

2014

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### Recommended Citation

Chin, Roger J. (2014) "Analysis on the Impact of Driving Under the Influence in Inland Empire, California," *OSR Journal of Student Research*: Vol. 2 , Article 8.

Available at: <https://scholarworks.lib.csusb.edu/osr/vol2/iss1/8>

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## Analysis on the Impact of Driving Under the Influence in Inland Empire, California

Roger J. Chin

### Abstract

Drunk driving is an issue that directly and indirectly affects everyone in society. According to the National Highway Traffic Safety Administration, in 2010 there were approximately 2,715 driving fatalities involving alcohol or drugs in the state of California. In those 2,715 fatalities, 1,848 involved alcohol (“California Counties,” 2011). Driving Under the Influence (DUI) is a serious issue in the Inland Empire because out of the 58 counties in California, San Bernardino County and Riverside County consistently rank as some of the counties with the most DUI fatalities.

This study analyzed the significant reduction in the number of DUI related fatalities from 2007-2010 in the Inland Empire and the importance of continued research on the effectiveness of DUI reduction programs.

**Keywords:** *Driving Under the Influence, DUI, drunk driving, California DUI, California DUI Laws, DUI reduction programs, DUI public policy, DUI recidivism*

## Author Interview

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### Which professors (if any) have helped you in your research or creative activity?

All of the professors in the Department of Public Administration, Department of Graduate Studies and the Office of Student Research at CSUSB have been a tremendous help in my research activities.

### What are your research interests?

My research interests are in teamwork, leadership, American politics, public policy and management.

**What are your plans after earning your degree? What is your ultimate career goal?** My plan after earning my degree is to attend Claremont Graduate University in order to pursue my Ph.D. in Political Science and Public Policy. My career goal is to become a professor at a university.

### Acknowledgements

I would like to acknowledge the wonderful faculty and staff (Dr. Jonathan Anderson, Dr. David Baker, Dr. Kimberly Collins, Toni Ditty, Dr. Marc Fudge, Larry Ibrahim, Dr. Anna Ya Ni, and Dr. Montgomery Van Wart) in the Department of Public Administration at California State University, San Bernardino, I have never met such a dedicated group of individuals that are willing to go above and beyond for their students. Because of your belief in my abilities, I am able to pursue my academic and professional endeavors with few reservations. I hope to one day reciprocate the generosity and support that I received from each of you towards my own students.

To my loving and supportive parents Tony and Mitzi Chin, your strength and kindness have been my motivation to become a better person. My parents taught me the values and importance of what it means to be an honest and hardworking individual. I will be forever grateful.

## Introduction

The problem of alcohol consumption mixed with automobile driving poses a major public health and traffic safety issue in the Inland Empire. The Inland Empire is located in southern California and includes the counties of Riverside and San Bernardino. According to the National Highway Traffic Safety Administration, in 2010 there were approximately 2,715 driving fatalities involving alcohol and/or drugs in the state of California. In those 2,715 fatalities, 1,848 involved alcohol ("California Counties," 2011). Driving Under the Influence (DUI) is a serious issue in the Inland Empire because out of the 58 counties in California, San Bernardino County and Riverside County consistently rank among the highest of the counties with the most DUI fatalities. This research analyzed the significant reduction in the number of DUI related fatalities from 2007 through 2010 in the Inland Empire and the pertinence of continuing to conduct research on the effectiveness in DUI reduction programs. Figure 1 offers common acronyms that will be used throughout this paper.

**Figure 1: Common Acronyms**

Acronyms	
<b>BAC</b>	Blood Alcohol Concentration
<b>California AB</b>	California Assembly Bill
<b>California SB</b>	California Senate Bill
<b>DFDD</b>	Doctors for Designated Drivers
<b>DMV</b>	Department of Motor Vehicles
<b>DUI</b>	Driving Under the Influence
<b>IID</b>	Ignition Interlock Device
<b>MADD</b>	Mothers Against Drunk Driving
<b>NHTSA</b>	National Highway Traffic Safety Administration
<b>OTS</b>	California Office of Traffic Safety
<b>SADD</b>	Students Against Drunk Driving

## Methodological Approach

A number of research approaches were used to identify studies and data for inclusion in the analysis. The methodological framework that was utilized was a comprehensive literature

review of DUIs in the state of California and in Inland Empire, California. First, a search of electronic databases were conducted using the keywords "driving under the influence," "DUI recidivism," and "California DUI." The electronic databases that were used were ScienceDirect, Academic Search Premier, and ebscoHOST. Second, back tracing was conducted through the examination of references that were used by key articles gathered from the initial electronic databases search.

The quantitative data being used are from 2007-2010 and this research will only analyze DUIs involving driver's with a BAC of .08% or above. The data were gathered from the California Department of Motor Vehicles (DMV), California Office of Traffic Safety (OTS), and the National Highway Traffic Safety Administration (NHTSA). The year 2007-2010 offered the most comprehensive DUI data available from the DMV, NHTSA, and OTS. The DUI data for the years 2011 and 2012 are still in the process of being finalized or data is still being gathered by the respective California research agencies.

## DUI Policy Implementation

The California state government acted directly as an agency in implementing DUI policies in order to address a problem in society that affects multiple stakeholders. The California government decided to take an active role in addressing a public safety issue rather than to go through another form of instrumentation. "Governments can sometimes decide to achieve the conditions or service goals they have in mind by marshaling their own resources toward those ends" (Pal, 2010, p. 168). Even though there are multiple interest groups and non-profit organizations that lobby for tougher laws and penalties for DUI offenders, the policy is essentially made by the California state legislators. The role of the bureaucracy in California is to enact standardize policies, procedures, laws, and vehicle codes for law enforcement officials to enforce and residents to follow in order to ensure the safety of all the residents in California.

### California DUI Laws and Policies

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Drunk driving is an issue that directly and indirectly affects everyone in the Inland Empire. The public is a major stakeholder in this issue and several policies have been implemented in an attempt to reduce the number of alcohol related fatalities. While significant steps have been taken to reduce drunk driving in the past thirty years, DUI is still a significant contributor in automobile fatalities in the state of California. DUI consists of an individual that is operating a motor vehicle while under the influence of alcohol and/or drugs.

Public policies are essential for modern government because they provide guidance for government officials and accountability links to citizens (Pal, 2010). There are several policies that are used to govern what constitute a DUI arrest, due process, conviction, and the penalties that are instilled upon the offender. The state of California has one of the most stringent and comprehensive DUI laws in the United States. On January 1, 1982 and January 1, 1990, strict countermeasures were enacted against DUI offenders in California. The new legislation made implementing *per se* standard (BAC limit) mandatory, stricter criteria for plea bargains to a lesser offense, and stiffer penalties for DUI convictions (Hilton, 1984).

In 2010-2011 alone, California passed several new DUI legislations with the purpose of discouraging DUI, reducing the recidivism rate, and reducing the number of individuals arrested for DUI. The new laws that were passed were California AB 91, AB 1165, AB 2902, SB 1190, and SB 1388. The aim of the new legislations were to expand the categories to allow the California Department of Motor Vehicles to immediately suspend the driver's license of an individual arrested for DUI and to install mandatory Ignition Interlock Device (IID) on vehicles of convicted DUI offenders. The DUI policy in California requires an individual arrested for DUI to not only go to a judicial court but also attend a license hearing with the California Department of Motor Vehicles (DMV). The intent of this policy is to reduce the number of individuals arrested for DUI, reduce the number of DUI related fatalities, and to lower the rate of recidivism in California.

Even though there are a plethora of DUI legislation and policies in California, California Vehicles Code 23152(a) and 23152(b) are the most common regulations for the arrest of an individual suspected of being under the influence. As stated in the California Department of Motor Vehicles Code:

23152 (a) it is unlawful for any person who is under the influence of any alcoholic beverage or drug, or under the combined influence of any alcoholic beverage and drug, to drive a vehicle. (b) It is unlawful for any person who has 0.08 percent or more, by weight, of alcohol in his or her blood to drive a vehicle. ("California Vehicle Code," 2013)

In the California Vehicle Code, a driver can be arrested for DUI of drugs and/or alcohol. It is often a misconception that a driver cannot be arrested for DUI if they are under the .08% Blood Alcohol Concentration (BAC), which is not the case. A driver can still be arrested for DUI if their BAC is lower than .08% based on their "impaired driving" which has to be articulated by the arresting law enforcement officer. In order for a sworn officer to establish a violation of 23152(a) CVC, the prosecutors in court often rely on the field sobriety test that was conducted prior to the arrest. 23152(b) CVC introduces a presumption that an individual is impaired for purposes of driving a motor vehicle if an officer conducts a test for alcohol level within three hours of driving. The presumptive standard indicates that the jury during trial must accept the test unless the individual on trial introduces evidence that questions or refutes the validity the blood alcohol level at the time of driving.

While 23152(a) CVC and 23152(b) CVC covers the arresting and prosecuting aspects of an individual suspected of DUI, California Vehicle Codes sections 25336, 23540, 23546, 23538, 23542, 23550.5, and 23552 governs the sentencing provisions of an individual convicted of DUI (Table 2). In addition to the sentencing provisions of the California Vehicle Codes, section 14601.2 CVC covers the sentencing provision for an individual who drives a motor vehicle when the DMV has suspended their

license pursuant to a DUI conviction. The penalties in California are different for first, second, and third time offenders and include fines, imprisonment, or driver's license suspension.

### Analysis of DUI in California

Even though drastic steps have been taken to reduce DUI related fatalities and recidivism rate in the Inland Empire, DUI is still a relevant and constant problem. The aim of the policies being implemented are meant to deter individuals from driving drunk and to reduce the number

**Figure 2: DUI Penalties in California**

Penalties	First Offense	Second Offense	Third Offense
<b>Fines</b>	\$1400-\$2600	\$1800-\$2800	\$1800-\$18000
<b>Imprisonment</b>	4 days to 6 months	10 days to 1 year	120 days to 1 year
<b>DMV Driver's License Suspension</b>	30 days-10 months	2 years	3 years

Adapted from the California Department of Motor Vehicles 2013

of fatalities and injuries each year. In comparing the Inland Empire to neighboring southern California counties, the Inland Empire had a higher percentage of DUI related fatalities than compared to Los Angeles County and San Diego County. While some researchers may argue it is prejudicial to combine Riverside County and San Bernardino County for the analysis, this research provides a comparison of two other counties in southern California with similar population size. Riverside County and San Bernardino County have a similar population size and consistently have similar DUI fatality rates. The combination of San Bernardino County and Riverside County provides a clear analysis as to why DUI is a serious problem in the Inland Empire.

The Inland Empire, Los Angeles County, and San Diego County are also the three areas in California that consistently rank for the most DUI arrests, convictions, and fatalities. There are approximately 4,304,997 individuals living in the

Inland Empire while there are approximately 3,140,069 individuals living in San Diego County and 9,889,056 in Los Angeles County. Even though Los Angeles County has twice the population compared to the Inland Empire, in 2010 Los Angeles County only had 36 more DUI fatalities than the Inland Empire.

In 2010, there were approximately 2,715 traffic fatalities involving DUI in the state of California. Out of the 2,715, there were 1,338 fatalities that involved drivers with a BAC of higher than .08% ("California Counties," 2011). In the Inland Empire, there were a total of 121 DUI fatalities in 2010. In the same year, Los Angeles County DUI related fatalities rate was 157 and 49 in San Diego County (Figure 3). Figure 4 illustrates the percentage of fatalities in each of the county that involved drivers with a BAC of .08% or above. The Inland Empire had the highest percentage with 29%, Los Angeles County had 28%, and San Diego County had 26%.

**Figure 3: 2010 DUI Fatalities Comparison**

California Counties	Fatalities with a .08% BAC or Above
<b>Inland Empire (Population 4,304,997)</b>	121
<b>Los Angeles (Population 9,889,056)</b>	157
<b>San Diego (Population 3,140,069)</b>	49

Adapted from NHTSA FARS 2011

**Figure 4: 2010 DUI Fatalities Percentage Comparison (2010)**

California Counties	Fatalities with a .08% BAC or Above	Percentage from Total Fatalities in the County
<b>Inland Empire</b>	121	29%
<b>Los Angeles</b>	157	28%
<b>San Diego</b>	49	26%

Adapted from NHTSA FARS 2011

The cost of DUI is both a financial and societal problem. DUI not only cause human deaths but also has a substantial economic cost

for injuries and property damages. The fiscal impact is estimated at approximately 100 billion dollars a year (“Motor Vehicle Accidents,” 2010). Additionally, the cost of physical therapy and psychology counseling can also be factored in for victims of DUI.

The problem of DUI can be solved through the efforts of the people, government, public sector, private sector, and non-profit sector. While this problem cannot be completely eradicated, steps can be implemented to ensure the reduction in the number of DUI related fatalities in the Inland Empire. The efforts of the American people, legislators, law enforcement officials, and non-profit groups have drastically reduced the number of DUI fatalities in the Inland Empire. Government officials often listen to the demands of special interest groups in their policy design and implementation process (Heineman et al., 2001). The efforts of non-profit groups like Mothers Against Drunk Driving (MADD), Students Against Drunk Driving (SADD), and Doctors for Designated Drivers (DFDD) have all lobbied for tougher laws against DUIs and programs to reduce the number of incidence.

### DUI Prevention and Education Programs

During tough economic times, many law enforcement agencies have to reduce the department’s budget that often times affects the funding available for DUI patrols and education for the public. There are several programs and grants that are offered by NHTSA and the California OTS in order to assist law enforcement in enforcing DUIs and to inform the residents on the dangers of drunk driving. There are grants to assist law enforcement agencies to set up sobriety checkpoints, conduct DUI saturation patrols, funding for necessary patrol equipments, repeat DUI offender warrant service operations, court sting operations, and funding to pay officers to conduct the operations. California OTS provides several programs in order to educate the public about the dangers of drunk driving. There are educational programs like Real DUI Trial presentations, Every 15 Minutes presentations, Courtroom to Schoolroom presentations, and Court Diversion classes.

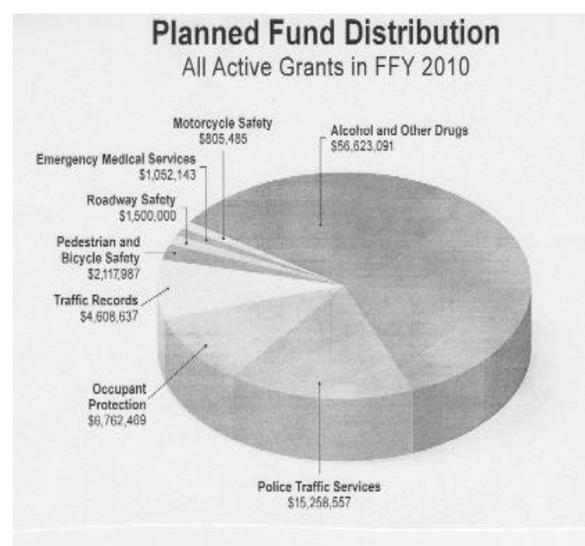
In 2010, California OTS provided approximately \$56,623,091 in grants to assist law

enforcement in reducing the number of DUIs in California (“California’s 2010 Annual,” 2011). The “alcohol and other drugs” grants constituted more than 60% of the funds that were provided by the California OTS. Figure 5 shows the number of grants that were given in 2010 to the three counties used for comparison in this analysis. Los Angeles County was provided with 26 grants, the Inland Empire was provided with 18 grants, and San Diego County was provided with 13 grants.

**Figure 5: Number of grants provided by California OTS in 2010**

California Counties	Grants Provided by California OTS
Inland Empire	18
Los Angeles	26
San Diego	13

Adapted from California OTS 2010 Annual Performance Report



Source: California OTS 2010 Annual Performance Report (“California’s 2010 Annual,” 2011).

### Discussion and Future Directions

There has been a long-standing interest by multiple stakeholders in determining the best sanctions to use in order to vigorously deter drunk driving. Because of budget reductions, a lot of the jails or prisons in California are unable to keep the offender for the entire allocated time. The state of California has been a pioneer in finding new and innovative methods to reduce and

discourage residents from drunk driving. California has been researching alternative programs besides imprisonment to reduce the number of DUI related incidents. A number of studies have been conducted in California comparing the effectiveness of alcohol treatment, license suspension actions, and other programs in reducing DUI offenses (DeYoung, 1997). In California there are several steps that are implemented aimed at deterring people from drunk driving. The studies showed that license suspension, tougher penalties, educational programs, DUI Courts, alcohol treatment programs, Ignition Interlock Device, public awareness programs, and probation are all effective as methods to reduce the rate of drunk driving (DeYoung; 1997; DeYoung 2002; Hilton, 1984; Campostrini et al., 2006; Voas, Holder, & Gruenewald 1997). The comparison of DUI fatalities involving a BAC of .08% or above in Los Angeles County, San Diego County, and the Inland Empire have declined from 2007-2010 (Figure 6). While the numbers of fatalities are still high, the programs and penalties that are implemented by the state government seem to be effective.

The California OTS aims at providing grants for law enforcement agencies that had to make drastic budget reduction. But because of California's own fiscal woes, funding and grants provided by California OTS will drastically decline in 2013. This can be a limitation for the continued success in reducing the number of DUIs in the Inland Empire. In 2010, approximately \$56,623,091 in funding was provided which constituted approximately 60% of the budget. In 2013, it is estimated that California OTS will only be providing \$41,833,522, which constitute 49.97% of the budget ("2013 California Highway," 2012).

**Figure 6: Comparison of DUI Fatalities between 2007-2010, Involving BAC .08% or Above**

California Counties	2007	2008	2009	2010
Inland Empire	189	174	147	121
Los Angeles	212	191	153	157
San Diego	91	87	76	49

Adapted from NHTSA FARS Data 2007, 2008, 2009, 2010

It is recommended that the state of California continue with the programs and enforcement actions that have drastically reduced the number of DUI related fatalities in the Inland Empire. Research needs to continue and data needs to be gathered on the effectiveness of new programs being implemented to combat DUIs. MacDonald et al., (2007) conducted a two-year field experiment evaluating the effectiveness of DUI court programs that were meant to emulate successful drug court programs. The research concluded that DUI court programs ran into challenges because of the stringent laws that were passed in California. DUI court programs were unable to emulate the success of the drug court programs because of the legislative restrictions (MacDonald et al., 2007). Similar studies like the one conducted by MacDonald et al., need to continue in order to cut funding for programs that are not working and to determine the best policies to implement.

### Conclusion

DUI is a problem in society that can never be fully eradicated, but steps can be taken to reduce the number of fatalities each year. The Inland Empire consistently ranks as one of the areas with the highest number of fatalities involving driver's with a BAC of .08% or above. The state of California has implemented innovative programs aimed at reducing recidivism and to discourage residents from drunk driving. Instead of punishing convicted offenders with only imprisonment, the California judicial system provides programs to prevent future incidents of drunk driving. This study analyzed the significant reduction in the number of DUI related incidence in the Inland Empire and the importance of continued research on the effectiveness of DUI reduction programs. The programs have been effective in the reduction of fatalities, but the continued reduction in the rates remain a limitation because California has been reducing funding for these programs due to fiscal hardship being experienced in the state.

### References

California Department of Motor Vehicles.

- (2013). *California vehicle code section 23152* [Data file]. Retrieved from <http://www.dmv.ca.gov/pubs/vctop/d11/vc23152.htm>
- California Office of Traffic Safety. (2011). *California's 2010 annual performance report*. Sacramento, California.
- California Office of Traffic Safety. (2012). *2013 California highway safety plan*. Sacramento, California.
- Campostrini, S., Holtzman, D., McQueen, D., & Boaretto, E. (2006). Evaluating the effectiveness of health promotion policy: Changes in the law on drinking and driving in California. *Health Promotion International, 21*(2), 130-135.
- DeYoung, D. (1997). An evaluation of the effectiveness of alcohol treatment, driver license actions and jail terms in reducing drunk driving recidivism in California. *Addiction (Abingdon, England), 92*(8), 989-997.
- DeYoung, D. (2002). An evaluation of the implementation of ignition interlock in California. *Journal of Safety Research, 33*(4), 473-482.
- Heineman, R. A., Bluhm, W. T., Peterson, S. A., & Kearny, E. N. (2001). *The world of the policy analyst: Rationality, values, and politics* (3rd Ed.). Chatham, N.J.: Chatham House Publishers.
- Hilton, M. (1984). The impact of recent changes in California drinking-driving laws on fatal accident levels during the first postintervention year: An interrupted time series analysis. *Law & Society Review, 18*(4), 605-627.
- MacDonald, J., Raymond, B., Eibner, C., & Morral, A. (2007). The efficacy of the Rio Hondo DUI court: A 2-year field experiment. *Evaluation Review, 31*(1), 4-23.
- Motor Vehicle Accident Costs. (2010). *Federal Highway Administration*. Retrieved February 28, 2013, from [http://safety.fhwa.dot.gov/facts\\_stats](http://safety.fhwa.dot.gov/facts_stats)
- National Highway Traffic Safety Administration. (2007). *California counties highest driver blood alcohol concentration in crash* [Data file]. Retrieved from <http://wwwfars.nhtsa.dot.gov/States/StatesAlcohol.aspx>
- National Highway Traffic Safety Administration. (2008). *California counties highest driver blood alcohol concentration in crash* [Data file]. Retrieved from <http://wwwfars.nhtsa.dot.gov/States/StatesAlcohol.aspx>
- National Highway Traffic Safety Administration. (2009). *California counties highest driver blood alcohol concentration in crash* [Data file]. Retrieved from <http://wwwfars.nhtsa.dot.gov/States/StatesAlcohol.aspx>
- National Highway Traffic Safety Administration. (2010). *California counties highest driver blood alcohol concentration in crash* [Data file]. Retrieved from <http://wwwfars.nhtsa.dot.gov/States/StatesAlcohol.aspx>
- Pal, L. A. (2010). *Beyond policy analysis: Public issue management in turbulent times* (4th Ed.). Ontario: Nelson Education.
- Voas, R., Holder, H., & Gruenewald, P. (1997). The effect of drinking and driving interventions on alcohol-involved traffic crashes within a comprehensive community trial. *Addiction, 92*(6s1), 221.