness of State Police enforcement, a larger proportion of black respondents and other non-white respondents perceived enforcement as "very strict," compared to white respondents.

Table 11. Percent Reporting State Police Belt Enforcement is Very Strict by State and Race

	Maryland (n=889)		Oklahoma (n=1,228)	
White	26%	χ^2=24.03	21%	χ^2=15.64
Black	42%	df=4	29%	df=4
Other	40%	p<.001	32%	p<.01

Age was related to perceived local police (χ^2=32.87, *df*=4, p<.001) and State Police (χ^2=30.31, *df*=6, p<.001) enforcement in Oklahoma. Younger drivers were somewhat more likely to believe police enforcement was "very strict." In Oklahoma, the number of miles driven was also related to perceived local police and State Police enforcement. For local police, 25% of those traveling 10,000 miles or less perceived "very strict" enforcement as compared with only 16% of those traveling over 10,000 miles per year (χ^2=33.06, *df*=6, p<.001). For State Police, 27% of those traveling 10,000 miles or less per year perceived "very strict" enforcement as compared with only 20% of those traveling over 10,000 miles per year (χ^2=24.59, *df*=6, p<.001).

Some respondents reported receiving seat belt tickets (Table 12). The relationship between gender and receiving a ticket was statistically significant in all three states (MD, χ^2=25.42, *df*=1, p<.001; OK, χ^2=11.19, *df*=1, p<.001; DC χ^2=7.69, *df*=1, p<.01). In all three states, males reported receiving more tickets than females. Responses also varied as a function of miles driven in Maryland. Drivers logging over 15,000 miles were most likely to have received a ticket (19%), drivers logging between 5,000 to 15,000 miles were less likely (14%) and drivers logging < 5,000 miles were least likely (6%) (χ^2=15.85, *df*=3, p<.01). Responses did not vary significantly as a function of race in any of the study states.

Table 12. Percent that Report Ever Receiving a Seat Belt Citation by State, Race, Gender and Miles Driven

	MD	OK	DC
Ever received a seat belt citation	14%	9%	11%
Race (not statistically significant)			
White	14%	9%	7%
Black	16%	7%	13%
Other	9%	12%	12%
Gender (statistically significant)			
Male	20%	11%	15%
Female	8%	6%	7%
Miles driven (statistically significant in MD)			
<5,001	6%	6%	10%
5,000-10,000	15%	13%	12%
10,001-15,000	14%	9%	10%
>15,000	19%	8%	16%

Sources of Information

Respondents were asked if they had seen, read or heard any messages about the seat belt law, where it was seen, read or heard and to recall what message was conveyed. Overall, 48% of respondents in Maryland, 64% in Oklahoma and 46% in DC reported that they saw, read or heard seat belt information. Respondents most likely saw a seat belt message on television (MD 29%; OK 37%; DC 19%). Reading about belts in the newspaper was second most common (MD 16%; OK 21%; DC 17%), followed by hearing a message on the radio (MD 14%; OK 13%; DC 9%) and seeing a poster (MD 11%; OK 14%; DC 8%). Nearly 10% of respondents in DC reported hearing about the seat belt law at a police checkpoint. Few of the respondents reported receiving information from brochures or any other specified source. Respondents most often recalled a belt safety message (MD 40%; OK 33%; DC 31%), an explanation of the seat belt law (MD 39%; OK 44%; DC 22%) or a message about enforcement (MD 20%; OK 24%; DC 48%).

Race was related to exposure to a belt message in Maryland and DC. In Maryland, black respondents (58%) were more likely to have seen or heard of a belt message compared to other non-whites (53%) and whites (41%) (χ^2=19.08, *df*=2, p<.001). Similarly, black respondents in DC (57%) were more likely to have seen or heard a belt message, as compared to other non-white (31%) and white (22%) respondents (χ^2=56.46, *df*=2, p<.001). In DC, as age increased, the more likely he or she had seen or heard a seat belt message (χ^2=20.61, *df*=4, p<.001).

Seat Belt Enforcement

Nearly all study communities provided some citation data. Generally, these data included total number of seat belt citations issued each month for 1996 through 1998. Race breakdowns in the citation data were requested from study communities but were not obtained from all of them. Race data representing all three Maryland study communities were collected. Race data representing Lawton and Tulsa, OK and DC were not collected. Some state level data were obtained. Maryland and Oklahoma were able to provide citation data for the State Police. These data included race breakdowns. Citation data for the entire state of Maryland were also provided, and these included race breakdowns.

The remainder of this Section presents results on the total number of belt citations issued both before and after primary enforcement went into effect. Data are further broken down by race for the locations where available.

Maryland

Maryland's Administrative Office of the Courts provided a complete set of seat belt and total moving traffic citation data for 1996 through 1998. The data were categorized for the entire state, the State Police and the individual study communities of Anne Arundel, Baltimore and Howard Counties.

Figure 4 shows that nearly 11,000 seat belt citations were issued per month before primary enforcement went into effect. After primary enforcement began, the number of seat belt citations increased. A flurry of seat belt citations were issued in the last months of 1997 immediately after the primary enforcement law went into effect. The number of seat belt tickets increased through the end of 1998, as compared with the same month in previous years. The unusually large number of seat belt citations issued in June 1998 reflects the Chief's Challenge. This was a statewide program of seat belt enforcement and education.

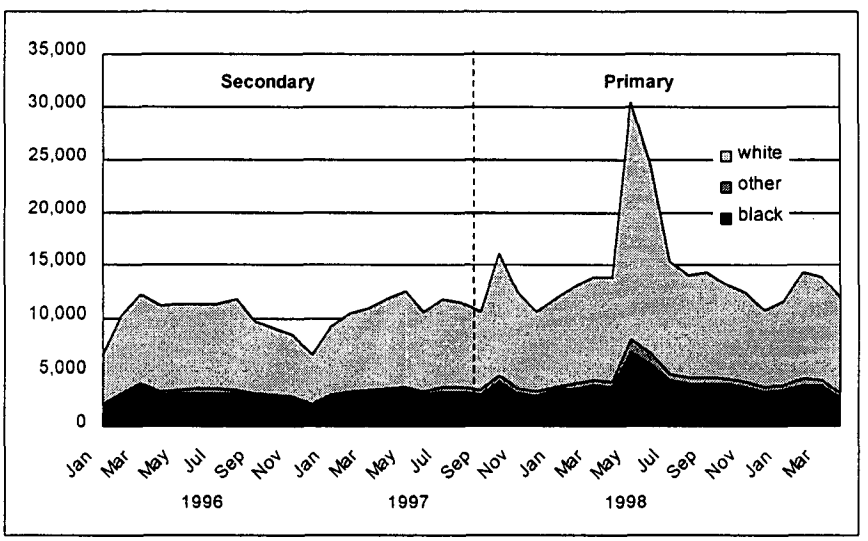

Figure 4. Total Number of Belt Tickets Issued in the State of Maryland by Race

Statewide, the increase in seat belt tickets differed by race. During the year prior to primary, the percentage of belt tickets issued to blacks was 27%. In the year following the change, the percentage decreased to 26% of tickets issued. These results were statistically significant (χ^2=157.23, *df*=1, p<.001).

The Maryland State Police issued nearly 40% of all seat belt tickets in Maryland, more than any other enforcement agency. The number of tickets issued by the Maryland State Police increased immediately after primary enforcement took effect (Figure 5). The large spike in the graph, across spring and summer 1998, is related to Chief's Challenge and other special summer enforcement activities. A decline in the number of tickets issued in December 1998 was similar to declines in 1996 and 1997. Race data show that all categories of race experienced the increase in ticket writing. For the year prior to primary enforcement, the percentage of belt tickets issued to blacks was 23%. In the year following the change, the percentage had decreased to 19% of tickets issued. The difference between whites and non-whites was statistically significant (χ^2=278.03, *df*=1, p<.001).

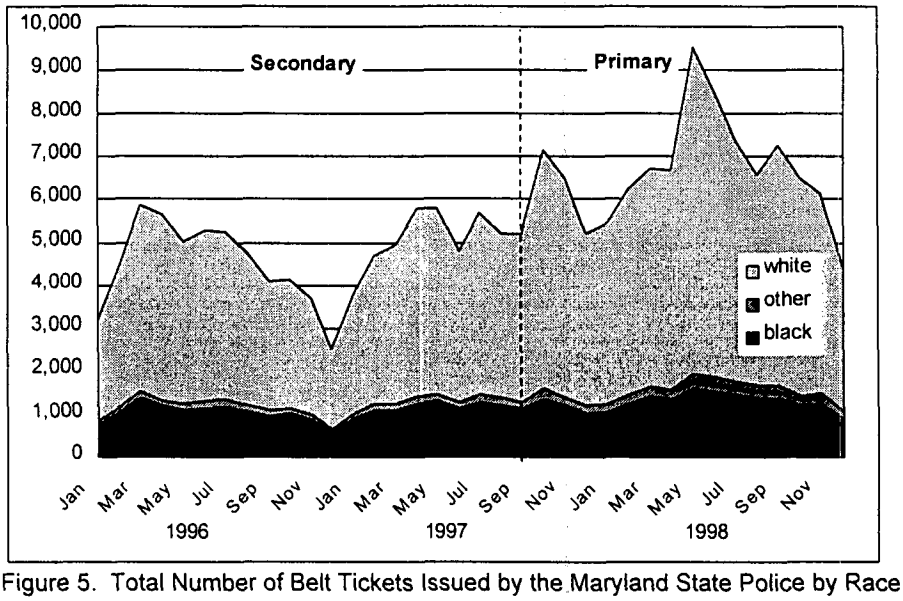

Figure 5. Total Number of Belt Tickets Issued by the Maryland State Police by Race

Figure 6 shows no sustained increase in citations by the Baltimore County Police after primary enforcement went into effect. Although there was a boost in citations immediately after Maryland became a primary state, this boost was no greater than periodic boosts when secondary enforcement was in place. The large number of citations under Chief's Challenge issued in June 1998 was followed by a decrease that continued through the end of 1998. There was no statistical difference between ticketing by race for Baltimore County. Comparing 12 months before primary enforcement to 12 months with primary enforcement, data indicated that the percentage of belt citations issued to blacks remained at 30%.

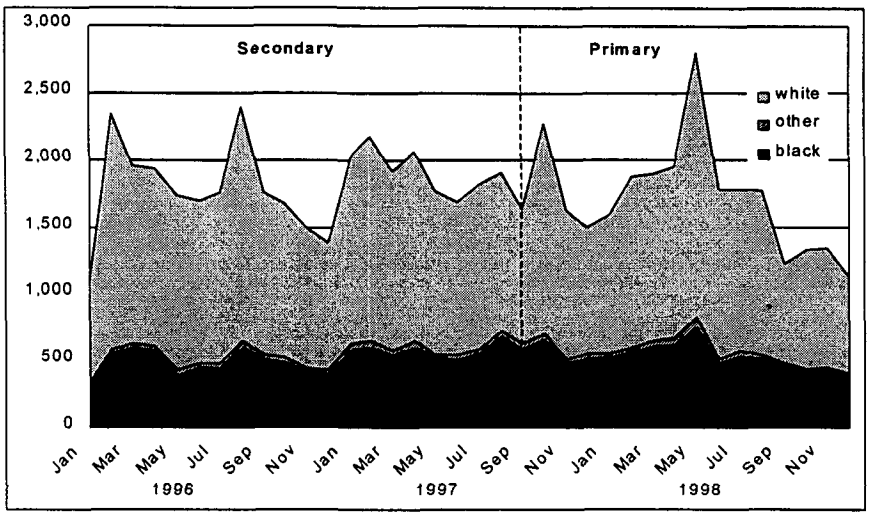

Figure 6. Total Number of Belt Tickets Issued in Baltimore County, MD by Race

The number of citations issued by Anne Arundel County Police in Maryland increased slightly a few months preceding primary status. The slight increase continued after the change to primary into May and June 1998, whereupon the number soared for the Chief's Challenge program. The number of tickets issued then returned to a more normal level. Patterns of ticket writing, over time, in Anne Arundel County were similar among race categories. During the year prior to primary, the percentage of belt tickets issued to blacks was 17%. In the year following the change, the percentage decreased to 16% of tickets issued. The difference was not statistically significant.

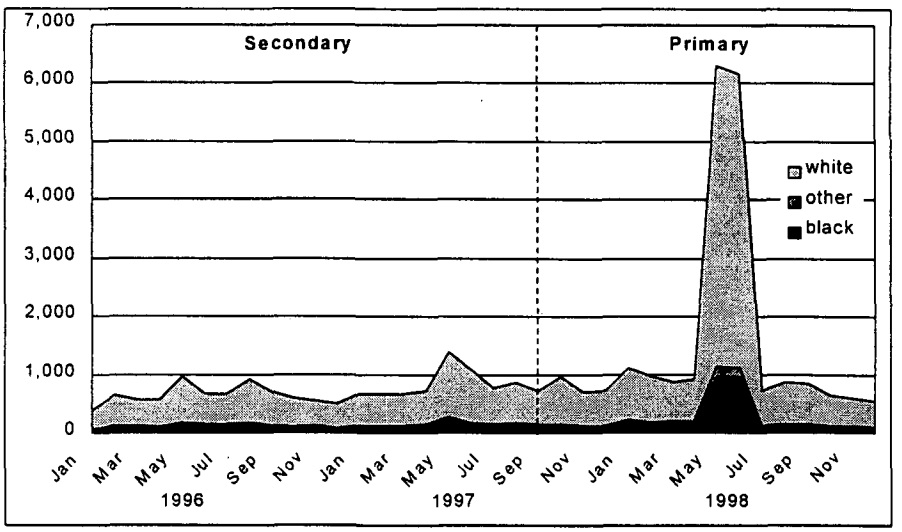

Figure 7. Total Number of Belt Tickets Issued in Anne Arundel County, MD by Race

Figure 8 shows that the number of citations issued by the Howard County Police increased for only a few sporadic months after primary enforcement went into effect. One small increase occurred soon after the change to primary. Another much larger increase happened during the months of Chief's Challenge and another was observed for December 1998. For the months in between, fewer citations were issued than before the law change. During the year prior to primary enforcement, the percentage of belt tickets issued to blacks was 24%. In the year following the change, the percentage decreased to 23% of tickets issued. The difference was not statistically significant.

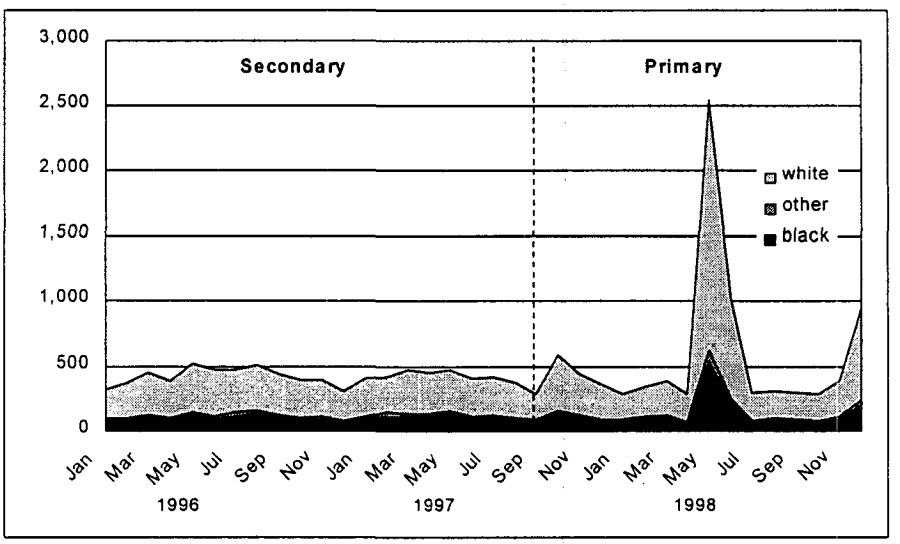

Figure 8. Total Number of Belt Tickets Issued in Howard County, MD by Race

Oklahoma

Oklahoma's Department of Highway Safety provided complete seat belt and all moving traffic citation data for the Oklahoma State Police. The citation data were organized by month for 1996 to 1998, and specified three race categories: white, black and other. The other category for race was much larger in 1996 compared to data in subsequent years (Figure 9). We believe that officers coded race less frequently in 1996, as compared to later years, thus contributing to the larger number in the "other" category.

Figure 9 shows that the Oklahoma State Police (OSP) were issuing more citations per month during the first nine months of 1996 than the rest of that year and the following year. The large spike in June 1996 is due to participation in the annual Chief's Challenge seat belt enforcement and education program. Two months following cessation of the program, ticket writing decreased. Ticket writing then remained relatively flat for the six months leading up to the law change and the six months after the law change.

The Oklahoma State Police did not immediately issue more citations when the state changed to primary enforcement in May 1997. However, the number of citations began increasing in January 1998, continuing through the entire year. The increase in citations appeared evident across all of the race categories. Because of the inconsistencies in reporting race with the citation data, statistical analysis was not performed.

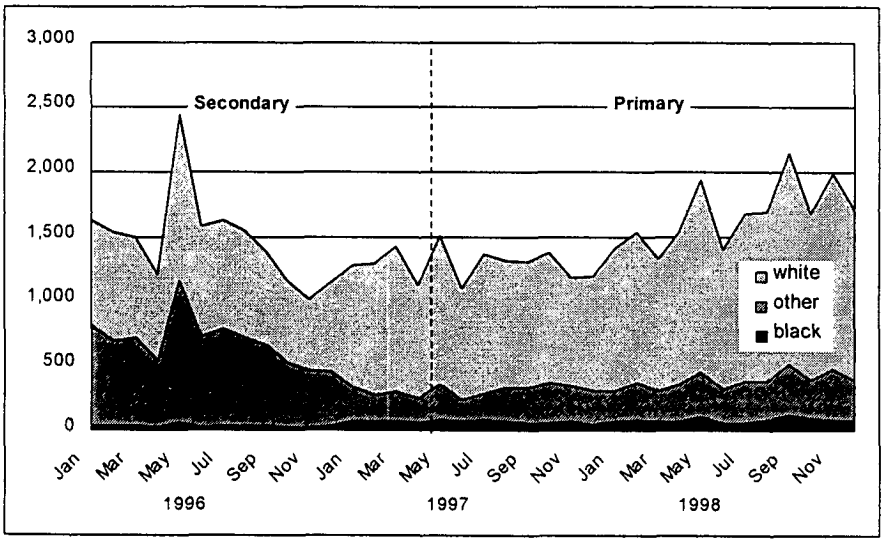

Figure 9. Total Number of Belt Tickets Issued by the Oklahoma State Police by Race

In Lawton, the city police issued citations at a nearly constant rate the year before Oklahoma went primary (Figure 10). Citations increased dramatically immediately after the city passed a local ordinance allowing primary enforcement in November 1998. The city participated in the Chief's Challenge effort, producing nearly five times the number of citations as before the law change. Towards the end of 1998, the city police issued nearly three times the number issued before the law change. Race data were not recorded.

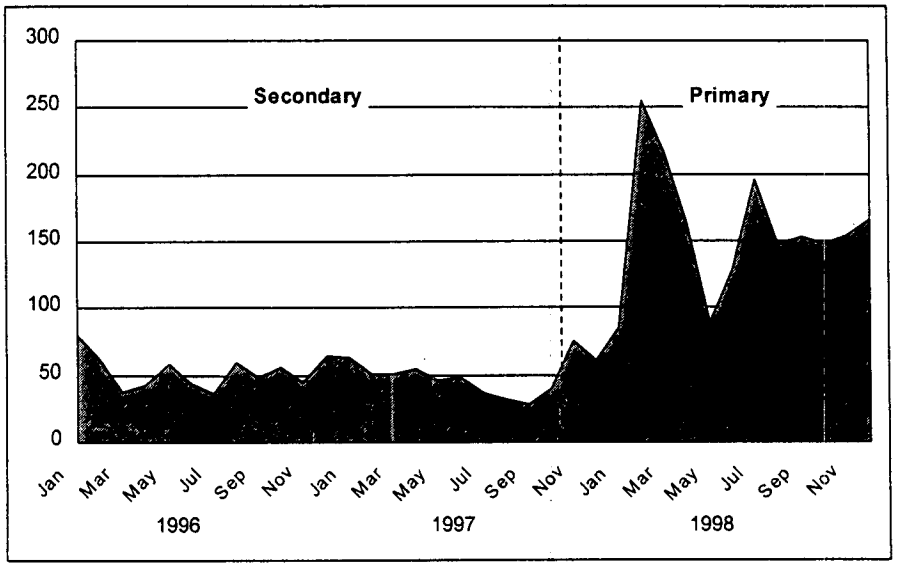

Figure 10. Total Number of Seat Belt Tickets Issued by Lawton PD, OK

The Tulsa Police Department provided data on seat belt and child restraint citations issued from 1996 through 1998 (Figure 11). Primary enforcement became effective in Tulsa after passage of a municipal ordinance in January 1999. Shortly thereafter, a small increase occurred in the number of citations issued, except for a decline after August 1998. Race data were not available.

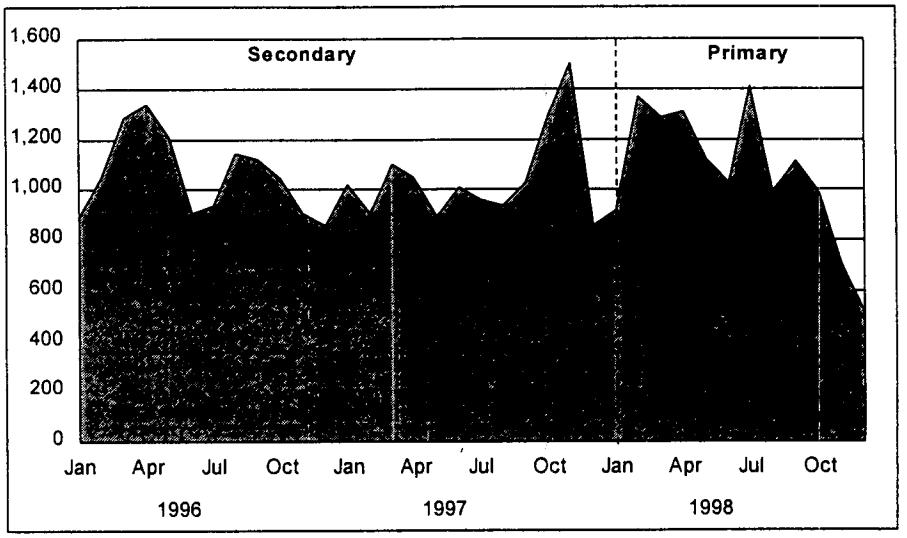

Figure 11. Total Number of Seat Belt/Child Restraint Tickets Issued by Tulsa PD, OK

The District of Columbia

Washington DC provided motorists with a warning period before fully enacting primary enforcement in October 1997. Figure 12 shows that the number of seat belt citations issued in DC went up and then down over the course of 1996. Belt citations increased just before the warning period began. As expected, belt citations were far less likely during the warning period. As soon as primary enforcement began, the number of citations increased dramatically and then remained higher than before the law existed. Race data were not available.

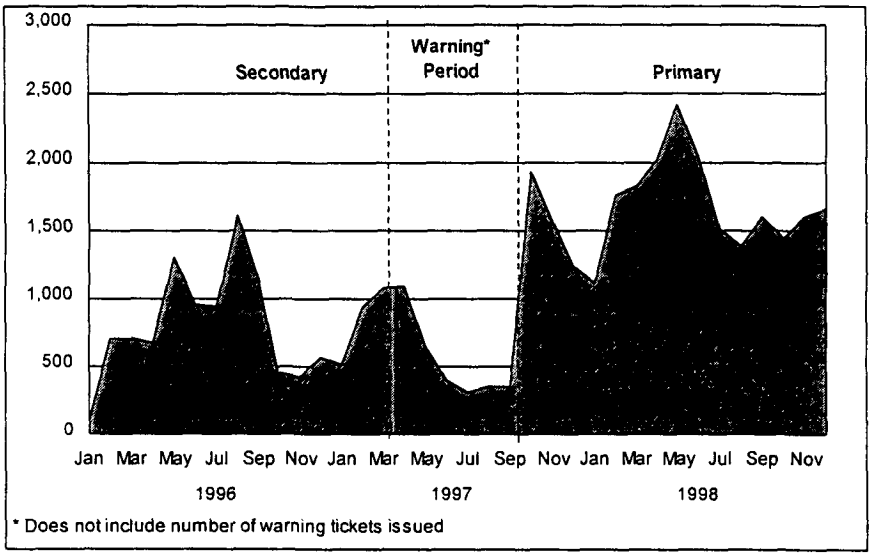

Figure 12. Total Number of Seat Belt Tickets Issued by Washington DC Metro PD

Law Enforcement Interview Results

Maryland Law Enforcement Opinions and Attitudes

In January and February 1999, interviews were conducted in three county police departments. On January 11th, five group interviews were conducted at the Howard County Police Department, involving four supervisors and seven patrol officers. At Baltimore County Police Department, on January 12th, two interview groups included two supervisors and 14 patrol officers. One interview group was conducted at the Anne Arundel County Police Department on February 28th, consisting of one supervisor, two patrol officers and two crash-reconstruction experts.

Initial Response to Primary Law

Traffic enforcement is a high priority in all three county police departments and each placed special emphasis on belt enforcement in 1998. Officers in two of the departments said that the emphasis on seat belts comes from the top down, reflecting the priorities of the chief. One of these departments increased citations from about 1,500 in 1997 to 12,000 in 1998, but the increase cannot be attributed to the change in the law. Instead, the motivating factor was the Chief's Challenge. In the other department, a *zero tolerance* policy on seat belt violations exists throughout the year, and officers are ordered to write tickets rather than warnings.

Two of the departments implemented public information and education (PI&E) campaigns prior to initiating primary enforcement. Officers in the third department said that they made no special efforts to inform the public that the law had changed, although there was a great deal of publicity in the media.

None of the county police departments received any grant funding for programs to promote or enforce the new primary law. One of the departments indicated that they did extra promotion of the law. This department handed out fliers at an intersection before the law change. After the change, officers went back to the intersection and issued tickets for noncompliance.

One department had a push on belt citations for the whole year of 1998 and did not notice any increase in citation activity after the law went primary. Officers in another department commented that belt citations increased greatly in patrol units since the violation became primary, but less so in traffic enforcement units because they are concentrating on violations such as speeding and DUI and because belt violations are difficult to detect at night.

Use of Primary Law

All officers favored the change in the law that made it possible to stop motorists for a seat belt violation alone. One commented that the new primary law relieves the frustration of seeing unbelted motorists and being unable to take any action under the secondary law.

Most officers said they enjoy the fact that the primary law can provide probable cause for a vehicle stop even when non-use of a seat belt is the only apparent violation. One veteran traffic officer commented that this is especially useful to patrol officers who are not very familiar with the motor vehicle code. However, others commented that it has limited usefulness as a crime prevention tool since most *bad guy stops* come at night when seat belt violations are difficult to detect. Another

commented that seat belt use is high in the state, and other traffic violations are providing the probable cause for vehicle stops (e.g. speeding) because they are seen more frequently.

One officer commented that a possible downside to the primary law is that in departments driven by performance statistics, seat belt stops, which are relatively easy to make, can be misused by officers to make their numbers.

While some patrolmen reported that they were writing more seat belt citations since the primary law went into effect, many did not. Most of those who did not were in departments that were doing aggressive seat belt enforcement under the secondary law, before the new law went into effect. One reason given was that motorists are aware of the new law, and fewer violations are seen. One patrol officer, however, commented that his ability to write seat belt citations is limited only by the size of his docket. He says he writes about two warnings for every citation, in order to keep his case load manageable.

Motorist Reactions

The prevailing opinion in the interview groups was that motorists are very aware that they can now be stopped for a seat belt violation alone, and more are buckling up. One officer, however, commented that seat belt use in his community was already about 80% among drivers when the new law went into effect; he believed it might take more than primary enforcement (making seat belt violations a stopping offense) to make much of a change in the remaining 20%.

While motorists frequently react negatively toward getting a seat belt ticket, one officer said that negative reactions are not encountered any more frequently than for other violations. However, a different patrolman commented that many motorists do get angry when he stops them for seat belts alone.

The Maryland police, like police elsewhere, often hear the *individual liberty argument* - the motorist is not harming anyone else and should be free to choose whether to wear a belt. Most officers counter that argument by pointing out the cost of injuries and fatalities which are passed on to other drivers in the form of higher insurance rates and higher taxes.

Occasionally, motorists stopped for seat belt violations claim that the stop was made because of their status as a member of a minority. It is the policy of all three county police departments to enforce the belt law universally, and to avoid targeting certain groups. The police are not aware of any organized resistance by minority groups in their communities concerning primary seat belt stops. The department that wrote 12,000 seat belt citations in 1998 did receive some negative media coverage for their aggressive enforcement, but racial bias was not an issue.

Police Attitudes Toward Primary Law

Almost all of the participating officers agreed that seat belt enforcement is important, but a supervisor in one department admitted that some officers on the force do not concur. In general, the safety benefits of the primary law were a more compelling motivation for enforcing it than its value as a crime detection tool.

Some officers believed the fine ($25) is too low and does not reflect the seriousness of the violation. Others believed the fine is the correct amount.

Some officers also mentioned other improvements they would like to see in Maryland's seat belt law. Several officers suggested giving points for seat belt violations, but others explained they would be more reluctant to write citations if that were the case, since it would affect insurance rates. Other suggestions included less complicated language in the law, mandatory seat belt use for occupants other than the driver and an end to the taxicab exemption.

All three police departments have mandatory seat belt use policies for officers and other employees and all report almost universal compliance among officers. All of the officers said they use belts at all times. None of the officers accepted the validity of the excuses that were offered as reasons for not wearing a belt on duty. One officer commented that the idea of weapons or other equipment getting tangled in the belt was ridiculous.

Perceived Effectiveness of Primary Law

There was general agreement that the majority of motorists are now aware that they can be stopped for a seat belt violation alone, and the desire to avoid being stopped and ticketed has increased belt use to some extent. However, some officers commented that belt use was already high, and that changing the behavior of the remaining non-users has been difficult.

Teenagers and the elderly seem to be the groups with lower compliance. One officer said that many pick-up truck drivers still are under the mistaken impression that they are exempt.

Oklahoma Law Enforcement Opinions and Attitudes

Supervisors and Patrol Officers were interviewed in municipal police departments serving Lawton, Edmond and Tulsa. At the time of the interviews (March 2-4, 1999), the state's primary seat belt law had been in effect for more than one year.

The Lawton Police Department has 152 sworn officers, serving a population of about 90,000. All uniformed officers have traffic enforcement responsibilities, and eight traffic enforcement specialists report to the Uniform Division (two per day shift, with four on the night shift). A Captain of the Uniform Division and a Patrolman were interviewed separately.

Edmond (population 69,000) is a rapidly growing, upscale suburb of Oklahoma City. The police department has 83 sworn officers and all uniformed officers have traffic enforcement responsibilities. A group interview was conducted with one Captain, two Sergeants and two Motor Patrolmen.

Tulsa is the second largest city in Oklahoma with a population of 378,000. The police department has 787 sworn officers. All uniformed officers have traffic enforcement responsibilities. Fourteen motor patrolmen carry out traffic enforcement almost exclusively. They are dispersed among geographically defined Uniform Divisions. Participating in the group discussion were a Major, two Sergeants and five patrol officers, all members of a Traffic Safety Committee.

Initial Response to Primary Law

None of the municipal police departments customarily write citations for violation of the state motor vehicle statutes, preferring to keep traffic tickets within their municipal court systems. This approach is different from Maryland and the District of Columbia's enforcement practices. In the

three study sites, there was a time lag of several months from the effective date of the state statute until local seat belt ordinances were passed and municipal police began to enforce the ordinances.

In two of the three cities, municipal ordinances assessed fines that were higher than that called for in the state's $20 seat belt statute. The amount of fine is $25 in Lawton, $27 in Edmund and $20 in Tulsa.

Some Oklahoma cities do not have local seat belt ordinances, and their police departments do not actively enforce the state law. Two large cities in which there is no ordinance and no enforcement are Oklahoma City and Broken Arrow (a large and rapidly growing Tulsa suburb).

Only one of the three police departments made a concerted effort to stop motorists under the primary law when it first went into effect. None received any grant funding specifically for seat belt enforcement programs since the primary law passed, although the objectives of selective traffic enforcement programs funded by the Oklahoma Highway Safety Office have been broadened to include seat belt and child restraint violations.

Use of Primary Law

Traffic enforcement is said to be a high priority in all three police departments. Each of the departments considers traffic patrol to be a key element of their crime prevention strategy. Both supervisors and patrol officers recognize that the primary seat belt law gives them an additional probable cause to make traffic stops, which can lead to detection of DUI, drug offenses and other crimes. However, most do not believe that the ability to detect crimes through seat belt stops is a major advantage of the new law because there are sufficient grounds under previously existing traffic laws for probable cause to make stops of suspicious drivers. As one officer stated, "it is just one more tool in our tool box."

Few of the patrolmen stop all the vehicles they see with unbelted drivers. One officer said he does not have enough time to stop all the violators he sees and still perform his other duties. That statement captures the perceptions of most of the patrol officers.

One supervisor admitted that many officers in his department were still not making primary seat belt stops and that the bulk of seat belt citations the department writes are the result of stops made for other violations. Still, some officers do not write seat belt tickets under any circumstance. When there are multiple violations, officers sometimes use their discretion to write seat belt tickets as an alternative to citations for the other violations. For example, an officer may issue a belt ticket when they feel a more costly citation would cause the subject undue hardship.

Motorist Reactions

In two locations, patrolmen mentioned that drivers often said they were surprised when stopped for a seat belt violation because the adjoining community did not have a primary seat belt ordinance.

There was no organized resistance to upgrading the local ordinances to correspond with the state's new primary law. All three police departments claim to have frequent and cordial contacts with leaders and advocates of minority groups in their communities and that the issue of primary seat belt stops creating increased potential for discriminatory harassment has not surfaced. Occasionally, a motorist will claim that he or she was stopped because he or she is a member of a minority or his or

her lawyer will use it as part of a defense. None of the officers said that the complaint is more likely to come up on a seat belt stop than a stop for any other violation.

Interviewees explained that officers hear motorist complaints about the seat belt law when issuing citations. The most frequent complaint is not wearing a seat belt hurts only the driver and thus usage should not be required. Some interviewees said they respond to the motorist with an explanation that failure to wear a belt costs everyone in the form of increased taxes and insurance costs or explain that unbelted drivers cause crashes when they are unable to control the vehicle in emergency situations. The majority of interviewees agreed that officers try not to argue when issuing tickets.

Police Attitudes Toward Primary Law

Most supervisors and patrolmen are convinced that use of seat belts is an important issue. Typically, they became convinced when they responded to crashes where death or serious injury could have been prevented if the driver and passengers had been belted. Some even refer to personal experiences where they feel they escaped serious injury because they were belted.

All three police departments have policies that require officers to use their seatbelts. Supervisors say that non-compliance is very rare. All of the patrolmen claimed to always buckle up, whether on police or personal business.

However, one patrolman admitted he had never issued a belt ticket prior to the day of the interview. He said that he never realized the importance of belt enforcement until viewing a video in connection with a special seat belt enforcement blitz conducted just before the interview.

The prevailing belief among police officers is that the fines for belt violations are too low. One supervisor pointed out that the fine in his city does not cover the cost of writing and processing the ticket. Another group mentioned that the next higher fine for any traffic violation was $72. There was a general feeling that a higher fine would gain motorists' attention and that the increased desire to avoid a ticket would increase usage. However, a few patrolmen voiced the opinion that a higher fine would make officers more reluctant to write tickets, preferring to issue warnings instead. One officer's opinion is that a higher fine would not get more motorists to wear their belts because motorists have no idea what the fine is for different offenses.

One group noted that the city ordinance classifies failure to wear a seat belt as an equipment violation, a classification which generally is taken less seriously by police officers and the court system than other unsafe driving behavior. Some officers, and even some other police departments, make it a policy to warn rather than cite equipment violations. The belief in this group was that the law would be taken more seriously if the classification could be upgraded to a moving violation.

Perceived Effectiveness of Primary Law

Without reference to the actual figures, only one of the three police departments claimed to be issuing substantially more seatbelt citations after the primary law than before. However, all explained that more drivers wear a seat belt because of the new law.

Most officers were reluctant or unable to say that drivers of any particular types of vehicles or types of motorists were buckling up more since the law changed. The few that ventured an opinion

guessed that seat belt compliance had improved more among blacks and drivers of pick-up trucks than in other groups.

DC Metropolitan Police Opinions and Attitudes

At the time of the site visit on January 27, 1999, the DC Metropolitan Police had recently undergone a major restructuring where, among other changes, the Traffic Division had been disbanded and traffic enforcement personnel had been dispersed among regional commands.

Group participants, all veteran traffic enforcement professionals, included three Sergeants, a former traffic patrolman (now assigned to the Presidential Motor Unit) and a vehicular homicide investigator (now working out of the Detective Bureau). In one case, two sergeants were interviewed at the same time. All others were interviewed individually.

Initial Response to Primary Law

The DC Metropolitan Police have a long history of activism on the issue of occupant protection, endorsing and supporting the efforts of the DC Seat Belt Coalition (spearheaded by Safe Kids and hospital related organizations) to make the seat belt law a primary law with meaningful sanctions. Passage of the law did not take the police department by surprise.

Following the passage of the primary law, there was an intensive six-month period of public education. The police supported this effort with sustained enforcement in which they issued as many seat belt warning tickets as they had time to write.

Following the warning blitz, police continued an enforcement campaign that featured two occupant protection check points and additional seat belt enforcement patrols.

Use of Primary Law

Several officers mentioned the crime prevention benefit of the new law. It gives police one more option to establish probable cause to make traffic stops, which sometimes result in arrests for criminal activity that would not otherwise be detected. One of the Sergeants described this as an *unspoken benefit*, which line officers soon figured out on their own. He cautioned that this is not a major benefit, because there are plenty of other legitimate reasons to make a stop when criminal activity is suspected.

The perceived importance of the new law's crime prevention benefit varies regionally within the department. Officers in the Southeast Division use the law extensively for crime prevention reasons. Officers in the Northwest Division are more motivated by the idea that the law promotes favorable public contact, viewing seat belt enforcement as tough love.

Motorist Reaction

There was little resistance to the primary seat belt law based on potential racial bias and police harassment. The most probable explanation for this is that the population of DC is primarily non-white and the police mirror the population.

The primary law definitely achieved public attention. According to the police, overall seat belt compliance increased from about 48% before the new law went into effect to about 80% at peak. One supervisor ventured the opinion that compliance may have slipped some since the period of heavy enforcement and public information activity ended.

Police Attitudes Towards Primary Law

Without exception, the officers were very supportive of the new law. Several said that they had responded to too many crashes where death and serious injuries could have been prevented if occupants had been restrained. One officer related his personal experience in a crash in which he believes his wife's life was saved by a seat belt.

According to a motorcycle patrol officer, patrolmen are more likely to write seat belt violations since passage of the primary law. He explained that the prior law had *no teeth* as secondary seat belt violations were frequently dismissed in the plea bargaining process and many officers just saw no point in writing them. Although stopping cars and writing tickets for belt violation alone is not a problem for most officers there are no *super cops* who stop every violator they see.

Several officers said the new law made seat belt violations easier to cite. One said that now, when you see a problem, you can do something about it right away. You don't need to follow a vehicle to find probable cause to make a stop. The motorcycle patrolman said it is very easy to spot violations from a motorcycle while passing through stopped traffic. Although the checkpoint activities are helpful in raising public awareness, the primary method of enforcement is cruising major arteries, where patrolmen find no shortage of violators.

The Department has a long-standing seat belt policy requiring officers and other employees to obey the law and compliance is very high. There are still a few officers who resist wearing seat belts, using the same excuses as those heard from other motorists, with the additional excuse that seat belts make it difficult to access their weapons in emergency situations.

Perceived Effectiveness of Primary Law

Although the volume of seat belt citations has increased greatly since adoption of the primary law, several officers are concerned that the level of traffic enforcement could diminish as a result of necessary restructuring in the department. Less seat belt enforcement, they believe, could result in a lower use rate.

V. Discussion and Conclusion

Discussion

Strict laws supported with enforcement and publicity send a strong message that a state is concerned for an occupant's risk of injury and results in higher belt use. Both fear of a ticket and a belief in the safety value from wearing a seat belt were factors that motivated occupants to buckle up in Maryland, Oklahoma and DC.

Each of the study states passed a primary enforcement law. Each law is different. Maryland's primary law covers nearly all vehicle types for all uses. The law has a relatively low fine of $25. Oklahoma has the weakest law of the three because pick-up trucks used on a farm are exempt from penalty and Oklahoma cities do not enforce the law unless they have passed a local seat belt ordinance. Fines begin at $20 for unbelted occupants in those passenger vehicles covered by the law. DC has the strongest law of the three study locations. Virtually all passenger cars, trucks, SUVs and vans are covered. The fine increased from $15 to $50 and includes a two-point penalty to a driver's license. Shortly after enactment of primary enforcement laws, the statewide belt use rate increased more in DC than in Maryland or Oklahoma.

DC passed a comprehensive seat belt law that raised the consequences for a violation. The Department of Public Works including the DC Metro Police Department, educated the public to the new law before fully implementing the law. Upon implementation, police issued belt citations at an increased level. That increase continued through the end of the study period. Interviewed police officers explained that the Metro Police made the public well aware of the change during the warning period. Most resident drivers (84%) reported awareness to the primary enforcement law and awareness of their police enforcing the law, though very few (22%) reported knowing about the license points penalty. Yet DC drivers (34%), less than drivers in Maryland and Oklahoma, reported chances were high for receiving a ticket for noncompliance and only a few (8%) reported ever receiving a ticket for noncompliance. A majority (73%) of DC's resident drivers reported that seat belts make vehicle trips safer.

Maryland was the only study location that went directly from secondary to primary enforcement without changing any other aspect of the law. Although citation levels increased statewide, most of the increase was due to an increase in State Police ticketing. The prevailing opinion from county police was that most motorists knew there was a primary enforcement law and that police stops could occur solely for not buckling up. Interviewed police officers said that motorists' desire to avoid a ticket was to some extent why the belt use was improving. Driver survey results indicated that Maryland drivers (87%) overwhelmingly knew that the police could give a ticket whenever they see an unbelted occupant. Nearly half (47%) believed there was a "high likelihood" of getting a ticket for noncompliance and 14% percent reported they had received a seat belt ticket. Many Maryland drivers (71%) indicated that they "strongly agree" that seat belts make vehicle trips safer.

When Oklahoma passed its new primary law, the fine level for a violation was lowered. Some police responded that a higher fine would have more likely gotten motorists' attention; however, they all said that a higher fine also would have made some officers more reluctant to write tickets, giving warnings instead. State Police ticket writing increased after the change in the law, but study community results were mixed. Most drivers (90%) were aware that passage of the state's new seat

belt law enabled police stops solely on the basis of seat belts, but only 40% believed there to be a "high likelihood" of getting a ticket for non-compliance. Many more drivers (70%) reported that seat belts make vehicle trips safer. The Oklahoma law does not cover vehicles used on the farm and this is the likely reason that occupants in pick-up trucks were belted much less (52%) than occupants in other vehicle types (71%). Even with a primary law, Oklahoma's use rate still lags behind the national average. A belt law that includes all passenger vehicle types would certainly help in Oklahoma, as would passage of the state's statute in all communities.

Feelings about the crime prevention benefit from the primary enforcement law varied among police in the study communities. Police officers left no doubt that it has value as a crime detection tool, but a number of officers believed that the safety benefits of the law are more important than its use to establish probable cause to stop vehicles. Without a primary enforcement law for seat belts, there would still be plenty of other reasons for making stops.

Results also indicated that the change to a primary enforcement law made belt use equally common among occupants of all race categories. Greater homogeneity in belt use among varying race categories is encouraging in that non-whites have a history of using seat belts less often than whites. Results from driver surveys and citation data verify that the change to primary enforcement was experienced by all races. Non-whites, more than whites, reported feeling the threat of receiving a ticket for not wearing a seat belt, even though there was no significant relationship between race and those who had actually received a seat belt ticket. Additionally, citation data that identified race confirmed there was either no difference in non-white versus white ticketing, comparing secondary to primary enforcement, or a greater increase in ticketing went to whites following the change to a primary enforcement law.

Conclusion

The seat belt use rate went up in Maryland (83%), Oklahoma (56%) and the District of Columbia (80%) with the implementation of a primary enforcement seat belt law. Motorists were aware of the law and indicated that they were more likely to wear a seat belt compared to the past year. Police were in favor of a primary enforcement seat belt law over a secondary law. In sites where race data on ticketing were available, more citations were issued to white motorists rather than blacks or other races than before, when under secondary enforcement.

In all three jurisdictions, observed belt use was higher for females than males and for drivers of sport utility vehicles and passenger cars rather than pick-up trucks. In Oklahoma, belt use was observed at the same rate for whites and non-whites. The belt use rate was two percentage points higher for non-whites than whites in Maryland. In the past, the belt use rate for blacks has been several percentage points below that of whites. Self reported belt use from DMV surveys indicated that blacks and other minorities said they were wearing seat belts more with the primary law than they had in the past year under the secondary law.

Primary enforcement creates a more direct relationship between failure to comply and possible enforcement activities. One outcome has been greater homogeneity in belt use among communities with varying demographic and socioeconomic characteristics. This evaluation confirms that the seat belt use rate increases with the implementation of a primary enforcement seat belt law. A primary enforcement law seems to work best when it includes all passenger vehicle types, an adequate

penalty and strong, consistent enforcement. States wanting to boost their seat belt use rate should consider passing a comprehensive primary seat belt law.

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APPENDIX A

HISTORIC SEAT BELT OBSERVATION DATA
AND
DATA COLLECTION DIRECTIONS AND FORMS

Historic and Current Seat Belt Use Rates, Maryland Study Communities

	Percent Belt Use*				
	93	95	97	98	99
Howard County, Maryland					
Washington Blvd. 62' West of Hunt Club Road	53	71	61	88	90
MD100 .03 Miles (150') North of US 1	66	75	75	87	98
Waterloo Road at I95	81	84	81	93	95
Waterloo Road at .03 Miles (160') North of US 1	66	75	75	93	93
Dorsey Run Road at Ramp 3 to MD 32	100	87	87	94	94
Old Annapolis Road at CO 75 (Centennial Lane)	50	77	75	86	92
Baltimore National Pike Under the MD 94 Overpass	88	82	81	91	95
Anne Arundel County					
Crain Highway at DP 4049 (Hidden Brook Drive)	73	74		83	94
Aviation Blvd. Between 176 and Spur to 176	61	76		85	94
IS 97 at Ramp 6 from MD 174	79	83		86	84
MD 32 North of ramp from I97	82	82		89	
Solomons Island 100' Before ramp to 50 East	67	73		82	94
Mountain Road at Schmidts Lane	66	67		77	94
Mountain Road 200' East of Long Point	69	63		85	98
Southern MD Blvd. Overlooking MD 4	89	73		86	91
Central Avenue at MD 468	70	65		88	89
Central Avenue East of MD 214-A	71	73		86	100
Davidsonville Road at MT. Airy Road	76	79		88	88
Davidsonville Road at Rutland Road	72	76		86	90
Baltimore County, Maryland					
JFX at .25 Miles South of 695 at Ramp for 83 South	83	76	72	92	93
Cooper Road West of Middleton Road	75	58	58	58	88
Baltimore National Pike at Middle River Road	63	66	65	80	80
IS 695 at US 1 ALT	79	77	70	88	95
Baltimore Nat. Pike 25' South of Charing Cross Road	59	65	59	79	91
Washington Blvd. 15' West of US ALT 1	61	66	56	73	94
Westminster Pike 50' from Wolf Avenue	66	73	66	79	94
Park Heights Avenue and MD 133 (Old Court Road)		71	67	83	96
Liberty Road 60' from Croydeon Road	72	64	65	77	92
US 40 35' from Coleridge Road	62	60	57	72	90
Philadelphia Road at CO 4095 (Ebenezer Road)	68	74	62	78	97
Belair Road at Necker Avenue	76	61	67	82	92
Perring Parkway at Oakleigh Road	57	63	64	76	94
Belair Road at Northern Parkway	62	60	62	83	86
Pulaski Highway at 68th Street (Berk)	57	60	48	84	96

* Use rate includes the following vehicle types: passenger cars, pickup trucks, SUVs and Vans.

Source: Maryland State Highway Administration

Historic and Current Seat Belt Use Rates, Oklahoma Study Communities

	Percent Belt Use*							
	92	93	94	95	96	97	98	99
Comanche County, OK								
South Gate of Fort Sill	50	74		68	67	67	76	82
47th at US 62	44	61		47	49	49	63	73
1st at Gore	46	38		49	40	71	50	78
SW 57th at Gore	48	100		83		54	33	74
Ferris at Fort Sill Blvd.	52	50		55	48	29	63	71
Oklahoma County, OK								
N Bryant at E. Waterloo	36	31	40	38	42	49	61	57
N MacArthur at NW 122nd	46	49	70	57	38	54	63	64
N Council at W Hefner	50	46	55	56	42	47	60	71
SE 59th at S Bryant	23	43	56	36	46	52	67	88
S Post Road at SE 29th	48	35	39	30	44	44	60	70
OK 152 at S. Council Road	35	35	55	48	49	43	71	59
US 77 at Edmund Road	49	48	47	56	44	51	67	75
I-244 at Turner Turnpike	60	67	60	56	67	63	90	73
NW Expressway (State Road 3) at N Council	42	48	60	54	46	50	67	57
I-40 at S MacArthur	30	50	58	41	44	56	57	65
US 66 at N Council	49	46	63	52	50	48	69	70
I-244 at SW 89th	44	57	60	60	67	38	66	85
Tulsa County, OK								
Apache at Peoria	30	35	33	20	27	33	53	51
N 86th at Yale	50	52	49	28	36	52	69	56
Broadway at McKinley (Sand Springs)	46	40	42	37	40	38	55	59
Sheridan at 51st	54	63	56	47	58	58	62	62
71st at Yale	55	66	53	62	59	66	64	73
Mingo at 101st	53	63	55	61	57	59	72	69
S Elm Place at W New Orleans (Broken Arrow)	43	56	50	38	51	64	63	64
E 193rd Avenue at 51st	50	48	43	45	41	54	57	58
Main (Broken Arrow) at Kenosha	46	50	55	48	54	60	62	57
W 49th at MKT Railroad	30	40	29	27	32	44	51	53
W 65th at S 41st	49	51	46	51	45	45	48	58
21st at Memorial	56	47	43	43	42	52	61	56
Pine at Memorial	47	44	47	36	39	40	52	57
Pine at Lewis	36	37	27	30	28	37	52	56
I-244 at SW Blvd	38	67	33	25	57	38	53	58
US 51/64 at Denver	43	67	46	47	51	54	60	77
US 169 at 106th	56	59	61	47	62	68	52	69
US 169 at N 76th	57	57	60	54	43	58	66	54
I-244 at SW BLVD	56	67	50	47	40	46	60	68
I-169 at 71st	56	64	63	55	55	66	65	67
I-44 at Harvard	38	58	51	53	55	67	70	69
I-64 at W 49th	57	44	41	39	43	48	67	62
State Road 51 at State Road 97	57	44	52	47	33	51	58	57
I-64 at W 65th	31	34	33	46	41	35	42	53
State Road 51 at State Road 151	40	46	55	50	50	29	59	61
I-244 at Delaware	43	46	33	32	42	54	60	66
I-244 at Garnett Road	41	52	42	37	42	54	67	55
US 75 at OK 117	50	57	62	46	64	62	63	68
I-244 at Detroit	46	59	49	67	55	53	65	80
I-44 at 21st	48	43	49	33	48	39	59	59

*Use rate includes the following vehicle types: passenger cars and pick-up trucks, 1992-1998; passenger cars, pick-up trucks, SUVs and Vans, 1999. All observations were done over June/July, except first wave 1999 observations were done in March.

Source: University of Oklahoma, Department of Political Science

Historic and Current Seat Belt Use Rates, DC Sites

	Percent Belt Use*					
	94	95	96	97	98	99
I-295 N at Laboratory Road Exit 101	68	77	57	72	70	83
I-295 N at Suitland Parkway Exit 103	68	74	64	78	79	78
I-295 S at Suitland Parkway Exit 104	70	75	64	77	71	82
I-295 N at M Street Exit 105	66	53	57	71	76	79
Southeast Freeway at Pennsylvania Avenue Exit 106	62	59	57	64	82	81
I-395 Southeast at M Street Exit 107	66	60	42	59	78	82
Suitland Parkway S at Pomeroy Road 207		68		71		76
East Capitol Street at Minnesota Avenue 216	61	43	44	53		70
Whitehurst Freeway at 27th Street 230	69		65	88	75	79
K Street at 26th Street 231	60	53	66	74	79	84
K Street at 25th Street 232	74	66	72	82	82	83
K Street at 24th Street 233	76	73	78	77	86	78
Pennsylvania Avenue West at 13th Street, SE 302	52	56	49	58	82	77
Pennsylvania Avenue West at 8th Street, SW 304	53	47	43	58	86	76
Benning Road at Anacostia Freeway 311	53	47	41	51	81	80
Massachusetts Avenue at Belmont Road 319	77	69	67	56	85	82
Massachusetts Avenue at 34th Street, NW 320	79	76	72	74	82	86
16th Street at Kennedy Street, NW 328	62	62	67	82	86	81
Connecticut Avenue at Massachusetts Avenue 329	67	59	53	65	77	78
Connecticut Avenue at Van Ness Street 330	80	67	66	70	79	83
Connecticut Avenue at Tilden 331	91	72	72	76	81	84
Wisconsin Avenue at Whitehaven Parkway 332	56	68	60	66	81	81
Wisconsin Avenue at Fessenden Street 333		73	64	78	85	84
Bladensburg Road at New York Avenue 335	51	52	60	58	80	73
New York Avenue at Montana Avenue 336	63	61	55	65	83	79
New York Avenue at 4th Street, NE 337	67	57	64	61	72	81
New York Avenue at Brentwood Road 338	58	59	60	70	80	80
Military Road at 27th Street, NW 341	68	66	81	82	90	86
North Capitol Street at New Hampshire Avenue 344	51	59	43	67	84	82
Francis Scott Key Bridge before Whitehurst Freeway	70	79	64	73	81	82
Q Street at 27th Street, NW 402	61	63	66	69	80	79
P Street at Waterside Drive, NW 404	61	60	75	62	81	84
Florida Avenue at 16th Street 423	56	46	57	62	81	80
New Hampshire Avenue at "S" Street 424	64	53	58	62	79	77
Q Street at 14th Street 425	57	54	57	57	79	75
Portland Street at MLK Avenue 436	40	43	38	53	70	72
Southern Avenue at 6th Street 449	44	42	47	44	65	72
Southern Avenue at South Capitol 450	50	46	45	44	66	78
28th Street at Dumbarton Street, NW 502	72	63	63	60	77	79
Portland Street at 7th Street 520	35	59	36	50	68	69
8th Street at MLK Avenue 521	39	56	35	43	67	69
7th Street at Raleigh Street 522	36	60	58	57	70	68
Franklin Street at 26th Street, NE 529	57		64	62	72	80
Olive Street at 28th Street 602	56	70	24	50	72	70
Douglas Street, NE at 22nd Street, NE 627	32	83	32	27	50	90

*Use rate includes the following vehicle types: passenger cars, pickup trucks, SUVs and Vans.

Source: University of the District of Columbia; Department of Biological and Environmental Sciences

SEAT BELT OBSERVATION INSTRUCTIONS

- Eligible vehicles need to have at least, but not more than, four tires and be one of the following: passenger automobile, pick-up truck, recreational vehicle, SUV or van. Pick-up trucks should be coded as trucks. Jeeps, Broncos, Blazers and other vehicles of that type should be coded as "sport utility vehicles." Eligible vehicles should be observed regardless of the state in which they are registered.

- **Do Not Include** vehicles with more than four tires, buses, motorcycles and emergency vehicles such as police, fire and ambulance, vehicles with mounted colored lights, government vehicles and taxis.

- Belt use will be observed for front seat occupants only. Observe and record data for the driver and passenger in the right front seat. If there is more than one front seat passenger, observe only the outside passenger. Do not record data for passengers in the back seat or for a third passenger riding in the middle of the front seat.

- If a child is present in the front seat in a child restraint seat, do not record anything. However, children riding in the front seat, regardless of age, who are not in child restraint seats should be observed as any other front seat passenger.

- Each observation period will last for 45 minutes.

The following procedures will be used in conducting observations of belt use:

1. As you observe an eligible vehicle, record the type of vehicle (car, truck, sport utility, mini-van, full size van), the occupants race (white or non-white), sex (male or female) and restrained by shoulder belt (yes or no) of the front seat occupants (driver and front seat outside passenger only).

2. If you notice a lap belt in use without a shoulder belt, it should be recorded as not restrained. Only shoulder belts are to be counted.

3. If the vehicle is equipped with shoulder belts but the person has the shoulder strap under his or her arm or behind the back, this should be recorded as not restrained.

4. Observe traffic in the outside most lane, and in the direction specified, through the whole 45-minute observation time period (unless otherwise stated on the observation location form).

5. In many situations, it will be possible to observe every vehicle in the designated lane. However, if traffic is moving too fast to observe every vehicle, you should determine a focal point up the road in the appropriate lane. Observe the next vehicle to pass the focal point after the last vehicle has been coded.

6. Do not observe if it is raining, or if there is fog or inclement weather. If you arrive at a site and it begins to rain, do not collect data in the rain. Find a dry place and wait 15 minutes to see if the rain stops. If the rain stops, start observing again and extend the observation period to make up for the time missed. Otherwise, you will have to reschedule the site. (Note: rain means real rain, not light fog, or drizzle, or mist).

7. If more than one data sheet is used, staple the sheets together at the end of the observation period and note the number of sheets used at the bottom of the data form.

8. It may happen that the site you are assigned is seriously compromised due to construction. If this occurs you may move one block in any direction on the same street such that you are observing the same stream of traffic that would have normally been observed had there been no construction. If moving one block will not solve the problem, then do not observe. An alternate site will be selected and observed on some future date.

SEAT BELT USE OBSERVATIONS - DATA COLLECTION FORM

SITE ID NUMBER: _____ LOCATION: _____
(Street) (Cross Street or other landmark)

DATE: _____ - _____ - _____ DAY OF WEEK: _____

TRAFFIC DIRECTION (Circle one): N S E W

START TIME: _____ (Observation period will last exactly 45 minutes)

WEATHER CONDITION:
1 Clear / Sunny 4 Fog
2 Light Rain 5 Clear But Wet
3 Cloudy

	DRIVER				PASSENGER					DRIVER				PASSENGER			
	Vehicle Type C = Car T = Pick-up S = SUV MV = Mini-van FV = Full Van	Race W = White N = Non-white U = Unk	Sex M = Male F = Female U = Unk	Use Y = Yes N = No U = Unk	Race W = White N = Non-white U = Unk	Sex M = Male F = Female U = Unsure	Use Y = Yes N = No U = Unk		Vehicle Type C = Car T = Pick-up S = SUV MV = Mini-van FV = Full Van	Race W = White N = Non-white U = Unk	Sex M = Male F = Female U = Unk	Use Y = Yes N = No U = Unk	Race W = White N = Non-white U = Unk	Sex M = Male F = Female U = Unk	Use Y = Yes N = No U = Unk	
1								36								
2								37								
3								38								
4								39								
5								40								
6								41								
7								42								
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APPENDIX B

DMV/OMV/DPS SURVEY FORMS
AND
SURVEY RESULTS

Driver Survey: State of Maryland

MVA is assisting in a study of Maryland's Seat Belt Law. Your answers to the following questions are voluntary and anonymous. Please put the completed survey in the drop box when you pick-up your photo license.

---

1. **Your sex:** ☐ Male ☐ Female

2. **Your age:** ☐ Under 21 ☐ 21-25 ☐ 26-39 ☐ 40-49 ☐ 50-59 ☐ 60 Plus

3. **Your race:** ☐ White ☐ Black ☐ Hispanic ☐ Asian ☐ Native American ☐ Other

4. **Your Zip Code:** _____

5. **About how many miles did you drive last year?**
   ☐ Less than 5,000 ☐ 5,000 to 10,000 ☐ 10,001 to 15,000 ☐ More than 15,000

6. **How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle or pick-up?**
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

7. **Compared to the last couple of years, would you say that you <u>now</u> wear your seat belt:**
   ☐ Much less often ☐ Less often ☐ About the same ☐ More often ☐ Much more often

8. **Which <u>one</u> of the following do you think is true:**
   ☐ Police can give you a seat belt ticket only if they stop you for something else.
   ☐ Police can give you a seat belt ticket only if there has been an accident.
   ☐ Police can give you a seat belt ticket whenever they see you not wearing your seat belt.

9. **What do you think the chances of getting a ticket are if you don't wear your seat belt?**
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

10. **Do you think the Maryland State Police enforces the seat belt law:**
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Not at all

11. **Do you think your county/local police department enforces the seat belt law:**
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Not at all

12. **If you were to get a seat belt ticket, what would happen (Check <u>all</u> that apply):**
    ☐ Could get dismissed by going to court or traffic school
    ☐ Pay a fine
    How much? ☐ $10-$15 ☐ $20-$25 ☐ $30-$35 ☐ $50 or more
    ☐ Don't know what would happen

13. **Have you ever gotten a ticket for not wearing your seat belt?** ☐ Yes ☐ No

14. **How strongly do you agree or disagree with the following:**
    You will be hurt less in an accident if you are wearing your seat belt.
    ☐ Strongly agree ☐ Somewhat agree ☐ Somewhat disagree ☐ Strongly disagree

15. **Have you recently read, seen or heard anything about Maryland's seat belt law?**
    ☐ Yes
    If <u>yes</u>, where did you see or hear about it? (Check <u>all</u> that apply):
    ☐ Newspaper ☐ Radio ☐ TV ☐ Poster ☐ Brochure ☐ Police checkpoint ☐ Other
    If <u>yes</u>, what did it say? _____
    ☐ No

Driver Survey: Washington DC

Motor Vehicle Services is assisting in a study of the DC's Seat Belt Law. Your answers to the following questions are voluntary and anonymous. Please put the completed survey in the drop box when you pick-up your photo license.

1. **Your sex:** ☐ Male ☐ Female

2. **Your age:** ☐ Under 21 ☐ 21-25 ☐ 26-39 ☐ 40-49 ☐ 50-59 ☐ 60 Plus

3. **Your race:** ☐ Black ☐ White ☐ Hispanic ☐ Asian ☐ Native American ☐ Other

4. **Your Zip Code:** _____

5. **About how many miles did you drive last year?**
   ☐ Less than 5,000 ☐ 5,000 to 10,000 ☐ 10,001 to 15,000 ☐ More than 15,000

6. **How often do you use seat belts when you drive or ride in a car, van, utility vehicle or pick-up?**
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

7. **Compared to the last couple of years, would you say that you <u>now</u> wear your seat belt:**
   ☐ Much less often ☐ Less often ☐ About the same ☐ More often ☐ Much more often

8. **Which <u>one</u> of the following do you think is true:**
   ☐ Police can give you a seat belt ticket only if they stop you for something else.
   ☐ Police can give you a seat belt ticket only if there has been an accident.
   ☐ Police can give you a seat belt ticket whenever they see you not wearing your seat belt.

9. **What do you think the chances of getting a ticket are if you don't wear your seat belt?**
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

10. **Do you think the local police department enforces the seat belt law:**
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Not at all

11. **If you were to get a seat belt ticket, what would happen (Check <u>all</u> that apply):**
    ☐ Could get dismissed by going to court or traffic school
    ☐ Pay a fine
    How much? ☐ $10-$15 ☐ $20-$25 ☐ $30-$35 ☐ $50 or more
    ☐ Receive points on your license
    ☐ Don't know what would happen

12. **Have you ever received a ticket for not wearing your seat belt?** ☐ Yes ☐ No

13. **How *strongly* do you agree or disagree with the following:**
    You will be hurt less in an accident if you are wearing your seat belt.
    ☐ Strongly agree ☐ Somewhat agree ☐ Somewhat disagree ☐ Strongly disagree

14. **Have you recently read, seen or heard anything about the District of Columbia's seat belt law?**
    ☐ Yes
    If <u>yes</u>, where did you see or hear about it? (Check <u>all</u> that apply):
    ☐ Newspaper ☐ Radio ☐ TV ☐ Poster ☐ Brochure ☐ Police checkpoint ☐ Other
    If <u>yes</u>, what did it say? _____
    ☐ No

Driver Survey: State of Oklahoma

The Oklahoma Department of Public Safety is assisting in a study of Oklahoma's seat belt law. Your answers to the following questions are voluntary and anonymous. Please put your completed survey in the drop box when finished.

---

1. **Your sex:** ☐ Male ☐ Female

2. **Your age:** ☐ Under 21 ☐ 21-25 ☐ 26-39 ☐ 40-49 ☐ 50-59 ☐ 60 Plus

3. **Your race:** ☐ White ☐ Black ☐ Hispanic ☐ Native American ☐ Asian ☐ Other

4. **Your Zip Code:** _____

5. **About how many miles did you drive last year?**
   ☐ Less than 5,000 ☐ 5,000 to 10,000 ☐ 10,001 to 15,000 ☐ More than 15,000

6. **How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle or pick-up?**
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

7. **Compared to the last couple of years, would you say that you <u>now</u> wear your seat belt:**
   ☐ Much less often ☐ Less often ☐ About the same ☐ More often ☐ Much more often

8. **Which <u>one</u> of the following do you think is true:**
   ☐ Police can give you a seat belt ticket only if they stop you for something else.
   ☐ Police can give you a seat belt ticket only if there has been an accident.
   ☐ Police can give you a seat belt ticket whenever they see you not wearing your seat belt.

9. **What do you think the chances of getting a ticket are if you don't wear your seat belt?**
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

10. **Do you think the State Police enforce the seat belt law:**
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Not at all

11. **Do you think local law enforcement enforces the seat belt law:**
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Not at all

12. **If you were to get a seat belt ticket, what would happen (Check <u>all</u> that apply):**
    ☐ Could get dismissed by going to court or traffic school
    ☐ Pay a fine
    How much? ☐ $10-$15 ☐ $20-$25 ☐ $30-$35 ☐ $50 or more
    ☐ Don't know what would happen

13. **Have you ever received a ticket for not wearing your seat belt?**
    ☐ Yes ☐ No

14. **How strongly do you agree or disagree with the following:**
    You will be hurt less in an accident if you are wearing your seat belt.
    ☐ Strongly agree ☐ Somewhat agree ☐ Somewhat disagree ☐ Strongly disagree

15. **Have you recently read, seen or heard anything about Oklahoma's seat belt law?**
    ☐ Yes
    If <u>yes</u>, where did you see or hear about it? (Check <u>all</u> that apply):
    ☐ Newspaper ☐ Radio ☐ TV ☐ Poster ☐ Brochure ☐ Police checkpoint ☐ Other
    If <u>yes</u>, what did it say? _____
    ☐ No

Self Reported Belt Use by State

	Count / Row Pct / Col Pct	USE: Always 1	< Always 2	Row Total
STATE	1	394	124	518
DC		76.1	23.9	19.3
		19.3	19.4	19.3
	2	870	364	1234
OK		70.5	29.5	46.0
		42.5	57.0	46.0
	3	782	151	933
MD		83.8	16.2	34.7
		38.2	23.6	34.7
	Column	2046	639	2685
	Total	76.2	23.8	100.0

Using Belts More Now than in Past by State

	Count / Row Pct / Col Pct	USE: More 1	Same 2	Less 3	Row Total
STATE	1	230	245	21	496
DC		46.4	49.4	4.2	19.0
		18.5	19.2	22.6	
	2	610	550	45	1205
OK		50.6	45.6	3.7	46.2
		49.0	43.2	48.4	
	3	404	479	27	910
MD		44.4	52.6	3.0	34.9
		32.5	37.6	29.0	
	Column	1244	1274	93	2611
	Total	47.6	48.8	3.6	100.0

Perceived Strictness of Local Police by State

	Count / Row Pct / Col Pct	STRICTNESS VerySome 1	RareNone 2	Row Total
STATE	1	257	254	511
DC		50.3	49.7	19.1
		15.4	25.3	
	2	770	460	1230
OK		62.6	37.4	46.1
		46.2	45.8	
	3	640	290	930
MD		68.8	31.2	34.8
		38.4	28.9	
	Column Total	1667	1004	2671
		62.4	37.6	100.0

Perceived Strictness of State Police by State

	Count / Row Pct / Col Pct	STRICTNESS VerySome 1	RareNone 2	Row Total
STATE	2	798	430	1228
OK		65.0	35.0	56.9
		54.6	61.8	
	3	664	266	930
MD		71.4	28.6	43.1
		45.4	38.2	
	Column Total	1462	696	2158
		67.7	32.3	100.0

Perceived Chances of Getting a Belt Ticket by State

	Count / Row Pct / Col Pct	CHANCES High 1	Medium 2	Low 3	Row Total
STATE	1	168	183	164	515
DC		32.6	35.5	31.8	19.4
		15.2	19.5	26.5	
	2	520	463	244	1227
OK		42.4	37.7	19.9	46.2
		47.1	49.4	39.5	
	3	415	291	210	916
MD		45.3	31.8	22.9	34.5
		37.6	31.1	34.0	
	Column Total	1103	937	618	2658
		41.5	35.3	23.3	100.0

Ever Received a Belt Ticket by State

	Count / Row Pct / Col Pct	TICKET Yes 1	No 2	Row Total
STATE	1	55	452	507
DC		10.8	89.2	19.1
		19.2	19.1	
	2	106	1116	1222
OK		8.7	91.3	46.1
		36.9	47.2	
	3	126	796	922
MD		13.7	86.3	34.8
		43.9	33.7	
	Column Total	287	2364	2651
		10.8	89.2	100.0

Read/Seen/Heard a Belt Message Recently by State

	Count / Row Pct / Col Pct	READ/SEEN/HEARD Yes 1	No 2	Row Total
STATE	1	238	280	518
DC		45.9	54.1	19.3
		16.2	23.0	
	2	785	449	1234
OK		63.6	36.4	46.0
		53.5	36.8	
	3	443	490	933
MD		47.5	52.5	34.7
		30.2	40.2	
	Column	1466	1219	2685
	Total	54.6	45.4	100.0

Knows the Primary Law by State

	Count / Row Pct / Col Pct	KNOWS LAW Yes 1	No 2	Row Total
STATE	1	422	80	502
DC		84.1	15.9	19.1
		18.2	25.2	
	2	1097	122	1219
OK		90.0	10.0	46.3
		47.4	38.4	
	3	796	116	912
MD		87.3	12.7	34.6
		34.4	36.5	
	Column	2315	318	2633
	Total	87.9	12.1	100.0

Seat Belts Make a Trip Safer by State

	Count / Row Pct / Col Pct	TRIP SAFER Strong 1	Some 2	Disagre 3	Row Total
STATE	1	378	86	54	518
DC		73.0	16.6	10.4	19.3
		19.8	14.7	28.9	
	2	870	306	58	1234
OK		70.5	24.8	4.7	46.0
		45.5	52.2	31.0	
	3	664	194	75	933
MD		71.2	20.8	8.0	34.7
		34.7	33.1	40.1	
	Column Total	1912	586	187	2685
		71.2	21.8	7.0	100.0

APPENDIX C

TOPICAL INTERVIEW GUIDES FOR POLICE

POLICE SUPERVISOR QUESTIONS

- **Description of Department:**

Overall, about how many traffic citations does the Department issue (estimate, get documentation later if available)

Traffic unit? How many sworn? how/when deployed? fully dedicated or on call for other duties?

DUI unit? Strength? Any other specialized traffic units?

Regular patrol units? Strength? Extent they are involved in traffic?

Does Department have belt policy while on-duty?

- **Belt Enforcement**

When/how did you first learn of the primary law?

What, if any, information did you receive from the state? Other?

What were your officers told (roll call? written?)

What do you think of the new law?

Was there a formal warning period when the law changed? How long?

Has the Department conducted any special belt enforcement activities? Will they continue?

How are your officers using the primary law? Has it led to changes in traffic enforcement?

Has there been any motorist reaction to the law? What?

Do you think belt use in your community has changed since the primary law? More/less?

Who is buckling up now that didn't before?

POLICE OFFICER QUESTIONS

- **From Each Officer**

Number of years on the force

Duty assignment past twelve months

Percent of time devoted to traffic

How often do you personally wear your seat belt on-duty? Off duty?

- **From Group**

When and how did you first learn of the primary law?

What, if any, information did you receive from the Department?

What do you think of the primary law?
Should issue warning, not citations?
Should have stayed secondary?
Should be vigorously enforced as primary?
Fines too low? Too high? Points? About right?

Are there any differences in how you enforce belts now as a primary law compared to how you enforced under secondary?

Are there benefits and/or drawbacks of a primary law in terms of traffic enforcement?

Personally, are you writing more or less belt tickets now (more than before the law change)?

Has there been any motorist reaction to the law thus far? What?

Do you think belt use in your community has changed since the primary law? More/Less?

Who is buckling up now that didn't before?

DOT HS 809 213
April 2001

U.S. Department of Transportation
National Highway Traffic Safety Administration

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