

# Victim Impact Panels: Their Impact on DWI Recidivism

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## ABSTRACT

*The Victim Impact Panel (VIP) is a group of three or four speakers who were seriously injured or whose loved one was killed in a DWI crash. They present their personal stories to DWI offenders who are ordered by the court to attend the VIP. The primary goal of the VIP is to reduce DWI recidivism. This study compares the pre-panel DWI rates with the post-panel recidivism rates of over two thousand DWI offenders who attended the VIPs in Oregon and California, and also compares these rates to the rates of age-sex matched control groups of drivers. The control subjects were convicted of DWI in the same states at the same time period, but were not ordered to attend the VIP. In addition pre- and post-panel DWI convictions are also studied for 683 drivers who were ordered to attend the VIP but failed to do so (No-Shows).*

*The results show that, although in Oregon the VIP attendees had a lower rate of recidivism than their matched control group, the recidivism rate of the attendees was not different than that of either those who were ordered by the court to attend the VIP, but failed to do so (No-Shows), or the age-sex matched control group for the No-Shows. In California, no differences were observed in recidivism rates between the VIP group and either the no-show group or the two control groups. More focused analyses singling out specific age groups and distinguishing males from females indicated that the VIP may be an effective tool for the more mature offenders (those 35+ years old). Explanations for failure to find more pervasive effects of the VIP and suggestions for improvement of the process are offered.*

## Introduction

### **The Victim Impact Panel Concept and Approach**

The Victim Impact Panel (VIP) is a group of three or four speakers who were seriously injured or whose loved one was killed in a DWI crash. They present their personal stories to DWI offenders who were ordered by the court to attend the VIP. In all cases the victims' participation is voluntary and typically stems out of a deep

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need to "do something" to fight drunken driving. The audience—most often consisting of people convicted of driving while under the influence of alcohol or while impaired by alcohol—is typically required to attend the meeting as part of their court sentence or remedial diversion program. Sometimes the offenders pay a small fee which may cover direct costs of the VIP (e.g., driving costs for panel members and direct administrative costs).

The rationale for the effectiveness of the VIP is that most actions taken against DWI offenders focus on punishment, and consequently, allow the offenders to perceive themselves as victims of the police and to rationalize their arrests as bad luck and victimization. In contrast, the VIP exposes the DWI offender to the deep grief of others hurt by their kind of driving. Such an emotional appeal should be an effective psychological means of changing attitudes of people who have shielded themselves from being exposed to the hurt they have caused or may cause. The VIP directly affects the emotional component of the offenders' attitudes toward drinking and driving by offering the drivers the opportunity to empathize with the victims and the pain and suffering caused by drunk driving. This, in turn, should make the drivers more receptive to rational cognitive arguments about the dangers of drinking and driving. Consequently these drivers should be more inclined to modify their behavior accordingly. In fact, a recent survey of DWI drivers attending the VIP has shown a significant and immediate change in attitudes and behavioral intentions towards drinking and driving as a result of that exposure (Badovinac, 1994).

The organization of the VIP, its formal links with the State courts and safety agencies, its size, and organizational procedures vary from one location to another. The typical format of the meetings involves a panel of 3–4 victims who present their own personal stories how their lives have been devastated by a collision with a drunk driver resulting with the loss of a loved one or permanent handicap to themselves or a loved one. In general, the victims try not to blame or judge the DWI attendees, but just to tell how their lives were affected by a DWI crash. During the panels' presentations there is no interaction between the panelists and the offenders, but questions and answers may follow the presentations. Before the session ends, the offenders are often asked to fill out an anonymous questionnaire or write comments on the VIP.

The decision concerning who should attend the VIP is often part of a State's adjudication program. In some jurisdictions the VIP is part of a diversion program for first offenders only (e.g., Oregon state, Berkshire County, MA) while in others it is part of the sentence for DWI conviction (e.g., Snohomish County, Washington).

The concept and approach of the VIP were first tried in Massachusetts in 1982, and have since then been more formalized and promoted by interested citizen groups, especially Mothers Against Drunk Driving (MADD). According to MADD's latest survey there are over 300 Victim Impact Panels operating on a regular or intermittent schedule nationwide (Lord, 1994).

### ***Effects of the Victim Impact Panel on Recidivism***

The crucial test of the effectiveness of the VIP is in its impact on recidivism rates. If the offenders' reported attitude change is sincere, then it still remains to be seen to what extent actual driving behavior is changed by the experience. The direct measure of this impact is the likelihood of recidivism; i.e., the likelihood of committing a DWI violation after participating in VIP.

Three small-scale evaluations of the impact of VIP on recidivism rates have been reported to date. In the first study (Satterfield-McLeod, 1989), the re-arrest rate of 90 DWI offenders who attended VIP in Washington County, Oregon, was examined over a 18–24 month period. Only eight of these people were rearrested for DWI, constituting 9 percent of the sample. These results were compared to the Oregon Motor Vehicles Division's estimate that "42% of the people arrested for DUI in Washington County have had a prior arrest resulting in conviction or diversion". Unfortunately, such a comparison is meaningful only if it can be demonstrated that all else (e.g., enforcement, sanctions, social norms, laws, and demographics, and duration of the periods) was equal in these two periods. For example, in contrast to the recidivism rates reported above, in one Mississippi study of DWI offenders it was reported that 89% of those arrested had at least one previous offense in the past 11 years—the most common violation being DWI (Wells-Parker et al., 1986).

A second—and larger—study was conducted on Clackamas County, Oregon. VIP DWI offenders (O'Laughlin, 1990). The study compared the recidivism rates of 534 DWI offenders who attended the

Clackamas County VIP between its inception in September 1987 and October 1988, to the recidivism rates of 741 DWI offenders, with a similar age distribution, who were either convicted or placed on a diversion program between July, 1986, and August, 1987; i.e., prior to the implementation of the VIP program. The number of DWI convictions or refusals to take the breath test over a one-year period served as a measure of effectiveness. However, for the control group, the one-year period began with the conviction or diversion date, while for the VIP group it began on November, 1988; i.e., after all had attended the VIP. The mean number of such DWI-related re-arrests was 0.44 for the VIP group and 1.11 for the control group. Thus, the odds of rearrest for VIP attendees were less than half of those for the non-attendees. These results are both statistically and practically very significant.

The results of O'Laughlin's study should be treated with some caution for two reasons: First, for the control group the one-year period began on the conviction date, whereas for the VIP attendees it began significantly later on a date not contingent with either the violation, conviction or the VIP. The lag in tracking the VIP group is significant because the likelihood of recidivism decreases exponentially over time (Peck, 1994). Second, the recidivism of the control group was assessed (on the average) almost two years later than that of the treatment group (January, 1987, versus November, 1988). Given national trends in DWI, the time difference in and of itself would be indicative of lower recidivism among the VIP members relative to the control group.

O'Laughlin (1990) also mentions an evaluation of the VIP in King County, Washington, where one-year recidivism rates for VIP attendees were only one percent.

In summary, an accurate assessment of the impact of VIP on recidivism is very difficult to obtain, but the partial data that exists suggests that it may be an effective specific deterrent. The present study examines that effect, while trying to overcome some of the methodological difficulties encountered in the previous studies.

### ***Approach and Objectives***

The study reported below focused on the impact of VIP on recidivism in three counties in the state of Oregon and in Orange County, California. The general approach was to link VIP attendance data with DMV driver license, crash, and violation data, and, based on the combined VIP and DMV files, assess the impact of VIP on post-VIP driving record.

The specific objectives were to determine if: (1) the post-VIP recidivism is less than that of matched drivers who did not attend the VIP; (2) there is a treatment effect on recidivism that is attenuated over time; (3) the recidivism of VIP attendees and the matched control group is less than that of the drivers who failed to attend the VIP despite a court order—the latter having less respect for the law (vis-à-vis the requirement to attend the VIP) and being more "hard-core" offenders; and (4) the VIP may have a greater impact on older DWI offenders, since they may more readily empathize with the majority of panelists who are parents (rather than spouses, siblings, or children) of DWI victims.

## **Method**

### ***General Approach***

The general approach was to compare the driver license records of VIP attendees with the license records of a matched group of drivers who did not participate in VIP. The effectiveness of the VIP was then assessed by comparing the levels of recidivism of the two groups for a two-year period following the VIP. Of the 31 potential locations originally identified with MADD's cooperation, most of the groups had to be ruled out either because their operation lacked tenure (to allow for a post-VIP study) or the number of DWI offenders processed was small.

Two data sets from two states were identified as sufficiently large and appropriate for this study: Orange County, California and Josephine County, Washington County, and Multnomah County in Oregon. In both states all of the offenders ordered to participate in the VIP during the years 1988–1989 were identified. The 2-year post-panel driving records of these offenders were compared to the driving records of a control group of subjects who also committed a DWI violation during the same time period and were matched in age and sex.

Because of differences in organization of the data files, data items available from each state, and the VIP setup, the data from the two states were analyzed separately.

### **Oregon**

The VIP typically consists of 5 panelists who have been victimized by drinking drivers, and a facilitator (who may be a judge). At the time of the study, the offenders sentenced to attend the VIP could have been either first-time offenders or repeat offenders. Furthermore, the offenders attending the panel could be either convicted DWI offenders or drivers initially arrested for DWI and then referred to a diversion program.

Each panelist speaks for 10–15 minutes, and tries not to be judgmental or accuse the attendees. The goal of the presentations is to make the offenders "understand the pain and suffering created by drunk driving" (Oregon Traffic Safety Commission, 1991). Following the presentations, the offenders are encouraged to make anonymous written comments about their reactions to the panel.

### **Study Sample and Data Base**

The initial complete sample consisted of all 27,021 Oregon drivers convicted of DWI in 1988–1989. Following cross tabulations with the VIP lists, five different groups were identified:

- a. 1350 drivers who were ordered to and attended the VIP in Josephine, Multnomah and Washington counties in 1988–1989.
- b. 1350 drivers matched in age and sex to those in group (a) who were not assigned to VIP.
- c. 295 drivers who were ordered to but did not attend the VIP in Josephine, Multnomah, and Washington Counties in 1988–1989.
- d. 295 drivers matched in age and sex to those in group (c) who were not assigned to VIP.
- e. The remaining 23,545 Oregon drivers with DWI conviction or diversion in 1988–1989.

Because of the structure of the data set, it was not possible to match the treatment groups and their respective control groups on past violations and crashes. Each driver file contained detailed records of every licensing and court action, including:

- Date of reference conviction or referral to a diversion program; i.e., the first such DWI-related event in 1988–1989.
- Dates of previous and subsequent DWI-related violations and crashes in the years 1985–1991.
- Identification of the basis for each action: crash, DWI-related offense, or other moving violation.

### **Orange County, California**

At the time of the study, all the offenders sentenced to attend the panel were first time offenders, and this was their only court-sanctioned penalty. Each panel consisted of at least one convicted DWI offender (in the role of a panelist) and at least three victims. The sessions lasted about an hour, and offenders were not requested to provide any formal feedback, though informal reactions of compassion and regret were common.

### **Study Sample and Data Base**

The study sample consisted of all persons attending or ordered to attend the VIP program of the Orange County MADD Chapter from January, 1988, to December 1989. Unique cross-listing of the drivers from the California DMV records and the MADD VIP records was achieved for 742 VIP attendees and 388 No-Shows.

For each of these two experimental groups a control group of drivers not assigned to the VIP but matched in age, sex, and number of previous DWI violations was selected from the DMV Orange County DWI driver records.

All DWI-related convictions in the critical period 1988–1989 were identified. The first conviction within that period was considered the critical triggering event, and its date served as the "reference" date. The following data were generated for each driver relative to his/her "reference date":

- License status (valid/invalid, e.g., suspended)
- Number of days from Reference conviction to first subsequent conviction or failure to appear for trial.
- Number of days from reference conviction to first subsequent crash.
- Number of days from reference conviction to first subsequent DUI violation date.
- Number of days from reference conviction to first subsequent Reckless or Hit/Run violation date.
- Blood Alcohol Concentration level for the reference violation.

Relative to that reference date three time periods were identified: (1) prior 2.0 years, (2) subsequent 1.5 years, (3) subsequent 2.0 years. Because the data base cutoff date was August, 1991, and the lag in data entry from the date of conviction could be up to 6 months, post-conviction analyses were limited to 2 years. The following information was extracted for each driver for each one of the three time periods:

- Number of convictions or failures to appear in court
- Number of Alcohol/Drug related major convictions
- Number of crashes (fatal and injury)
- Number of convictions or failure to appear in court for driving with suspended or revoked license.
- DUI or reckless driving convictions in conjunction with a fatal crash.
- DUI or reckless driving convictions in conjunction with an injury crash.
- DUI or reckless driving convictions in conjunction with any crash.
- Number of crashes in which the person "had been drinking".
- Total number of crashes.
- Alcohol referral program for DUI.
- Number of misdemeanor DUI convictions (not involving injury or death)
- Number of felony DUI convictions (involving injury or death).
- Number of reckless driving convictions.
- Number of alcohol-related reckless driving convictions.
- Number of hit-and-run convictions.
- Number of major violations involving injury or deaths.
- Number of crashes while license is suspended or revoked.

## Results and Discussion

### Oregon

In Oregon we were able to use the actual VIP Meeting as the critical date that defines the end of the "before" intervention period and the beginning of the "after" intervention period (unlike in the California data base). The matched control subject for each VIP subject was then given a dummy VIP date identical to the VIP

date of his/her treatment group matched subject. The same approach was applied to the No-Show subjects and their control group.

Using this approach it was possible to maximize the duration of both the "before" period and the "after" period by using all DWI-related events occurring in the period 1985-1991. The tradeoff was that this approach yielded unequal "before" and "after" durations. The "before" period was 3-4 years whereas the "after" period was 2-3 years. While increasing the duration of each period maximizes the robustness of the data in each period, it makes before/after comparisons less meaningful. Consequently, to assess the effects of the VIP, comparisons between the treatment and control groups were made by observing both (1) the "after" period only, and (2) the relative odds based on "after"/"before" ratios.

The following discussions of violations prior to the VIP panel exclude the DWI violation that served as reference event for inclusion in the data set (otherwise the rate of prior DWI violations would be 100 percent for all the study subjects). Because it was impossible to affix a VIP date to the remainder of the study sample (those not included in either treatment group and either control group), the analyses were restricted to comparisons among the two treatment and control groups only.

**Statistical Characteristics of the Sample.** The sample characteristics are presented in Table 1 and indicate that the drivers who attended the VIP were very similar to the general population of drivers who were convicted of DWI in that period: their median age was 31 and 82 percent of them were males.

**TABLE 1**  
**Study Sample Characteristics in Oregon**

Measure	No Show	VIP	NS-Control	VIP-Control	All Others
N	295	1350	295	1350	23,545
% Male	84.7	82.1	84.7	82.1	83.2
% 16-25 years old	37.6	25.9	37.6	25.9	21.5

In contrast the drivers who were assigned to the victim panel but did not show up (NS) were somewhat younger (median age was 28 years old) and 85 percent of them were males. More telling, 38% of the drivers who were assigned to the VIP but did not show up were 25 years old or younger compared to only 26% in the group that attended the VIP, and 22% in the total DWI study sample. BACs at time of arrest were not available for the Oregon drivers.

Initial analysis indicated that the VIP group had significantly more violations prior to the VIP meeting than their control group. In the VIP group 30.7 percent of the drivers had prior violations compared to 27.6 percent of the drivers in the control group. In the NS group the corresponding percentages were 35.2 and 28.5. Thus, both control groups had slightly better records than their corresponding groups who were referred to attend the victim panel.

**Impact of the Victim Panel.** For the initial analysis, recidivism was defined in terms of all moving violations and crashes. (In fact, there were very few moving violations that were not DWI-related). The rationale for combining all of these incidents to a single measure of recidivism was to increase the number of events and thereby increase the robustness of the data. The results of the analysis are presented in Table 2. The initial impression is that the VIP had a positive significant effect: recidivism rate for the VIP group was 30.1%, versus 35% for their control group (VIP-C). Furthermore, the effect was even greater when viewed in relationship to the likelihood of crashes and violations before the reference violation: the VIP drivers were more likely to have a previous offense than their matched control group (yielding an after/before ratio of 0.98 versus 1.27 for the VIP-C group). Unfortunately, the same relationships were obtained in the comparisons between the NS and NS-C group, making the relative odds of recidivism of the VIP and the NS group almost identical

(.98/1.27=.772 and .86/1.11=.775). This suggests that the effect is due more to the biasing of who gets referred to the VIP than to the effects of the actual attendance at the panel.

TABLE 2  
Recidivism Levels in Oregon Based on Combining  
All Moving Violations and Crashes

Measure	NS N=295	VIP N=1350	NS-C N=295	VIP-C N=1350	Statistics
% Recidivism	30.5	30.1	31.5	35.0	$\chi^2=7.85, p=.05$
% with Violations+ crashes before VIP*	35.3	30.7	28.5	27.6	$\chi^2=8.04, p=.05$
Ratio: After/Before % w/Viol+crashes	0.86	0.98	1.11	1.27	

\* In addition to the critical DWI that prompted the VIP.

After separating the drivers into four age groups (16–20, 21–25, 26–35, and 36+ years old), recidivism was found to be the highest among the 16–20 years old and diminished with increasing age. For all age groups the percent recidivism was numerically lower for the VIP groups than for the VIP-C groups, but this difference was significant only for the 36+ years old drivers ( $\chi^2=7.97, p=.05$ ). For this group the odds of recidivism of the VIP relative to the VIP-C group were 0.76 (24.7/32.3), while the comparable odds for the NS group were 1.25 (28.6/22.9). These results imply that the victim panel reduced recidivism for this age group by 39% (100-0.76/1.25). The actual contribution of the VIP may have been even greater since before the panel meeting, the percent with previous offenses was higher among the VIP drivers than among their matched VIP-C drivers (28.6% versus 20.0%,  $\chi^2=11.04, p=.05$ ). For the other age groups the differences between the treatment and control groups were not significant, suggesting that the effect cannot be attributed to attending the VIP, but simply to the sampling difference between those drivers referred to the VIP program and those not referred to it.

Focusing specifically on the DWI violations (Table 3), a significant VIP effect was apparent, but only in the first year: the percent of recidivating DWI drivers was lower for the VIP group than for the VIP-C. However, a similar effect was obtained for the NS group, yielding very similar odds for both: 0.72 and 0.82. The similarity between the two groups suggests that the VIP effect may be spurious. By the end of the second year none of the differences between the groups were significant.

A marginally significant difference between the VIP and VIP-C groups was also obtained in the analysis of the percent of drivers with post-VIP crashes. However, for this measure, too, both the VIP group and the NS group had lower post-VIP crash rates than their respective control groups. In fact, the analysis of the relative ratios indicated a greater reduction in percent involved in crashes for the NS group than for the VIP group.

When recidivism was measured in terms of mean number of post-VIP violations and crashes (rather than percent of drivers with one or more incident), the numerical differences between the groups were either statistically non-significant, or inconsistent across measures. Thus, the mean number of crashes after the panel was higher for the VIP-C group than for the VIP group, but the mean number of crashes before the panel was higher for the NS group than the NS-C group. Looking at the after/before ratio, the VIP group performed slightly better than the VIP-C group, but the NS group performed much better than the NS-C group. A similarly inconsistent pattern was obtained in the analysis of the number of violations and/or crashes.

In summary, the analysis of the Oregon data indicates that the VIP had no long-lasting effect when measured in terms of recidivism, with the possible exception of drivers who are over 35 years old.

**TABLE 3**  
**Recidivism Levels in Oregon Based on DWI Violations and Crashes Only**

Measure	NS N=295	VIP N=1350	NS-C N=295	VIP-C N=1350	Statistics
% recidivism: DWI violations	28.2	25.6	27.8	29.2	$\chi^2=4.38, p=.22$
% recidivism: DWI viol 1yr after VIP	14.2	11.4	17.3	15.8	$\chi^2=13.90, p<.01$
Number of DWI viol after VIP	.3458	.3215	.3356	.3548	VIP/C t=-1.41, p=.16 NS/C t= 0.20, p=.84
Number of DWI viol before VIP*	.2373	.2193	.1593	.1133	VIP/C t=4.08, p<.01 NS/C t=1.30, p=.20
Ratio: after/before DWI Violations	1.4572	1.4660	2.1067	3.1315	
Number of viol+ crashes after VIP	.4203	.3948	.4203	.4526	VIP/C t=-2.16, p=.03 NS/C t=0.00, p=1.00
Number of viol+crashes before VIP*	.4949	.3896	.3322	.3015	VIP/C t=3.31, p<.01 NS/C t=2.49, p=.01
Ratio: after/before # of viol+crashes	.845	1.013	1.265	1.500	
Number of viol+crashes 1yr post VIP	.1559	.1267	.1966	.1778	VIP/C t=-3.28, p<.01 NS/C t=-1.15, p=.25
Number of crashes after VIP	.0746	.0711	.0847	.0978	VIP/C t=-2.40, p=.02 NS/C t=-.41, p=.68
Number of crashes before VIP	.2576	.1704	.1729	.1874	VIP/C t=-1.06, p=.29 NS/C t=2.17, p=.03
Ratio: after/before # of crashes	.2896	.4173	.4899	.5219	
% with crashes after VIP	6.4	7.0	7.8	9.3	$\chi^2=5.70, p=.13$
% with crashes before VIP	22.7	15.4	14.9	17.6	$\chi^2=10.03, p=.02$
Ratio: after/before % w/crashes	.282	.455	.523	.528	

\* In addition to the critical DWI that prompted the VIP.

### California

**Statistical Characteristics of the Sample.** Initial data analysis was directed at identifying the characteristics of the two treatment groups (Victim Impact Panel-VIP and No Shows-NS), their matched control groups (VIP-C and NS-C, respectively), and the remaining DWI offenders. These data are summarized in Table 4. Although the control groups were matched by design to have the same age, sex, and previous DWI violations relative to their respective treatment groups, there are statistically significant differences between the VIP and VIP-C groups on the one hand and the NS and NS-C groups on the other. Attendance at the victim panel was greater for women than for men: 36.4% of the men ordered to attend did not show up, compared to 22.1% of the women ( $\chi^2=13.49, p=.0002$ ). The No-Show subjects were younger than the VIP subjects: 45.1% being 25 years old or younger, compared to 30.9% of the VIP subjects who were 25 years old or younger. The median BAC level across all groups was 0.16, median age was 29, and 85.7 percent of the offenders were males.

**TABLE 4**  
**Study Sample Characteristics in California**

Measure	No Show	VIP	NS-Control	VIP-Control	All Others
N	388	742	388	742	31,094
BAC*	.167	.171	.160	.159	.159
% Male**	90.7	82.9	90.7	82.9	85.7
% 16-25 years old	45.1	30.9	45.1	31.1	29.8

\* 50.8% Missing data,  $F(4,16396)=2.33, p=.05$

\*\* $\chi^2 = 13.49, p<.001$ , between VIP and NS group.

For the total study sample of 32,357 DWI offenders, mean 2-year recidivism rate for all convictions was 12.6%, and it was higher for males than for females (13.8% versus 8.2%, respectively,  $\chi^2=123.94, p<.0001$ ). When looking only at DUI-related convictions (DWI, reckless driving, hit-and-run), mean recidivism rate was 6.6% after one year and 11.4% after two years.

A final interesting difference among the groups was in their mean BAC level. The BAC for those ordered to attend the VIP—whether they actually attended or not—was significantly higher than that of their matched control subjects or the total sample. This would suggest a biasing factor in the judges' decision process concerning who should be referred to the VIP.

**Effectiveness of the Victim Impact Panel.** Several different approaches were used to evaluate the effect of the VIP on recidivism. In general, the different analyses failed to show any consistent statistically or practically significant effects. This was true when recidivism was measured in terms of (1) percent of drivers having any DWI-related incidents, (2) percent of drivers convicted specifically on DWI violations, and (3) mean time to recidivate.

**TABLE 5**  
**Recidivism rates for all DWI-related (DWIr) incidents (including DWI, reckless driving, and hit-and-run crashes) in Orange Co., CA\***

Measure	No Show N=388	VIP N=742	NS-C N=388	VIP-C N=742	Others N=31,094	Statistics
% recidivism DWIr	16.8	13.5	15.2	13.4	12.9	$\chi^2=6.55, p=.16^{**}$
% with prev DWIr violations	16.2	27.2	16.0	29.2	20.3	$\chi^2=61.59, p<.001$
Ratio: After/Before DWIr rates	1.04	0.50	0.95	0.46	0.64	

\* Recidivism Rates are for 2 years post VIP.

\*\* For VIP versus VIP-C  $\chi^2=2.09, p=.15$ . For NS versus NS-C,  $\chi^2=0.47, p=.49$

As in the Oregon data, the first measure of recidivism used was the most general measure that could be generated from the data: all DWI-related events, including misdemeanor DWI, felony DWI, reckless driving, hit-and-run crashes, and convictions stemming from injury crashes. A summary of the results is presented in Table 5. Initial examination of the recidivism rates failed to show any significant differences between the VIP group and its control group and between the NS group and its control group: 13.5% of the VIP group recidivated within two years compared to 13.4% of their matched VIP-C group.

Since the treatment groups subjects (VIP and NS) could not be matched with their control subjects on all parameters, there remained a possibility that a VIP effect did exist, but had to be evaluated relative to performance before the VIP. For example, if the recidivism rates of the VIP and VIP-C groups were the same, but the VIP group had more DWI-related violations in their past, then the VIP treatment could be considered effective. To evaluate the relative change in recidivism before and after the VIP, we calculated the percent of drivers who had a DWI-related incident in the two years preceding the violation that triggered the VIP assignment. As can be seen from Table 5, there were large differences among the five groups, but these differences were essentially between the VIP and NS groups (and VIP-C and NS-C groups) and not between each treatment group and its control group. Consequently, the relative odds—based on the ratio of the (percent recidivism/percent with previous DWI-related incidents)—were nearly identical for the VIP and the VIP-C groups (and between the NS and the NS-C groups). The relative after/before odds of recidivism were 0.50 for the VIP group and 0.46 for the VIP-C group.

More focused comparisons by sex and by age also failed to yield significant effects of VIP participation. Recidivism was higher among males than among females and declined with increasing age, but within specific sex and age groups the VIP group did not differ from the VIP-C group.

A final evaluation of the potential impact of VIP on all DWI-related incidents was to look at the temporal function: the time to recidivate from the date of the reference DWI conviction. For the 12.9% who recidivated within two years the mean duration until the next violation was 11.3 months and none of the treatment or their control groups deviated significantly from that mean. Since there was a possibility that the impact of the VIP panel would be greatest immediately after the VIP and dissipate thereafter, the recidivism rates were further inspected on a month-by-month basis. Again, no consistent advantage of the VIP group over its control group was obtained for any period even within the first six months of the reference conviction: DWI recidivism rates were 3.4% for the VIP group versus 3.3% for the VIP-C group, and 4.1% for the NS group versus 5.2% for the NS-C group.

TABLE 6

**Recidivism rates for specific types or combinations of incidents for the five groups in Orange Co., CA. Unless noted otherwise, all rates refer to 2 years post-VIP.**

Measure	No Show N=388	VIP N=742	NS-C N=388	VIP-C N=742	Others N=31,094	Statistics
Months to next DUI (Average)*	11.9	11.9	9.6	11.5	11.5	$F(4,3834)=1.09, p=.36$
Months to next Reckls+Hit/run**	10.2	11.0	19.0	9.6	10.6	$F(4,458)=1.16, p=.33$
% Reckls+hit/run in 1yr	0.8	1.5	0.0	1.2	0.8	$\chi^2=8.10, p=.088$
% Reckls+ hit/run	1.2	2.1	0.8	1.8	1.4	$\chi^2=4.78, p=.311$
% DUI w/ 1yr	9.0	5.9	10.1	6.9	6.6	$\chi^2=10.62, p=.03$
% DUI	16.2	11.5	14.2	11.9	11.4	$\chi^2=10.61, p=.03$
% w/DUI or Rckls crashes	2.6	2.3	2.3	1.5	1.9	$\chi^2=2.63, p=.62$
% w/drink/drug crashes	4.1	3.5	3.9	3.2	3.3	$\chi^2=1.04, p=.90$
% w/misdemeanor DUI	15.5	11.3	14.4	12.0	11.9	$\chi^2=6.71, p=.15$
% w/incidents w sus/rev licen	5.7	3.4	4.1	5.0	4.3	$\chi^2=4.16, p=.39$

\* Calculated only for those who recidivated within 24 months

\*\*Calculated only for those who recidivated within 24 months. Note that sample sizes for the treatment and control groups were very small (5, 16, 3, and 13).

More focused analyses were conducted to evaluate recidivism in terms of specific violations. The results of these analyses are presented in Table 6 for DWI convictions, DWI-misdemeanor convictions, reckless driving and hit-and-run (combined because there were too few of each), crashes involving drinking or drugs, and incidents while driving with suspended or revoked license. None of these analyses yielded statistically significant effects. In the largest category—percent of drivers with repeat DUI convictions—the VIP group had

11.5% recidivism within two years of the reference conviction while the VIP-C group had 11.9%. In all of the other measures, with the lower frequencies the recidivism levels of the treatment groups are also almost identical to their control groups. Other measures available from the data files, such as fatal crashes associated with DUI or reckless driving, injury crashes associated with DUI or reckless driving, felony DUI convictions, alcohol-related reckless convictions, major convictions involving injury or death, and open container violations—were also examined but their frequencies were too low to provide meaningful effects.

One effect that did emerge from the data is the consistent differences between the No-Show sample and the VIP Sample. The drivers who failed to show up for the VIP had a higher DUI recidivism rates than the VIP group drivers (9.0 versus 5.9 after one year, and 16.2 versus 11.3 after two years); but similar recidivism rates to their matched control groups. This means that the difference between the VIP group and the NS group is not due to not attending at the panel, but rather to sampling bias between the drivers who showed up for the VIP panel and those who did not show up for the panel.

Three sources of sampling bias that could account for the differences in recidivism between the VIP group and the NS group could be evaluated in this study. The two most obvious differences between the groups were the age and sex. The No Show drivers were younger and the proportion of males in that group was greater than in the VIP group. This conclusion is supported by the more focused examinations of the differences between the VIP and NS groups when analyzed separately for each gender and each of the age groups. With this control for age and sex effects, the differences were no longer statistically significant. The third potential source of bias was in the judges' referrals to the VIP. Drivers referred to the VIP were more likely to have past DWI convictions than those in the NS group (27.2% versus 16.2%). Consequently, one might argue that the VIP drivers were more hard-core violators than the NS group and therefore harder to affect *a priori*.

One pattern that does emerge from the data is the difference between the No Show sample and the Victim Panel Sample. In both study samples—California and Oregon—the drivers who failed to show up for their assigned panel were younger and had a higher percentage of males. But—at least based on the California data—they did not have significantly higher BACs at the times of their arrest. Together these results suggest that attendance at the VIP had a strong self-selection bias: young males were less likely to attend the VIP than older women. This finding is also consistent with the absence of VIP effects when the drivers were partitioned into the four different age groups.

## General Discussion

This study evaluated the impact of the Victim Impact Panel program on the recidivism of two groups totaling 2,092 drivers arrested for DWI who attended the victim panel. Their post-panel driving records were compared to their driving records before attending the VIP, as well as to the records of 683 drivers who were assigned to attend the panel, but failed to do so.

There are two possible approaches to the evaluation of the VIP: as a treatment and as a program. The difference between the two is that as a treatment, only the VIP subjects constitute the true treatment group. The NS subjects and other two matched groups should then serve as controls in order to isolate the treatment effect. This was the approach taken in this study. The alternative approach—of evaluating the VIP as a program—would have included both the VIP and the NS groups as a single treatment group, since they were all assigned to the VIP program as far as the adjudication process was concerned. This approach is more likely to be relevant to an administrative agency since it is the total program (including the program violators) that needs evaluation. The former approach was chosen here simply because it is methodologically "purer". Had the program effects on those actually attending the victim panel been significant and systematic, then it would be worthwhile to combine the two groups and reevaluate the program's—rather than treatment's—significance. Since the strict treatment (i.e., attending the VIP) was not found to be consistently effective, there is no rationale in pursuing the analyses at the program level.

Comparisons in rates of recidivism are often difficult due to different definitions, time spans, and—most importantly—the countermeasure program in whose context they were measured. Still, the rates observed here for the victim panel participants, for those who failed to show up for the panel meetings, and for their respective control groups were among the higher of those noted in other studies in the U.S (Donovan et al., 1990; Peck, 1991; Preusser et al., 1988; Tashima et al., 1993), Canada (Vingilis et al., 1990) and Europe (Nickel, 1990).

This may be due to a high proportion of repeat offenders. Unfortunately, the sample was not large enough to examine separately first-time offenders and repeat offenders.

The general pattern that emerges from these data is that the victim panel does not have a long-lasting measurable behavioral effect on drinking and driving. The analyses failed to demonstrate any consistent effects, either when all violations and crashes were pooled together (to provide a larger sample) or when they focused on specific kinds of offenses and crashes.

Some statistically significant differences between the recidivism levels of those who attended the panel and their age/sex matched control groups were obtained in this study. However, similar differences were obtained between the drivers who did not show up for their assigned VIP and their matched control groups. The additional information that was available in this study on the No-Shows and their control groups can also account for the differences between O'Laughlin's study and the present one. In both studies the Oregon data yielded a significant VIP effect relative to the matched VIP-C group. However, using the double control—percent of VIP and VIP-C drivers with previous violations and the recidivism of the NS group relative to their matched NS-C group—it was shown that the significant differences between the VIP group and their matched controls could not be attributed to the experience of attending the panel.

One pattern that does emerge from the data is the difference between the No Show sample and the Victim Panel Sample. In both study samples—California and Oregon—the drivers who failed to show up for their assigned panel were younger and had a higher percentage of males. But—at least based on the California data—they did not have significantly higher BACs at the times of their arrest. Together these results suggest that attendance at the VIP had a strong self-selection bias: young males were less likely to attend the VIP than older women. This finding is also consistent with the absence of VIP effects when the drivers were partitioned into the four different age groups.

Still, there was one positive effect of the VIP. The recidivism rate for all DWI-related violations and crashes was lower for the VIP drivers who were 35+ years old. This effect was statistically significant in the Oregon data, but failed to reach statistical significance in the California data. Since the effect was obtained after the control for age, it may reflect a true impact of the VIP. Are mature people more likely to be influenced by a one-time concrete emotional appeal such as that used in the VIP? Thus, for future evaluations (or even implementations) of the victim panel it may be fruitful to focus on the more mature drivers.

There are three theory-based explanations why we failed to find a significant effect of VIP on recidivism. The first is that the emotional appeal—as strong as it may be—is a one-time event while the behavior that it is attempting to modify is probably a long-lasting pattern spanning many driving hours and circumstances. The second explanation is that from a behavior modification perspective, the effectiveness of a reinforcement (including a negative reinforcement) is maximal when it immediately follows the behavior it attempts to modify and it diminishes exponentially over time. In the case of VIP the encounter is separated from the arrest by several months. In the context of DWI recidivism, Sandowsky (1989) found that both sanctions and treatment programs are more effective the less the time lag between the offense and the sanction or treatment. Finally, since most drivers referred to the VIP were arrested for a moving violation rather than a crash, these drivers may still rationalize that "this" (i.e., crash) couldn't happen to them. They were just "unlucky" to be stopped without being "truly" impaired, and therefore the whole VIP encounter—as emotionally moving as it is—is irrelevant to them. In fact, such denial of relevance was expressly stated by some first-time offenders and all repeat offenders who were interviewed as part of a small-scale qualitative evaluation of a Canadian VIP program (Harris, 1993).

There are also several methodological difficulties encountered in this study that could explain why this study failed to find strong and consistent effects of the VIP. These reasons include:

- (1) Self-selection between those who actually attend the VIP versus those who are assigned to it but do not attend. In both states the No Show drivers were younger and the proportion of males in that group was greater than in the VIP group. Since both youth and masculinity are associated with high-risk driving, those who attended the VIP had an *a priori* greater likelihood of lower recidivism rates than those who were assigned to it but chose not to attend.
- (2) Sampling biases introduced by the judges when they decide who to refer to the VIP and who not to refer to it. Anecdotal data based on discussions with VIP coordinators indicate that judges

exercise discretion—which methodologically is the same as bias—in deciding who to refer and who not to refer to the VIP. Because the referral to VIP was not a mandatory part of any state penal code, the decision was subjective and not bound by consistent guidelines.

- (3) Methodological difficulties in actually separating those who were assigned and attended the VIP versus those who were either not assigned to it at all or assigned but did not attend. Separating the VIP drivers from their control drivers was a complicated task due to incomplete records on VIP attendance, NS drivers could have in fact attended the VIP later (after 1989) or in a different state (or different county in California), and VIP attendees whose names could not be matched against the driver records files may have appeared in the driver records under different names.
- (4) A VIP effect that is small enough to be within the error of measurement of the empirical study. When the expected effect of a treatment is small, it can be masked by "noisy" data. When the recidivism rates are already relatively low, the program has to be extremely effective to be statistically significant (Klajner et al., 1984).
- (5) The selection of the matching groups does not take account of the VIP attendees' *a priori* tendency for compliance (which is why they actually attended the VIP) and the NS subjects' tendency for non-compliance (which is why they didn't attend). This bias would tend to make the VIP appear more effective than it is, relative to the VIP-C group, and make the NS group appear worse than the NS-C group. Furthermore, such an attitudinal difference between the VIP and NS groups would also make the latter worse regardless of the actual program's effect.
- (6) The NS group may have a greater proportion of drivers who have died or moved out of the state (or county, in the case of California) than the other groups.

## Conclusions and Recommendations

Based on the results obtained in this study, there is no measurable and consistent impact of VIP on recidivism. The only reduction in recidivism was obtained for males over 35 years old, and even that effect was only found in the Oregon data.

The discussion of these results raised both theoretical and analytical reasons why the VIP in its present format does not yield any observable statistically significant reductions in recidivism. The theoretical reasons are associated with the implementation of the VIP (one-time event, with a long delay after arrest, and possibilities for denial of relevance), while the analytical reasons are associated with the nature of the measure of recidivism (rare events, with a large component of randomness in arrests) and limits on the control of the study design (e.g., incomplete matching of the VIP group with an appropriate control group).

The Victim Impact Panel may still be a viable theoretical concept. But to be effective it should probably be more focused and consist of more than one single meeting.

To make it effective the VIP should be directed towards a more narrowly defined target population. Based on our data, the people that are most likely to benefit from it are mature adults. Although this study did not have data on drinking habits, it is also possible that habitual drinkers, despite their best intentions (based on their testimonials at the end of VIP meetings), may still be unable to exercise the necessary self-control to avoid drinking and driving. After all, these drivers have already failed to cease from their habitual drinking. The merits of this approach are reinforced by the positive effects that have been obtained for longer group therapy treatment programs administered to drivers without prior criminal record: i.e., continued exposure to treatment for those not yet "set" in their habits (Nochajski et al., 1993).

Another way to focus the VIP would be to consider the match between the offenders and the panelists. As presently conducted, the same panelists in a given jurisdiction present their same personal experiences to an audience whose only commonality is that they were all arrested for DWI. The VIP's effectiveness is more likely to increase the closer the match between the panelists and their presentations on the one hand, and the offenders and their violation on the other hand. To this end it is useful to provide for an appropriate role model in the

panel. A role model can be someone the offenders can identify with such as a reformed DWI offender (as used in Orange County, California), or someone the offenders would like to emulate who is perceived as an opinion leader (as used in sports equipment commercials). Identification can also be attained by ensuring similarity between the victims of the past DWI and the attending offenders. For example, a teenager is more likely to be influenced by an exposure to an incident involving a teenager, whereas an older experienced driver may likely to be influenced by an incident involving someone of a similar age and experience.

To make the impact of VIP long lasting it may be necessary to make it a recurring experience, with greater commitments to change on the part of the offenders. DWI offenders who are apprehended probably engage in this behavior fairly often, to the point where it can be defined as a habit. To counter a habit, a recurring counter-conditioning is necessary. The regular periodic meetings of Weight Watchers is testimony to the effectiveness of this approach (though it must be acknowledged that attendance is voluntary and the attendees want to change).

In summary, the victim impact panel is not a very effective tool to modify behavior of all DWI offenders. However, if it were selectively targeted toward the audience most likely to benefit from it—e.g., first time offenders over 35 years old—and if it were to be intensified and prolonged beyond a one-time experience, then its behavioral impact might become sufficiently large to be measurable.

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