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16. Abstract

Some states allow an officer to stop a vehicle for an observed belt law violation alone (primary). Most require that the initial stop be made for some other violation before a belt law citation can be issued (secondary). On January 1, 1993, California became the first state to implement an uninterrupted change from secondary to primary belt law enforcement. In the six study communities, the percentage of drivers observed wearing seat belts increased from 58 percent prior to the law change to 76 percent soon thereafter. Drivers surveyed at DMV offices indicated that they had knowledge of the new law and were more likely to wear their belts now than in the past. Police officers participating in focus groups indicated that they were pleased with the change to primary enforcement and had received no negative public reaction.

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Background

Most states in the U.S. now have mandatory seat belt use laws. Most of these laws permit only secondary enforcement which means that an officer can cite a motorist for a belt use violation if and only if the officer has already stopped the vehicle for some other reason. A few states have primary enforcement which allows an officer to stop a vehicle for an observed belt use violation alone. Belt use rates in the few primary law states tend to average at least ten percentage points higher than comparable rates in the secondary law states. Primary laws, as compared to secondary laws, have been associated with greater reductions in fatal and serious injury resulting from a motor vehicle crash.

On January 1, 1993, California became the first state to implement an uninterrupted change from secondary to primary enforcement. All other elements of the California law have remained essentially unchanged since it was originally implemented in 1986. Fines under the law are $20 for a first offense (plus $2 penalty); $50 (plus $5 penalty) for subsequent offenses. Taxis, large trucks and busses, law enforcement and postal vehicles are exempt. A statewide effort announcing the new law was conducted during December, 1992 and January, 1993.

Objective

The objective of the present study was to evaluate California's uninterrupted change from secondary to primary enforcement with respect to observed belt use rates, police officer reactions, motorist reactions and citations issued.

Method

Driver belt use was observed in Bakersfield, Fresno, Monterey, Riverside, Salinas and San Bernardino. Focus groups with municipal police officers and driver surveys at Department of Motor Vehicle offices were conducted in each of these six cities. Citation data were collected for each city.

(Continue on additional pages)

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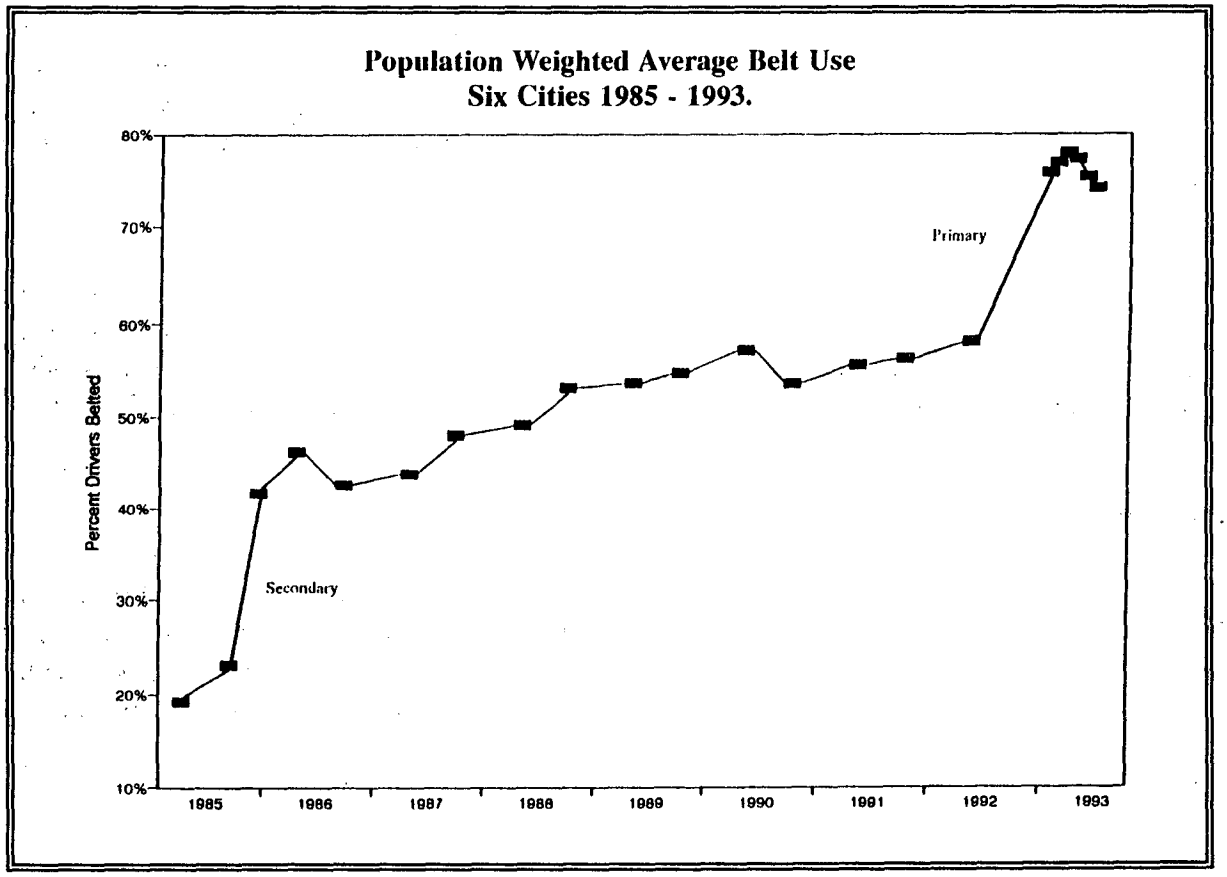
HS Form 321
July 1974

Belt Use Rates

The California Office of Traffic Safety has conducted driver belt use observations in each of the six cities listed above for the years 1985 through 1992. The present study replicated their procedures during the first few months following implementation of the new law. The data, combined across the six cities, are plotted in the Figure below.



The results indicate that driver belt use in these six cities increased from 23 percent in November 1985 (just prior to the implementation of the secondary law), to 42 percent in February 1986 (just after implementation). Belt use rates then rose gradually to 58 percent by June 1992.

In early 1993, just after the implementation of primary enforcement, belt use in the six cities was at 76 percent. This represents an increase of 18 percentage points from the June 1992 observations. Similar increases in belt use rates were reported by the Insurance Institute for Highway Safety comparing observations conducted in five other California cities during November 1992 and again during February and March 1993. On a statewide basis, which combined city and highway use survey results, the California Office of Traffic Safety estimated driver belt use at 70 percent during the summer of 1992 as compared with 83 percent during the fall of 1993.

Motorist Response

Surveys were completed by 3,493 California drivers from March through September, 1993, as part of the DMV photo-license process. Seventy percent of those surveyed in the spring, 60 percent of those surveyed in later months, reported seeing or hearing some publicity or news information about the new law. Ninety percent knew that they could be stopped for a belt law violation alone and 75 percent felt that the law was being strictly enforced. More than half of those surveyed (55 percent) indicated that they were wearing their belts more often now than last year. Minority respondents (Hispanic origin, or Black, Asian or Native American) were more likely to report that their belt use had increased compared with last year and that they were very likely to get a ticket if they did not wear their seat belt.

Officer Response

Traffic and patrol officers in each of the six cities favored the change to primary enforcement. Most felt that it communicated to motorists both the need for using seat belts and the possibility that an enforcement action might be taken. None of the Departments indicated any significant negative public reaction.

Citations

The number of belt use citations issued statewide by the California Highway Patrol and issued by the municipal departments for the cities listed above, increased slightly following the change to primary enforcement. It appeared unlikely that the relatively small increase in the actual number of citations issued did, by itself, account for the relatively large increase in observed belt use rates.

Conclusion

The present results indicate that California's decision to change from secondary to primary enforcement has produced substantial benefits. Other states with secondary enforcement laws may wish to consider similar legislation.

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I. INTRODUCTION

As of January 1, 1993, there were 42 states plus the District of Columbia and Puerto Rico that had mandatory seat belt use laws covering front seat occupants of motor vehicles.[1] In 1984, New York became the first state to enact such a law. The same conditions of enforcement were established in New York's law that applied to all other traffic infractions. That is, a police officer could issue a citation upon observing the infraction. Many of the states that subsequently enacted seat belt laws, however, limited enforcement to situations where police had stopped motorists for other violations. California's original seat belt law, for example, contained the language: "...a peace officer shall not stop or seize a person for a violation of [the seat belt law] nor issue a notice to appear or notice to correct for a violation of [the law] if the officer has no other cause to stop or seize the person..."

Laws that permit enforcement only after a stop for another violation are termed *secondary enforcement* laws; laws that permit enforcement of belt use violations alone are termed *primary enforcement* laws. At the beginning of 1993, there were 32 states plus the District of Columbia that had secondary enforcement laws and 10 states, including California, that had primary enforcement laws.

On January 1, 1993, modifications to California's mandatory seat belt law (the Private Passenger Motor Vehicle Safety Act) took effect which changed the conditions of enforcement from a secondary to a primary basis. California, thereby, became the first state to change, without interruption, from secondary to primary enforcement.

Technically, the California change was accomplished by adding a section to the state's Motor Vehicle Code that essentially duplicated the original provisions but deleted the paragraph containing the language regarding secondary enforcement. Fines (not more than $20 and a $2 penalty assessment for a first offense and not more than $50 and a $5 penalty assessment for subsequent offenses), exemptions (taxi drivers operating on city streets, operators of trucks over 6,000 pounds, law enforcement officers unless their department has a mandatory use policy), and other provisions remained unchanged. The new section is in effect until January 1, 1996. Thus, the change to primary enforcement is "sunsetted" unless the legislature takes additional action in the future.

For many years, the National Highway Traffic Safety Administration (NHTSA) has conducted and sponsored research, development, evaluation and programmatic activities to foster seat belt use. Working with the California Office of Traffic Safety, NHTSA undertook the present study to evaluate California's seat belt law change from secondary to primary enforcement.

The objectives of the evaluation were to address the following six major questions.

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

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[1] State laws vary regarding matters such as required belt use by rear seat occupants and vehicles which are exempt (e.g., taxicabs, trucks, etc.).

2. Do public perceptions of the risk of being cited change?

3. What public information and education (PI&E) campaigns are recalled by the public?

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

5. Are new enforcement strategies, that take advantage of the law, implemented and publicized?

6. Do law enforcement attitudes toward the belt law change?

Addressing these questions involved a pre-post analysis of seat belt use rates and seat belt law enforcement levels around the date of California's change from secondary to primary enforcement. Motorists' knowledge of the law change and their reactions to it were also assessed. The major focus of the study was the evaluation of outcomes related to the law change in six representative California communities.

The six communities that participated in the evaluation were Bakersfield, Fresno, Monterey, Riverside, Salinas and San Bernardino. These communities were selected based on the following criteria:

- Regional representation in southern, northern and central California.
- Included in the 1992 California official seat belt usage survey.
- Accessible historical seat belt enforcement data and a willingness to attempt to provide future belt enforcement data.
- Small to mid-sized in terms of population.

Table 1 shows characteristics of the six study communities. It can be seen in the table that the populations range from a high of 354,200 in Fresno to a low of 31,900 in Monterey. The two northern California communities (Monterey and Salinas) have land areas of under 20 square miles; the two central valley communities (Bakersfield and Fresno) each are slightly under 100 square miles in size; and the two southern California locales (Riverside and San Bernardino) are of intermediate size.

With the exception of Monterey, persons of Hispanic origin and members of non-white races make up from one-third to more than one-half of each city's total population. Salinas is the most densely populated of the six cities while Bakersfield has the lowest density. The remaining four communities have population densities in the range of 3,000 to 4,000 per square mile.

Annual gross family incomes range from a low of approximately $33,800 in San Bernardino to a high of approximately $43,000 in Riverside (the figure for California as a whole is $44,588 and

Table 1. Site Characteristics.

City	Population (000)[1]	Area (Sq.Mi.)	Pop/ Sq.Mi.	Pct. Hispanic & Non-White[2]	Annual Gross Household Income[2]	Sworn Police[3]/ 1,000 Pop	Violent Crimes[4]/ 1,000 Pop	1992 Belt Use[5]
Monterey	31.9	8.4	3,804	18%	$36,614	1.79	14.4	65.1%
Salinas	108.8	18.6	5,848	54%	$33,825	1.27	10.8	66.1%
Bakersfield	174.8	91.8	1,904	34%	$35,465	1.43	9.6	64.7%
Fresno	354.2	99.1	3,574	51%	$34,290	1.21	15.1	52.0%
Riverside	226.5	77.7	2,915	39%	$43,048	1.35	15.4	60.0%
San Bernardino	164.1	55.1	2,979	54%	$32,967	1.61	35.3	48.5%

[1] Source: Bureau of the Census Estimate-1992.
[2] Source: Standard Rate and Data Service, July 1992.
[3] Source: Provided by Police Departments-1993.
[4] Source: FBI Uniform Crime Reports, 1992. Violent crimes are murder, forcible rape, robbery and aggravated assault.
[5] Source: California State Survey, June 1992.

for the U.S. as a whole, $38,412). Violent crimes in 1992 were most frequent in San Bernardino (35.3 per 1,000 population) and least frequent in Bakersfield (9.6 per 1,000 population). Sworn police strength ranges from a low of 1.21 officers per 1,000 residents in Fresno to a high of 1.79 officers per 1,000 residents in Monterey.

Section II of this report provides information on previous studies and national data on seat belt use and enforcement of mandatory use laws. Section III contains results regarding seat belt use levels before and after California's change to primary enforcement. Section IV presents information on seat belt enforcement before and after the law change and on law enforcement reactions to the change. Section V presents the results of motorist surveys conducted on behalf of the study by the California Department of Motor Vehicles. Section VI contains a discussion of the results of the evaluation.

II. BACKGROUND

There is substantial evidence that belt use laws in general, and primary laws in particular, produce increased belt use rates. Based on December 1992 NHTSA data, seat belt use among all states ranged from a low of 24 percent in Mississippi to a high of 83 percent in Hawaii. The median state had a 58 percent use rate. States with seat belt laws had a median use rate of 63 percent; states without belt laws had a 36 percent median use rate.

One primary law state (Mississippi) and three secondary law states (Rhode Island, Tennessee and Wyoming) do not impose fines for first offense violations (IIHS, 1993). The median use rate among these states was 45 percent compared to a median of 63 percent in the states that do impose fines. In the states that impose fines, those with primary belt laws had a median use rate of 70 percent while those with secondary belt laws had a median of 58 percent.[2]

Seat belt use rates by state are shown graphically in Figure 1. It can be seen in the figure that states without mandatory seat belt use laws tend to cluster at the low end of the belt usage scale while states with primary enforcement laws tend to cluster at the high end of the scale. It can also be seen in the figure that California, prior to the change to primary enforcement, had a statewide use rate of approximately 70 percent.

Evaluation of the effects of mandatory seat belt use laws and their enforcement began in the U.S. shortly after the first law was enacted. Numerous studies have been conducted during the subsequent nine years. Williams, Wells and Lund (1987), for example, evaluated the effects of the adoption of mandatory seat belt use laws in New York, New Jersey, Illinois and Michigan. They found that belt use surged dramatically following adoption of the laws and then declined shortly thereafter but to levels that were still well above pre-law use rates.

Wagenaar et al. (1988) used time series methods to evaluate the traffic safety impact of the first eight mandatory use laws. A decline of almost 9 percent was reported in traffic fatalities following enactment of these laws. The primary law states experienced declines of almost 10 percent and secondary law states experienced declines of approximately 7 percent. A similar outcome is 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 percent while the states with secondary laws experienced a decline of 7 percent.

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[2] Another common method for combining belt use data is the population weighted average whereby the data from each state is weighted by the state's population (i.e., a state with six million people counts double a state with three million; a state with 30 million counts 10 times). Using this method, the average for states with laws was 63 percent versus 37 percent for states without laws (63 percent median and 36 percent median, respectively). The average for primary states that impose fines was 70 percent versus 61 percent for secondary states that impose fines (70 percent median and 58 percent median, respectively).

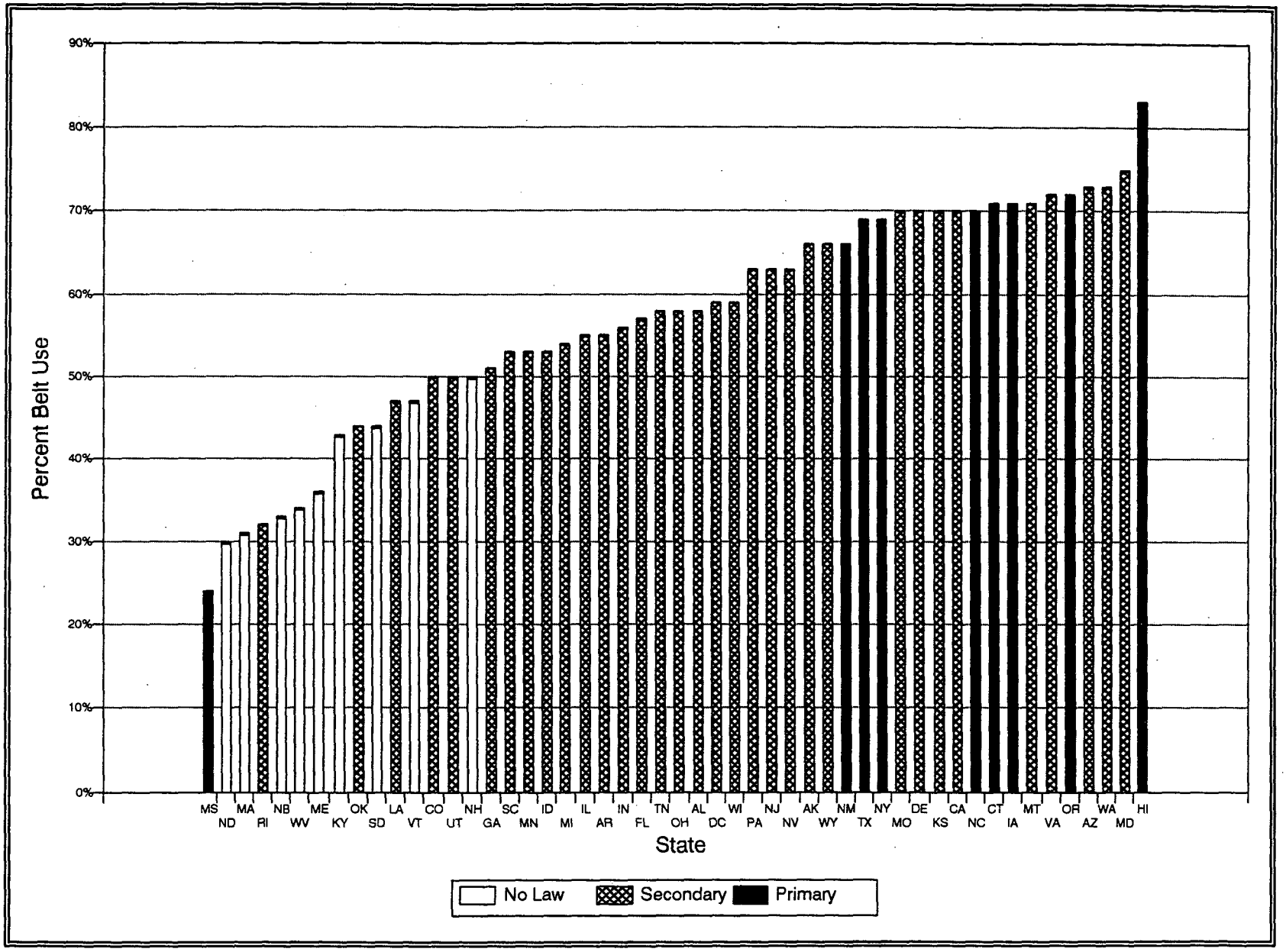

Figure 1. Belt Use Rates by State (Source: NHTSA December 1992).

Loeb (1993) applied econometric models to assess the effects of California's seat belt law on injury rates using monthly police-reported accident data for the years 1982-1987 for drivers. He found statistically significant correlations between the seat belt law and reduced moderate, serious and fatal injuries in motor vehicle accidents. There were stronger effects in multiple vehicle accidents than in single vehicle accidents and stronger effects in the first calendar quarter following passage of the law than in subsequent time periods.

The Center for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS), conducts monthly telephone interviews utilizing a probability sample of adult residents in as many as 37 states and the District of Columbia. The interview contains the question, "How often do you use seatbelts when you drive or ride in a car? Would you say: always, nearly always, sometimes, seldom or never?" Escobedo et al. (1992) analyzed the response "always" in the 1989 survey as a surrogate for actual belt use. The results showed that states with primary laws had significantly higher use rates than states with secondary enforcement laws, and states with secondary laws had significantly higher use rates than states without mandatory seat belt use laws.

The relationship between enforcement levels and seat belt use rates has been the focus of several studies. For example, Williams et al. (1987) studied the effects of a three week enforcement and publicity program conducted in Elmira, New York (a primary enforcement state). Belt use rates, which were at 49 percent prior to the campaign, rose to 77 percent at its conclusion and were found to be at 66 percent two months later. Use rates in a comparison city without a program declined from 43 percent to 37 percent over the same period. A reminder program, conducted five months later, achieved belt use rates of 80 percent at the end of the three week program; use rates dropped back to 77 percent two months after the reminder program, to 69 percent four months after and to 60 percent eight months after. The use rate in the comparison city remained at about 40 percent over this period. A similar enforcement/publicity program, conducted in Modesto, California in 1986 (a secondary law state at the time), increased belt usage from 33 percent to a peak of 57 percent (IIHS, 1993). The Elmira and Modesto programs have shown that well publicized enforcement campaigns can produce significant increases in seat belt use. The substantially higher use rates attained in Elmira suggest that greater enforcement effects are achieved in a primary law setting.

Campbell (1988) evaluated 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. It was also found that a given level of enforcement was associated with higher belt use in primary law states than the same level of enforcement in secondary law states.

Recent NHTSA data of state-by-state belt use rates and belt citations issued (December, 1992), can be compared with Campbell's earlier analysis. The NHTSA data indicate that both belt use rates and enforcement rates were much higher at the end of 1992 than those reported by Campbell in 1988. For instance, seven of Campbell's eight primary law states are still primary states today. In these seven, belt use rates had risen by an average of approximately 13 percentage points and enforcement rates were, on average, triple the rates reported earlier by Campbell.

The 1992 NHTSA data were analyzed using linear modelling. As in the earlier Campbell study, the present analysis considered enforcement, the elements of the law and belt use rates. The analysis considered the 37 states (eight primary and 29 secondary) that had a law with a fine of at least $5 for a first offense. The variables available for this analysis were:

- police (belt use citations per 100,000 population)
- fine (amounts ranging from $5 to $50)
- law (one equals secondary, two equals primary)
- use (belt use rate)

The models predicted belt use rates in these 37 states. The results indicated that both law alone and police enforcement levels alone provided statistically significant prediction for belt use rates; fine amount alone did not. Law, police enforcement level and the interaction of the two were combined in a single model. The results indicated that: primary laws were associated with higher use rates ($F = 6.82$ $p<.05$); and that higher enforcement levels were associated with higher use rates ($F = 5.16$ $p<.05$). The law by police interaction was not significant.

The literature, and the present analysis of currently available NHTSA data, clearly suggest that primary laws are associated with higher belt use rates. California's change from secondary to primary enforcement provides the first uninterrupted opportunity for a pre versus post comparison of this effect.

III. SEAT BELT USE

A. Methods

Seat belt use data for the period 1985-1992 were made available to the study from the semi-annual statewide belt use observation program sponsored by the California Office of Traffic Safety for the six study communities as well as elsewhere in the state. Belt use data following the change to primary enforcement were collected by observers who were recruited and trained locally in conjunction with the law enforcement agency in each community. Observation procedures followed the statewide belt observation program which utilizes one or more intersections and the entrance to a shopping mall. These same observation points were used by the study in each of the six communities.

The observers visited each of the locations and made driver belt use observations for a minimum of one hour on a weekday morning and one hour on a weekday afternoon. All lanes, in all directions of travel, were observed during these periods. The observers were instructed to select an observation point at each location and from that point select a distinctive visual reference such as a roadway marking, sign post, 100-200 feet back from the intersection or from the mall entry. Observations of vehicle type, driver belt use, gender and age were made for the third vehicle passing the visual reference and observation results were recorded on the data collection form. The observer then returned attention to the visual reference and observed the third vehicle passing the reference. This process was continued until the time allocation for the lane of travel elapsed. Each additional lane of travel was observed around the intersection or mall until all lanes had been observed. Excluded from the counting and observing process were emergency vehicles (police, fire, ambulance or any vehicle with warning lights mounted on its roof), any vehicle with more than four tires (trucks or vans larger than a 4-tire pickup, busses), motorcycles, U.S. Post Office vehicles and taxicabs. The data collection form is shown in Appendix A.

Observations began in February or March 1993, depending on how quickly observers could be recruited and trained in each community. The first wave of observations did not include the mall locations. These locations were included in subsequent observation waves. Monthly observation waves were planned in each of the study sites to continue until mid-1993, however, local circumstances caused the actual number of completed waves to vary among the communities.

B. Results

Table 2 contains driver seat belt use rates for the six study sites for the period 1985 through mid-1993. Data prior to 1993 are from California's semi-annual statewide seat belt observation program (Betancourt, 1992). Data for 1993 are from study-initiated observations in the six cities. The table also indicates the population weighted average belt use rate for each observation period.

Table 2. Pre and Post Law Driver Belt Use Rates.

Observation Period	Bakersfield	Fresno	Monterey	Salinas	San Bernardino	Riverside	Population Weighted Average
No Seat Belt Law							
June 1985	16.2	20.4	29.0	17.5	23.0	16.5	19.2
Nov 1985	17.4	27.8	27.5	20.2	17.8	25.4	23.2
Secondary Enforcement Law							
Feb 1986	44.2	42.2	50.5	34.6	38.3	43.5	41.7
June 1986	36.8	52.4	46.4	35.4	45.7	49.8	46.3
Nov 1986	28.5	48.6	54.9	39.7	40.0	45.9	42.7
June 1987	38.6	45.5	52.3	46.1	42.8	43.8	43.8
Nov 1987	42.4	53.3	58.5	40.0	48.8	46.2	48.1
June 1988	49.9	51.5	66.1	46.2	47.3	45.7	49.2
Nov 1988	49.0	56.2	67.1	49.0	48.8	54.4	53.1
June 1989	53.2	55.2	64.0	52.9	52.1	52.0	53.7
Nov 1989	55.6	53.4	65.7	49.6	53.0	58.4	54.7
June 1990	56.4	57.0	70.0	50.5	56.4	59.7	57.1
Nov 1990	54.7	56.2	67.9	48.2	48.7	52.3	53.5
June 1991	54.8	54.5	70.9	56.5	53.9	56.8	55.6
Nov 1991	55.4	53.5	66.5	56.5	53.6	61.5	56.2
June 1992	48.5	64.7	66.1	52.0	53.5	60.0	58.0
Primary Enforcement Law							
Feb 1993	N/A	76.4	N/A	N/A	74.6	N/A	75.8
Mar 1993	77.4	N/A	72.7	77.8	76.8	76.6	76.9
April 1993	N/A	N/A	81.4	79.0	73.9	79.8	77.9
May 1993	81.9	N/A	72.6	76.6	76.6	75.4	77.3
June 1993	74.5	N/A	74.9	77.4	73.6	76.5	75.4
July 1993	N/A	72.9	N/A	N/A	72.2	77.3	74.1

The data in Table 2 indicate that in June 1992 (the last observation period prior to the change to primary enforcement), belt use in the individual cities ranged from a low of 48 percent in Bakersfield to a high of 66 percent in Monterey. In the first observation wave conducted for this study in 1993 (after the change to primary enforcement), a more uniform range of belt use was found in the six cities from 73 percent in Monterey to 78 percent in Salinas. As can be seen below, this more homogeneous range occurred because the increases in belt use were greatest in those cities that had the lowest belt use before the 1993 law.

	June 1992 Belt Use	First 1993 Observation	Percentage Point Increase
Monterey	66.1%	72.7%	6.6%
Fresno	64.7	76.4	11.7
Riverside	60.0	76.6	16.6
San Bernardino	53.5	74.6	21.1
Salinas	52.0	77.4	25.8
Bakersfield	48.5	77.4	28.9

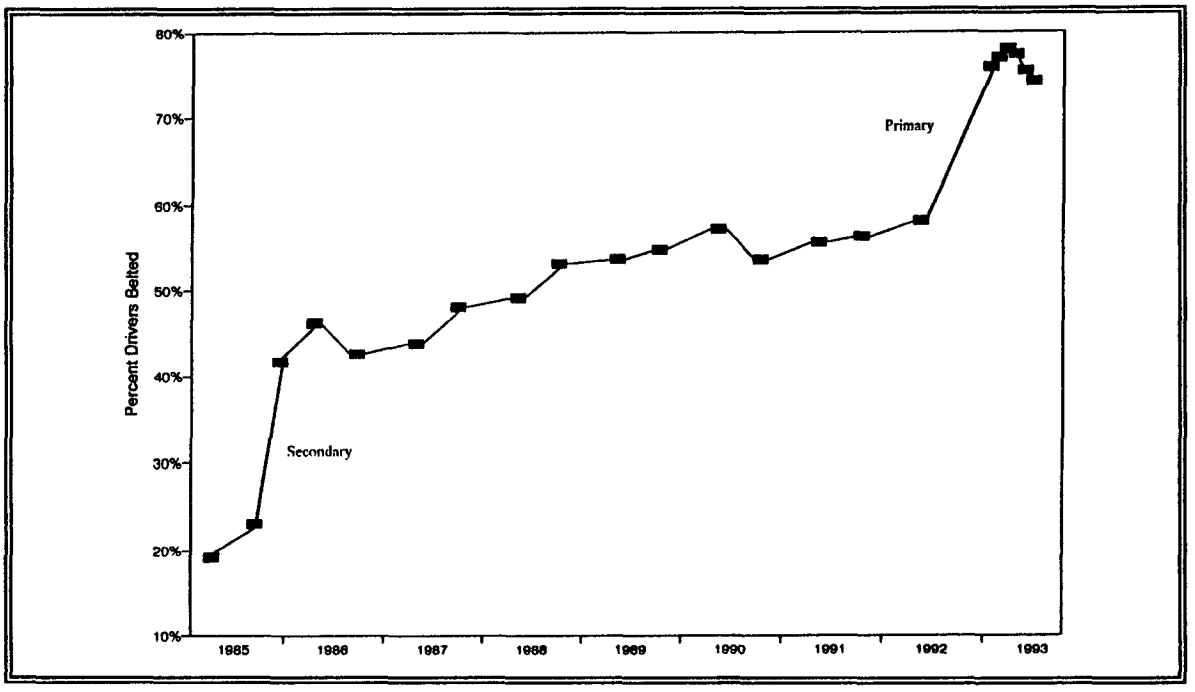

Figure 2. Population Weighted Average Belt Use 1985-1993.

Figure 2 shows the results from Table 2, graphically, for the full 1985-1993 time period. It can be seen in Figure 2 that in 1985, prior to enactment of a seat belt law, weighted average belt use in the six cities was in the low 20 percent range. Following adoption of the seat belt use law in 1986 (secondary enforcement), belt use increased immediately by 18 percentage points. This was

followed over the 1986 to 1992 period by a gradual increase in belt use, so that by mid-1992, weighted average belt use was 58 percent in the study sites.

Following adoption of the 1993 primary enforcement law, there was another marked increase in belt use to 76 percent. The magnitude of this increase was essentially identical to the percentage point increase experienced in 1986 when the first belt use law was adopted in California.

A common finding after adoption of mandatory belt use laws, intensive education and enforcement programs, is a sharp rise in belt use followed by a modest decline, but still above preexisting levels. There is some indication in Figure 2 of such an effect following the state's first law. This can be seen more clearly in Figure 3 where an apparent peaking of belt use in April 1993 is followed by modest declines through the July observations. Appendix B contains belt use patterns for the individual cities. Future data from the statewide observation program will help to clarify the longer term trend in belt use following the adoption of the primary enforcement law.

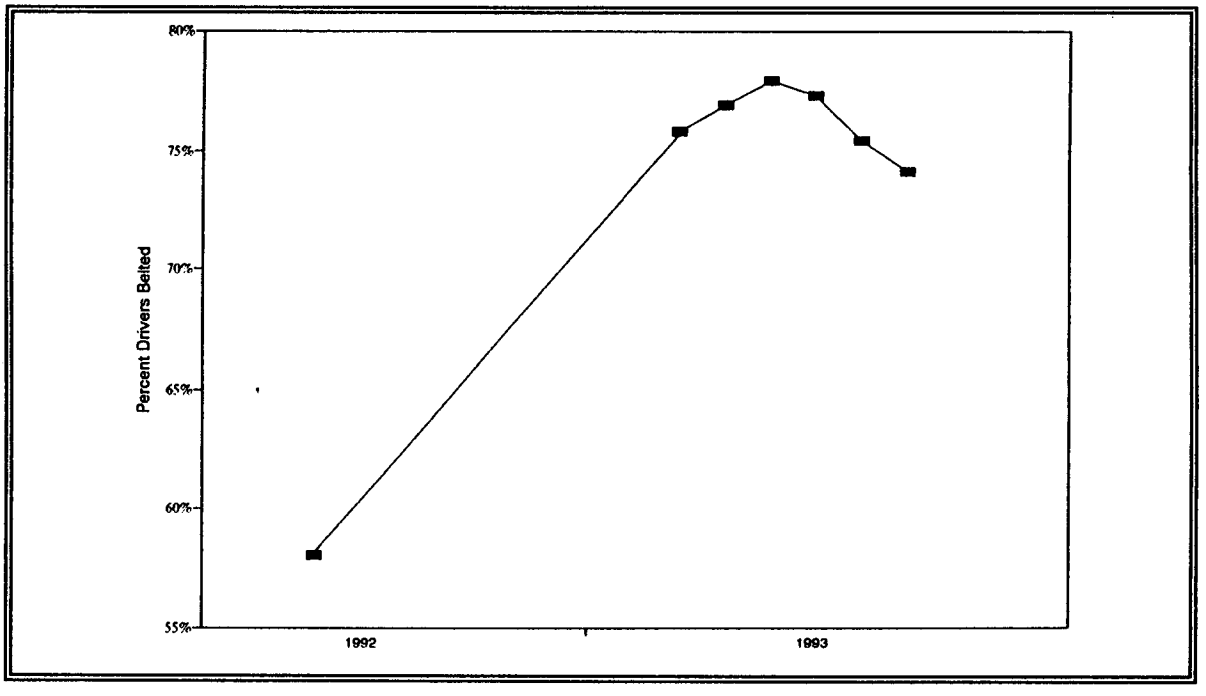

Figure 3. Population Weighted Average Belt Use June 1992, February-July 1993.

Belt Use Demographics. Belt use observation data were recorded for a total of 36,615 drivers during February through July 1993 in the six cities. Fifty percent of those observed were males and 50 percent were females. Approximately 12 percent of the observed drivers were judged to be age 25 or younger, 76 percent were in the 26 to 54 age range and 12 percent were judged to be 55 or older.

Across all of the observations made, 75.3 percent of the drivers were found to be belted. Belt use was significantly higher among females (80.5 percent) than among males (70.1 percent; $\chi^2=522.98$, $p<.01$, 1 df). Belt use increased as age group increased, and females had higher use rates in all of the age groups. Among drivers judged to be 25 or younger, 77.1 percent of the females were belted compared to 64.9 percent of the males; among 26 to 54 year-olds, 80.6 percent of the females were belted compared to 69.9 percent of the males; and among those age 55 and older, 83.3 percent of the females were belted compared to 75.3 percent of the males.

Among the vehicles observed, 71.8 percent were automobiles, 14.9 percent were pickup trucks, 7.7 were vans and 5.6 percent were sport utility type vehicles. Females were more likely to be belted in each of the vehicle types. Drivers of pickup trucks were belted less often (66.0 percent) than drivers of utility vehicles (78.4 percent), automobiles (76.8 percent) or vans (76.2). Lesser belt use in pickup trucks was true among both male and female drivers.

IIHS Observations. The Insurance Institute for Highway Safety conducted seat belt use observations of drivers and front seat occupants in Los Angeles, Modesto, Sacramento, San Diego, San Francisco and on the Interstate highways connecting these cities during November 1992 and February and March 1993 (IIHS, 1993). The results from these five cities indicate belt use changes that are highly comparable to the changes observed in the present study's six sites. Specific IIHS results were as follows:

	1992	1993	Percentage Point Increase
Los Angeles	56%	76%	20%
Modesto	55	69	14
Sacramento	48	67	19
San Diego	50	67	17
San Francisco	55	73	18

Office of Traffic Safety Observations. As mentioned above, the California Office of Traffic Safety has been conducting belt use observations in the state since 1985. Table 2 and Figure 2 show these data for six of their 12 cities for the period June 1985 through June 1992 (Betancourt, 1992). Their surveys also included "highway" observations which tended to show higher belt use rates than the "city" observations. The combined city and highway statewide estimate for Summer 1992 was 70 percent driver belt use. Another statewide survey conducted in September 1992 also yielded a use rate of 70 percent. By the Fall of 1993, statewide observations showed driver belt use to be 83 percent (Betancourt, 1993). Thus, the statewide use surveys also show an increase in driver belt use, though somewhat less than our findings for the six cities or the IIHS observations.

IV. SEAT BELT LAW ENFORCEMENT

Many law enforcement agencies are operating under stringent budgetary constraints while having to cope with increasing overall demands for police services as well as the special problems associated with illicit drug sales and street gangs. It is not uncommon, therefore, to find traffic enforcement operations being curtailed in an attempt to maintain patrol strength. It is known, for example, that several departments in the six participating communities have experienced reductions in traffic units and the assignment of patrol calls and backup duties to traffic units. Data on seat belt citations and law enforcement reactions to the primary enforcement law change are presented within this context.

A. Seat Belt Citations

1. California Highway Patrol

The California Highway Patrol (CHP) has provided data on its monthly levels of seat belt citations covering the period January 1986 through June 1993. These data are shown in graphic form in Figure 4. This Figure shows that there have been a number of distinct patterns in citation levels since the first mandatory belt use law was enacted. From 1986 through early 1988, the volume of citations grew at a rapid rate and then declined throughout the remainder of 1988. The first half of 1989 saw another upturn in citation volume followed by relatively stable figures that continued into 1990. The period from about mid-1990 until the end of 1992 was one of declining citation totals ranging from a high of approximately 50,000 citations per month during the first half of 1990 to approximately 35,000 per month by the end of 1992.

The data for the first six months of 1993 suggest that the downward trend has been reversed coincidental with the change to primary enforcement. A time series (ARIMA) model was developed for the monthly data for 1990-1992 and used to forecast citation totals for the next six months. The results indicate that if the trend in effect over the three year period had continued, a total of approximately 199,000 belt citations would have been issued during the first half of 1993. Actual citation totals over this period were approximately 240,500 or approximately 21 percent above the forecasted total.

2. Municipal Departments

Each of the municipal police departments in the six cities had agreed to attempt to provide monthly data on seat belt and all moving traffic citations issued for a two or three year period prior to the change to primary enforcement and for the first six months of 1993. Unfortunately, local circumstances precluded some of these agencies from compiling the full data set. The following subsections describe the data that were obtained.

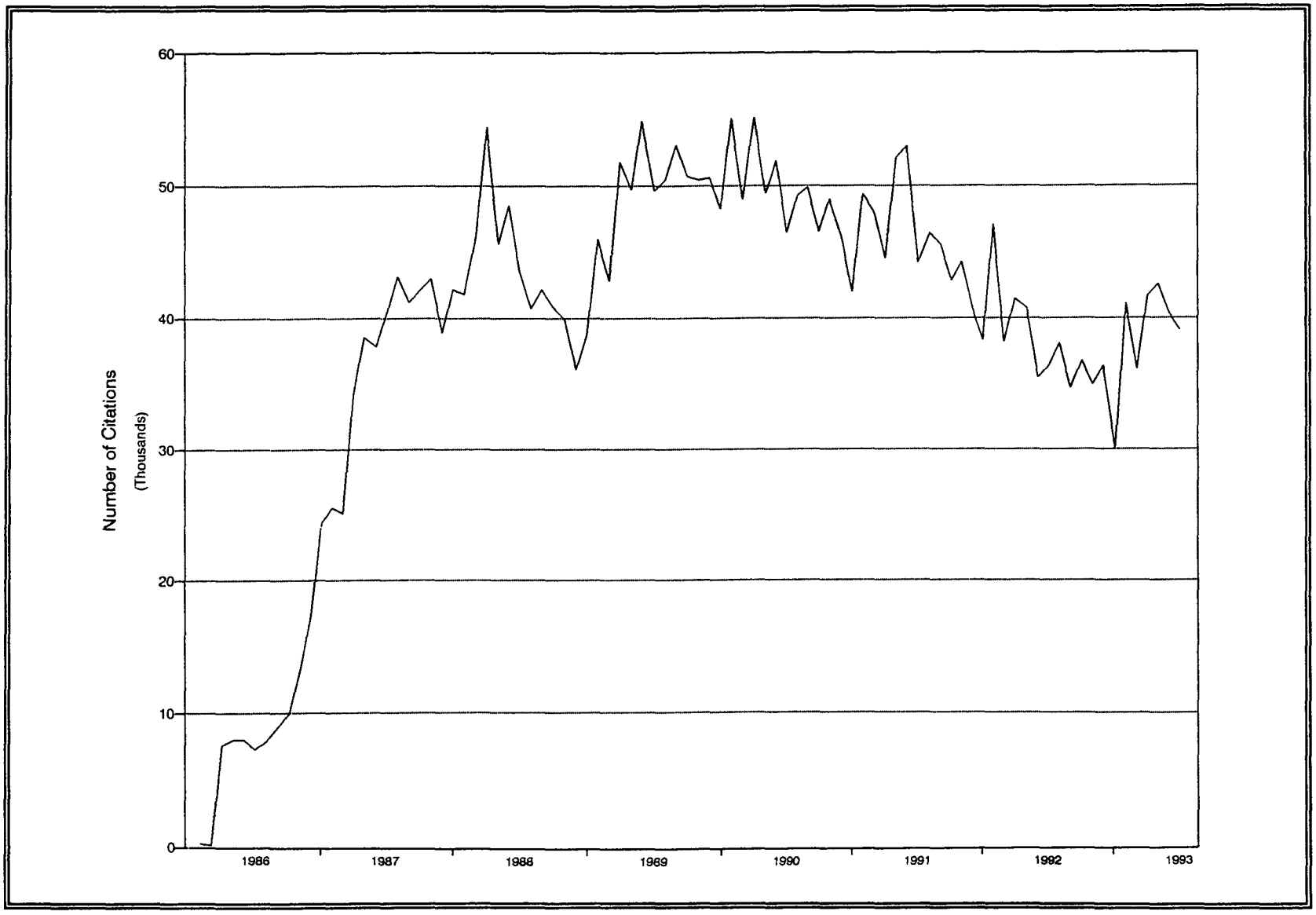

Figure 4. CHP Seat Belt Citations 1986 - June 1993.

- **Bakersfield**

Monthly totals of moving traffic citations and seat belt citations issued by the Bakersfield Police Department are shown in Figures 5a and 5b for the period 1990 through June 1993. It can be seen in the figures that from 1990 through the third quarter of 1991, the monthly totals of moving and belt citations were gradually increasing. During this time, belt citations were issued in approximately 9 percent of the cited moving violations. During the last quarter of 1991, the volume of moving citations declined abruptly and then fluctuated in the 2,500-3,500 per month range through mid-1993. Because seat belt citations did not experience as sharp a downturn, belt citations were issued in approximately 17 percent of moving violation cases during 1992. Figure 5b indicates a "spike" in seat belt citations in January 1993. Belt citations then resumed the gradual downward trend that appears to have begun in mid-1992. The ratio of belt to moving citations in the first six months of 1993 was approximately 16 percent.

- **Monterey**

Monthly moving traffic citations and seat belt citations issued by the Monterey Police Department are shown in Figures 6a and 6b for the period covering 1991 through June 1993. Figure 6a indicates that moving citations were on a downward trend during 1991 and then fluctuated around a monthly average of approximately 550 for most of 1992. Figure 6b shows that monthly seat belt citations remained relatively constant or increased slightly over 1991 through mid-1992. Belt citations then declined during the third quarter of 1992 followed by an increase in the fourth quarter of that year. Seat belt citations were issued in approximately 6 percent of moving citation cases in 1991 and in about 7.5 percent of the moving citations issued in 1992. It can also be seen in Figure 6b that seat belt totals increased in the first four months of 1993 and then declined. In the first half of 1993, the proportion of seat belt citations to moving citations was 15 percent.

- **San Bernardino**

Figure 7a shows monthly moving traffic citations issued by San Bernardino covering 1992 through May 1993. Figure 7b shows monthly seat belt citations for this same time period. It can be seen in Figure 7a that moving traffic citations fluctuated considerably during 1992 and trended downward during the second half of the year. Figure 7b indicates that during 1992, seat belt citations generally fluctuated in the 100-150 per month range; 1992 seat belt citations were issued in 10.3 percent of moving violation cases. Figure 7b shows that seat belt citations increased markedly during 1993 with the proportion of seat belt to moving citations at 29.6 percent.

- **Salinas**

Figure 8 shows monthly seat belt citations issued by the Salinas Police Department for the period 1990 through June 1993. It can be seen that monthly citations generally increased from mid-1990 through the first part of 1992 and then declined. Belt citations issued in the first six months of 1993 were approximately 13 percent higher than during the last six months of 1992 and approximately 36 percent lower than during the first six months of 1992.

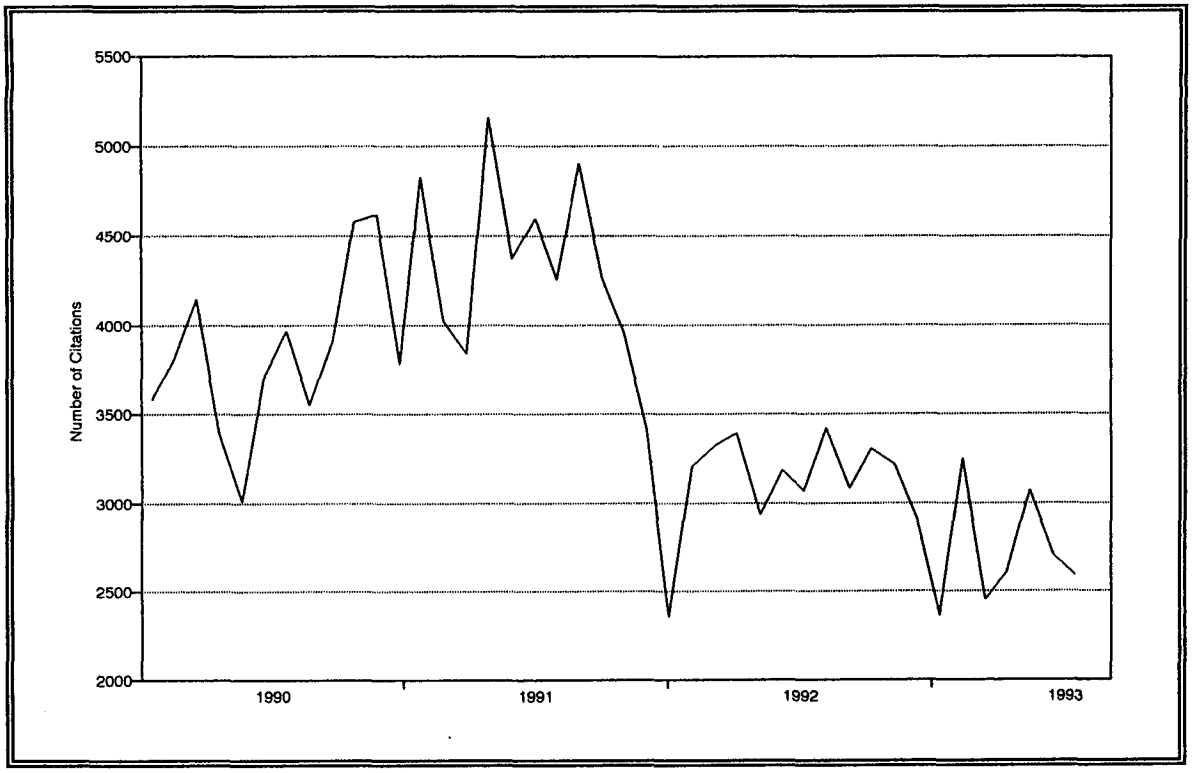

Figure 5a. Bakersfield Moving Traffic Citations.

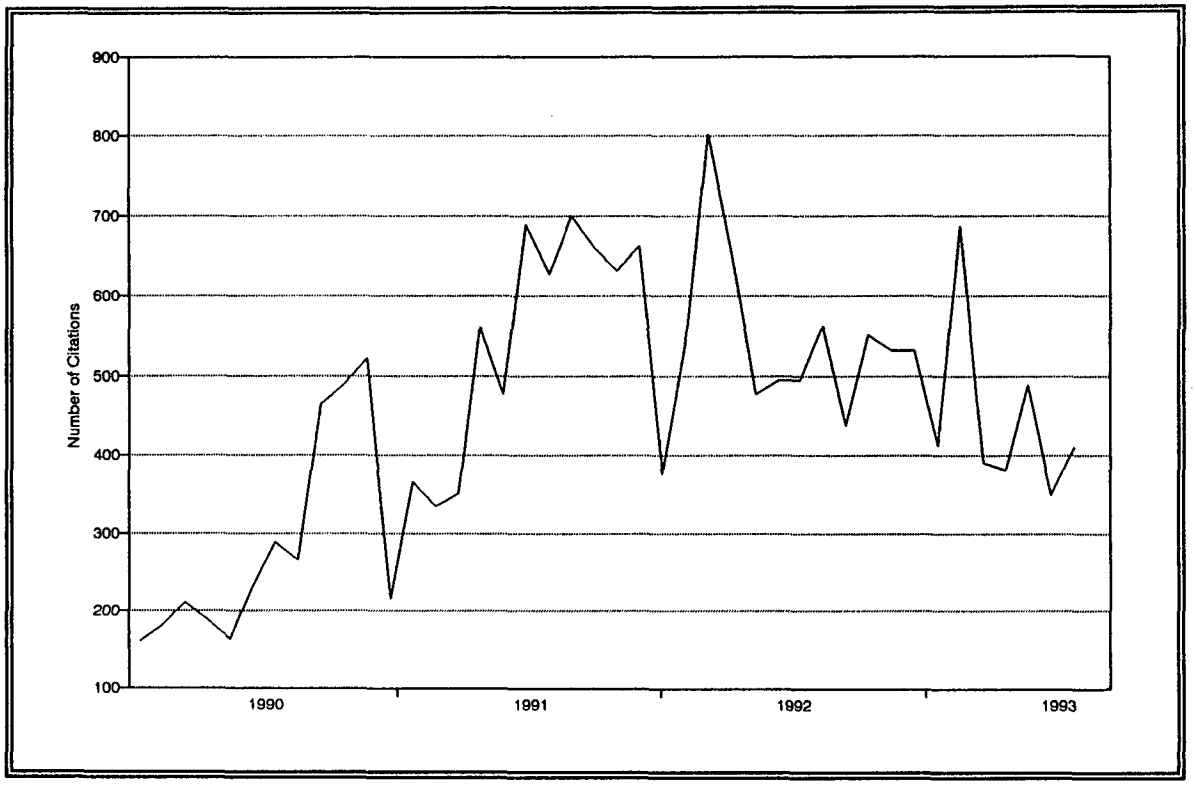

Figure 5b. Bakersfield Seat Belt Citations.

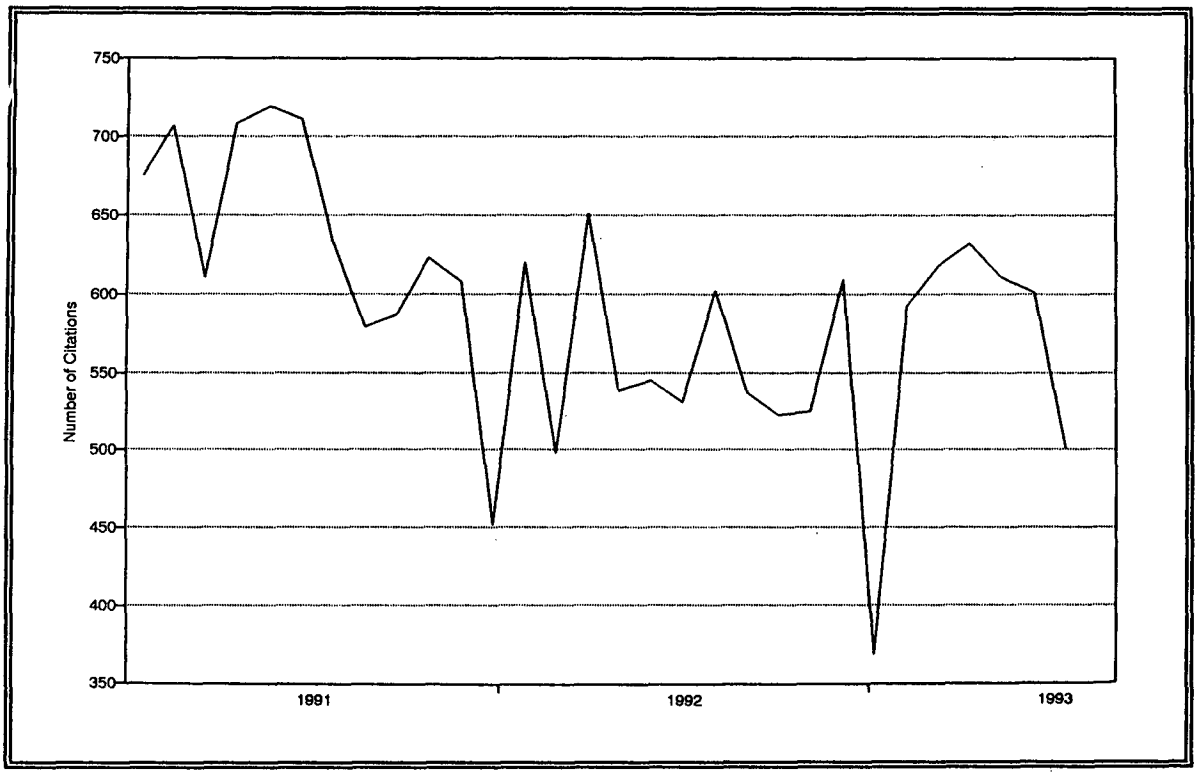

Figure 6a. Monterey Moving Traffic Citations.

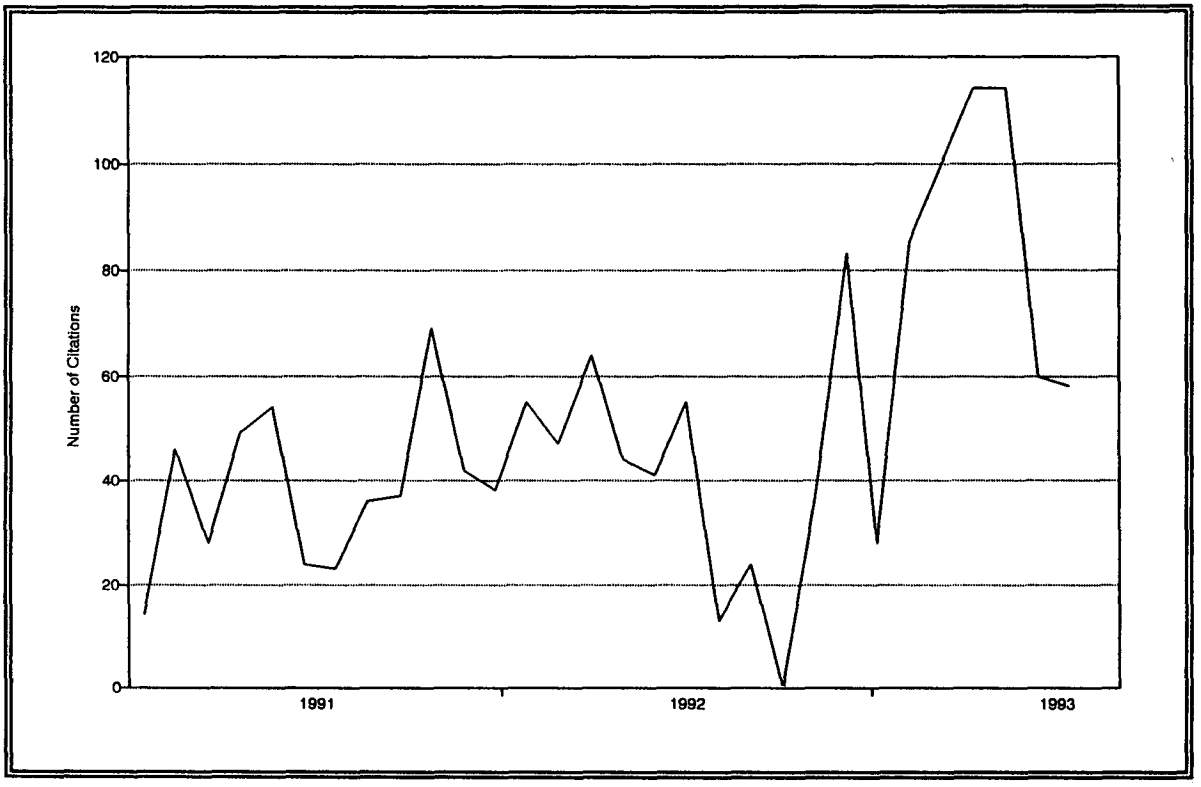

Figure 6b. Monterey Seat Belt Citations.

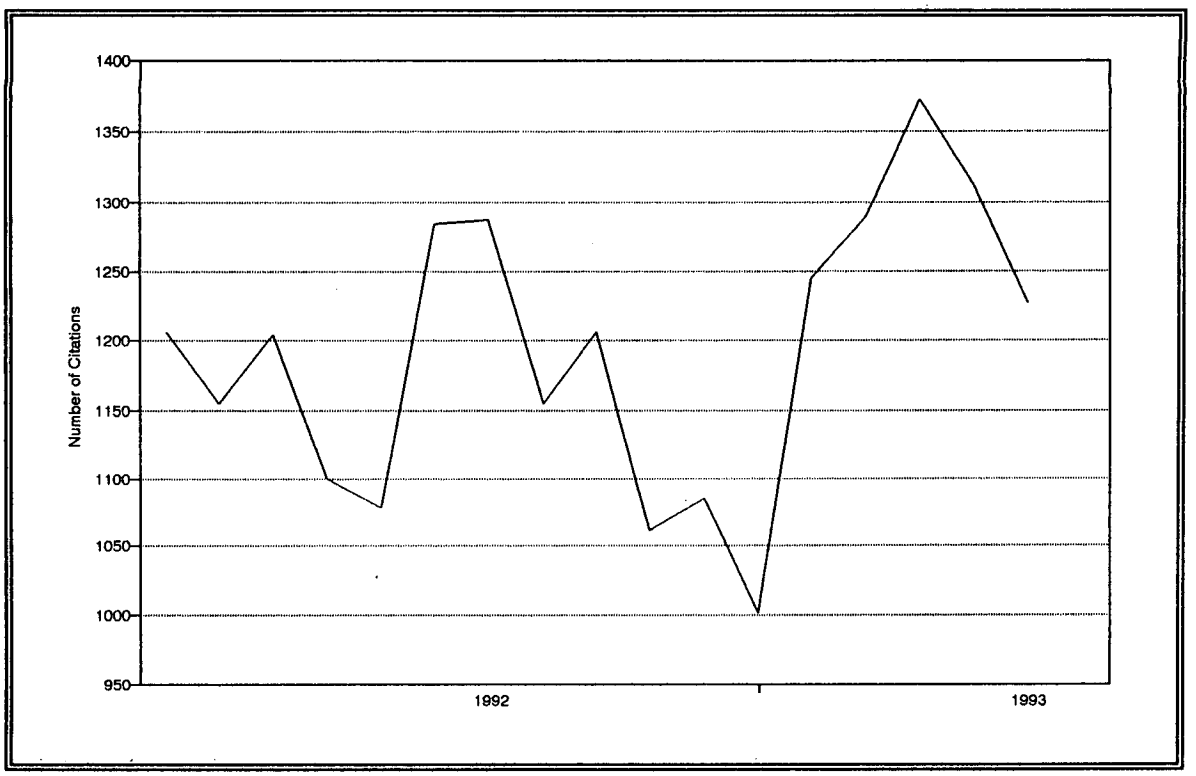

Figure 7a. San Bernardino Moving Traffic Citations.

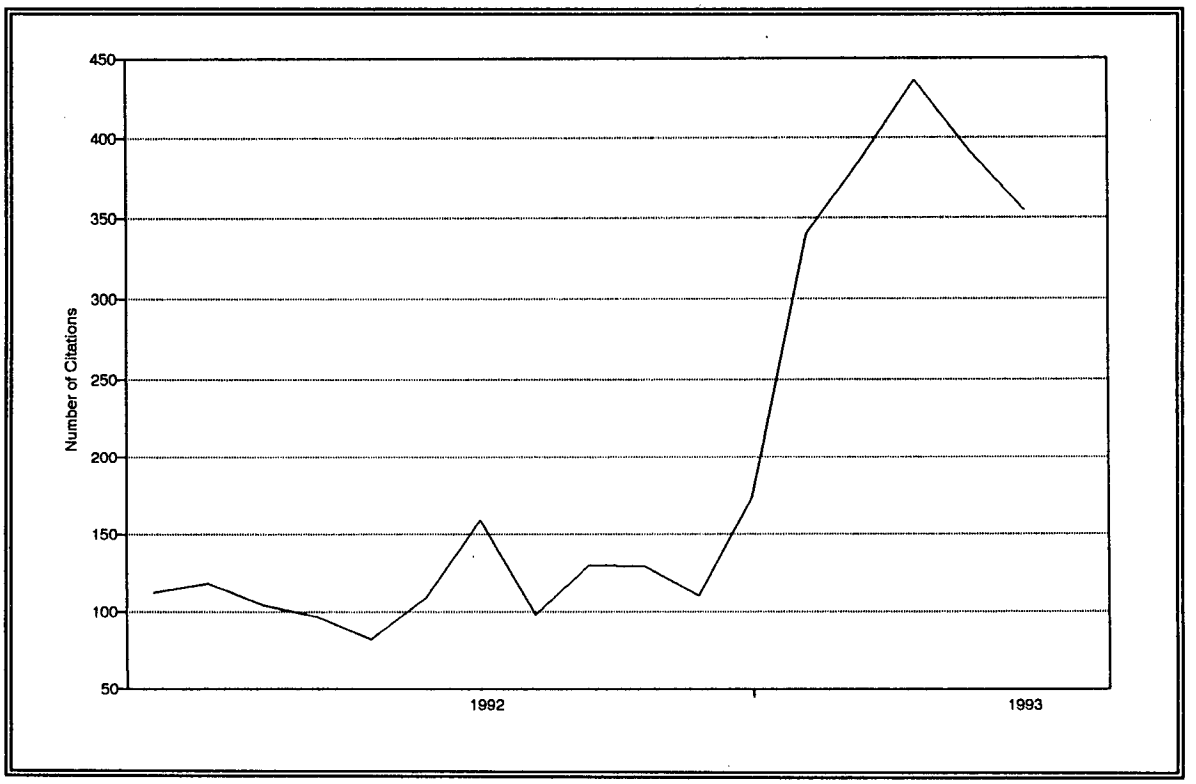

Figure 7b. San Bernardino Seat Belt Citations.

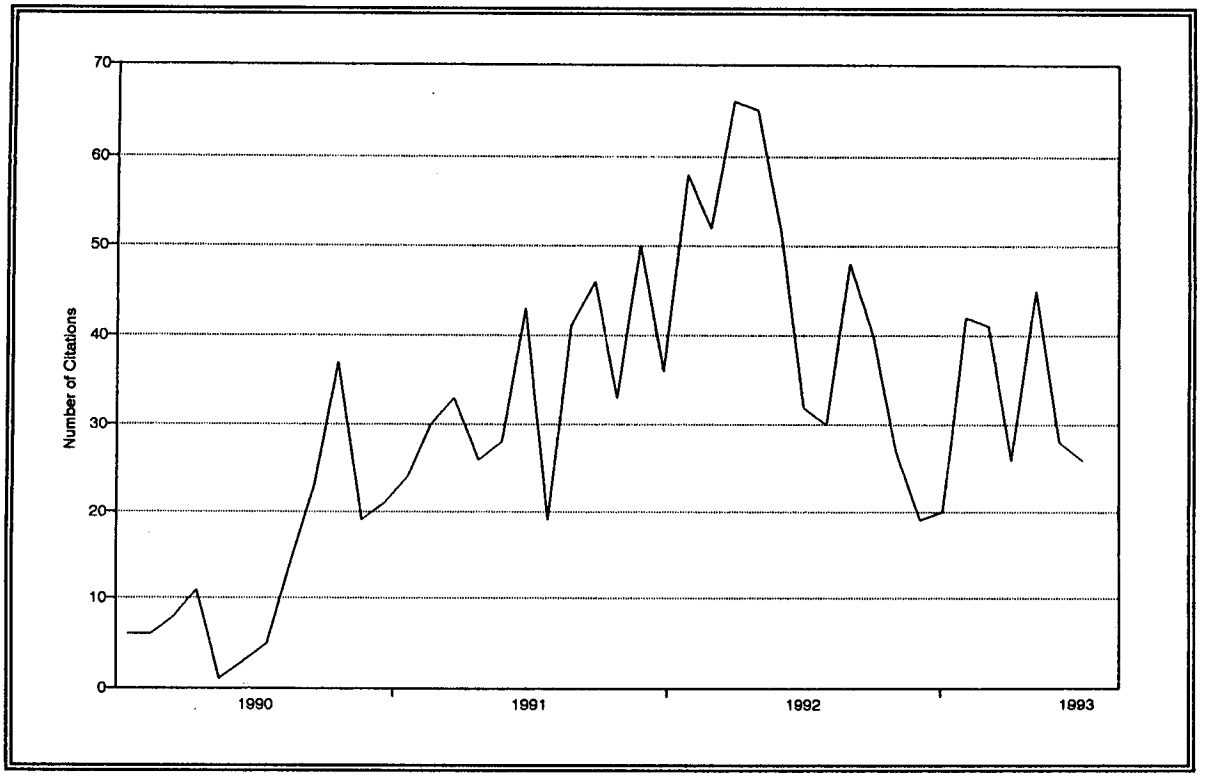

Figure 8. Salinas Seat Belt Citations.

B. Law Enforcement Reactions

In order to assess law enforcement reactions to primary enforcement, focus group sessions were conducted in January 1993 with supervisors, traffic and patrol officers in each police department. Among the issues discussed were law enforcement attitudes toward the new law and its utility, department and individual changes in enforcement of the seat belt law, circumstances under which citations would and would not be issued under the secondary and primary laws and motorist reactions to being cited.

Follow up discussions with supervisory personnel were conducted with the departments during October and November. These discussions reviewed the topics covered during the earlier focus groups and concentrated on any changes that may have taken place. The discussions also considered the departments' seat belt citation levels during the first half of 1993.

1. Focus Group Results

Site visits were made to each of the six municipal police agencies during January 1993. Focus groups of patrol and/or traffic officers were conducted as part of each site visit. The following paragraphs provide an overall summary of the information provided by the officers participating in the focus groups. Appendix C provides detailed information from each of the six agencies.

In general, the primary belt law has been well received by the law enforcement agencies and personnel contacted. The large majority of focus group participants indicated it was a good change; many felt that belt use had increased in their community since the law change. None of the officers indicated any significant negative motorist reactions; some contrasted this with substantial negative commentary on the passage of the state's mandatory helmet law.

The amount of public information given to the law change appears to have varied across the communities. Most agencies indicated that the primary law had received extensive news coverage and praised the media for doing so. Checkpoints conducted by the California Highway Patrol prior to the law change were also noted for their educational and informational value.

There were no indications from any of the departments that the law change had modified existing departmental emphasis on belt enforcement. However, some individual officers suggested they would now be more likely to enforce belt violations.

The use of the primary law as probable cause for a vehicle stop was extensively discussed, especially by patrol officers who have traffic as only one part of their overall duties. Some patrol officers felt the belt law was another useful law enforcement tool while others did not share this opinion. A recognition that enforcement of the law should not be abused was expressed as well as an awareness of the risk that the law could be lost if it was aggressively used as probable cause.

The large majority of officers described themselves as essentially full time belt users both on and off work. All of the departments had belt use policies which were generally supported by focus group participants. Some officers noted that they would feel hypocritical if they were enforcing belt violations and were not wearing their own belts; a few felt they should have more discretion about on duty belt use. The possibility of becoming entangled by belts when having to exit vehicles quickly was a concern of some officers.

Most officers felt the amount of the fine for belt violations was appropriate and most appeared to appreciate the safety benefits of belt use. Several stated that their greatest risk of work-related injury was from motor vehicle crashes.

Traffic officers, and others who routinely respond to crash sites, frequently described being present at serious injury crash situations which would have otherwise been minor property damage only if the driver and occupants had been belted. Traffic officers tended to emphasize the educational rather than punitive aspects of issuing citations.

The general opinion was that more motorists are buckled up since the new law. Many officers correctly estimated usage rates in the range of 70 percent to 80 percent. They thought that many motorists do not distinguish between secondary and primary enforcement but are aware that the law is being enforced. Officers felt that keeping the use rate up will require continuing enforcement, checkpoints and public information.

2. Follow-Up

Additional telephone interviews were conducted with police supervisors in each of the six communities during late October and early November, 1993. The purpose of these interviews was to update the information collected earlier and discuss actual department experience with primary enforcement for the first ten months of the new law.

All of the supervisors indicated that public reaction to the new law, which had been positive during the previous January, remained positive through late October or early November. Supervisors continued to see or hear public service announcements on local media concerning belt use. Two of the supervisors also indicated that the media was reporting the use, or non-use, of belts in their coverage of traffic crashes.

Officer reaction to the new law also remained uniformly positive. One supervisor even suggested that the workload for traffic officers had been reduced because now there were fewer serious motor vehicle injury crashes requiring detailed investigations. Consistent with the citation data, most of the supervisors felt that officers were now more likely to issue a ticket for a belt law violation. There was also a feeling that departmental emphasis on belt use, including the department's own belt use policy and officer training programs, had been enhanced since the implementation of the primary law.

As in the January focus groups, considerable discussion was devoted to the use of the primary law for establishing probable cause to stop a vehicle. Some supervisors felt that the law had been used in this way and that this was one of the advantages of the law. Others felt that while primary stops were being made, probable cause was not an issue.

All of the supervisors felt that the primary law should be retained. It was seen as a very useful tool to promote and enforce the use of seat belts. Belt use has increased in each of the communities; motorists are now more aware of both the crash injury and enforcement consequences of non-use; and officers, generally, are more concerned with belt law violations.

V. DEPARTMENT OF MOTOR VEHICLES SURVEY

The California Department of Motor Vehicles (DMV) supported this study by conducting monthly surveys of persons renewing or applying for driver licenses at DMV offices that serve the study communities. Monterey is served by a DMV office located in the neighboring community of Seaside. The other five communities are served by offices within their boundaries.

The purposes of the survey were to assess public knowledge of the new seat belt law, changes motorists may have made in their seat belt use behaviors, how vigorously they felt their police agencies enforce the law, the likelihood police would stop them, their perceived risk of not wearing seat belts, and the sources of their knowledge about the new seat belt law. The survey form is shown in Appendix D (a Spanish/Hispanic language version, shown in Appendix E, was also available). Six waves of surveys were completed in March, April, May, June, late July-early August and September 1993. DMV personnel handed a survey form to each eligible person entering the office, asked them to complete the form and return it to a distinctively marked box. The survey wave was completed at each office when either a nominal 100 forms were returned or the end of the survey time period was reached.

Under the state's Motor Vehicle Code, motorists who have a "clean" driving record (no traffic law convictions, accident involvement) during the two years prior to their renewal date may renew their licenses by mail. Two such consecutive renewals are possible. Persons age 70 and above are not eligible to renew by mail. DMV estimates that at any given time, approximately 50 percent of the state's licensed drivers are eligible for renewal by mail and that approximately three-quarters of those eligible elect this option. Persons completing the DMV survey, therefore, are not a random sample of all licensed drivers.

Data tables showing total responses by site are contained in Appendix F. Unless otherwise noted, the following results are based on known responses (i.e., blank responses are not included).

Characteristics of Respondents

A total of 3,493 persons completed surveys during the six waves. Fifty-four percent of the total respondents were males and 46 percent were females. The age distribution of survey respondents and the California licensed driver population are shown in Table 3. The table shows that the survey respondents tended to be younger than the general driver population. This is likely due to the inclusion of first time license applicants in the survey and the state's requirement that persons with violations on their driving record renew licenses in person. Ninety percent of the respondents completed the English language version of the survey form while 10 percent completed the Hispanic language version.

Table 3. Age Distributions.

Age Group	Survey Respondents (Excludes Not Answered)	All Licensed Drivers[1]
Under 21	16.3%	4.4%
21-25	13.7	12.7
26-39	33.4	36.1
40-49	14.6	19.2
50-59	6.5	11.4
60 and Up	13.5	16.1
N	3,413	20,066,000

[1] Source: Extrapolated from California Highway Patrol 1991 Annual Report of Fatal and Injury Motor Vehicle Traffic Accidents.

The proportion of male and female respondents did not differ across survey waves or from site to site (χ^2=4.48, 5 df and χ^2=3.47, 5 df, respectively). The distribution of respondent ages did vary among the survey waves and from site to site (χ^2=39.85, $p<.05$, 25 df and χ^2=130.25, $p<.01$, 25 df). These differences were primarily due to variations in the proportion of respondents under age 21 in particular waves (ranging from 12 to 19 percent) and at particular sites (a low of 8.5 percent in Fresno to a high of 22.3 percent in San Bernardino).

Fifty-six percent of respondents described themselves as being of the White Race; 11 percent said they were Native American; 11 percent said they were of the Black Race; and 6 percent said they were Asian. Seventeen percent of respondents used the "Other" response category. Responses to the question regarding Race did not differ significantly across the six survey waves (χ^2=14.25, 20 df). Differences did occur in the distribution of respondent race among the six sites. (χ^2=309.32, $p<.01$, 20 df).

Thirty-five percent of the respondents said they were of Hispanic origin. Responses in the six waves did not differ significantly (χ^2=8.74, 5 df). However, site-to-site differences were noted (χ^2=233.25, $p<.01$, 5 df). There were many Hispanic respondents in Salinas; relatively few in Monterey (Seaside).

Thirty-four percent of the respondents indicated they drove less than 5,000 miles per year, with persons under age 21 making up about 31 percent of this group; 28 percent of respondents indicated driving 5,000-10,000 miles per year; 18 percent said they drove 10,001-15,000 miles and 19 percent indicated more than 15,000 miles. Respondent-reported mileage driven did not vary significantly across the survey waves (χ^2=18.06, 15 df). The mileage driven distributions did vary

among sites (χ^2=75.52, p<.01, 15 df) such that sites with greater percentages of young respondents had higher percentages of low mileage drivers.

Based on the Zip Codes provided, 73 percent of respondents lived in one of the six study sites, 22 percent lived in the area surrounding one of the sites, while 5 percent lived elsewhere in the state. No differences were noted among the six waves (χ^2=17.31, 10 df). However, site variation was found (χ^2=980.38, p<.01, 10 df). As noted, the closest DMV office to Monterey is located in Seaside. Only about 23 percent of respondents at Seaside were residents of Monterey. In the other five sites, responses by "in-city" residents ranged from 53 percent in San Bernardino to 84 percent in Salinas.

Survey results were analyzed with respect to the characteristics of the respondents. Where appropriate, general linear modeling techniques were used to analyze the univariate relationships between responses and respondent gender, age, race, Hispanic origin, miles driven and survey city. Where significant relationships were detected, multivariate models were then applied to isolate or control for respondent characteristics. This approach was adopted because some of the respondent characteristics were confounded. For example, the age distributions of males and females were found to differ. The multivariate models used the significant variables. First order interactions among significant variables were also considered for possible inclusion in the multivariate models. In other cases, the chi-square test was utilized to analyze response items. Because of the relatively large number of tests conducted, a probability value of 0.01 was the criterion applied for statistical significance. Unless otherwise noted, response distributions across the survey waves did not differ significantly.

Self Reported Seat Belt Use

Question 7 of the survey asked respondents "How often do you use seat belts when you drive or ride in a car, van, utility vehicle of pick up?" Response categories were: always, nearly always, sometimes, seldom, or never.

Overall, 84 percent of respondents indicated they always wore seat belts; 11 percent indicated they nearly always did so; and 5 percent said they sometimes, seldom or never used seat belts. Responses of full time belt use versus lesser use were found to vary by respondent gender ($F = 14.29$, $p<.01$, $df = 1, 3470$) with 87 percent of females indicating full time belt use compared to 82 percent among males. Differences by age were also found ($F = 16.80$, $p<.01$, $df = 5, 3399$) with responses of full time belt use ranging from a low of 75 percent among respondents under the age of 21 to a high of 95 percent among those age 60 and older. Differences by site (city) were also found in the univariate analysis. However, when gender, age and city were included in a multivariate model, city was not significant indicating that this effect could be the result of respondent age and gender differences at the various sites. The age and gender effects remained significant in the multivariate model; the interaction between them was not significant.

Changes in Belt Use

Question 8 asked respondents, "Compared to last year, would you say you now wear your seat belt: much less often, less often, about the same, more often or much more often?" Overall, 37 percent of respondents indicated "much more often"; 18 percent indicated "more often"; 44 percent said "about the same"; and 2 percent indicated "less often" or "much less often". Among those who described themselves as full time belt users, 49 percent said their usage this year was the same as last while 51 percent said their belt use had increased. Among those who described themselves as less than full time belt users, 23 percent said their use had remained the same or declined and 77 percent indicated an increase in belt use.

Site response differences were found ($F = 9.33$, $p<.01$, $df = 5, 3487$) due primarily to variations in the response "much more often" which ranged from 24 percent in Seaside to 45 percent in Fresno. Response differences were also found related to respondent race ($F = 14.16$, $p<.01$, $df = 4, 3176$), whether respondents were of Hispanic origin ($F = 125.46$, $p<.01$, $df = 1, 3095$), and annual mileage driven ($F = 6.66$, $p<.01$, $df = 3, 3136$). The differences related to race were primarily due to more respondents from the Native American and Other race categories reporting "much more frequent" belt use compared to the previous year. The Hispanic origin differences result from 71 percent of the Hispanic respondents reporting "more" or "much more" belt use compared to 44 percent of those not of Hispanic origin. Differences related to mileage driven were due primarily to low mileage drivers being more likely to indicate increased belt use than other drivers. Race and the interaction term were not significant in the multivariate model using the variables city, race, Hispanic origin, miles driven, and the first order interaction race by Hispanic origin.

Seat Belt Law Enforcement

Question 10 of the survey asked respondents what they thought their chances were of getting a ticket if they did not wear seat belts.

Overall, 54 percent of the respondents indicated that they perceived of a high likelihood of receiving a ticket when not wearing seat belts (responses of "always and "nearly always"), 32 percent felt there was a modest chance of being ticketed (response of "sometimes") and 15 percent felt the chances were not great (responses of "seldom" and "never"). Site to site variation was found ($F = 11.57$, $p<.01$, $df = 5, 3487$), as were differences related to age ($F = 11.12$, $p<.01$, $df = 5, 3407$), race ($F = 17.46$, $p<.01$, $df = 4, 3176$), Hispanic origin ($F = 113.10$, $p<.01$, $df = 5, 3095$) and miles driven ($F = 9.14$, $p<.01$, $df = 3, 3136$).

Site variation was due to responses of "always" and "nearly always" ranging from a low of 38 percent in Seaside to a high of 60 percent in Fresno and Salinas. Concerning age differences, the under 21 and 21-25 year old categories were less likely to respond "always" or "nearly always" than were older drivers. Regarding race, perceptions of a high likelihood of receiving a ticket ranged from 45 percent among those who indicated they were of the White race to 66 percent among those who indicated they were Native Americans. Of the persons who indicated they were of Hispanic origin, 70 percent responded "always" or "nearly always" compared to 45 percent of those who indicated they

were not of Hispanic origin. Perceived risk of being ticketed was inversely related to annual mileage driven with 57 percent of those who drove less than 5,000 miles in the past year responding "always" or "nearly always" compared to 46 percent of those who drove more than 15,000 miles in the past year. In a multivariate general linear model, the main effects of city, age, race, Hispanic origin and miles driven were all statistically significant indicating that each was uniquely contributing to the responses regarding perceived risk of being ticketed.

Self reported belt use and perceived risk of being ticketed were also found to be significantly related ($F = 21.13$, $p<.01$, $df = 4, 3477$). Among persons who indicated they were full time belt users, 57 percent responded "always" or "nearly always" to Question 10 compared to 36 percent of those who were less than full time belt users. Change in belt use from the previous year was also significantly related to perceived risk of being ticked ($F = 20.81$, $p<.01$, $df = 4, 3415$) with 64 percent of those who said they now used belts much more often responding "always" or "nearly always" to Question 10 compared to 47 percent of those indicating none or lesser increases in belt use.

Questions 11 and 12 asked how strictly respondents felt the California Highway Patrol (CHP) and their county/local police enforce the seat belt law. The following are overall responses to CHP (Question 11) and county/local police (Question 12):

Enforce	CHP	County/Local
Very Strictly	42.4%	37.3%
Somewhat Strictly	35.1%	35.7%
Not Very Strictly	16.8%	18.8%
Rarely/Not at All	5.7%	8.2%

These response distributions were significantly different ($\chi^2=30.76$, $p<.01$, 3 df) and indicate a perception of somewhat stricter enforcement by CHP than by county/local departments.

In the univariate analysis, responses regarding strictness of CHP enforcement differed by site ($F = 13.23$, $p<.01$, $df = 5, 3487$), age ($F = 6.09$, $p<.01$, $df = 5, 3407$), race ($F = 9.14$, $p<.01$, $df = 4, 3176$) and Hispanic origin ($F = 72.13$, $p<.01$, $df = 1, 3095$).

Across the six survey sites, respondents in Salinas were more likely to judge CHP enforcement as "very strict" (52 percent of responses) while respondents in Seaside were less likely to make this judgement (32 percent of responses). Respondents under the age of 21 were less likely to judge CHP enforcement as "very strict" (28 percent of responses) than were older drivers (45 percent of responses). Persons who said they were of the White or Black races were less likely to judge CHP enforcement as "very strict" (35 and 40 percent of responses, respectively) than were persons who said they were Native American, Asian or of Other races (48 percent of responses). Persons of Hispanic origin were more likely to judge CHP enforcement as "very strict" (58 percent of responses) than were those who said they were not of Hispanic origin (34 percent of responses). In a multivariate general linear model using the variables city, age, race and Hispanic origin, only Hispanic origin was

statistically significant indicating that this variable was the strongest response predictor among several correlated variables. Responses to Question 12 regarding local enforcement paralleled those just described for CHP enforcement.

Question 14 asked if respondents had ever received a seat belt ticket. Overall, 13 percent of respondents said "yes" to the question. Response differences were found to be associated with a number of respondent characteristics. Receipt of seat belt tickets ranged from 22 percent among 21-25 year-olds to less than 2 percent among persons aged 60 and above (χ^2=122.69, p<.01, 5 df). When other respondent characteristics for just the 21-25 year-olds were analyzed, no significant differences were found related to gender, race, Hispanic origin, miles driven or survey site.

The relationship of receipt of a belt ticket and changes in belt use over the past year was statistically significant (χ^2=96.54, p<.01, 3 df). Among those who had received a ticket, 73 percent indicated more or much more frequent belt use compared to last year. The comparable figure among those who had not received a ticket was 51 percent. Receipt of a belt ticket was also associated with perceptions regarding strictness of enforcement. For example, 55 percent of those who had received a ticket judged CHP enforcement as "very strict" compared to 40 percent of those who had not been ticketed (χ^2=38.87, p<.01, 2 df)

Knowledge of the Law

Survey Question 9 asked respondents to select as "true" one of the following three statements: "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." Overall, 90 percent of respondents selected the correct response. A small difference was noted related to respondent age (χ^2=16.48, p<.01, 4 df) with 86 percent of those in the 21-25 age group answering correctly compared to approximately 90 percent of respondents in the other age groups.

Question 13 asked respondents about the consequences of receiving a belt citation. Overall, 82 percent of respondents correctly indicated that a fine would result. Twenty-nine percent indicated, incorrectly, that points on the driving record or loss of license could occur; 15 percent indicated that the charge could be dismissed and 13 percent indicated they did not know the consequences (multiple responses to the question were permissible).

The proportion of respondents who correctly indicated that a fine would be imposed varied as a function of respondent race (χ^2=17.22, p<.01, 4 df) ranging from 78 percent of Asian respondents, to 87 percent among those who indicated they were of "Other" races. The responses of Native Americans and persons of the White and Black races fell between these percentages. Incorrect mentions of points on the driving record or license suspension did not vary with respondent characteristics.

Among the respondents who indicated a fine as one of the consequences of a seat belt citation, 28 percent selected an incorrect fine amount or did not indicate an amount, 28 percent selected a fine amount range correct for a first offense and 44 percent selected a fine range correct for a second offense. Seventy percent of respondents said that fine amounts were about right, 21

percent said they were too high and 8 percent said they were too low. Among those who correctly identified the fine for a first offense, 79 percent said the amount was about right, 13 percent said it was too high and 8 percent said the amount was too low.

Perceived Risk

Question 15 of the survey asked respondents to indicate the strength of their agreement with the statement, "You will be hurt less in an accident if you are wearing your seat belt". Overall, 75 percent of respondents indicated strong agreement, 18 percent said they agreed somewhat and 7 percent said they somewhat or strongly disagreed.

The responses of full time belt users differed from those who indicated lesser belt use ($F = 17.63$, $p<.01$, $df = 4, 3477$). Among full time users, 79 percent expressed strong agreement with the statement compared 52 percent of lesser belt users.

The distribution of responses did not differ as a function of gender, Hispanic origin, miles driven or survey location. Response differences were noted as a function of age ($F = 5.38$, $p<.01$, $df = 5,3407$) with 68 percent of the persons under the age of 26 strongly agreeing compared to 78 percent of those age 26 and older. Differences were also noted as a function of race ($F = 8.47$, $p<.01$, $df = 4, 3176$) with 63 percent of the respondents who indicated they were of the Black race strongly agreeing compared to 76 percent of respondents of other races. The variables age and race remained significant in a multivariate general linear model.

Source of Information

Question 16 asked respondents if they had recently read, seen or heard anything about California's seat belt law. Sixty-six percent of respondents answered affirmatively while 34 percent said no or did not respond to the question. Responses differed as a function of survey wave ($\chi^2=35.48$, $p<.01$, 5 df), survey site ($\chi^2=42.49$, $p<.01$, 5 df), race ($\chi^2=35.52$, $p<.01$, 4 df) and Hispanic origin ($\chi^2=66.14$, $p<.01$, 1 df).

It can be seen in the following that respondents who had recently read, seen or heard anything about the state's seat belt law peaked in Wave 2 (conducted in May) and then declined in subsequent waves.

Wave	Percent Yes
1	69%
2	75
3	69
4	62
5	59
6	60

Overall, affirmative responses ranged from 58 percent in Seaside to 72 percent in Fresno. Affirmative responses as a function of respondent race were as follows:

Race	Percent Yes
Native American	74%
"Other"	72
Asian	71
Black	66
White	61

Persons of Hispanic origin were more likely to say they had read, seen or heard something about the belt law (76 percent) than those who said they were not of Hispanic origin (61 percent). Affirmative responses to Question 16 were related to self reported belt use (χ^2=22.04, p<.01, 1 df) with 67 percent of full time belt users responding "yes" to Question 16 compared to 57 percent of those who indicated they were less than full time belt users. Responses were also related to reported changes in belt use from the prior year (χ^2=52.86, p<.01, 3 df) with 71 percent of those reporting increased belt use responding "yes" compared to 60 percent of those whose belt use had remained unchanged or declined.

Among those who had recently read, seen or heard something about the state's seat belt law and indicated one or more sources of this information, they mentioned: TV, 66 percent; newspaper, 46 percent; radio, 36 percent; posters, 18 percent; other, 12 percent; brochures, 11 percent; and police checkpoints, 9 percent. Particular sources varied with age (χ^2=76.18, p<.01, 25 df) with mentions of newspapers increasing and mentions of radio declining as age increased. Older respondents were also less likely to mention the more specialized sources (poster, brochures, checkpoints) than were younger respondents.

As noted above, persons of Hispanic origin were more likely to indicate they had recently read, seen or heard something about the state's belt law and made more source mentions (2.1 per person) than did those not of Hispanic origin (1.75 per person). Except for newspapers, mentions of particular sources were more likely among those of Hispanic origin (χ^2=103.88, p<.01, 5 df). Response differences were also related to respondent race (χ^2=59.23, p<.01, 20 df) and generally involved differences in print and broadcast media. For example, persons who used the response "Other" to describe their race were most likely to mention TV and least likely to mention newspapers.

The open-ended responses to the item concerning message content were summarized into categories: (1) mention of specific element(s) of the law; (2) stricter enforcement of the law was in effect; (3) a new law was in effect; (4) mention of a specific NHTSA seat belt campaign; (5) mention of the general safety value of belt use; and (6) other (not classifiable) entries. Overall, 65 percent of the persons who said they had recently, read, seen or heard anything about California's seat belt law made a response regarding message content. The responses were distributed as follows:

Specific Element of Law	8.3%
Stricter Enforcement	14.4
New Law in Effect	21.3
NHTSA Message	1.5
General Safety	41.9
Other	12.7

The distribution of responses varied across the survey waves (χ^2=59.70, p<.01, 25 df). Responses that described specific elements of the law or stricter enforcement peaked during the first and second waves and declined thereafter. Conversely, general safety mentions increased across the survey waves. Mentions that a new law was in effect peaked in Wave 3 and then remained essentially constant in the remaining waves.

Variation across the sites was also noted (χ^2=62.39, p<.01, 25 df) due primarily to differences in the frequency of mentions regarding the law rather than general safety messages. Also, persons of Hispanic origin more frequently mentioned general safety message content rather than stricter enforcement or the law change itself (χ^2=62.39, p<.01, 25 df).

VI. DISCUSSION

On January 1, 1993, California became the first state to implement an uninterrupted change from secondary to primary seat belt law enforcement. The present evaluation assessed the effects of this change with respect to observed driver belt use rates, belt citations issued, police officer attitudes and motorist opinions.

Belt Use Rates

In 1985, belt use observations in California indicated that only about 25 percent of drivers in the state were using seat belts. Following the 1986 adoption of the secondary enforcement mandatory use law, belt use increased markedly into the 40 percent range. Over the ensuing years, usage increased at a slow but steady rate so that by the middle of 1992, 58 percent of drivers in the six study cities were wearing seat belts.

Belt use observations conducted in the six study cities during February to July 1993 indicated that the law change, and associated publicity, produced an immediate 18 percentage point increase in seat belt use. The magnitude of this increase was essentially identical to the percentage point increase experienced when the state's first belt use law was adopted.

National data have shown that states with primary enforcement generally have substantially higher belt use rates than states with secondary enforcement. The present results indicate that even though belt use under secondary enforcement was relatively high, the change to primary enforcement encouraged a significant number of additional motorists to use their seat belts.

The present data also indicate that a change to primary enforcement not only increased belt use, but it also created greater homogeneity in use rates among communities. That is, the greater increases in usage occurred in those communities which had lower use rates prior to the law change.

The 1993 belt observation data showed that belt use was higher among females than among males and higher among older drivers than among younger drivers. These outcomes are similar to numerous other findings regarding driver characteristics and belt use. The monthly observation data also show that belt use may have peaked shortly after the law change and then, later in 1993, declined slightly. This pattern is similar to other results which have shown that usage tends to peak immediately after belt laws are adopted, or special enforcement programs are conducted, and then declines somewhat but not to preexisting levels. Future belt use observations will be required to determine longer term trends in the state's belt use rate.

Seat Belt Citations

Study data on seat belt citations issued before and after the change to primary enforcement have provided an equivocal picture of the near term relationship between the primary law and enforcement levels. Figures from the California Highway patrol suggest that a relatively long term decline in the number of belt citations issued may have been reversed coincidental with the law change. CHP citations issued during the first half of 1993, however, generally remained below

enforcement levels in earlier years. Data from the municipal departments variously showed increases in citations issued, brief "spikes" in citations or no apparent changes. These results suggest that the increase in belt use during the first half of 1993 was due primarily to the law change itself as well as public perceptions rather than to large scale increases in enforcement levels.

Officer Attitudes

The focus groups conducted early in 1993 in the six study cities indicated that, in general, the primary belt law was well received by municipal police officers. The large majority of officers indicated it was a good change which was sending the message that belt use was required and being enforced. Many officers felt that belt use had increased in their community since the law change; none of the officers indicated any significant negative public response. Most of the officers who had enforced the primary law reported no unusual motorist reactions other than embarrassment and surprise. The follow-up conducted later in the year indicated no significant changes from the focus group findings. Police support for the primary law remained strong. From a law enforcement perspective, the primary law has several advantages with no apparent impediments.

DMV Surveys

In the DMV surveys, approximately 55 percent of the respondents indicated that their belt use had increased compared with last year. Among those who said they were full time belt users, approximately one-half reported increased belt use while similar indications were made by approximately 77 percent of those who said they remained less than full time belt users. Based on these self reports, it appears plausible that the law change has generated more full time belt use and has also increased belt use among those who remain less than full time belt users.

The surveys found that 66 percent of respondents had recently read, seen or heard something about the state's new belt law. The bulk of public information about the law change appears to have come from news coverage including coverage of CHP checkpoints. It was also found that specific mentions related to the law tended to peak in the early survey waves and then were replaced by more mentions of general safety themes.

Ninety percent of survey respondents were correct regarding the conditions under which police could issue a belt use citation. California health survey data from 1990 has shown that 51 percent of respondents already thought that police could issue a belt citation whenever they observed the violation. The current DMV survey data suggest that far more motorists now (correctly) understand the implications of primary enforcement.

The survey results also provide some insights into public perceptions regarding enforcement and belt use. It was found that persons who reported full time belt use judged enforcement as being more strict than did those who were less than full time belt users. Similarly, persons who reported much more belt use this year than last, judged that enforcement was more strict than those reporting lesser or no change in usage. Persons who had received a belt citation tended to judge enforcement as being more strict than persons who had not been cited, and those who had received a citation were more likely to report increased belt use over the past year.

The survey results generally suggest that persons of Hispanic origin and persons who described themselves as members of other than the White race, were more likely to indicate that their belt use had increased compared with last year and that they would be very likely to get a ticket if they did not wear their seat belts. There are indications in the literature that minority populations tend to lag the majority population in seat belt use and increase their use substantially more when enforcement efforts are intensified. If such an effect is occurring in California, it could be a significant contributor to the possible greater homogeneity in use rates among the cities.

Conclusion

California is the first state to have implemented an uninterrupted change from secondary to primary enforcement of a mandatory seat belt use law. Because other elements of California's belt law (fines, exemptions) did not change, the secondary/primary distinction is not confounded by other legal issues. As such, California provided a unique opportunity to study the dynamics and effects of primary versus secondary enforcement laws.

Passage of a law, by itself, is not meaningful unless the law is actually implemented. In California, implementation included the specific elements of the law to police agencies. The DMV survey indicated that the publicity had been effective in informing motorists that they could now be stopped, and cited by the police, for an observed belt law violation alone. Focus groups conducted soon after the effective date of the law indicated favorable reactions from traffic and patrol officers.

The results of this evaluation have shown a marked increase in belt use coincidental with the implementation of the new law. It was concluded that this initial increase was produced primarily by the law change itself, its publicity and public perceptions regarding enforcement rather than by an increase in the number of citations issued.

Primary enforcement created a more direct relationship between failure to comply and possible enforcement actions. This appears to have influenced many of those who were not particularly swayed by secondary enforcement or who otherwise had resisted efforts which encouraged them to use their seat belts. One outcome has been greater homogeneity in belt use among communities with varying demographic and socioeconomic characteristics.

California's change to primary enforcement has created a positive public safety benefit at little or no cost. As noted at the outset, the law is "sunsetted" unless further legislative action is taken prior to 1996. Within the context of the topics addressed by this study, there are no compelling reasons to suggest that a return to secondary enforcement would be desirable public policy.

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APPENDIX A

Seat Belt Observation Data Collection Form

CODES

Vehicle

Auto = 1
Van (inc. mini vans-- Astro, Caravan, etc.) = 2
Pick Up Truck = 3
Utility (i.e., 4 wheel drive --Blazer, Cherokee, etc.) = 4

Shoulder Belts

Yes = Y
No = N
Improper = I
Unknown = ?

Sex

Male = M
Female = F

Age

16 - 25 = 1
26 - 64 = 2
65 + = 3

Location _____ Lane # _____

City _____

Date: _____

Time: Begin ____:____ AM/PM

Time: End ____:____ AM/PM

Total Observation time (this lane): _____ Minutes

Weather: _____

Observer: _____

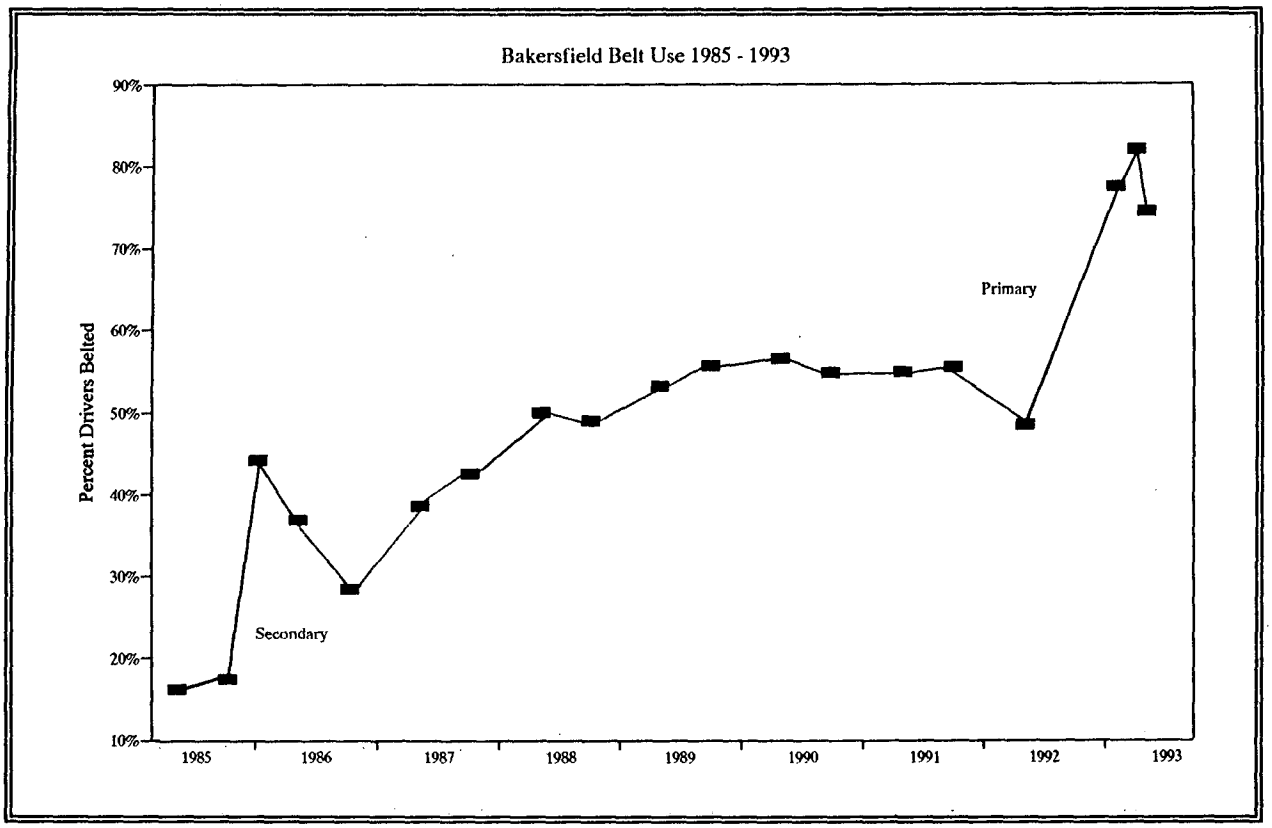
Please draw a detailed picture of the site on the reverse side of this sheet -- Show where you were located and describe your visual reference point.

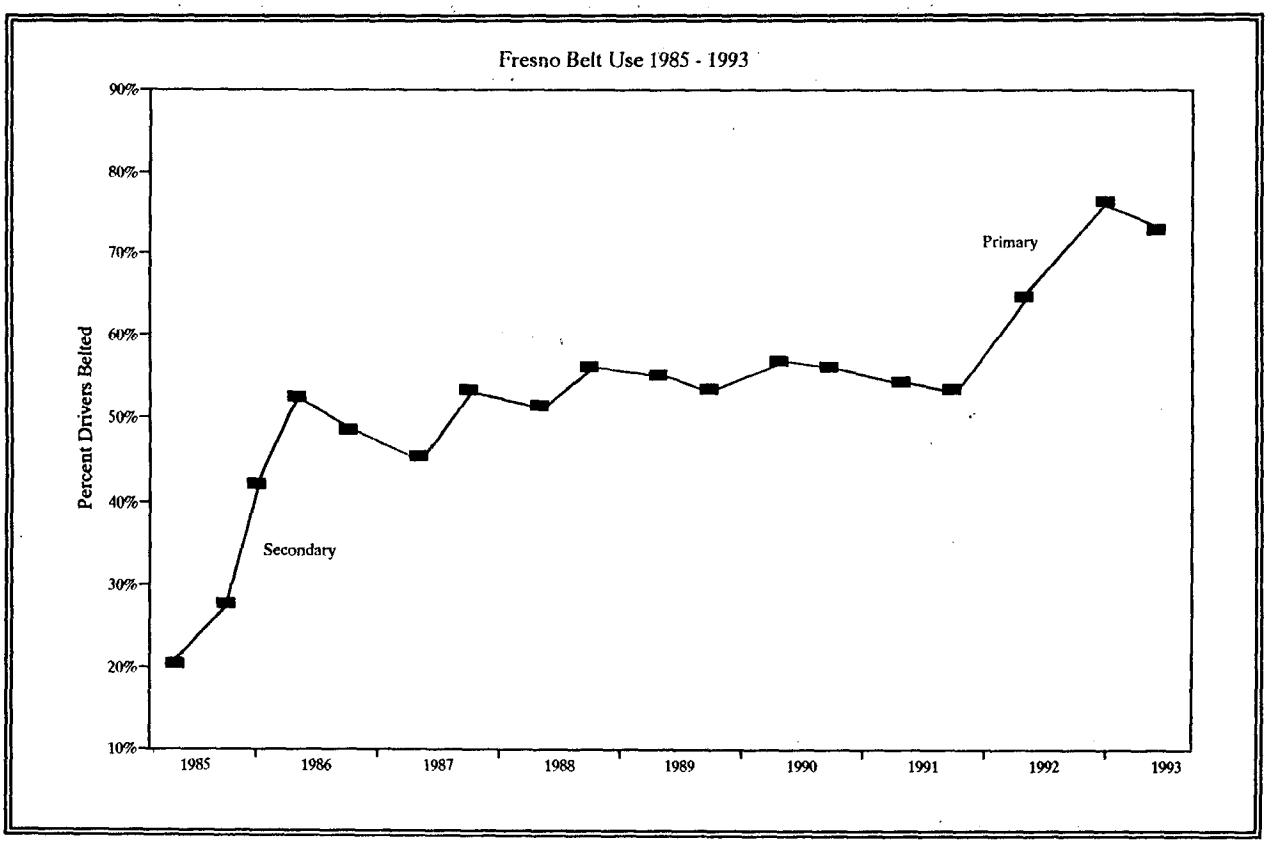
VEHIC.	DRIVER Belt	DRIVER Sex	DRIVER Age

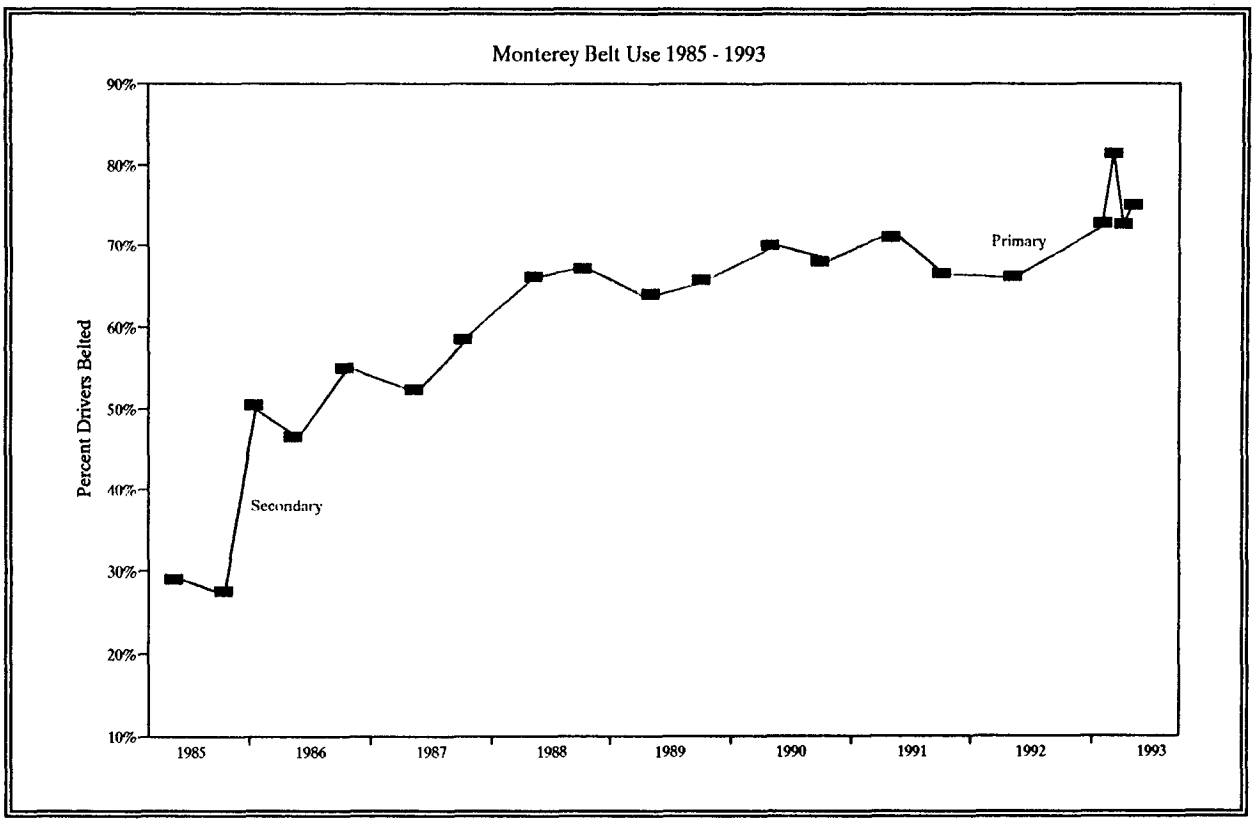
SEAT BELT OBSERVATION DATA COLLECTION FORM.

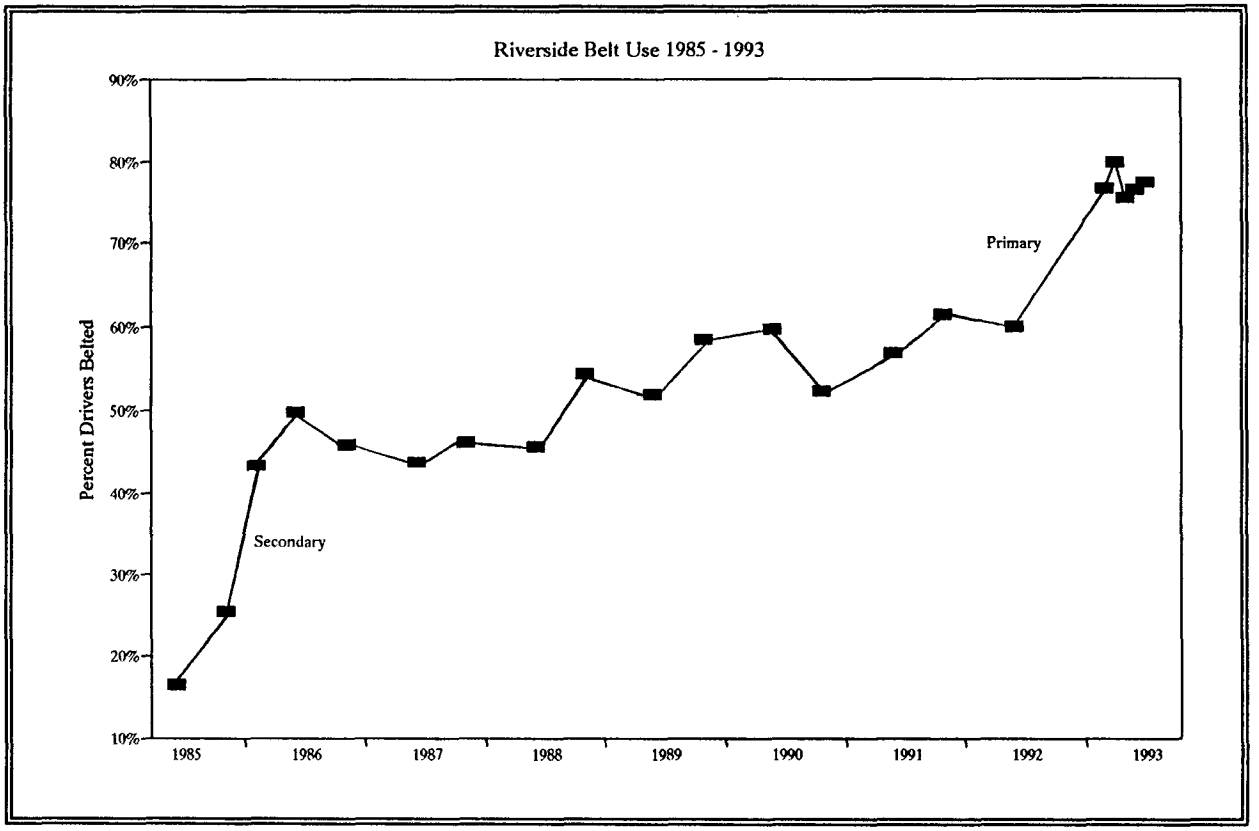
APPENDIX B

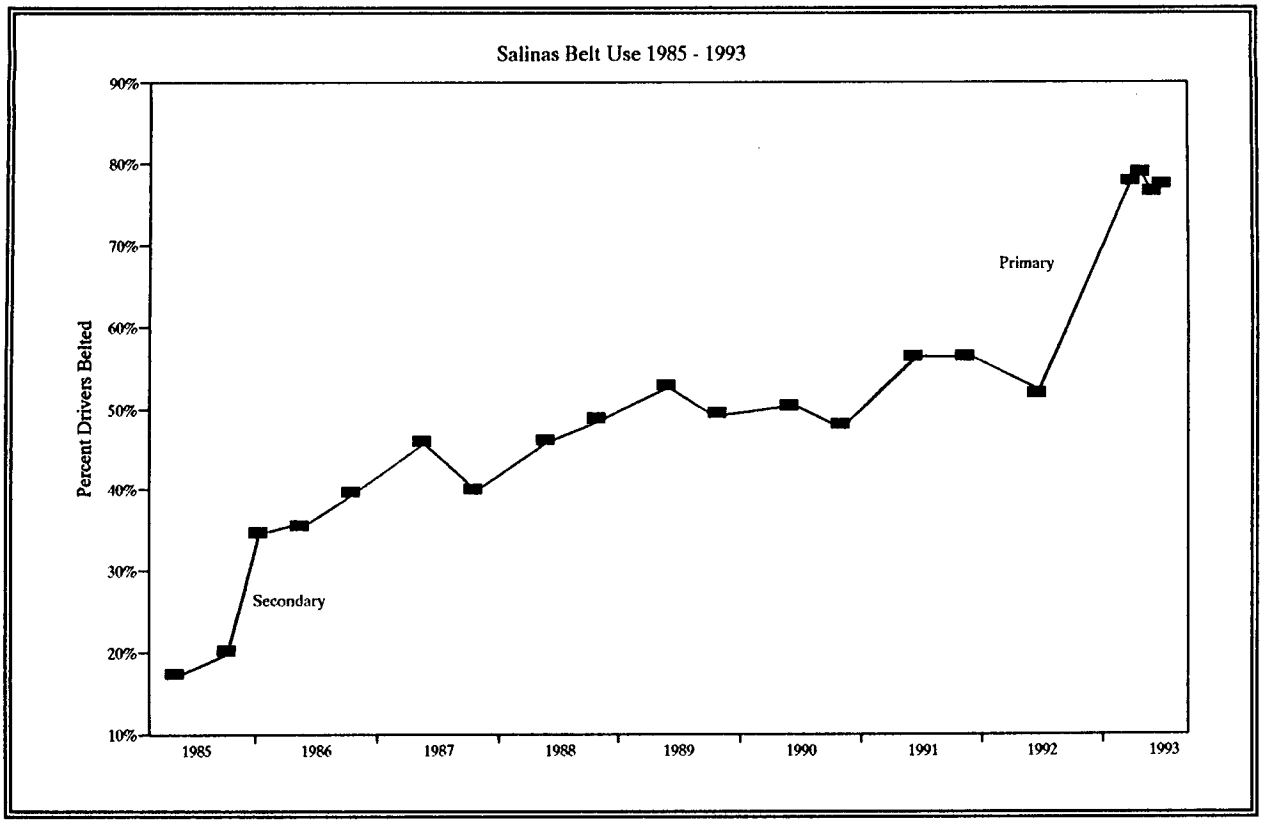
Belt Use in the Six Study Cities

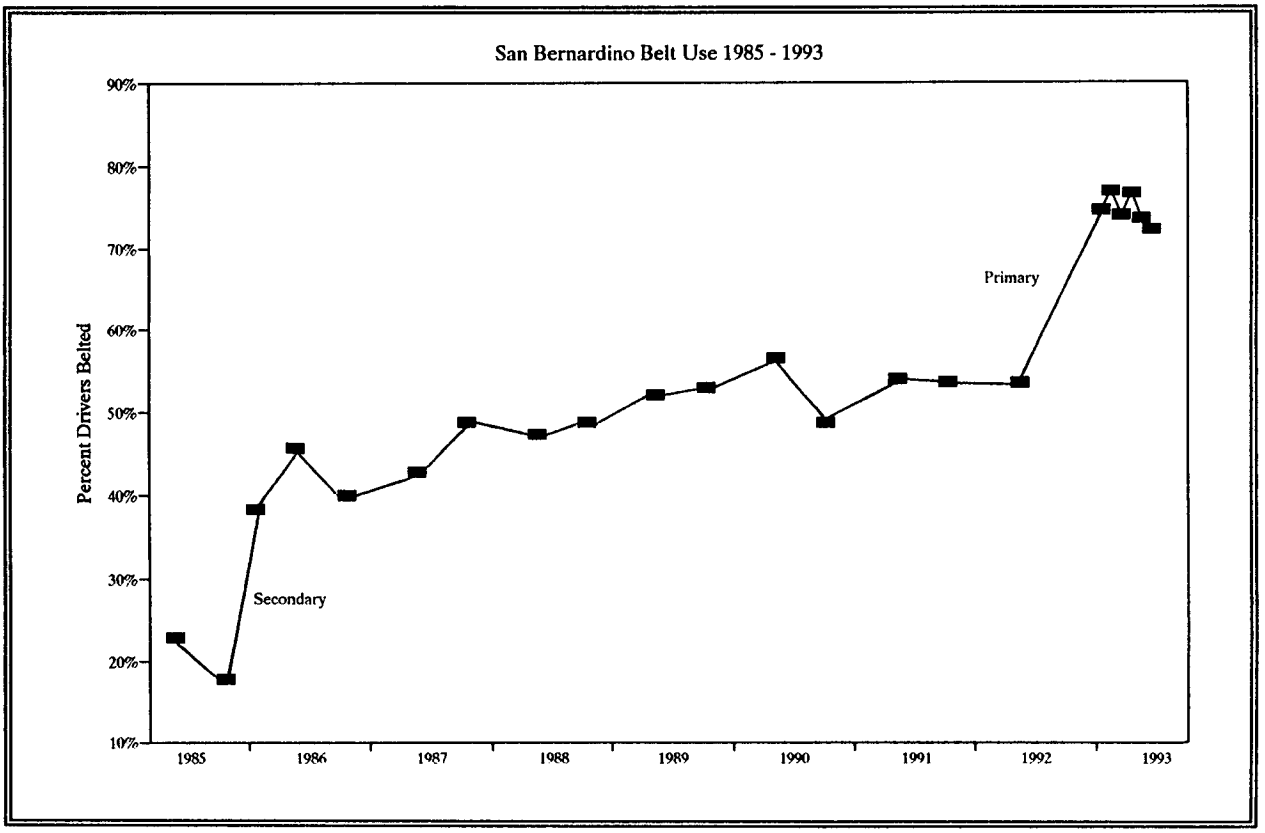

Bakersfield Belt Use 1985 - 1993
Percent Drivers Belted
90%
80%
70%
60%
50%
40%
30%
20%
10%
1985
1986
1987
1988
1989
1990
1991
1992
1993
Primary
Secondary


Fresno Belt Use 1985 - 1993
Percent Drivers Belted
90%
80%
70%
60%
50%
40%
30%
20%
10%
1985
1986
1987
1988
1989
1990
1991
1992
1993
Primary
Secondary


Monterey Belt Use 1985 - 1993
Percent Drivers Belted
90%
80%
70%
60%
50%
40%
30%
20%
10%
1985
1986
1987
1988
1989
1990
1991
1992
1993
Secondary
Primary


Riverside Belt Use 1985 - 1993
Percent Drivers Belted
90%
80%
70%
60%
50%
40%
30%
20%
10%
1985
1986
1987
1988
1989
1990
1991
1992
1993
Secondary
Primary


Salinas Belt Use 1985 - 1993
Percent Drivers Belted
90%
80%
70%
60%
50%
40%
30%
20%
10%
1985
1986
1987
1988
1989
1990
1991
1992
1993
Primary
Secondary


San Bernardino Belt Use 1985 - 1993
Percent Drivers Belted
90%
80%
70%
60%
50%
40%
30%
20%
10%
1985
1986
1987
1988
1989
1990
1991
1992
1993
Primary
Secondary

APPENDIX C

Police Focus Groups

In late January 1993, focus groups were conducted with police officers from the six municipalities participating in the study. The purposes of these focus groups were to assess patrol and traffic officers' and supervisors' attitudes about the new seat belt law, changes they may have made in their enforcement of seat belt violations, and the likelihood that officers will stop motorists solely for this violation.

The following paragraphs provide detailed information from each of the six municipal departments visited.

Site Visit #1

A focus group was conducted with five officers. One of these was an Accident Investigator in the traffic unit and another was a motorcycle ("motor") officer who had been reassigned to patrol. The remaining three were patrol officers. Four of the officers worked the 4 pm-midnight shift; the Accident Investigator worked 2 pm-midnight. The Accident Investigator had written one belt citation under the primary law and the other four had written none. "The message right now is no traffic."

Four of the five officers said they were full time belt users off the job and the fifth said he wore his belt about 50 percent of the time. The same four said they wore belts essentially all the time on the job, with two noting they had begun to do so since the department's belt policy went into effect. The fifth officer was equivocal about his on-the-job belt use.

None of the officers indicated receiving any department information about the primary belt law. Word of mouth was the noted source.

The term "enforcement profile" was used to describe the tendency of officers to emphasize particular traffic law violations in their enforcement activities.

There was general consensus that belt violations would be issued in DUI cases, especially if it was the probable cause for the stop. The department appears to "write everything" when making a DUI arrest. The group was about 50/50 on writing belt violations with speeding. Some appeared to cite every offense while others usually issued warnings. They said that motorist attitude was a factor.

Under California law, police officers cannot issue citations at crashes they have not witnessed unless they have completed an approved training course. Trained officers can issue citations for violations only if those violations were a factor in the crash. Therefore, belt violations are generally not issued at crashes.

There was discussion around the point of using the belt law as probable cause for vehicle stops and the general opinion was that it would be a useful tool. One officer noted it was not a "biggy", however.

Site Visit #2

Four motor officers participated in the focus group. All indicated they were essentially full time belt users off duty. Some police vehicles have been equipped with what was described as wider airline type belts. Many officers prefer the lap only belt. On duty belt use appeared to vary (motors generally only use cruisers during bad weather). One officer stated he used belts on duty only if the lap belt only was available.

The department made officers aware of the new law through a brochure and the showing of an auto club produced video. Officers felt the media had done a good job publicizing the law. However, they noted that the local paper had done a survey using the question, "Do you think police have more important things to do than enforce seat belts?" The motors said they are used to this kind of press attitude and "shrugged" it off.

The general opinion was that more motorists are buckled up since the new law. They estimate 70-80 percent usage. There was agreement that most motorists don't distinguish between secondary and primary enforcement but were aware that the law was now being enforced. Public information about the law has served as a reminder that a belt law exists. Keeping the use rate up will require continuing enforcement, checkpoints and public information.

One of the officers was an active belt enforcer saying he averaged 5-6 per day since the new law. Another said he had written "several" under the new law. A third said he is not out to make enemies but wants to make people aware of the law and the value of wearing belts.

The belt law was described as short, easy and to the point. The officers felt that the department encouraged belt enforcement and had a check-box on the citation form for belt violations. They indicated they were highly likely to cite for belt violations in speeding stops. The motors indicated that they "show no mercy" in DUI cases and write other violations on a separate ticket to avoid having these charges pled out.

One officer indicated he would prefer to look for more hazardous violations and cite for belts "as a kicker". There was full agreement that it was easier to enforce belts from a motorcycle than from a cruiser.

There was considerable discussion on the use of the belt law for probable cause by patrol. While it was considered a useful tool for this purpose, there was great awareness that if it was abused, the law could be lost.

Site Visit #3

- Focus Group 1

  Three motor officers and a corporal who worked the 7 am-3 pm shift participated in the first focus group. All said they were full time belt users both on and off the job.

The group indicated they were seeing higher belt compliance since the new law and were seeing more drivers putting on their belts when they saw an officer. They felt that the public generally does understand the difference between secondary and primary enforcement. It was stated that the primary law was a "great" tool for probable cause for patrol.

One officer said he was writing 2 to 3 belt citations a day since the new law; another said he was writing about five per week and a third indicated he had written "a couple". Two officers said they would write a belt violation along with a speeding ticket. One said he issued a verbal warning on belts. The group indicated they would cite for belts in a DUI situation only if it was the probable cause for the initial stop.

The officers indicated they had learned about the new law at roll call training, in a training bulletin and in a legal update. There was general agreement that belt violation fines ($20 plus $2 assessment for a first offense and $50 plus $5 assessment for subsequent offenses) were about right.

The group reported no adverse motorist reactions to belt citations. Responses were described as typical reactions to traffic citations. They also noted all kinds of excuses for not wearing belts.

The officers noted that there had been several anti-belt law letters published in the local papers. They wondered why taxi drivers and trucks over 6,000 pounds are exempt from the law.

- Focus Group 2

The second focus group consisted of five traffic officers who worked the evening shift. When off the job, four said they were full time belt users and one said he wore belts part of the time.

The group said they had been seeing higher compliance right from the start of the new law. They felt that the public perception was now one of having to wear belts.

CHP did a checkpoint in early January which received good media coverage. They also felt the press had given good coverage to the new law just before it went into effect.

Two of the officers indicated they were writing about 20 belt citations between them each night. Another said he had returned to the site of the CHP checkpoint and written three citations out of 200 observed vehicles. Belt citation levels were described as being about the same as they had been under the secondary law. However, as traffic units are now responding to patrol calls, it was noted that citation volume was maintained with less time available.

One officer said he had received more negative reactions from motorists while another said he had only one compliant. The general response was described as motorists asking the amount of the fine and whether they would have to go to court.

There was very little discussion of using the belt law as probable cause for a stop. One officer noted that there were already enough possibilities in the Motor Vehicle Code.

The officers generally indicated they would write belt violations along with speeding tickets. Their policy is not to write infractions along with DUI as this could lead to loss of the DUI or be dismissed as a lesser included offense.

Most felt the fine levels were reasonable. One officer expressed the opinion that the law had been changed as a revenue raising mechanism.

Young drivers were felt to be complying well with the law which the officers attributed to insurance considerations. There was an expression of need for more information about the law appearing in the Hispanic media.

Site Visit #4

Because of scheduling considerations focus group topics were addressed with officers individually rather than in one group.

Officer 1 had been assigned to traffic for three years. He averaged 15-20 traffic citations a day of all types. He was not likely to cite for a belt violation along with speeding and felt that a verbal warning smoothed over the speeding ticket. He indicated he cites for everything possible, including belts, in a DUI. He said he was a full time belt user off work and complied with the department's policy on the job. He felt that the primary law was good, was a good probable cause tool, that the fines were about right and liked the higher fine for repeat violations, and that belts are effective safety devices. He thought that younger drivers were more in tune with belt use than were older persons.

Officer 2 had been assigned to traffic for many years. He had written 15 belt citations since the new law and indicated this was a higher rate than under the secondary law. He indicated he would always cite for belt violations in speeding and DUI cases and would enforce belts alone when he observed the violation. He said his own belt use was full time and began in the 1960s; he followed the department's belt use policy. He learned of the law change first by rumor, then at roll call and finally by receiving a written summary of legal changes. He thought fines should be higher. His opinion was that most teenagers have been belt users.

Officer 3 was a patrol officer. He has not written any citations under the new law and indicated that there is not much time as a patrol officer to do traffic enforcement. He said he would probably not write a belt citation along with speeding or DUI. He always wears his seat belt off duty and on duty and felt the department has a good belt use policy. He indicated that using the new law

for probable cause would probably not come into play since there are so many other possibilities available. He thought the fines were OK, that most people were in favor of the new law and from his observation of motorists, more drivers were belted now. He felt that belt use has increased because of positive publicity as well as CHP checkpoints.

Officer 4 was a patrol officer. He had written 6 belt tickets since the new law and had no adverse motorist reactions. He felt that more people were wearing belts since the law change. He had been a part time belt user until the law went into effect. He obeys the department's belt policy and feels it is OK. He had learned about the law change from public sources and felt it was a good probable cause tool. However, he also felt that the "bad guys" would learn quickly about the law and would wear their seat belts to avoid a stop.

Officer 5 was a 20 + year veteran patrol officer who indicated there was little time to do traffic. He described himself as a full time belt user both on and off the job. He said he would always cite for a belt violation in speeding cases, never in DUI and would cite for belts alone (all qualified by "if there were time"). He felt fine levels were probably too low--$40 would be better.

Officer 6 had 11 years on the force. He had been in traffic for the past three years and recently been transferred to patrol. He indicated he was a full time belt user on and off the job. He had written 6 belt citations since the new law, four in conjunction with other violations and two for belts alone. He indicated he would sometimes cite belt violations in speeding cases but not in DUI unless the belt violation was the probable cause for the stop. He said he would make stops for belt violations and would write a citation if the belt was "intentionally not being worn". He noted that the belt law should not be used for probable cause for officers to "go on fishing trips". He said that the public did not know the difference between a secondary and primary law. He estimated that compliance with the new law was about 75 percent and thought the fines were about right.

Officer 7 had been assigned to traffic and was transferred to patrol four months ago. He indicated he rarely had used belts off the job until the law change and was now a full time user. His on the job belt use was described as "mostly". He had written "maybe" six belt citations since the law change. He indicated he would be very likely to cite for belts along with other violations and would make stops for belts alone. However, he noted that there was little time to do traffic enforcement and there was no special department expectation regarding belt enforcement. He felt that belt use had gone up (even at night) since the law change. Fine amounts were considered about right. He felt a possible downside to the primary law might be negative public reaction.

Officer 8 was a patrol officer who worked the 3 pm to 1 am shift. He has written 4 citations under the new belt law but indicated that traffic enforcement was not aggressively pursued while on patrol. He learned about the law change at a roll call briefing and his voice mail. He wears his seat belt all the time both on and off duty and felt the department has a good belt policy. He felt there was an increase in nighttime belt use based on observations during his shift. He said that if he had made a speeding stop and could "clearly" see that a driver was not belted, he would cite for both speeding and no belt--but if there was any question on his part about belt use, he would only cite for speeding. He said in DUI cases, he would probably not cite for belts except if that was probable cause for the stop. He felt the fines were about right (just enough to be a "reminder"). From his

observations, DUIs and younger people are least likely to wear belts; and as age and educational level increases, seat belt compliance increases.

Officers 9 and 10 were patrol officers assigned as a two-person unit. (Department assigns two-person units in certain problem sectors of the city. These units are first to respond to calls that may involve violence. Other patrol units are one officer assignments.) Neither officer had written a belt ticket under the new law but indicated they had written "some" under the old law. They suggested they would use the belt law for probable cause for stops in certain situations. Both said they would be very likely to cite belt violations in speeding and DUI cases. Both indicated they were full time belt users off the job and generally complied with the department's belt policy on the job. Officer 9, however, indicated he did not wear his belt in high crime areas feeling that the ability to move freely in the patrol vehicle was the greater safety benefit. Both officers felt that belt use had gone up since the law change and recounted how they had seen "even the bad guys" now wearing belts (to avoid providing probable cause). Officer 9 felt the fine for belt violations was too low and suggested it should be $50. Officer 10 said that low income persons and young drivers were among those with low belt use rates.

Officers 11 and 12 were also a two-person unit. Between them they had written about 6 primary belt citations and had not received any special negative reaction. Both indicated they were full time belt users on and off the job and that they would always cite belt violations along with other traffic violations. They felt the new law fit well as another tool for probable cause for stops. Fine amounts were considered "about right". They said that nighttime belt use may have increased since the law change. They said they had essentially no time for traffic enforcement but that it was important.

Site Visit #5

Because of scheduling considerations, focus group discussions were conducted with officers individually.

Officer 1 was a motorcycle officer with over 10 years on the job. He indicated his primary duties were responding to crash scenes, radar speed enforcement and site specific enforcement in response to complaints. He had written no primary belt citations and, therefore, had no feeling about public response. He said he was "likely" to write a belt violation in a speeding stop though he generally did not believe in writing multiple violations. One scenario he described was if he were enforcing the 25 mph limit in school zones and motorists came through doing 26-34 mph, he would stop and cite for belts if they were not being worn. He indicated he was a full time belt user off the job and perhaps a 50 percent user on the job when assigned to a police cruiser ("depends on what's going on"). He had received information about the primary law at roll call and felt the fine amount was reasonable.

Officer 2 was a patrol officer with over 20 years on the job. He had written one primary belt citation (with no other offense); the motorist was described as "surprised." He described himself as a full time belt user on and off the job. He felt that a high percentage of motorists had been belt users and had observed no difference since the law change. He believed that many people did not

fully understand the law or the distinction between secondary and primary enforcement. He had been told of the new law at roll call. He described it as another useful tool for probable cause. He said he would cite for belt violations in speeding cases based on his view that "warnings don't work". He would cite belts in DUI situations only if it was probable cause for the stop. Fine amounts were "reasonable". He stated that patrol was very busy with little chance to do traffic enforcement.

Officer 3 was a patrol officer with 5 years of experience. He had written no primary belt citations but said he had given several verbal warnings. He described himself as a full time belt user on and off the job; said he would cite belts in speeding cases but was unlikely to do so in DUI. He felt the law was a useful probable cause tool. He had been briefed about the law at roll call. His opinion was that about 60 percent of drivers were long time belt users and that the percentage had gone up since the law change. He felt that fines were on the low side but were OK as the law was new. He suggested that $50 fines would "get peoples' attention."

Officer 4 was a traffic officer. He had not written any citations under the new law. He stated that he felt the general public did not know the difference between "secondary" vs. "primary" enforcement and the law change was a re-education (reminder) to use seat belts. He felt that part of his job was to educate the public and has issued "several" verbal warnings as part of that educational process. He is a 100 percent belt user on and off the job and indicated that the visibility of police officers wearing seat belts is contributing to increased motorist belt use. He said he would use the belt law as probable cause to ensure the safety of others in the vehicle and felt the fines were reasonable.

Site Visit #6

The focus group consisted of two motor officers. One officer had written 30 belt citations since the new law. He said motorist reaction was generally good, with embarrassment being the main response. He was a full time belt user on and off the job and indicated that he was more aware of belt violations since the law change and, therefore, was more likely to cite than previously. He felt that belt use had been high before the law change and was even higher since the change. He thought that motorists were well aware of the law. The fine for a first offense was considered OK but too high for a second offense. He felt that California fines, in general, were too high. He suggested that business people during the middle of the day were less likely to be wearing belts.

The second officer had just returned to duty two days previously. He had written two belt citations during those two days. He described himself as a full time belt user on and off duty; he indicated that the department's belt policy was enforced. He felt the level of belt use was not good and was glad the law had become primary. He expressed interest in seeing if the law would lead to saving lives. Speeding was his main traffic concern and he noted that under the old law he would "trade-off" belt citations in speeding cases. He felt that drivers of pick up trucks had low belt use. The sergeant felt that teenagers as a group had low use rates.

APPENDIX D

English DMV Survey Form

DMV is assisting in a study of California's Seat Belt Law. Your answers to the following questions are voluntary and anonymous. Please answer each question. Please put the form in the red box when you have finished.

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1. Your sex: ☐ Male ☐ Female

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

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

4. Are you of Spanish/Hispanic origin? ☐ Yes ☐ No

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. Your Zip Code: _____

7. 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

8. Compared to last year, would you say you <u>now</u> wear your seat belt:
☐ Much less often ☐ Less often ☐ About the same ☐ More often ☐ Much more often

9. 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.

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

11. Do you think the California Highway Patrol enforces the seat belt law:
☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Not at all

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

13. If you were to get a seat belt ticket, what would happen (Check <u>all</u> that apply):
☐ Get points on driving record
☐ Could get dismissed by going to court or traffic school
☐ Lose license
☐ Pay a fine
How much? ☐ $10-$15 ☐ $20-$25 ☐ $30-$35 ☐ $50 or more
Do you think the fine is: ☐ Too little ☐ About right ☐ Too high
☐ Don't know what would happen

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

15. 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

16. Have you recently read, seen or heard anything about California'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

DEPARTMENT OF MOTOR VEHICLES SURVEY FORM (ENGLISH VERSION).

APPENDIX E

Spanish DMV Survey Form

DMV está ayudando en un estudio de la ley de cinturón de asiento de California. Sus respustas a las siguientes preguntas son voluntarias y anónimas. Por favor responda a cada pregunta. Por favor coloque el formulario en la caja roja después de terminar.

---

1. Su sexo: ☐ Masculino ☐ Femenino

2. Su edad: ☐ Menor de 21 años ☐ 21-25 ☐ 26-39 ☐ 40-49 ☐ 50-59 ☐ 60+

3. Su raza: ☐ Indígena ☐ Blanco ☐ Negro ☐ Asiático ☐ Otro

4. ¿Es usted de origen Español/Hispano? ☐ Sí ☐ No

5. ¿Aproximadamente cuántas millas ha manejado usted durante el año pasado? ☐ Menos de 5,000 ☐ 5,000 a 10,000 ☐ 10,001 a 15,000 ☐ Más de 15,000

6. Su Código Postal (ZIP): _____

7. ¿Cuántas veces usa usted el cinturón de asiento cuando maneja o se pasea en un coche, vagoneta, vehículo de servicio o camioneta?

☐ Siempre ☐ Casi siempre ☐ Algunas veces ☐ Rara vez ☐ Nunca

8. Comparado con el año pasado, ¿diría usted que <u>ahora</u> usa su cinturón de asiento?:

☐ Mucho menos ☐ Menos ☐ Casi igual ☐ Más ☐ Mucho más

9. ¿Cuál de las siguientes frases cree usted sea la verdadera?:

☐ La policía le puede multar por no llevar el cinturón solamente si lo ha detenido por otra cosa.
☐ La policía le puede multar por no llevar el cinturón solamente si ha habido un accidente.
☐ La policía le puede multar por no llevar el cinturón siempre que vea que usted no lo lleva puesto.

10. ¿Qué cree son las probabilidades de que le den una multa si no usa su cinturón de asiento?

☐ Siempre ☐ Casi siempre ☐ Algunas veces ☐ Rara vez ☐ Nunca

11. ¿Cree usted que la Patrulla de Carreteras de California exija que la ley del cinturón de asiento se cumpla?:

☐ Muy estrictamente ☐ Algo estrictamente ☐ No muy estrictamente ☐ Rara vez ☐ Nunca

12. ¿Cree usted que la policía de la ciudad/condado exija que la ley del cinturón de asiento se cumpla?:

☐ Muy estrictamente ☐ Algo estrictamente ☐ No muy estrictamente ☐ Rara vez ☐ Nunca

13. Si usted recibiera una multa por no usar su cinturón de asiento, ¿Qué ocurriría? (Marque <u>todas</u> las casillas que correspondan):

☐ Obtendría puntos en el expediente de conductor
☐ Podría anularse si asiste a una escuela de tráfico o comparece a la corte
☐ Perdería la licencia
☐ Pagaría una multa
¿Cuánto? ☐ $10-$15 ☐ $20-$25 ☐ $30-$35 ☐ $50 +
¿Cree usted que la multa es?: ☐ Muy poca ☐ Casi justa ☐ Muy cara
☐ No sé

14. ¿Ha recibido usted alguna vez una multa por no usar su cinturón de asiento? ☐ Sí ☐ No

15. ¿Cuánto está usted de acuerdo o en desacuerdo con lo siguiente?:

Usted se herirá menos en un accidente si usa su cinturón de asiento.

☐ Muy de acuerdo ☐ Algo de acuerdo ☐ Algo en desacuerdo ☐ Muy en desacuerdo

16. ¿Ha leído, visto u oído usted recientemente algo sobre la ley del cinturón de asiento?

☐ Sí

Si usted ha contestado sí, ¿dónde lo vió u oyó? (Marque <u>todas</u> las casillas que correspondan):

☐ Periódico ☐ Radio ☐ Televisión ☐ Carteles ☐ Folleto ☐ Barrera policíaca ☐ Otro

Si usted ha contestado sí, ¿Qué decía? _____

☐ No

DEPARTMENT OF MOTOR VEHICLES SURVEY FORM (SPANISH/HISPANIC VERSION).

APPENDIX F

DMV Survey Responses by Site

Table 1. All Survey Waves City by Gender

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Male	314	351	371	161	380	320	1897
Row Pct	16.6	18.5	19.6	8.5	20.0	16.9	100.0
Column Pct	51.8	55.5	55.9	52.6	53.4	55.9	54.3
Female	288	281	291	143	331	250	1584
Row Pct	18.2	17.7	18.4	9.0	20.9	15.8	100.0
Column Pct	47.5	44.4	43.8	46.7	46.5	43.7	45.3
Not Answered	4	1	2	2	1	2	12
Row Pct	33.3	8.3	16.7	16.7	8.3	16.7	100.0
Column Pct	0.7	0.2	0.3	0.7	0.1	0.3	0.3
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 2. All Survey Waves City by Age

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Under 21	114	141	137	26	85	65	568
Row Pct	20.1	24.8	24.1	4.6	15.0	11.4	100.0
Column Pct	18.8	22.3	20.6	8.5	11.9	11.4	16.3
21-25	74	92	87	38	127	60	478
Row Pct	15.5	19.2	18.2	7.9	26.6	12.6	100.0
Column Pct	12.2	14.5	13.1	12.4	17.8	10.5	13.7
26-39	186	212	197	124	247	199	1165
Row Pct	16.0	18.2	16.9	10.6	21.2	17.1	100.0
Column Pct	30.7	33.5	29.7	40.5	34.7	34.8	33.4
40-49	100	74	83	48	121	82	508
Row Pct	19.7	14.6	16.3	9.4	23.8	16.1	100.0
Column Pct	16.5	11.7	12.5	15.7	17.0	14.3	14.5
50-59	37	40	34	25	38	51	225
Row Pct	16.4	17.8	15.1	11.1	16.9	22.7	100.0
Column Pct	6.1	6.3	5.1	8.2	5.3	8.9	6.4
60 Plus	84	60	117	36	69	103	469
Row Pct	17.9	12.8	24.9	7.7	14.7	22.0	100.0
Column Pct	13.9	9.5	17.6	11.8	9.7	18.0	13.4
Not Answered	11	14	9	9	25	12	80
Row Pct	13.8	17.5	11.3	11.3	31.3	15.0	100.0
Column Pct	1.8	2.2	1.4	2.9	3.5	2.1	2.3
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 3. All Survey Waves City by Race

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Native American	52	58	75	33	93	32	343
Row Pct	15.2	16.9	21.9	9.6	27.1	9.3	100.0
Column Pct	8.6	9.2	11.3	10.8	13.1	5.6	9.8
White	333	246	385	102	312	398	1776
Row Pct	18.8	13.9	21.7	5.7	17.6	22.4	100.0
Column Pct	55.0	38.9	58.0	33.3	43.8	69.6	50.8
Black	52	126	55	40	21	45	339
Row Pct	15.3	37.2	16.2	11.8	6.2	13.3	100.0
Column Pct	8.6	19.9	8.3	13.1	2.9	7.9	9.7
Asian	34	19	13	28	46	41	181
Row Pct	18.8	10.5	7.2	15.5	25.4	22.7	100.0
Column Pct	5.6	3.0	2.0	9.2	6.5	7.2	5.2
Other	81	127	99	63	139	33	542
Row Pct	14.9	23.4	18.3	11.6	25.6	6.1	100.0
Column Pct	13.4	20.1	14.9	20.6	19.5	5.8	15.5
Not Answered	54	57	37	40	101	23	312
Row Pct	17.3	18.3	11.9	12.8	32.4	7.4	100.0
Column Pct	8.9	9.0	5.6	13.1	14.2	4.0	8.9
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4. All Survey Waves City by Of Spanish/Hispanic Origin

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Yes	176	215	172	129	336	56	1084
Row Pct	16.2	19.8	15.9	11.9	31.0	5.2	100.0
Column Pct	29.0	34.0	25.9	42.2	47.2	9.8	31.0
No	352	338	409	138	325	451	2013
Row Pct	17.5	16.8	20.3	6.9	16.1	22.4	100.0
Column Pct	58.1	53.4	61.6	45.1	45.6	78.8	57.6
Not Answered	78	80	83	39	51	65	396
Row Pct	19.7	20.2	21.0	9.8	12.9	16.4	100.0
Column Pct	12.9	12.6	12.5	12.7	7.2	11.4	11.3
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5. All Survey Waves City by Miles Driven in Last Year

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Less than 5,000	176	241	252	82	189	140	1080
Row Pct	16.3	22.3	23.3	7.6	17.5	13.0	100.0
Column Pct	29.0	38.1	38.0	26.8	26.5	24.5	30.9
5,000 to 10,000	155	127	145	86	202	170	885
Row Pct	17.5	14.4	16.4	9.7	22.8	19.2	100.0
Column Pct	25.6	20.1	21.8	28.1	28.4	29.7	25.3
10,001 to 15,000	105	71	98	55	125	119	573
Row Pct	18.3	12.4	17.1	9.6	21.8	20.8	100.0
Column Pct	17.3	11.2	14.8	18.0	17.6	20.8	16.4
More than 15,000	110	93	109	51	123	116	602
Row Pct	18.3	15.4	18.1	8.5	20.4	19.3	100.0
Column Pct	18.2	14.7	16.4	16.7	17.3	20.3	17.2
Not Answered	60	101	60	32	73	27	353
Row Pct	17.0	28.6	17.0	9.1	20.7	7.6	100.0
Column Pct	9.9	16.0	9.0	10.5	10.3	4.7	10.1
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 6. All Survey Waves City by Zip Code

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
In City	468	336	549	220	600	132	2305
Row Pct	20.3	14.6	23.8	9.5	26.0	5.7	100.0
Column Pct	77.2	53.1	82.7	71.9	84.3	23.1	66.0
In Area	46	196	15	40	48	338	683
Row Pct	6.7	28.7	2.2	5.9	7.0	49.5	100.0
Column Pct	7.6	31.0	2.3	13.1	6.7	59.1	19.6
Elsewhere	35	24	28	10	44	41	182
Row Pct	19.2	13.2	15.4	5.5	24.2	22.5	100.0
Column Pct	5.8	3.8	4.2	3.3	6.2	7.2	5.2
Not Answered	57	77	72	36	20	61	323
Row Pct	17.6	23.8	22.3	11.1	6.2	18.9	100.0
Column Pct	9.4	12.2	10.8	11.8	2.8	10.7	9.2
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7. All Survey Waves City by Frequency of Belt Use When Driving or Riding

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Always	515	518	567	236	636	465	2937
Row Pct	17.5	17.6	19.3	8.0	21.7	15.8	100.0
Column Pct	85.0	81.8	85.4	77.1	89.3	81.3	84.1
Nearly Always	65	85	71	36	54	83	394
Row Pct	16.5	21.6	18.0	9.1	13.7	21.1	100.0
Column Pct	10.7	13.4	10.7	11.8	7.6	14.5	11.3
Sometimes	16	19	21	20	13	20	109
Row Pct	14.7	17.4	19.3	18.3	11.9	18.3	100.0
Column Pct	2.6	3.0	3.2	6.5	1.8	3.5	3.1
Seldom	4	5	1	9	6	2	27
Row Pct	14.8	18.5	3.7	33.3	22.2	7.4	100.0
Column Pct	0.7	0.8	0.2	2.9	0.8	0.3	0.8
Never	1	4	2	4	2	2	15
Row Pct	6.7	26.7	13.3	26.7	13.3	13.3	100.0
Column Pct	0.2	0.6	0.3	1.3	0.3	0.3	0.4
Not Answered	5	2	2	1	1	0	11
Row Pct	45.5	18.2	18.2	9.1	9.1	0.0	100.0
Column Pct	0.8	0.3	0.3	0.3	0.1	0.0	0.3
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 8. All Survey Waves City by Belt Use Now Compared to Last Year

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Much Less Often	8	14	7	5	12	9	55
Row Pct	14.5	25.5	12.7	9.1	21.8	16.4	100.0
Column Pct	1.3	2.2	1.1	1.6	1.7	1.6	1.6
Less Often	4	6	3	2	7	4	26
Row Pct	15.4	23.1	11.5	7.7	26.9	15.4	100.0
Column Pct	0.7	0.9	0.5	0.7	1.0	0.7	0.7
About the Same	281	240	266	105	281	332	1505
Row Pct	18.7	15.9	17.7	7.0	18.7	22.1	100.0
Column Pct	46.4	37.9	40.1	34.3	39.5	58.0	43.1
More Often	88	109	113	51	119	79	559
Row Pct	15.7	19.5	20.2	9.1	21.3	14.1	100.0
Column Pct	14.5	17.2	17.0	16.7	16.7	13.8	16.0
Much More Often	214	248	268	134	274	137	1275
Row Pct	16.8	19.5	21.0	10.5	21.5	10.7	100.0
Column Pct	35.3	39.2	40.4	43.8	38.5	24.0	36.5
Not Answered	11	16	7	9	19	11	73
Row Pct	15.1	21.9	9.6	12.3	26.0	15.1	100.0
Column Pct	1.8	2.5	1.1	2.9	2.7	1.9	2.1
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 9. All Survey Waves City by Which One is True about Police Issuing Belt Tickets

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Only w/Other Stop	65	56	58	20	61	51	311
Row Pct	20.9	18.0	18.6	6.4	19.6	16.4	100.0
Column Pct	10.7	8.8	8.7	6.5	8.6	8.9	8.9
Only w/Accident	3	4	3	2	6	5	23
Row Pct	13.0	17.4	13.0	8.7	26.1	21.7	100.0
Column Pct	0.5	0.6	0.5	0.7	0.8	0.9	0.7
Whenever Seen	529	562	597	275	631	514	3108
Row Pct	17.0	18.1	19.2	8.8	20.3	16.5	100.0
Column Pct	87.3	88.8	89.9	89.9	88.6	89.9	89.0
Not Answered	9	11	6	9	14	2	51
Row Pct	17.6	21.6	11.8	17.6	27.5	3.9	100.0
Column Pct	1.5	1.7	0.9	2.9	2.0	0.3	1.5
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 10. All Survey Waves City by Chances of Ticket if Belt not Worn

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Always	217	249	250	121	325	148	1310
Row Pct	16.6	19.0	19.1	9.2	24.8	11.3	100.0
Column Pct	35.8	39.3	37.7	39.5	45.6	25.9	37.5
Nearly Always	90	101	117	62	99	67	536
Row Pct	16.8	18.8	21.8	11.6	18.5	12.5	100.0
Column Pct	14.9	16.0	17.6	20.3	13.9	11.7	15.3
Sometimes	199	185	209	85	185	228	1091
Row Pct	18.2	17.0	19.2	7.8	17.0	20.9	100.0
Column Pct	32.8	29.2	31.5	27.8	26.0	39.9	31.2
Seldom	71	79	70	28	86	114	448
Row Pct	15.8	17.6	15.6	6.3	19.2	25.4	100.0
Column Pct	11.7	12.5	10.5	9.2	12.1	19.9	12.8
Never	15	14	8	7	10	5	59
Row Pct	25.4	23.7	13.6	11.9	16.9	8.5	100.0
Column Pct	2.5	2.2	1.2	2.3	1.4	0.9	1.7
Not Answered	14	5	10	3	7	10	49
Row Pct	28.6	10.2	20.4	6.1	14.3	20.4	100.0
Column Pct	2.3	0.8	1.5	1.0	1.0	1.7	1.4
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 11. All Survey Waves City by CHP Enforces Belts

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Very Strictly	242	269	256	137	361	179	1444
Row Pct	16.8	18.6	17.7	9.5	25.0	12.4	100.0
Column Pct	39.9	42.5	38.6	44.8	50.7	31.3	41.3
Somewhat Strictly	210	211	255	105	200	215	1196
Row Pct	17.6	17.6	21.3	8.8	16.7	18.0	100.0
Column Pct	34.7	33.3	38.4	34.3	28.1	37.6	34.2
Not Very Strictly	97	102	121	37	103	114	574
Row Pct	16.9	17.8	21.1	6.4	17.9	19.9	100.0
Column Pct	16.0	16.1	18.2	12.1	14.5	19.9	16.4
Rarely	31	35	15	14	31	41	167
Row Pct	18.6	21.0	9.0	8.4	18.6	24.6	100.0
Column Pct	5.1	5.5	2.3	4.6	4.4	7.2	4.8
Not at All	7	4	4	4	5	2	26
Row Pct	26.9	15.4	15.4	15.4	19.2	7.7	100.0
Column Pct	1.2	0.6	0.6	1.3	0.7	0.3	0.7
Not Answered	19	12	13	9	12	21	86
Row Pct	22.1	14.0	15.1	10.5	14.0	24.4	100.0
Column Pct	3.1	1.9	2.0	2.9	1.7	3.7	2.5
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 12. All Survey Waves City by Local Police Enforce Belts

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Very Strictly	207	233	229	117	315	163	1264
Row Pct	16.4	18.4	18.1	9.3	24.9	12.9	100.0
Column Pct	34.2	36.8	34.5	38.2	44.2	28.5	36.2
Somewhat Strictly	219	221	255	106	205	206	1212
Row Pct	18.1	18.2	21.0	8.7	16.9	17.0	100.0
Column Pct	36.1	34.9	38.4	34.6	28.8	36.0	34.7
Not Very Strictly	107	101	131	53	119	127	638
Row Pct	16.8	15.8	20.5	8.3	18.7	19.9	100.0
Column Pct	17.7	16.0	19.7	17.3	16.7	22.2	18.3
Rarely	38	57	30	17	42	49	233
Row Pct	16.3	24.5	12.9	7.3	18.0	21.0	100.0
Column Pct	6.3	9.0	4.5	5.6	5.9	8.6	6.7
Not at All	12	5	5	8	11	4	45
Row Pct	26.7	11.1	11.1	17.8	24.4	8.9	100.0
Column Pct	2.0	0.8	0.8	2.6	1.5	0.7	1.3
Not Answered	23	16	14	5	20	23	101
Row Pct	22.8	15.8	13.9	5.0	19.8	22.8	100.0
Column Pct	3.8	2.5	2.1	1.6	2.8	4.0	2.9
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 13. All Survey Waves City by Consequences of Belt Ticket

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Points on Dr Record	147	143	151	60	150	153	804
Row Pct	18.3	17.8	18.8	7.5	18.7	19.0	100.0
Column Pct	7.9	7.0	7.3	6.2	6.7	8.7	7.4
Could Get Dismissed	87	109	88	41	103	80	508
Row Pct	17.1	21.5	17.3	8.1	20.3	15.7	100.0
Column Pct	4.7	5.3	4.3	4.3	4.6	4.5	4.7
Lose License	37	39	38	16	62	14	206
Row Pct	18.0	18.9	18.4	7.8	30.1	6.8	100.0
Column Pct	2.0	1.9	1.8	1.7	2.8	0.8	1.9
Pay a Fine	473	528	541	259	567	460	2828
Row Pct	16.7	18.7	19.1	9.2	20.0	16.3	100.0
Column Pct	25.3	25.9	26.3	26.9	25.4	26.0	25.9
$10-$15	40	40	25	20	42	48	215
Row Pct	18.6	18.6	11.6	9.3	19.5	22.3	100.0
Column Pct	2.1	2.0	1.2	2.1	1.9	2.7	2.0
$20-$25	139	139	209	82	169	137	875
Row Pct	15.9	15.9	23.9	9.4	19.3	15.7	100.0
Column Pct	7.4	6.8	10.2	8.5	7.6	7.8	8.0
$30-$35	67	73	62	27	81	81	391
Row Pct	17.1	18.7	15.9	6.9	20.7	20.7	100.0
Column Pct	3.6	3.6	3.0	2.8	3.6	4.6	3.6
$50 or More	239	270	260	134	257	197	1357
Row Pct	17.6	19.9	19.2	9.9	18.9	14.5	100.0
Column Pct	12.8	13.2	12.6	13.9	11.5	11.1	12.4
Amount not Ans	39	51	37	18	74	28	247
Row Pct	15.8	20.6	15.0	7.3	30.0	11.3	100.0
Column Pct	2.1	2.5	1.8	1.9	3.3	1.6	2.3
Fine too Little	33	28	33	18	49	26	187
Row Pct	17.6	15.0	17.6	9.6	26.2	13.9	100.0
Column Pct	1.8	1.4	1.6	1.9	2.2	1.5	1.7
Fine About Right	264	305	314	128	312	232	1555
Row Pct	17.0	19.6	20.2	8.2	20.1	14.9	100.0
Column Pct	14.1	15.0	15.3	13.3	14.0	13.1	14.2
Fine Too High	87	91	98	52	80	69	477
Row Pct	18.2	19.1	20.5	10.9	16.8	14.5	100.0
Column Pct	4.7	4.5	4.8	5.4	3.6	3.9	4.4
Opinion not Ans	125	139	132	76	175	154	801
Row Pct	15.6	17.4	16.5	9.5	21.8	19.2	100.0
Column Pct	6.7	6.8	6.4	7.9	7.9	8.7	7.3

Table 13. All Survey Waves City by Consequences of Belt Ticket (Continued)

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
DontKnow	83	77	63	28	103	80	434
Row Pct	19.1	17.7	14.5	6.5	23.7	18.4	100.0
Column Pct	4.4	3.8	3.1	2.9	4.6	4.5	4.0
Not Answered	8	7	6	4	4	8	37
Row Pct	21.6	18.9	16.2	10.8	10.8	21.6	100.0
Column Pct	0.4	0.3	0.3	0.4	0.2	0.5	0.3
Total	1868	2039	2057	963	2228	1767	10922
Row Pct	17.1	18.7	18.8	8.8	20.4	16.2	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 14. All Survey Waves City by Ever Gotten Belt Ticket

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Yes	62	79	131	54	84	43	453
Row Pct	13.7	17.4	28.9	11.9	18.5	9.5	100.0
Column Pct	10.2	12.5	19.7	17.6	11.8	7.5	13.0
No	533	546	525	242	618	522	2986
Row Pct	17.8	18.3	17.6	8.1	20.7	17.5	100.0
Column Pct	88.0	86.3	79.1	79.1	86.8	91.3	85.5
Not Answered	11	8	8	10	10	7	54
Row Pct	20.4	14.8	14.8	18.5	18.5	13.0	100.0
Column Pct	1.8	1.3	1.2	3.3	1.4	1.2	1.5
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 15. All Survey Waves City by Agreement with Hurt Less if Wearing Belt

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Strongly Agree	459	462	463	206	558	436	2584
Row Pct	17.8	17.9	17.9	8.0	21.6	16.9	100.0
Column Pct	75.7	73.0	69.7	67.3	78.4	76.2	74.0
Somewhat Agree	97	120	147	65	111	90	630
Row Pct	15.4	19.0	23.3	10.3	17.6	14.3	100.0
Column Pct	16.0	19.0	22.1	21.2	15.6	15.7	18.0
Somewhat Disagree	22	26	27	24	14	19	132
Row Pct	16.7	19.7	20.5	18.2	10.6	14.4	100.0
Column Pct	3.6	4.1	4.1	7.8	2.0	3.3	3.8
Strongly Disagree	19	16	19	6	23	21	104
Row Pct	18.3	15.4	18.3	5.8	22.1	20.2	100.0
Column Pct	3.1	2.5	2.9	2.0	3.2	3.7	3.0
Not Answered	9	9	8	5	6	6	43
Row Pct	20.9	20.9	18.6	11.6	14.0	14.0	100.0
Column Pct	1.5	1.4	1.2	1.6	0.8	1.0	1.2
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 16. All Survey Waves City by Read, Seen or Heard about Belt Law

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Yes	388	419	444	219	498	329	2297
Row Pct	16.9	18.2	19.3	9.5	21.7	14.3	100.0
Column Pct	64.0	66.2	66.9	71.6	69.9	57.5	65.8
No	166	159	168	57	150	202	902
Row Pct	18.4	17.6	18.6	6.3	16.6	22.4	100.0
Column Pct	27.4	25.1	25.3	18.6	21.1	35.3	25.8
Not Answered	52	55	52	30	64	41	294
Row Pct	17.7	18.7	17.7	10.2	21.8	13.9	100.0
Column Pct	8.6	8.7	7.8	9.8	9.0	7.2	8.4
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 17. All Survey Waves City by If Yes to Read, Seen or Heard, Where

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Newspaper	186	173	220	105	217	156	1057
Row Pct	17.6	16.4	20.8	9.9	20.5	14.8	100.0
Column Pct	24.5	21.3	25.5	21.7	19.9	24.4	22.7
Radio	130	130	138	103	209	114	824
Row Pct	15.8	15.8	16.7	12.5	25.4	13.8	100.0
Column Pct	17.2	16.0	16.0	21.3	19.1	17.8	17.7
TV	258	268	299	163	343	196	1527
Row Pct	16.9	17.6	19.6	10.7	22.5	12.8	100.0
Column Pct	34.0	32.9	34.7	33.7	31.4	30.6	32.8
Poster	52	67	80	48	117	55	419
Row Pct	12.4	16.0	19.1	11.5	27.9	13.1	100.0
Column Pct	6.9	8.2	9.3	9.9	10.7	8.6	9.0
Brochure	39	46	32	17	84	39	257
Row Pct	15.2	17.9	12.5	6.6	32.7	15.2	100.0
Column Pct	5.1	5.7	3.7	3.5	7.7	6.1	5.5
Police Checkpoint	36	50	32	25	52	31	226
Row Pct	15.9	22.1	14.2	11.1	23.0	13.7	100.0
Column Pct	4.7	6.1	3.7	5.2	4.8	4.8	4.9
Other	40	68	45	18	60	36	267
Row Pct	15.0	25.5	16.9	6.7	22.5	13.5	100.0
Column Pct	5.3	8.4	5.2	3.7	5.5	5.6	5.7
Not Answered	17	12	16	4	11	13	73
Row Pct	23.3	16.4	21.9	5.5	15.1	17.8	100.0
Column Pct	2.2	1.5	1.9	0.8	1.0	2.0	1.6
Total	758	814	862	483	1093	640	4650
Row Pct	16.3	17.5	18.5	10.4	23.5	13.8	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 18. All Survey Waves City by If Yes to Read, Seen or Heard, What Said

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
Specific Law Element	27	12	36	7	18	29	129
Row Pct	20.9	9.3	27.9	5.4	14.0	22.5	100.0
Column Pct	6.6	2.7	7.7	3.0	3.4	8.4	5.3
Stricter Enforce/San	50	48	39	19	36	31	223
Row Pct	22.4	21.5	17.5	8.5	16.1	13.9	100.0
Column Pct	12.3	10.9	8.4	8.1	6.9	9.0	9.2
New Law in Effect	49	61	66	28	75	52	331
Row Pct	14.8	18.4	19.9	8.5	22.7	15.7	100.0
Column Pct	12.0	13.9	14.2	12.0	14.3	15.0	13.7
NHTSA Specific	1	5	5	3	4	5	23
Row Pct	4.3	21.7	21.7	13.0	17.4	21.7	100.0
Column Pct	0.2	1.1	1.1	1.3	0.8	1.4	1.0
General Safety	86	119	123	65	184	73	650
Row Pct	13.2	18.3	18.9	10.0	28.3	11.2	100.0
Column Pct	21.1	27.1	26.4	27.8	35.2	21.1	26.9
Other	37	39	35	23	37	26	197
Row Pct	18.8	19.8	17.8	11.7	18.8	13.2	100.0
Column Pct	9.1	8.9	7.5	9.8	7.1	7.5	8.2
Not Answered	158	155	162	89	169	130	863
Row Pct	18.3	18.0	18.8	10.3	19.6	15.1	100.0
Column Pct	38.7	35.3	34.8	38.0	32.3	37.6	35.7
Total	408	439	466	234	523	346	2416
Row Pct	16.9	18.2	19.3	9.7	21.6	14.3	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 19. All Survey Waves City by Survey Version Completed

	Rivside	San Brn	Bkrsfld	Fresno	Salinas	Seaside	Total
English	569	570	635	287	529	560	3150
Row Pct	18.1	18.1	20.2	9.1	16.8	17.8	100.0
Column Pct	93.9	90.0	95.6	93.8	74.3	97.9	90.2
Spanish	36	63	29	19	183	12	342
Row Pct	10.5	18.4	8.5	5.6	53.5	3.5	100.0
Column Pct	5.9	10.0	4.4	6.2	25.7	2.1	9.8
Unknown	1	0	0	0	0	0	1
Row Pct	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Column Pct	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total	606	633	664	306	712	572	3493
Row Pct	17.3	18.1	19.0	8.8	20.4	16.4	100.0
Column Pct	100.0	100.0	100.0	100.0	100.0	100.0	100.0