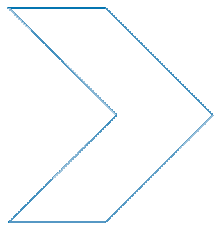


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## The crash and offence experience of drivers eligible for the South Australian Driver Intervention Program

CN Kloeden, TP Hutchinson

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CASR REPORT SERIES

CASR022

August 2006



# Report documentation

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REPORT NO.	DATE	PAGES	ISBN	ISSN
CASR022	August 2006	25	1 920947 20 5	1449-2237

## TITLE

The crash and offence experience of drivers eligible for the South Australian Driver Intervention Program

## AUTHORS

CN Kloeden, TP Hutchinson

## PERFORMING ORGANISATION

Centre for Automotive Safety Research  
The University of Adelaide  
South Australia 5005  
AUSTRALIA

## SPONSORED BY

Department for Transport, Energy and Infrastructure  
Post Office Box 1  
Walkerville SA 5081  
AUSTRALIA

## AVAILABLE FROM

Centre for Automotive Safety Research  
<http://casr.adelaide.edu.au/reports>

## ABSTRACT

This report compares the crash and driving offence experience of two groups of offending drivers: those attending the Driver Intervention Program (DIP, a small-group workshop for disqualified L- or P-plate drivers), and those who could have attended the DIP but chose not to and paid an expiation fee instead; both before and after they became eligible for the DIP. Concerning crashes, the DIP group did not have a statistically significantly different rate from the Expiation group. Concerning moving offences (such as speeding), the DIP group had a statistically significantly lower rate than the Expiation group. Concerning administrative offences (such as driving without a licence), the DIP group had a statistically significant and much lower rate than the Expiation group. The fact that drivers themselves chose whether to attend the DIP or pay an expiation fee means that any differences found could not be ascribed solely to the DIP: pre-existing differences in the sex, age and offending rates were found. No comment could be made on the effect of the DIP on offences. It does seem unlikely that the DIP results in a large reduction in crash rate among its attendees. However, given that the DIP is a cheap measure and that the current study could not show that it is not having an effect large enough to justify this small cost, there is no reason in this study for its discontinuation. In the Discussion a true randomised experiment is described that would, if conducted, be expected to detect if the DIP program has a substantial impact.

## KEYWORDS

Young driver, Offence, Accident, Driver characteristics, Driver retraining

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## Summary

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The Driver Intervention Program (DIP) is a 90-minute interactive, small-group workshop for disqualified L- or P-plate drivers, aged 25 and under, living in Adelaide and in some rural centres close to Adelaide. The present report compares the crash and driving offence experience of two groups of offending drivers: those attending the DIP, and those who could have attended the DIP but chose not to and pay an expiation fee instead; both before and after they became eligible for the DIP.

Concerning crashes, the DIP group did not have a statistically significantly different rate from the Expiation group. Concerning moving offences (such as speeding or making an illegal manoeuvre), the DIP group had a statistically significantly lower rate than the Expiation group. Concerning administrative offences (such as driving without using a seatbelt or without carrying a licence), the DIP group had a statistically significant and much lower rate than the Expiation group.

The fact that drivers themselves chose whether to attend the DIP or pay an expiation fee means that any differences found cannot be ascribed solely to the DIP: there could be pre-existing differences between those who do attend the DIP and those who do not. Indeed, pre-existing differences in the sex, age and offending rates were found. We cannot, therefore, meaningfully comment on the effect of the DIP on offences.

It does seem unlikely to us that the DIP results in a large reduction in crash rate among its attendees. However, given that the DIP is a cheap measure and that the current study cannot show that it is not having an effect large enough to justify this small cost, we see no reason here for its discontinuation.

In the Discussion we point out that a true randomised experiment could be conducted that would be expected to detect if the DIP program has a substantial impact.

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# 1 Introduction

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The Driver Intervention Program (DIP) is a 90-minute interactive, small-group workshop for disqualified L- or P-plate drivers, aged 25 and under, living in Adelaide and in some rural centres close to Adelaide. The program and some characteristics of drivers attending have been examined in a separate Report (Wundersitz and Hutchinson, 2005).

The present report will compare the crash and driving offence experience of two groups of offending drivers: those attending the DIP, and those who could have attended the DIP but chose not to and pay an expiation fee instead. Section 2 will describe the DIP process. Section 3 compares the sex-age profile of the DIP and Expiation groups of drivers. Sections 4 and 5 report the main results, comparing these groups in respect of crashes and driving offences. Section 6 discusses how the results should be interpreted. It includes some cautions about possible misinterpretations and a suggested true experimental design for a future study.

An important point to bear in mind throughout is that no experiment was performed, randomly allocating offending drivers to the DIP or Expiation groups - the drivers themselves chose whether or not to attend the DIP. It is quite possible that the decision whether to attend or not is affected by factors (geographical, social, psychological, and so on) that also affect the likelihood of crashing or committing a driving offence. The results will therefore be inconclusive: if a difference between the DIP and Expiation groups were to be found, it could be said that the cause was not attendance at the DIP but instead was to be found among the pre-existing differences between the groups. (See Hutchinson and Meier, 2004, for discussion of the place of randomised experimentation in road safety research.)

## 2 The DIP process

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This Section outlines the process from when a driver commits an offence until he or she takes the DIP, or time runs out. The process is obviously of general relevance to the present report. The specific reason for going into detail is that whereas offending drivers who did the DIP did so at a particular time, there is no analogous moment of time for those who did not do the DIP. The moment chosen to anchor the data analysis is when a Notice to Attend was sent (step 5 below).

It is convenient to describe the process as having six steps. They are as listed below, along with some notes.

1. The L-plate or P-plate driver commits any of several offences. (These are: no L or P plate displayed; not carrying licence; any drink driving offence; any speeding offence; accumulating 4 or more demerit points; or a court-imposed licence disqualification. Speeding is the most common of these.)
2. The driver gets an expiation notice from the police. Depending on the offence, the driver may still be able to drive. The driver has 30 days to pay the expiation fee or dispute the offence.
3. After payment of the fee (or resolution of the court process), the police notify Motor Registration of the offence.
4. Motor Registration issue a disqualification notice to the driver. This can be appealed (and often is) but a successful appeal against this penalty does not remove the onus on the driver to participate in the DIP. Motor Registration pass information about the driver to the DIP coordinator.
5. The DIP coordinator sends a Notice to Attend (see Appendix A) if the offending driver satisfies certain conditions. These are that the driver is aged 16-25, lives within 50 km of a DIP centre (technically, offending drivers who live within 100 km are required to attend the DIP), and has not attended the DIP previously (the driver may have been offered the DIP before but chose to pay an expiation fee rather than attend).
6. The Notice to Attend instructs the offending driver to pay \$32 and then book in to the DIP (within 6 months of the date of the Notice). If the offending driver does not do this, there is a \$74 expiation fee payable after 6 months with 28 days to pay. From the date of booking to the date of participating in the DIP is typically a few weeks.

Thus there is a self-selected group of offending drivers who take the DIP roughly six months after their offence, and another self-selected group who pay an expiation fee instead. Concerning offending drivers otherwise eligible to do the DIP but living too far from a DIP centre, no record is kept of these other than a gross count. Thus no comparison is possible of these drivers with those who do live sufficiently close to a centre.

There are a few drivers who are exceptions. These appear in the records as either inactive or withdrawn. The inactive group include drivers who are overseas or in the armed forces; these continue with the DIP process when they return. The withdrawn group are small in number; they are cases where some mistake occurred, and no attendance at the DIP is required.

The DIP coordinator issues follow up notices: a reminder notice (see Appendix B) if the driver has not booked in to the DIP after three months, another reminder notice (see Appendix C) 30 days before the six month deadline expires, and an expiation notice (see Appendix D) after six months.

### 3 The driver sample

In order to obtain a sample of drivers for analysis, information on all drivers who were eligible for attendance at the DIP and who were sent their first Notice to Attend in either 2001 or 2002 was extracted from the DIP database maintained by the Department for Transport, Energy and Infrastructure (DTEI). All these drivers had a choice of attending a DIP session or paying an expiation fee. Inactive or withdrawn drivers were excluded. Their licence numbers were used to match to other databases to determine their crash and offence records as detailed in the relevant Sections below.

A few of these drivers committed offences leading to a first Notice to Attend letter being sent more than once during the time period examined (3.4% of the drivers had two letters sent and 0.1% had three). While there are a number of possible ways of handling these drivers, none is wholly satisfactory. The method chosen here was to treat each instance of a driver receiving a first Notice to Attend letter as a separate case.

Table 3.1 shows these drivers by their age when their first Notice to Attend was sent and their choice of the DIP or Expiation (there was one driver who was 25 years old when they committed their offence but 26 years old when the first Notice to Attend was sent). Overall the majority of drivers (70%) chose to attend the DIP with a trend for older drivers to be less likely to choose the DIP.

**Table 3.1**  
**Age and choice of DIP for all drivers in the sample**

Age	DIP	Expiation	% DIP
16	230	32	88
17	1198	267	82
18	1599	541	75
19	513	321	62
20	110	169	39
21	92	111	45
22	55	79	41
23	51	71	42
24	31	55	36
25	11	15	42
26	0	1	0
<b>Total</b>	<b>3890</b>	<b>1662</b>	<b>70</b>

Tables 3.2 and 3.3 show the choice of the DIP or Expiation by age for males and females respectively. Both groups show a similar age trend for the DIP preference with females being slightly more likely to choose the DIP overall.

**Table 3.2**  
**Age and choice of DIP for male drivers in the sample**

Age	DIP	Expiation	% DIP
16	200	27	88
17	1025	233	81
18	1287	448	74
19	411	283	59
20	85	151	36
21	77	99	44
22	46	67	41
23	42	64	40
24	26	52	33
25	10	12	45
26	0	1	0
<b>Total</b>	<b>3209</b>	<b>1437</b>	<b>69</b>

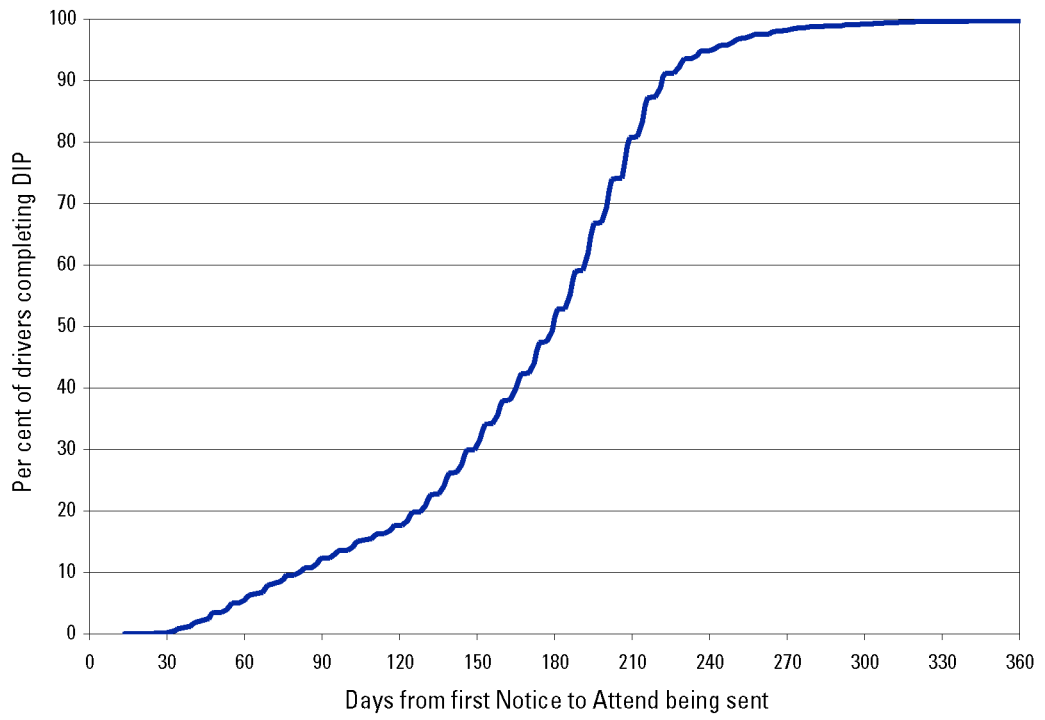
**Table 3.3**  
**Age and choice of DIP for female drivers in the sample**

Age	DIP	Expiation	% DIP
16	30	5	86
17	173	34	84
18	312	93	77
19	102	38	73
20	25	18	58
21	15	12	56
22	9	12	43
23	9	7	56
24	5	3	63
25	1	3	25
26	0	0	-
<b>Total</b>	<b>681</b>	<b>225</b>	<b>75</b>

For the drivers who did attend the DIP, the distribution of the time between the first Notice to Attend being sent out and the DIP session being completed is shown in Figure 3.1. It is apparent that: very few drivers completed their DIP session in the first month after the Notice to Attend was sent out; about half of the group had completed their DIP session in the first six months; the peak rate of completion of DIP sessions was in the month after the six month period was up; and virtually all had completed their session within one year.



Figure 3.1  
Cumulative per cent of the DIP drivers having completed their DIP session  
in the given number of days after their first Notice to Attend was sent out



## 4 Crash experience

There will be two major sets of results. The present Section will compare the crash experience of the DIP group with the Expiation group of drivers, and Section 5 will compare the offences committed. As said in the Introduction, the drivers themselves chose which group they were in. Thus any differences in crash or other performance could be related to differences between the groups that have nothing to do with attendance or non-attendance at the DIP. This is not merely a theoretical possibility: we will demonstrate that differences between the groups existed before they became eligible for the DIP.

Since the Expiation group did not attend a DIP session, the date of attendance cannot be used as a reference date for comparing crash experience. Instead, as noted previously, it was decided to use the date of sending the first Notice to Attend as a common reference date for both the DIP and Expiation groups.

The licence numbers of the drivers from both the DIP and Expiation groups were matched against the Traffic Accident Reporting System (TARS) database (a register of crashes in South Australia based on police reports and maintained by DTEI). Details of crashes for 18 months before and 30 months after the date of the first Notice to Attend were extracted.

Crash rates are known to vary greatly with the age and sex of drivers and some age and sex differences were observed in choice of the DIP or Expiation. Therefore, some correction should be made for this when comparing crash rates. Results will be expressed in two ways. First, the rates for individual sex-age groups in the Expiation group were weighted according to the corresponding numbers in the sex-age groups in the DIP group to obtain a corrected rate for the Expiation group. Second, a logistic regression was performed to determine if being in the Expiation group rather than the DIP group was associated with a different risk of crashing, controlling for the sex-age combinations. Drivers aged 16 and 17 were grouped together, and drivers aged 20 or more were grouped together in the above analyses.

### 4.1 Involvement in a crash

Tables 4.1 to 4.3 report driver involvement in crashes that involved a casualty or total crash damage of \$3,000 or greater. Several time periods are considered: the results of most interest are those after the first Notice to Attend was sent (Tables 4.2 and 4.3), but those referring to periods before the first Notice to Attend was sent (Table 4.1) throw light on whether there are pre-existing differences between the DIP and Expiation groups of drivers. Percentages for the Expiation group are shown both raw and corrected to the same sex and age composition as the DIP group. A logistic regression was carried out with crash occurrence as the dependent variable and group (DIP or Expiation) and sex-age combination as predictors. The odds ratio relevant to group and its p value for each time period are included in the Tables. (The usual standard for a result being considered statistically significant is if the p value is 0.05 or less).

**Table 4.1**  
Per cent of group involved in a crash in the given time period  
before the first Notice to Attend was sent

Group	Per cent involved in a crash in the given number of months before the first Notice to Attend was sent		
	13-18	7-12	1-6
DIP	4.24	6.48	8.87
Expiation	4.99	6.14	10.41
Expiation (corrected for sex and age)	5.39	6.22	10.97
Logistic regression DIP odds ratio	0.803	1.010	0.793
Logistic regression DIP p value	0.126	0.938	0.025

**Table 4.2**  
Per cent of group involved in a crash in the given time period  
after the first Notice to Attend was sent

Group	Per cent involved in a crash in the given number of months after the first Notice to Attend was sent				
	1-6	7-12	13-18	19-24	25-30
DIP	5.81	5.37	5.24	5.01	4.68
Expiation	5.78	4.21	4.69	5.11	4.03
Expiation (corrected for sex and age)	6.66	4.36	5.22	5.55	4.19
Logistic regression DIP odds ratio	0.835	1.192	0.976	0.912	1.129
Logistic regression DIP p value	0.168	0.236	0.863	0.507	0.430

**Table 4.3**  
Per cent of group involved in a crash in the given time period  
after the first Notice to Attend was sent

Group	Per cent involved in a crash in the given number of months after the first Notice to Attend was sent	
	7-30	13-30
DIP	18.69	14.19
Expiation	16.61	13.36
Expiation (corrected for sex and age)	17.55	14.41
Logistic regression DIP odds ratio	1.059	0.982
Logistic regression DIP p value	0.483	0.844

The DIP and corrected Expiation crash involvement percentages from Tables 4.1 and 4.2 are presented graphically in Figure 4.1.

There are some caveats on interpreting these percentages:

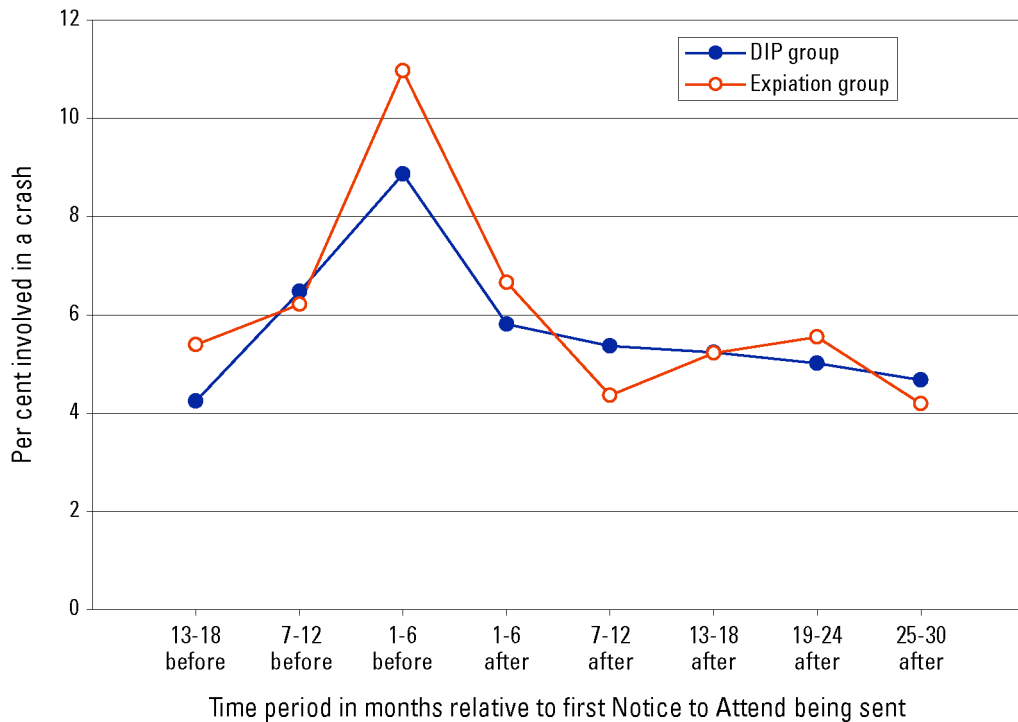
- The low level of crash involvement in the 13-18 month before period is presumably due to a significant proportion of drivers who had not obtained a licence at this point in time.
- The high level of crash involvement in the 1-6 month before period is presumably due to some of the offences that led to drivers entering the DIP system being associated with a crash.
- The rates in the 1-6 month after period might be considered surprisingly high, considering that these drivers were all facing disqualification from driving; our understanding is that many of them appeal successfully against this.

For time periods after the first Notice to Attend was sent, there is no statistically significant difference between the DIP and Expiation groups. Thus choosing to do the DIP or paying the expiation fee does not have a strong association with future crash experience. The only statistically significant difference between the two groups is in the six months prior to the first Notice to Attend being sent, where the Expiation group were more likely to have been involved in a crash. This is the period in which most of the drivers committed the offence(s) which triggered a first Notice to Attend being sent to them. One possibility is that the Expiation group were more likely to enter the system based on an offence related to being involved in a crash.

For comparison, the crash involvement rate for all L- and P-plate drivers (i.e., chiefly those who did not commit an offence) may be of interest. It is not straightforward to get an appropriate figure: for example, the results above refer to drivers living within 50 km of a DIP centre, but such a restriction cannot be imposed on the crash dataset as a whole. What we did was to select all drivers who were on an L or P plate on 1 January 2002 and determine their crash involvement rate by age and sex group for the following six month period. (A few drivers, such as those who held an L or P plate for a relatively long period,

were not included.) Crashes were restricted to those involving a casualty or total property damage of \$3,000 or greater, and ages were grouped as 16-17, 18, 19, 20-25, as previously. These rates were then applied to the sex-age profile of the DIP group. The procedure was repeated for the reference date of 1 July 2002, to allow for seasonal effects on crash involvement rates, and the two resulting rates averaged. The result was a baseline crash involved percentage of 3.9. Thus both the DIP and Expiation groups had higher crash involvement rates than the population of L- and P-plate drivers as a whole. Note that this refers to rate per unit time, not necessarily to rate per kilometre driven.

**Figure 4.1**  
**Crash involvement during various six month intervals relative to the first Notice to Attend being sent:**  
**Comparison of the DIP and Expiation groups, the latter being corrected for sex and age differences**  
 (see text for caveats on interpreting the data points)



## 4.2 Other crash measures

We have also examined other measures of crash involvement, including being responsible for a crash, being involved in a casualty crash, and being responsible for a casualty crash. All these analyses produced essentially the same results as seen above for involvement in a crash with the exception that the difference between the DIP and Expiation groups in the six months before the first Notice to Attend was not statistically significant (although the difference was always in the same direction).

## 4.3 Appropriate time period

It is not clear which time period is most appropriate for assessing the DIP. Too short a time period, and only a fraction of participants have taken the DIP. Too long a time period, and any beneficial effect may have faded away.

If the DIP did appear to have an effect, one might attempt to adjust for the proportion of participants who have taken the DIP by a certain date. However, the fact that in Figure 4.1 the DIP appears to have a beneficial effect in the 1-6 month after period and a detrimental effect in the 7-12 month after period means that such an adjustment would not affect the message: any effect of the DIP is too small to be detected with the data we have over any of the time periods examined. See Section 6.3 for further discussion of this.

## 5 Offence experience

We now turn to comparing the driving offence experience of the DIP group with the Expiation group of drivers. The methods used were similar to those for crashes in Section 4, and the reservations about conclusions that were noted there apply here also.

The licence numbers of the drivers from both the DIP and Expiation groups were matched against a pre-existing extract of drivers and their offences obtained from Motor Registration. Due to limitations in this extract, only offences committed from 12 months before to 18 months after the first Notice to Attend was sent could be explored. We were also limited to drivers who obtained a P-plate from 1995 to 2003. This excluded analysis of some of the older drivers and of drivers who committed offences on an L-plate and did not go on to get a P-plate before the end of 2003. The effect of this was to reduce the sample from 5552 drivers to 5316 drivers (a 4.3% reduction in numbers): 9.1% of the Expiation group were lost and 2.2% of the DIP group, leaving 1662 in the Expiation group and 3806 in the DIP group.

Section 5.1 will consider all driving offences. Sections 5.2 and 5.3 will respectively consider moving and administrative offences separately.

### 5.1 All offences

Results are given in Tables 5.1 and 5.2 concerning the percentage of drivers who committed at least one offence of any kind over various time periods. Percentages for the Expiation group are shown both raw and corrected to the same sex and age composition as the DIP group. A logistic regression was carried out with offence occurrence as the dependent variable and group (DIP or Expiation) and sex-age combination as predictors. The odds ratio relevant to group and its p value for each time period are included in the Tables.

**Table 5.1**  
Per cent of group committing any offence in the given time period before the first Notice to Attend was sent

Group	Per cent committing any offence in the given number of months before the first Notice to Attend was sent	
	7-12	1-6
DIP	19.08	95.45
Expiation	27.81	94.83
Expiation (corrected for sex and age)	24.92	96.10
Logistic regression DIP odds ratio	0.726	0.875
Logistic regression DIP p value	0.000	0.365

**Table 5.2**  
Per cent of group committing any offence in the given time period after the first Notice to Attend was sent

Group	Per cent committing any offence in the given number of months after the first Notice to Attend was sent		
	1-6	7-12	13-18
DIP	18.34	21.15	23.25
Expiation	31.66	28.68	31.32
Expiation (corrected for sex and age)	31.97	29.62	31.42
Logistic regression DIP odds ratio	0.474	0.680	0.676
Logistic regression DIP p value	0.000	0.000	0.000

The DIP and corrected Expiation offence percentages from Tables 5.1 and 5.2 are presented graphically in Figure 5.1.

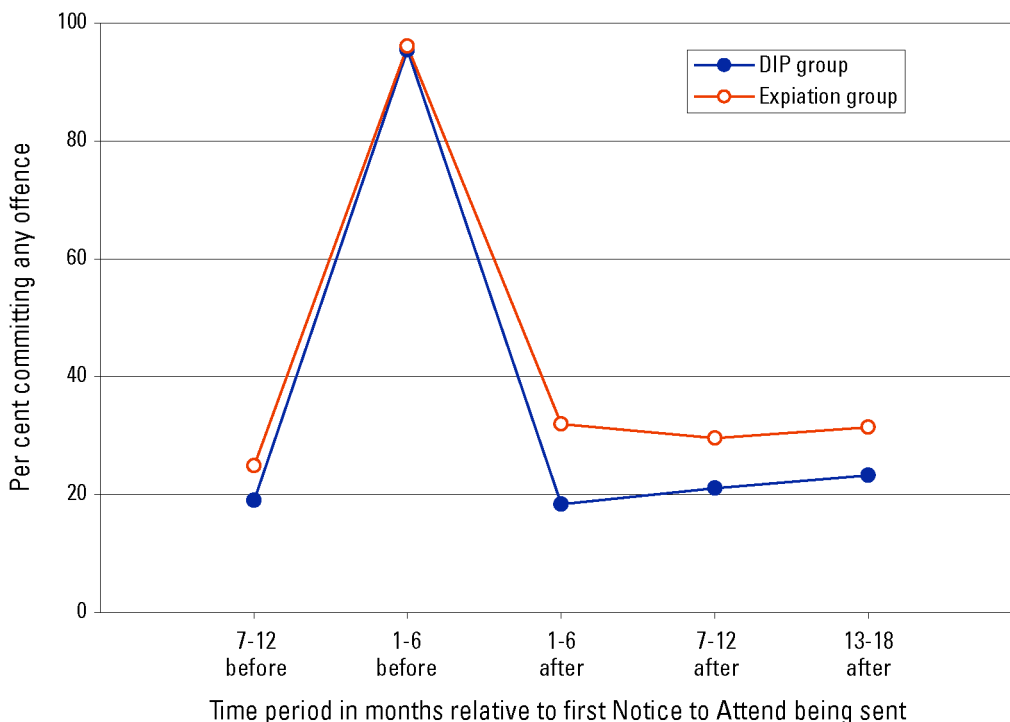
There are some caveats on interpreting these percentages:

- The low level of offences in the 7-12 month before period is presumably due to a significant proportion of drivers who had not obtained a licence at this point in time.
- Results for the six month period prior to the first Notice to Attend being sent out are not of much interest: committing an offence was the reason these drivers entered the DIP system, and it is not surprising that this nearly always happened in this time period.
- The rates in the 1-6 month after period might be considered surprisingly high, considering that these drivers were all facing disqualification from driving; our understanding is that many of them appeal successfully against this.

The results of most interest are those after the first Notice to Attend was sent (Table 5.2). Committing an offence was appreciably more common in the Expiation group than in the DIP group, and this difference was statistically significant.

Concerning the 7-12 months before period, committing an offence was more common in the Expiation group, to a statistically significant extent. However, it is not clear that the difference in this period arose for the same reasons as the differences in the after periods: the entry process into the DIP system may also have been a relevant factor.

**Figure 5.1**  
Offence rate during various six month intervals relative to the first Notice to Attend being sent: Comparison of the DIP and Expiation groups, the latter being corrected for sex and age differences (see text for caveats on interpreting the data points)



A baseline offence rate for all L- and P-plate drivers was obtained by selecting all drivers who were on an L or P plate on 1 January 2002. (A few drivers, such as those who held an L or P plate for a relatively long period, were not included.) Their offence rate by age and sex group was determined for the following six month period. These rates were then applied to the sex-age profile of the DIP group. The procedure was repeated for the reference date of 1 July 2002, to allow for seasonal effects in offence rates, and the two resulting rates were averaged. The result was a baseline crash involved percentage of 11.5. Thus both the DIP and Expiation groups had higher offence rates than the population of L- and P-plate drivers

as a whole. As in Section 4, note that this refers to rate per unit time, not necessarily to rate per kilometre driven.

## 5.2 Moving offences

Moving offences are those such as speeding, drink driving, performing an illegal manoeuvre, or disobeying signs or traffic signals. These behaviours are known to directly increase crash risk.

Tables 5.3 and 5.4 give the percentages of drivers who committed at least one moving offence over various time periods. The Expiation group percentages are presented both in raw form and corrected to the same sex and age composition as the DIP group. A logistic regression was carried out with moving offence occurrence as the dependent variable and group (DIP or Expiation) and sex-age combination as predictors. The odds ratio relevant to group and its p value for each time period are included in the Tables.

**Table 5.3**  
Per cent of group committing a moving offence in the given time period before the first Notice to Attend was sent

Group	Per cent committing a moving offence in the given number of months before the first Notice to Attend was sent	
	7-12	1-6
DIP	15.48	72.04
Expiation	20.07	68.41
Expiation (corrected for sex and age)	18.29	70.13
Logistic regression DIP odds ratio	0.838	1.055
Logistic regression DIP p value	0.034	0.447

**Table 5.4**  
Per cent of group committing a moving offence in the given time period after the first Notice to Attend was sent

Group	Per cent committing a moving offence in the given number of months after the first Notice to Attend was sent		
	1-6	7-12	13-18
DIP	13.98	16.89	18.81
Expiation	20.73	18.34	23.31
Expiation (corrected for sex and age)	21.43	19.19	23.57
Logistic regression DIP odds ratio	0.601	0.922	0.755
Logistic regression DIP p value	0.000	0.330	0.000

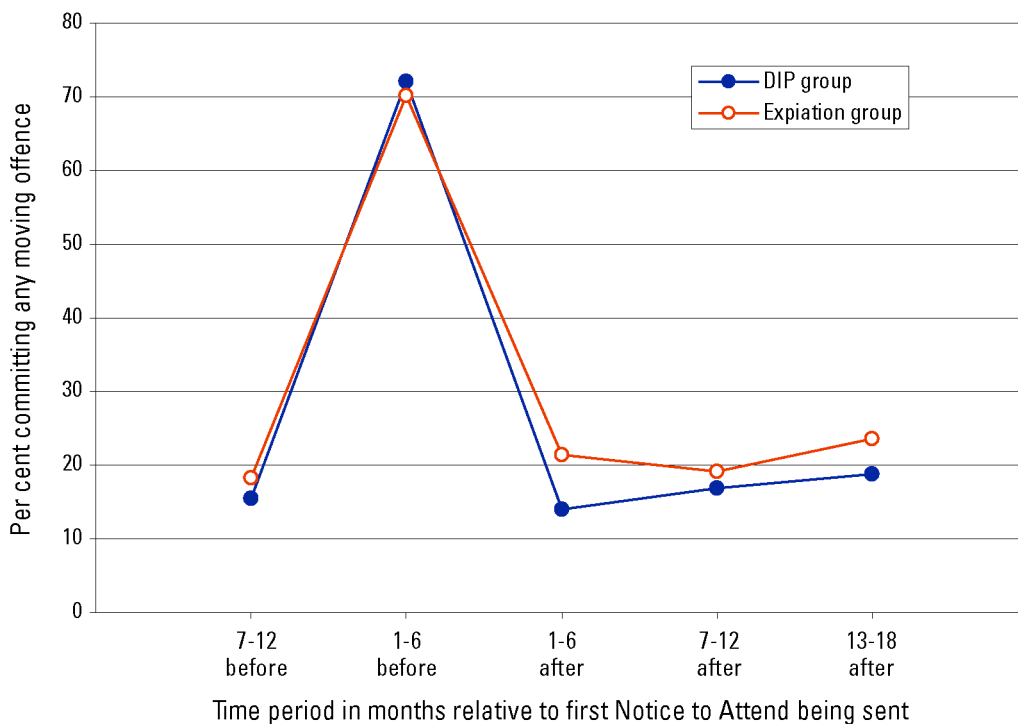
The DIP and corrected Expiation moving offence percentages from Tables 5.3 and 5.4 are presented graphically in Figure 5.2.

The results of most interest are those after the first Notice to Attend was sent (Table 5.4). Committing a moving offence was more common in the Expiation group than in the DIP group, and this difference was statistically significant in the 1-6 and 13-18 month periods.

Concerning the 7-12 months before period, committing a moving offence was more common in the Expiation group, to a statistically significant extent.

A baseline moving offence rate for all L- and P-plate drivers was obtained as for total offences (Section 5.1). The result was a baseline crash involved percentage of 9.0. Clearly both the DIP and Expiation groups had higher moving offence rates than L- and P-plate drivers as a whole.

Figure 5.2  
 Moving offence rate during various six month intervals relative to the first Notice to Attend being sent:  
 Comparison of the DIP and Expiation groups, the latter being corrected for sex and age differences  
 (see text in Section 5.1 for caveats on interpreting the data points)



### 5.3 Administrative offences

Administrative offences are those such as not using a seat belt, unlicensed driving, failing to carry a licence, or driving an unregistered vehicle. They have a less immediate connection with crash risk than do moving offences. They suggest an unwillingness or inability to correctly handle bureaucratic procedures, or even a disdain for authority.

Tables 5.5 and 5.6 give the percentages of drivers who committed at least one administrative offence over various time periods. The Expiation group percentages are presented both in raw form and corrected to the same sex and age composition as the DIP group. A logistic regression was carried out with administrative offence occurrence as the dependent variable and group (DIP or Expiation) and sex-age combination as predictors. The odds ratio relevant to group and its p value for each time period are included in the Tables.

The DIP and corrected Expiation administrative offence percentages from Tables 5.5 and 5.6 are presented graphically in Figure 5.3.

The results of most interest are those after the first Notice to Attend was sent (Table 5.6). Committing an administrative offence was substantially more common in the Expiation group than in the DIP group, and this difference was statistically significant for all the time periods examined.

Concerning the before periods, committing an administrative offence was more common in the Expiation group, to a statistically significant extent.

A baseline administrative offence rate for all L- and P-plate drivers was obtained as for total offences (Section 5.1). The result was a baseline crash involved percentage of 3.9. Clearly both the DIP and Expiation groups had higher administrative offence rates than L- and P-plate drivers as a whole.



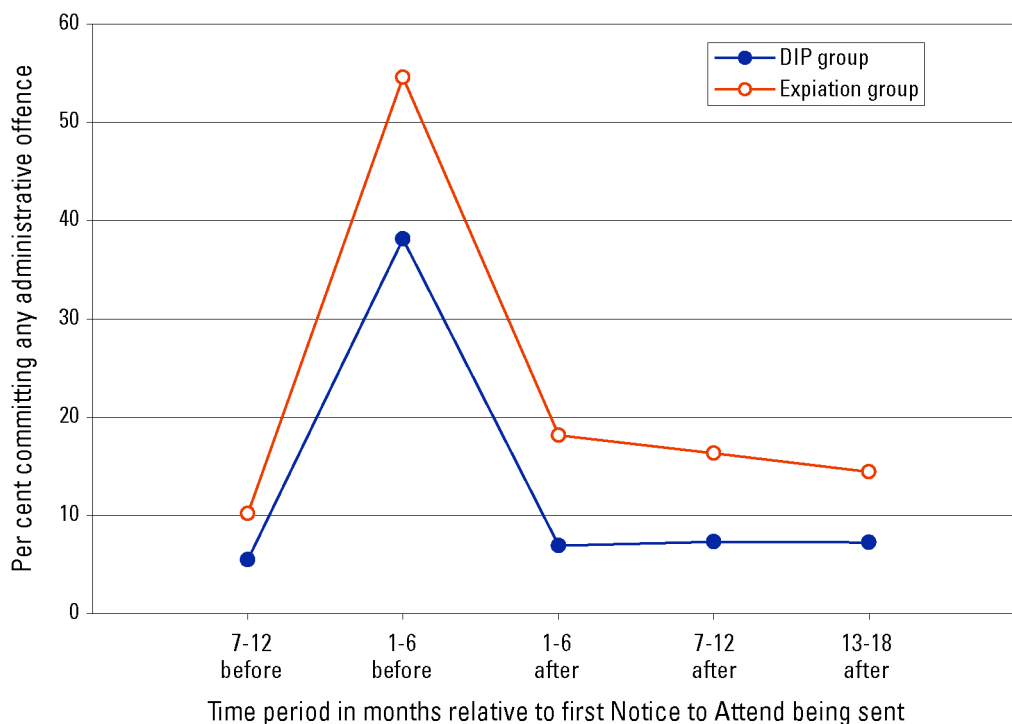
**Table 5.5**  
Per cent of group committing an administrative offence in the given time period before the first Notice to Attend was sent

Group	Per cent committing an administrative offence in the given number of months before the first Notice to Attend was sent	
	7-12	1-6
DIP	5.47	38.12
Expiation	12.25	56.03
Expiation (corrected for sex and age)	10.18	54.57
Logistic regression DIP odds ratio	0.523	0.527
Logistic regression DIP p value	0.000	0.000

**Table 5.6**  
Per cent of group committing an administrative offence in the given time period after the first Notice to Attend was sent

Group	Per cent committing an administrative offence in the given number of months after the first Notice to Attend was sent		
	1-6	7-12	13-18
DIP	6.91	7.28	7.25
Expiation	18.61	16.16	14.04
Expiation (corrected for sex and age)	18.16	16.32	14.42
Logistic regression DIP odds ratio	0.337	0.415	0.493
Logistic regression DIP p value	0.000	0.000	0.000

**Figure 5.3**  
Administrative offence rate during various six month intervals relative to the first Notice to Attend being sent: Comparison of the DIP and Expiation groups, the latter being corrected for sex and age differences (see text in Section 5.1 for caveats on interpreting the data points)



## 6 Discussion

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### 6.1 Summary of results

There was no statistically significant difference between the DIP and Expiation groups in respect of crashes after the first Notice to Attend letter was sent. Furthermore, the differences that were observed changed direction over time.

Concerning moving offences, the DIP group had a statistically significantly lower rate than the Expiation group after the first Notice to Attend letter was sent in two of the time periods examined and the difference was in the same direction for the third time period. The DIP group also had a statistically significantly lower rate than the Expiation group in the period before committing the offence that triggered the first Notice to Attend letter being sent.

Concerning administrative offences, the DIP group had a statistically significantly much lower rate than the Expiation group after the first Notice to Attend letter in all of time periods examined. The DIP group also had a statistically significantly lower rate than the Expiation group in the periods before the first Notice to Attend letter was sent.

For crashes, moving offences and administrative offences: both the DIP group and the expiation group had higher rates than a comparable baseline group of all young drivers.

### 6.2 Implications for the DIP

The fact that drivers themselves chose whether to attend the DIP or pay an expiation fee means that any differences found cannot be ascribed solely to the DIP: there could be pre-existing differences between those who do attend the DIP and those who do not. Tables 3.2 and 3.3 demonstrated that there are sex-age differences between the two groups. Furthermore, Tables 5.3 and 5.5 demonstrate that there were pre-existing differences in respect of offending. Iron clad conclusions about the effectiveness of DIP cannot be made based on this research design.

We cannot meaningfully comment on the effect of the DIP on offences since the self selection effect cannot be disentangled from any possible effect of the DIP.

It does seem unlikely to us that the DIP results in a large reduction in crash rate among its attendees since this was not observed in the crash data which would presumably be biased in this direction somewhat in the same way as moving offences apparently were.

Given that the DIP is a cheap measure and that the current study cannot show that it is not having an effect large enough to justify this small cost, we see no reason here for its discontinuation.

### 6.3 A randomised experimental design

Given the problems with the current study and particularly those of self selection, is there a study that could be run that would avoid these problems?

Since there is a single contact point where notices are sent out to drivers, a true randomised experimental design could be devised. Each of the eligible drivers could be randomly allocated to either a "notice" or a "no notice" group and their licence numbers recorded. The "no notice" group would not be offered the option of attending the DIP. After several years the offence and crash rates of the two groups could then be compared to determine if offering the DIP was having an effect on crash and offence rates.

This method would avoid the problems of self selection and be expected to indicate the overall effect of offering the DIP as an option to drivers.

The drawbacks of this course of action are: if indeed the DIP has a positive effect it is being withheld from half of the drivers during the course of the experiment; and if the effect of the DIP is small then it will still not be detectable using this method.

## Acknowledgments

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This study was funded by the South Australian Department for Transport, Energy and Infrastructure (DTEI) through a Project Grant to the Centre for Automotive Safety Research. The DTEI Project Manager was Trevor Bailey.

The Centre for Automotive Safety Research receives core funding from both DTEI and South Australia's Motor Accident Commission.

The views expressed in this report are those of the authors and do not necessarily represent those of the University of Adelaide or the sponsoring organisations.

## References

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- TP Hutchinson, AJ Meier 2004. Evidence-based road safety policy? Evidence-based transport policy? A discussion of randomised experimentation and meta-analysis in the evaluation of interventions. In MAP Taylor and PM Tisato (Editors), Papers of the 27th Australasian Transport Research Forum. Adelaide: Transport Systems Centre, University of South Australia
- LN Wundersitz, TP Hutchinson. 2005. South Australia's Driver Intervention Program: A discussion of best practice, with data on characteristics of the participants and a selective literature review. Report in preparation, Centre for Automotive Safety Research, University of Adelaide.

## Appendix A - First DIP notice



Government of South Australia

Department for Transport,  
Energy and Infrastructure

Enquiries: Licence 13 10 84  
DIP Workshop (08) 8362 7349

**DRIVER NAME**  
**STREET ADDRESS**  
**SUBURB**  
**SA POSTCODE**

Client Number: **LICENCE NO.**

**Transport Services  
Division**  
ABN 92 366 288 135  
PO Box 1000  
Walkerville SA 5081  
www.dtei.sa.gov.au

### ***NOTICE TO ATTEND Driver Intervention Program (DIP)***

Dear DRIVER,

*I am writing to advise that you are required to attend a workshop under the Driver Intervention Program pursuant to Section 81B(3) of the Motor Vehicles Act, 1959.*

*You must make a booking and attend the program within 6 months of this Notice (by date 1-Jul-2000).*

The cost to attend the program is \$32 (including GST). This fee must be paid before booking in. The following steps must be followed:

#### **STEP 1: Payment of \$32 fee**

There are three payment options:

- (i) Pay over the counter by attending any Transport SA Customer Service Centre (Addresses are listed on the back of this notice.); OR
- (ii) Pay by credit card, call 13 10 84; OR
- (iii) Post a cheque or money order to the Registrar of Motor Vehicles.

**\* You must present or attach this "Notice to attend" when making your payment. Keep your receipt. You will need to quote the receipt number when booking into the program.**

#### **STEP2: Booking into the program**

Contact the DIP Coordinator on (08) 8362 7349, between 9:30am - 4:30pm (Monday to Friday, but not on public holidays). A recorded answering service is available at other times.

Book as soon as possible as your preferred date may not be available. If you need to change your booking, telephone the Coordinator to re-book. Booking confirmation and directions to the workshop will be sent to you.

#### **Appeal against your disqualification**

Even if you lodge an appeal and you are successful in the appeal against your disqualification, you **MUST** still attend the program. The requirement to attend the program is based upon your offence, not upon your penalty of disqualification.

#### **Failure to book into or attend the DIP**

Failure to attend a DIP workshop by the date shown below is an offence. (Penalty \$125)

If you fail to attend the DIP workshop by 1-Jul-2000, you will be issued with an expiation notice and you will have 28 days to pay the \$74 expiation fee (including Victim Of Crime Levy), or to elect to be prosecuted in court. If you ignore the expiation notice, you will receive a reminder notice, and will have to pay the expiation fee plus the cost of the reminder notice. If you continue to take no action, an enforcement order will eventually be made against you and you will have to pay the amount of the expiation, the cost of the reminder notice, court costs and the Victim Of Crime Levy.

Yours faithfully,

REGISTRAR OF MOTOR VEHICLES

10-Aug-2005

## Appendix B - Second DIP notice

Enquiries: DIP Workshop (08) 8362 7349



**Government of South Australia**

Department for Transport,  
Energy and Infrastructure

**Transport Services  
Division**

ABN 92 366 288 135  
PO Box 1000  
Walkerville SA 5081  
www.dtei.sa.gov.au

**DRIVER NAME  
STREET ADDRESS  
SUBURB  
SA POSTCODE**

**Client Number: LICENCE NO.**

### ***SECOND NOTICE to attend the Driver Intervention Program (DIP)***

Dear DRIVER,

I am writing to remind you that you are required to attend a workshop under the Driver Intervention Program pursuant to Section 81B(3) of the Motor Vehicles Act, 1959.

A \$32 fee applies (including GST). You must pay this fee before booking in. The following steps must be followed:

#### **STEP 1: Payment of \$32 fee**

There are three payment options:

- (i) Pay over the counter by attending any Transport SA Customer Service Centre (formerly Registration and Licensing Office); OR
- (ii) Pay by credit card, call 13 10 84; OR
- (iii) Post a cheque or money order to the Registrar of Motor Vehicles.

Addresses of Customer Service Centres are listed on the back of this notice.

**\* You must present or attach this "Notice to attend" when making your payment. Keep your receipt. You will need to quote the receipt number when booking into the program.**

#### **STEP2: Booking into the program**

Contact the DIP Coordinator on (08) 8362 7349, between 9:30am - 4:30pm (Monday to Friday, but not on public holidays). A recorded answering service is available at other times.

Book as soon as possible as your preferred date may not be available. If you need to change your booking, telephone the Coordinator to re-book. Booking confirmation and directions to the workshop will be sent to you.

#### **Failure to book into or attend the DIP**

Failure to attend a DIP workshop by the date shown below is an offence. (Penalty \$125)

If you fail to attend the DIP workshop by 1-Jul-2000, you will be issued with an expiation notice and you will have 28 days to pay the \$74 expiation fee (Including Victim Of Crime Levy), or to elect to be prosecuted in court. If you ignore the expiation notice, you will receive a reminder notice, and will have to pay the expiation fee plus the cost of the reminder notice. If you continue to take no action, an enforcement order will eventually be made against you and you will have to pay the amount of the expiation, the cost of the reminder notice, court costs and the Victim Of Crime Levy.

Yours faithfully,

REGISTRAR OF MOTOR VEHICLES

10-Aug-2005

## Appendix C - Third DIP notice

Enquiries: DIP Workshop (08) 8362 7349



**Government of South Australia**

Department for Transport,  
Energy and Infrastructure

**Transport Services  
Division**

ABN 92 366 288 135  
PO Box 1000  
Walkerville SA 5081  
www.dte.i.sa.gov.au

**DRIVER NAME  
STREET ADDRESS  
SUBURB  
SA POSTCODE**

**Client Number: LICENCE NO.**

### ***THIRD AND FINAL NOTICE to attend the Driver Intervention Program (DIP)***

Dear **DRIVER**,

I am writing, for the third and final time, to remind you that you are required to attend a workshop under the Driver Intervention Program pursuant to Section 81B(3) of the Motor Vehicles Act, 1959.

A \$32 fee applies (including GST). You must pay this fee before booking in. The following steps must be followed:

#### **STEP 1: Payment of \$32 fee**

There are three payment options:

- (i) Pay over the counter by attending any Transport SA Customer Service Centre (formerly Registration and Licensing Office); OR
- (ii) Pay by credit card, call 13 10 84; OR
- (iii) Post a cheque or money order to the Registrar of Motor Vehicles.

Addresses of Customer Service Centres are listed on the back of this notice.

**\* You must present or attach this "Notice to attend" when making your payment. Keep your receipt. You will need to quote the receipt number when booking into the program.**

#### **STEP2: Booking into the program**

Contact the DIP Coordinator on (08) 8362 7349, between 9:30am - 4:30pm (Monday to Friday, but not on public holidays). A recorded answering service is available at other times.

Book as soon as possible as your preferred date may not be available. If you need to change your booking, telephone the Coordinator to re-book. Booking confirmation and directions to the workshop will be sent to you.

#### **Failure to book into or attend the DIP**

Failure to attend a DIP workshop by the date shown below is an offence. (Maximum penalty \$125)

If you fail to attend the DIP workshop by 1-Jul-2000, you will be issued with an expiation notice and you will have 28 days to pay the \$74 expiation fee (Including Victim Of Crime Levy), or to elect to be prosecuted in court. If you fail to pay the expiation notice by the due date, a reminder notice will be issued, to which a fee is incurred.

Should you further fail to make payment or do not take action, an enforcement order will be issued. Further penalties will then apply.

If you fail to attend the DIP workshop by 1-Jul-2000, your details will be forwarded to SA Police upon the issuing of a expiation notice. After this date, enquiries must be directed to SA Police Expiation Notice Branch (08) 8463 4388.

Yours faithfully,

**REGISTRAR OF MOTOR VEHICLES**

*10-Aug-2005*



## Appendix D - Failure to attend the DIP expiation notice

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**Government of South Australia**

Department for Transport,  
Energy and Infrastructure

**Transport Services  
Division**

ABN 92 366 288 135

PO Box 1000

Walkerville SA 5081

www.dtei.sa.gov.au

**DRIVER NAME  
STREET ADDRESS  
SUBURB  
SA POSTCODE**

**Client Number: LICENCE NO.**

### ***Expiation Notice for Failure to Attend the Driver Intervention Program***

Dear **DRIVER**,

Our records indicate that you have failed to attend a workshop under the Driver Intervention Program by 1-Jul-2000 as directed, pursuant to Section 81B(3) of the Motor Vehicles Act, 1959.

Accordingly, you have been issued with the enclosed expiation notice and have 28 days from the date of the expiation notice to pay the \$74 expiation fee (including Victim of Crime Levy), or elect to be prosecuted in court. If you fail to pay the expiation notice by the due date, a reminder notice will be issued, to which a fee is incurred.

Should you further fail to make payment or do not take action, an enforcement order will be issued. Further penalties will then apply.

***Please note: You are no longer required to attend the Driver Intervention Program unless you are further disqualified from driving again.***

Any enquiries must now be directed to SA Police Expiation Notice Branch (08) 8463 4388.

Yours faithfully,

**REGISTRAR OF MOTOR VEHICLES**