Bicycling Under the Influence: University Law Enforcement Perception and Reality of Prevalence

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Abstract

Of traffic crashes with injuries, those where the cyclist is injured constitute a measurable number of incidents ranging from two percent as a national figure to forty-eight percent measured at a major Florida university. Data compiled by the National Highway Traffic Safety Administration and other sources reveal that nearly one-quarter of all bicycling traffic fatalities involve alcohol levels in the cyclist over the legal limit of .08 g/dL, and to a lesser extent in cyclists who are injured, but are not killed. State university police in Florida, while reporting that they feel bicycling under the influence is important to enforce, believe it occurs at a rate less than what actually was reported in several studies that accounted for alcohol involvement in cycling crashes.

Introduction

The Florida State University Police Department, since 2003, has greatly increased its focus on driving under the influence. However, this drive has been largely due to information that the Department has gleaned from national and state awareness campaigns. Internal research of crash records on campus has revealed that a significant portion of crashes with injury on the FSU campus involve a cyclist (J.L. Russell, personal communication, November 29, 2005). In an effort to determine if university police officer attitudes in general concerning cycling under the influence correspond in general to actual national and state data, surveys of state university law enforcement were conducted to compare university police attitudes with known data. Additionally, internal review of known FSUPD records of bicycle crashes was conducted. This data was useful in determining not only the prevalence of alcohol related bicycle crashes on the FSU campus, but whether or not data suggests an appropriate amount of attention is being dedicated to cycling under the influence at Florida State, as an example of a state university. In turn, this data provides a suggestion to other Florida public universities that bicycling under the influence may be an under-addressed public safety issue at their institutions.

The catalyst for the implementation of this research began with a preliminary review if bicycle traffic crashes at Florida State University. The Florida State University, though having nearly 40,000 students, is one of the smallest public universities in Florida, geographically speaking. Perhaps for this reason, many students on campus opt to use the bicycle as a means of daily transportation. The result is a densely compacted atmosphere of pedestrians,

bicycles, and cars sharing a small space, and like anywhere, there are traffic accidents. Additionally, the FSUPD has been, for over three years, cracking down on drivers who operate motor vehicles while under the influence. There has been no shortage of persons arrested for this offense, and of course, the reason for such a push is to limit the amount of crashes with injury and death.

Interestingly enough, an initial inquiry by this writer into types of crashes with injury on campus revealed that a significant amount (27%) involve a cyclist (J.L. Russell, personal communication, November 29, 2005) Further, according to the National Highway Traffic and Safety Administration, about 1/5 of all cycling fatalities reported in 2004 involved a cyclist with a BAC of .08 or higher (NHTSA, 2004). This would indicate that at least some bicycle crashes with injury on campus involve an intoxicated cyclist. Further, the national statistic should apply to all cycling crashes throughout Florida.

The goal of this research is therefore a focused a comparison of university police attitudes verses known national and Florida statistics concerning bicycle crashes involving a bicyclist using alcohol. Analysis of specific Florida State University known bicycle crash statistics was made as an addendum for comparison to overall research.

A primary responsibility of an institution of higher learning is to maintain a safe environment to learn and work. Are state university police in Florida focusing on this issue proportionally to known data?

Literature Review

Literature reviewed in this study focuses primarily in two areas. First, statistical documents from reputable sources are used to paint a picture of what is known as far as bicycling crashes and there relation to alcohol.

A review of this literature reveals that alcohol-related bicycling crashes while not accounting for a large portion of all traffic fatalities, account for a measurable amount. For instance, according to the National Highway Traffic Safety Administration (NHTSA), 27% of pedalcyclists killed had a BAC of .01 g/dL and 23% had a BAC of .08 g/dL or higher (NHTSA, 2005). According to NHTSA (2005), 784 pedalcyclists (2% of all traffic fatalities in 2005) died in traffic fatalities. Combining this information, 180 pedalcyclists were killed in 2005 while operating their bicycles over the legal limit of a BAC of .08 g/dL. These traffic fatalities are not evenly distributed across the country, and in fact, Florida has a disproportionate number of fatalities out of the national figure at 124 out of the national 784 total, or 15.8% (NHTSA, 2005). The final 2005 figure for Florida then, using the national percentage of cyclists killed with a BAC of .08 g/dL or higher combined with the Florida fatality figure, indicates that the State of Florida was the site of nearly 29 intoxicated cyclist fatalities in 2005. Extrapolating the percentage of total cyclist fatalities against total traffic fatalities in Florida, it is discovered that the percentage of cyclist fatalities against total traffic fatalities is higher (3.4%) than the national average of 2%. Therefore, the literature and

statistical research provided by NHTSA indicates that in the State of Florida, fatalities involving an intoxicated cyclist occur also at a higher percentage than the national average. It is also of note that nationally, the 45,000 cyclists that were injured in the United States in 2005 represented approximately 2% of all persons injured in traffic crashes that year (NHTSA, 2005).

Literature was reviewed in order to locate any correlations known between law enforcement attitudes toward cycling under the influence and/or cycling crashes in general. No definitive information in this area was found, however, literature was discovered regarding attitudes of the general population. This information was deemed noteworthy as law enforcement officers are also a sub-category of the general populace, and these figures may provide a hint of overall attitudes about bicycling under the influence.

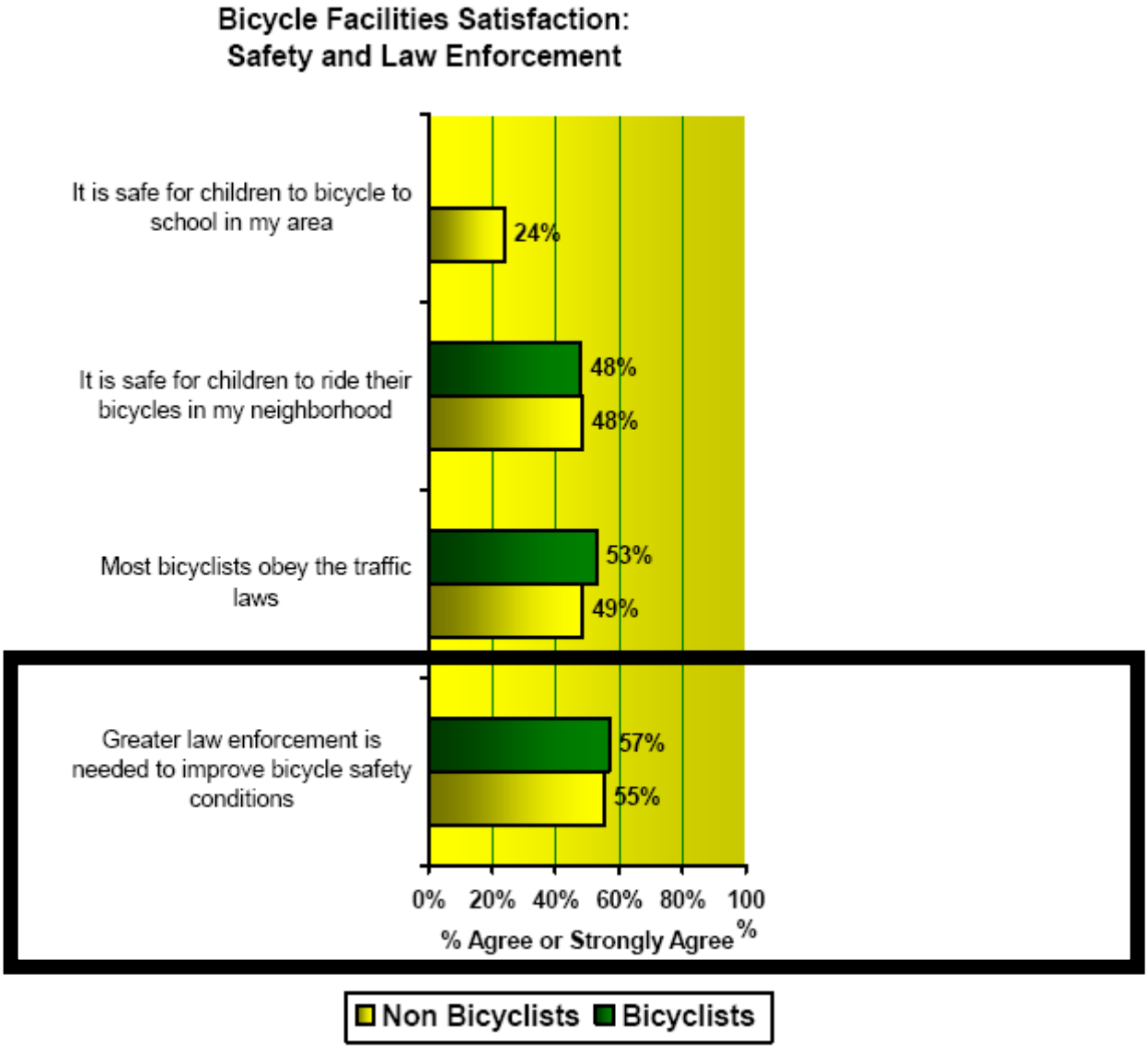

FIG 1

Literature generally showed that persons in the general population surveyed believed that cycling and traffic issues were important enough for law enforcement to pay attention to or to even increase enforcement, as evidenced by the survey conducted by the Center for Urban Research at the University of South Florida (CUTR, 2005).

Further, the Florida Department of Transportation conducted an extensive survey in 2003 called the Bicycling and Walking Attitudes Survey District 5. In this survey, respondents to the survey agreed or strongly agreed that "police should give warnings or tickets to bicyclists who violate the law." The percentage of persons answering the survey with this attitude was nearly 96% (E. M. Berman, 2003, p. 6).

The final report by the Center for Urban Transportation Research from the University of South Florida states in its executive summary of its document entitled, *Bicycle and Pedestrian Travel: Exploration of Collision Exposure in Florida*, two significant factors. These factors are that the number of bicycle crashes reported to law enforcement are increasing and that also, a notable portion of reported bicycle crashes involve alcohol use by either the bicyclist or driver. Most interestingly, the report states, "The 2002 data indicate that nearly two-thirds (64%) of the respondents reported the bicycle crash to the police. This is a slight increase from over half (54%) of the respondent-reported bicycle crashes in 1998 and a possible explanation may be associated with an increase in crashes involving alcohol" (CUTR & NuStats, 2002). The report goes on to speculate that because 18% of motorists who struck a cyclist were under the influence of alcohol, the crashes may have been more likely to be reported. The report also states that actual alcohol use among cyclists involved in crashes increased from 2% in 1998 to 6% in 2002 (CUTR & NuStats, 2002).

With a relatively solid public opinion regarding enforcement of bicycling related laws, and an indication of alcohol possibly having an affect on increased reporting of crashes, there is reason to suggest that community attitudes lean in the direction of cycling under the influence being worthy of law enforcement attention. Specific research regarding law enforcement focus and attitudes in this area is not readily discussed or available from what this writer has been able to determine in the limited time used to research the subject.

With available data measuring law enforcement attitudes in comparison to known data involving intoxicated cyclists, some light has been shed on exactly how university police view this issue and further, from this data, administrators may determine if resources and training should be used to address it.

This research was not intended to be a definitive measure of attitudes, data, or as a means to dictate policy construction or implementation. Rather, the research provides a "jumping-off" point where additional questions can be derived, and a snapshot of what the state of mind is within state university law enforcement in Florida. Painfully little examination has been conducted in this area, and this modest approach will hopefully, raise even more questions that it provides answers. Truly, this research should provide the impetus for dialogue and additional examinations to be conducted.

Methods

Research methods included the review of known statistical data and distribution of surveys to state university law enforcement around the State of Florida. Statistical data was derived from review of bicycle traffic crash data compiled by the National Highway Traffic Safety Administration, Center for Urban Transportation and Research (USF), the Federal Highway Administration, and the Florida Department of Transportation. Additionally, data was reviewed concerning known attitudes toward bicycling through the Florida Department of Transportation's report entitled, Bicycling and Walking Attitudes Survey District Five.

Surveys were distributed on July 25, 2006 by way of email attachment to every state university police department to the chief executive officer or designee. Each survey consisted of seven questions that were the following:

1. In the last twelve months, have you been aware of any person operating a bicycle under the influence on campus?
The respondent was presented with a simple yes or no answer option.
2. If "Yes" above, were you in a position to take law enforcement action?
The respondent was presented with a yes or no option here as well.
3. If "Yes" to #2, did you take law enforcement action?
The respondent was presented with a yes or no option. (Note that surveys contained a typographical error here where "#2" said "#3". This was not deemed to be influential on results for reasons explained below.
4. Have you operated a bicycle or do you know someone who operated a bicycle under the influence on campus in the last 12 months?
The respondent was provided with a yes or no option.
5. Do you feel that the operation of bicycles on campus while the rider is intoxicated is a problem that authorities should deal with?
The respondent was provided with a yes or no option.
6. Please rate, from 1-5, with 1 being the lowest and 5 the highest, the priority you feel enforcement of cyclists operating a bike under the influence should be with the campus police.
The respondent was provided a scale of 1 to 5 and instructed to circle his/her choice.
7. Please indicate below, your opinion of what percentage of crashes with injury on campus involve a cyclist.
The respondent was provided a space to write or type in a percentage figure.

The data reviewed from reputable sources such as NHTSA and other government entities is considered to be relatively accurate, based on the data received. It is important to note that data is often reported by other sources to these organizations, such as through traffic crash reports or self-reporting. With that in mind, it is important to note that information is only as accurate at the originating reporters. This is applies especially to the Florida Department of

Transportation on attitudes. This by definition pertains to the opinions of the respondents, and any number of factors may affect each individual respondent.

Law enforcement surveys distributed revealed a moderate response rate in with 50 surveys returned. Surveys returned represent a respondent population where motivation for returning the surveys is unknown. Therefore, a significant population, not reporting, may represent data that would or would not have an affect on outcomes. Future research with control groups or scientifically based sampling may reveal additional information regarding law enforcement attitudes about bicycling under the influence.

This being the case, the surveys provide a snap-shot of university law enforcement perspectives from a regional (statewide) standpoint. In the absence of other similar data, this aids in the comparison to the pervasiveness of cycling under the influence and officer attitudes toward it. At the very least, the information provides a means for university law enforcement executives to hone traffic safety strategies or to identify training needs of employees.

Results

Specifically, survey questions 1, 6, and 7 were the most significant for comparison to known data sets. The following data proved revealing:

Survey Analysis – Officer Awareness of BUI Event and Rating of Priority of Problem Analysis was conducted to compare the percentage of officers who were aware of a BUI incident and the importance they placed on bicycling under the influence enforcement.

- University of Florida - Aware – 16% Importance (1-5) 2.66
- University of West Florida - Aware – 100% Importance 3
- University of North Florida - Aware 25% Importance 3.75
- University of Central Florida – Aware 20% Importance 2.2
- New College of Florida - Aware 0% Importance 1.5
- University of South Florida – Aware 10% Importance 3.68
- Florida State University - Aware 9% Importance 3.16

Noting that sample sizes for some police departments were small, the additional extrapolation was completed to compare awareness of all reporting university police to the average issue importance rating:

- All Reporting University Police – Aware 25.7% Importance 2.85

Additionally, results were tabulated for awareness and opinion of percentage of crashes with injury involving a cyclist:

- University of Florida - Aware – 16% Bike Crash Percentage 14.68%
- University of West Florida - Aware – 100% Bike Crash Percentage 3%
- University of North Florida - Aware 25% Bike Crash Percentage 1%
- University of Central Florida – Aware 20% Bike Crash Percentage 7.4%
- New College of Florida - Aware 0% Bike Crash Percentage 0%
- University of South Florida – Aware 10% Bike Crash Percentage 12.4%
- Florida State University - Aware 9% Bike Crash Percentage 17.9%

Again, noting that sample sizes for some police departments were small, the additional extrapolation was completed to compare awareness of all reporting university police to the opinion of officers of how many crashes with injury involve a bicyclist.

- All Reporting University Police – Aware 25.7% Bike Crash Percentage 7.93%

Finally, from these figures, comparison can be made between opinions of importance regarding BUI enforcement and opinion of percentage of injury crashes involving a cyclist:

- University of Florida - Importance 2.66 Bike Crash Percentage 14.68%
- University of West Florida - Importance 3 Bike Crash Percentage 3%
- University of North Florida - Importance 3.75 Bike Crash Percentage 1%
- University of Central Florida – Importance 2.2 Bike Crash Percentage 7.4%
- New College of Florida - Importance 1.5 Bike Crash Percentage 0%
- University of South Florida – Importance 3.68 Bike Crash Percentage 12.4%
- Florida State University - Importance 3.16 Bike Crash Percentage 17.9%

Statistical information revealed nationally, cyclists accounted for 45,000 injuries in traffic crashes in 2005 and 41,000 crashes in 2004, translating to about 2% of all people injured in traffic crashes in 2005 and 2004 respectively (NHTSA, 2005; NHTSA, 2004) This is an important figure in comparison to officer opinion of the cyclist injury rate discovered in the surveys.

Using data from a recent study at the Florida State University Police Department the following was found:

Research of traffic crashes with injuries for fiscal year 2004-2005 revealed that the FSU Police Department investigated 15 crashes with injuries. Of these 15 crashes, four involved a cyclist, placing the percentage of cyclist crashes with injuries at 27% - more than a quarter all crashes involving injury. A previous study of dates of August 2004 to March 2005, showed a consistent percentage at this level. Pedestrian crashes during FY 04-05 accounted for 27% of all crashes with injury. Together, bicycle and pedestrian crashes accounted for 54% of all crashes with injury investigated by the FSUPD on the FSU main campus.

Additionally, another study of pedestrian involved crashes with injury for calendar year 2005 (January through November 22, 2005) revealed a total of 17 crashes with injury where pedestrian crashes accounted for 29% of these. During this same period, 12% involved bicyclists. Together, for calendar year 2005 to date, pedestrian and bicycle crashes with injury accounted for no less than 41% of all crashes with injury investigated by the FSU Police Department on the main campus. (J.L. Russell, personal communication, November 29, 2005)

Also, examining statistics provided by the University of Florida Police Department, the following information is ascertained:
University of Florida Bicycle Crash w/Injury Statistics:
2003 – Total Crashes with Injury = 33 Bike Crashes with Injury = 11 (33%)
2002 – Total Crashes with Injury = 34 Bike Crashes with Injury = 9 (26%)
2001 – Total Crashes with Injury = 25 Bike Crashes with Injury = 12 (48%)
(University of Florida Police Department, 2006)

These sets of data provide an interesting parallel between national statistics and data from local universities, where the universities report a much higher percentage than the national average.

A further analysis from the Federal Highway Administrations study of hospital admissions of bicyclists with injuries reveals information suggesting the extent of impairment of injured cyclists. In this study, emergency room admissions of injured cyclists in selected hospitals in California, New York, and North Carolina were examined. From this study, the California and North Carolina data revealed that out of a total 16,310 bicyclists admitted to emergency rooms in 1995, 371 were listed as “drinking – impaired” (FHWA, n.d.), . This translates to about 2.2% of all injured bicyclists admitted to emergency rooms in this study.

NHTSA figures state that in cycling fatalities, a much higher percentage of cyclists are legally impaired (.08 g/DL) in the 23% range (NHTSA, 2005).

These sets of figures when examined together show a range of percentage of cyclists injured in traffic crashes from 2% nationally to 48% reported at a Florida university in 2001. Data also shows that there is a wide

disparity in between alcohol involvement in cyclist-injury crashes (2.2%) and cyclist-fatality crashes (23%). Therefore together data shows:

- 2%-48% of injury crashes involve a cyclist and alcohol is involved between 2.2% and 23% of cyclist crashes involving injury or fatality.

University police officers believe that bicycling under the influence is an issue worthy of law enforcement attention (2.85 rating out of possible 5) and officers believe 7.93% of all traffic crashes involve a cyclist, on the lower end of the crash percentage range. Using university data alone, this figure is far below known figures.

Discussion

These findings suggest that while officers feel that enforcement of cycling under the influence is important, they actually have a perception of bicycling crashes that reflects the lower range of actual frequency of injuries in cycling crashes. This is especially obvious when comparing actual figures from the University of Florida to its officer's responses.

U of F Crashes with Injury Crashes Involving Cyclist 3 year average 2001-03 = 35.6. U of F Officer perception of Injury Crashes Involving Cyclist = 14.68% The question continues to beg answer, "Are state university police in Florida focusing on this issue proportionally to known data?"

Clearly, officer's knowledge indicates that while officers are not ignorant of the issue as a whole, they are not extremely focused on it. However, even with this not being a major priority to officers, they do consider the issue of cycling under the influence as important.

This research has contributed to understanding the mindset of university police officers regarding cycling under the influence and its relation to known data of cycling-injury crashes and alcohol involvement.

This study, provides a suggestion that additional, far more in-depth and wide-ranging research should be conducted to identify more accurately how many crashes with injury on many campuses occur involving cyclists, how often alcohol is involved, and what university (or local) police attitudes are considering this issue.

University police in Florida are not highly focused or educated on the issue of bicycle-injury crashes and their relation to alcohol. However, with the data available, which is sporadic and by no means comprehensive, it is not surprising. The fact is that there is precious little debate, discussion, or data on this issue and absent this, in-depth education cannot take place. Officers feel this is important, and over a quarter of them have awareness of the subject, but their estimates of cycling-injury crashes falls on the lower end of the data range, especially considering university data.

This research points out the additional resources on the subject of cycling under the influence should be conducted and that information provided to law enforcement.

Major Jim Russell has been with the Florida State University Police Department since 1993 having worked his way through the ranks. He currently supervises the Support Services Division at FSUPD. Jim serves as the chair of the Leon County multi-agency DUI Strike Force and is a competitive ultra distance cyclist. He has received awards for his work with combating DUI and seatbelt awareness. Jim has a Bachelor of Science degree in Criminology from Florida State University.

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APPENDIX A

University Police Department Survey

Bicycling Under the Influence

1. In the last 12 months, have you been aware of any person operating a bicycle under the influence on campus? YES ____ NO _____

2. If "YES" above, were you in a position to take law enforcement action?
YES _____ NO_____

3. If "YES" to #3, did you take law enforcement action? YES _____ NO _____

4. Have you operated a bicycle or do you know someone who operated a bicycle under the influence on campus in the last 12 months? YES____ NO _____

5. Do you feel that the operation of bicycles on campus while the rider is intoxicated is a problem that authorities should deal with? YES ____ NO _____

6. Please rate, from 1-5, with 1 being the lowest and 5 the highest, the priority you feel enforcement of cyclists operating a bike under the influence should be with the campus police. (Circle one) 1 2 3 4 5

7. Please indicate below, your opinion of what percentage of crashes with injury on campus involve a bicyclist.

_____%