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Have the 2018 NSW sentencing reforms reduced the risk of re-offending?

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AIM

To measure if the *Crimes (Sentencing Procedure) Amendment (Sentencing Options) Act 2017* (NSW) reduced re-offending and new custodial episodes.

METHOD

Local Court data were extracted from BOCSAR's Re-offending Database (ROD) for all matters finalised in the 13 weeks before and the 13 weeks after the commencement of the sentencing reforms (i.e. matters between 25 June to 23 December 2018). Logistic and Cox regressions were used to compare custody and re-offending outcomes for offenders with finalised matters before and after the reforms, adjusting for other factors. Re-offending was measured up until 29 February 2020. A supplementary analysis using an Instrumental Variables (IV) approach was also undertaken to examine the impact of the sentencing changes on those most likely to have received a supervised order because of the reforms.

RESULTS

There was no significant difference between the post- and pre-reform groups in: a) the time to the first re-offence of any type (HR = 0.98, p = .296); b) the time to the first new serious violent, property, or illicit drug offence (HR = 1.00, p = .862); and c) a new custodial episode within 12 months (13.6% vs. 14.3%, p = .763). There were no significant reductions in re-offending among DV-related offenders and offenders sentenced to short-term prison or a custodial alternative following the reforms. These results were largely confirmed by the IV analysis.

CONCLUSION

The sentencing reforms have not reduced short-term re-offending rates. However, there has been no adverse impact on rates of offenders returning to custody, suggesting that the reforms have not resulted in more breaches of supervised community orders.

KEYWORDS

sentencing | supervised community orders | re-offending | Cox regression

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INTRODUCTION

Re-offending is a significant problem in NSW. It is estimated that around one in five of all adult offenders appearing in the NSW Criminal Courts will commit a new offence within 12 months of their matter being finalised, and an additional 10% will re-offend within 24 months (Holmes, 2012; NSW Bureau of Crime Statistics and Research, 2021). Repeat offending has thus become a major focus for the NSW Government. In 2015, the Government committed to a target to reduce adult re-offending by 5 percentage points by 2019 (NSW Government, 2016). A broad suite of reforms to achieve this was implemented over three years from 2017 to 2019. A key component of this system-wide reform package was the NSW sentencing reforms, which aimed to maximise opportunities for the supervision of offenders in the community.

There is empirical support for the effectiveness of rehabilitative interventions in reducing rates of re-offending, particularly where there is a focus on addressing criminogenic needs (Andrews & Bonta, 2010). However, historically, most adult offenders convicted of an offence in NSW have received an unsupervised community-based order. These offenders do not receive any supervision from Community Corrections (an agency within Corrective Services NSW)[1] and therefore have reduced opportunities for interventions and supports. While this is appropriate in many circumstances where the risk of re-offending is low, there is a concern that some more serious offenders who could benefit from supervision are being missed.

Custodial alternatives, especially those which incorporate rehabilitative and supervision elements, are also thought to have crime-reducing benefits relative to short-term prison sentences (Wang & Poynton, 2017; Williams & Weatherburn, 2022). In NSW, alternatives to prison include Intensive Correction Orders (ICOs), and, until recently, home detention and suspended sentences. These are terms of imprisonment that are served in the community. In their review of sentencing legislation and practice, the NSW Law Reform Commission (2013) found that custodial alternatives are under-utilised in NSW and recommended the removal of certain barriers to ensure broader access to these sentencing options. The Commission also recommended various improvements to community sentences, including a range of flexible sentencing options which could be used to address criminogenic risk.

In 2017, the NSW Government introduced the *Crime (Sentencing Procedures) Amendment (Sentencing Options) Act 2017* (NSW) (hereafter referred to as "the NSW sentencing reforms"). Consistent with the Commission's recommendations, the sentencing reforms replaced six existing community-based sentences with new, potentially more flexible sentencing options. This included changes to custodial sentences served in the community,[2] with the introduction of a new ICO to replace the old ICO, home detention and suspended sentences. The reforms enabled judicial officers to select appropriate conditions for the new ICOs (including: home detention; electronic monitoring; curfews; community service; alcohol/drug bans; place restrictions; and/or non-association requirements) and the previous mandatory requirements to participate in work or community service were removed. Supervision was made mandatory for all offenders sentenced to the new ICO. There were also changes to non-custodial community-based sentences, specifically the introduction of a community correction order (CCO) and conditional release order (CRO), which replaced community service orders, good behaviour bonds, and non-conviction bonds (Mizzi, 2018). For CCOs and CROs, the court retained their discretion to impose a supervision requirement. However, a presumption in favour of full-time detention or some form of supervised community order was introduced for all domestic violence offences. Two other

1 Offenders who are sentenced to supervised community orders are managed by Community Corrections (an agency within Corrective Services NSW). Community Corrections officers develop case plans based on objective risk assessments to manage these offenders in the community. They engage with offenders on a regular basis and can refer them to a range of programs to target specific offending behaviour or criminogenic factors, through partnerships with other organisations and agencies. Community Corrections officers may also contact significant people in supervised offenders' lives and undertake other compliance checks of conditions of their court orders.

2 'Custodial' community sentences are imprisonment sentences served in the community. These sentences can only be imposed when a magistrate or judge is satisfied that no penalty other than imprisonment (for up to 24 months) is appropriate, after which they can choose to apply a custodial community sentencing option. Prior to the reforms, the available custodial community sentencing options were home detention (where a person serves their period of detention confined to their home), a suspended sentence (where a person is in the community but is imprisoned if they breach or re-offend), and intensive correction orders. The reforms abolished these options, replacing them with a strengthened ICO, which is the most serious sentence that an offender can serve in the community.

notable changes were that Community Corrections were given the authority to suspend supervision or conditions where appropriate, and to make an application to the State Parole Authority (SPA) to impose, vary or revoke conditions of an ICO (other than standard conditions).[3] These changes took effect on 24 September 2018 and affected all matters finalised for adults in NSW Criminal Courts.

The NSW sentencing reforms had three key objectives (NSW Government, 2018):

1. To increase the proportion of adult offenders sentenced to supervised community-based orders, particularly domestic violence (DV) and high-risk offenders;
2. To reduce the proportion of adult offenders serving short prison sentences; and
3. To reduce re-offending by extending supervision and therapeutic interventions to more high-risk adult offenders and managing these offenders more effectively in the community.

So far, two studies of the reforms have been undertaken. An evaluation by Donnelly (2020) indicated that the first two of the objectives listed above were achieved. In the Local Court, the proportion of offenders who received a short-term prison sentence declined from 5.2% to 4.4% following the reforms. The reforms were also associated with an increase in the proportion of offenders who received a supervised community order from 14.6% to 22.0%. Similar effects were evident in the higher courts (short-term prison sentences declined from 27.3% to 22.8% while supervised community orders increased from 27.9% to 37.5%) and persisted after adjusting for various offender and case characteristics. The reforms also had the intended effect of increasing supervision orders among DV offenders (Donnelly, 2020).

A survey of judicial officers was also undertaken in the year after the legislative amendments and examined whether the reforms were perceived to be operating as intended (Moore, Poynton, Mizzi, & Doyle, 2020). This study reported that: a) 71% of judicial officers perceived the new sentencing regime had increased the opportunity for offenders to serve community-based orders; b) 57% agreed that the new regime provided more flexibility in sentencing decisions and; c) most judicial officers agreed that sentencing assessment reports were provided on time and provided sufficient information to determine the appropriateness of orders. However, judicial officers also raised several concerns regarding the reforms, particularly in relation to the practice by Corrective Services NSW (CSNSW) to suspend supervision in cases where an offender receiving a supervision order by the court was assessed as low risk by CSNSW. Some judicial officers questioned why the legislation made supervision a mandatory element of ICOs if it could simply be suspended by Community Corrections and concerns about the validity of the risk assessment methodology (used to decide whether to suspend supervision) were also raised. Further, some judicial officers noted that the lack of visibility of ICO breaches, which are brought before the State Parole Authority (SPA) rather than the court, undermined the court's ability to observe how effective ICOs are in ensuring community safety. For these reasons, only a third (33%) of judicial officers agreed that the mandatory supervision component of ICOs was sufficient to address issues of community safety.

Prior literature

There are two major premises underlying the reform: first, that community-based sentences can reduce offending relative to imprisonment, and second, that supervised community orders reduce crime more than unsupervised orders. In relation to the former, there is a substantial body of evidence suggesting that increasing the use of community-based orders relative to imprisonment reduces re-offending. A Cochrane systematic review (Villettaz, Gillieron, & Killias, 2015) examined the effects of custodial and non-custodial penalties on re-offending. The authors found higher re-offending rates among offenders sentenced to imprisonment compared with those receiving non-custodial penalties. However, in many of the studies reviewed, propensity score matching was used to account for observable differences between groups and Villettaz et al. (2015) argued that some important covariates were often not available

3 In practice this was already being achieved as community corrections modified the level at which they supervised an offender based on the offender's score on the LSI-R. The reforms also enabled the offender to make an application to the SPA to vary or revoke the conditions of their ICO.

for matching. These include drug and alcohol use, employment status, the quality of the marital or other relationship, gambling history and relationship with dependent children. Thus, these studies provide only limited evidence to support the effectiveness of community-based sentences. In a later systematic review of 28 studies from 19 countries Yukhnenko, Wolf, Blackwood, and Fazel (2019) similarly found that recidivism among those who received community sentences tended to be lower than those who were imprisoned, but again the authors noted that many studies did not adequately account for selection bias or control for baseline differences between the groups. A number of other factors also made it difficult to combine results across the different studies. These included differences in the starting point of follow-up (the finalisation date of the index contact vs. date of release from prison), differences in how re-offending was defined (e.g. whether technical violations were counted), variability in the types of sanctions used, and a lack of information about the quality of supervision provided and specific rehabilitation programs used. Meanwhile, other reviews have primarily examined the causal effect of imprisonment on repeat offending (Green & Winik, 2010; Loeffler & Nagin, 2021; Nagin, Cullen, & Jonson, 2009; Roodman, 2017). These reviews have generally concluded that prison is no better than community-based custodial alternatives at reducing re-offending, as the increased offending post-release outweighs any benefits derived from incapacitation.

Meanwhile, a separate branch of research has examined the effectiveness of supervision in reducing re-offending rates of offenders serving community-based orders. A meta-analysis of 13 studies examining the effectiveness of community supervision on re-offending (Smith, Heyes, Fox, Harrison, Kiss, & Bradbury, 2018) found that supervised community orders reduced the odds of re-offending by 40% compared to business-as-usual and no intervention alternatives. There is also some evidence that improving the quality of supervision has additional benefits. Chadwick, DeWolf, and Serin (2015) conducted a meta-analysis of 10 studies examining the effect of providing additional training to parole officers to enhance their supervision skills on rates of re-offending of parolees. The study found that offenders who were supervised by officers who received the additional training had a recidivism rate of 36% compared with almost 50% for those supervised by officers who did not receive the specialist training.

There has also been significant work undertaken in NSW examining the effectiveness of community orders and supervision. In particular, two studies have considered the effectiveness of ICOs, which (in a redesigned form) became the only custodial community-based sentence after the 2018 sentencing reforms. Ringland and Weatherburn (2013) compared re-offending among a sample of offenders given an ICO to re-offending among offenders who received a sentence of periodic detention or a supervised suspended sentence. They found that offenders sentenced to ICOs had 33% less risk of re-offending compared with those sentenced to periodic detention. However, there was no difference in rates of re-offending between the ICO and supervised suspended sentence groups after offenders were matched on their risk level (LSI-R assessment scores). These mixed findings regarding the effectiveness of ICOs were supplemented by a later study by Wang and Poynton (2017) which compared re-offending among offenders sentenced to ICOs with those sentenced to prison for less than 24 months, using propensity score matching methods to account for differences between the two groups. They found that after 24 months of free time, the ICO group had significantly lower odds of re-offending of between 27% and 31%. Taken together, the evidence suggests that ICOs could be effective (or at least equally effective) at reducing reoffences relative to prison and other custodial alternatives.

Wan, Poynton, and Weatherburn (2015) also attempted to quantify the benefits of supervision by comparing re-offending of adult offenders released to supervised parole with those released from prison unconditionally. The groups were matched on a wide range of factors using propensity score matching. Re-offending was found to be significantly lower for those released to supervised parole at 12 months (43.6% vs. 48.6%), 24 months (57.7% vs. 62.6%) and 36 months (65.7% vs. 70.3%) post-release.

The above evidence suggests that policies increasing the supervision rate of offenders in the community and the use of community-based custodial alternatives (such as the new ICO) could have significant crime reducing benefits. However, there is also a risk that extending supervision to a wider group of offenders may have unintended consequences for the prison population. Supervision could increase the likelihood

of detection of future offences and/or the rate at which offenders are breached for non-compliance with order conditions, thereby increasing imprisonment rates. Indeed, an analysis of trends in the use of suspended sentences shortly after this sanction was first introduced in NSW found that suspended sentences were imposed on offenders who would not otherwise have gone to prison (McInnis & Jones, 2010). This is a concern as people who breach a suspended custodial sanction are more likely to go to prison than those breaching another type of community-based order. In a later analysis, Menéndez and Weatherburn (2014) confirmed that the introduction of suspended sentences in NSW was associated with a significant increase in the NSW prison population.

The current study

This evaluation is the first to examine the impact of the NSW sentencing reforms on re-offending. The three evaluation questions were:

1. Did the sentencing reforms reduce re-offending?
2. Did the sentencing reforms reduce serious re-offending?
3. Was there any unintended consequences of the reforms on the custody population?

These research questions were also considered separately for two sub-groups: (1) adults with a proven DV-related offence and; (2) adults who were sentenced to short-term prison (24 months or less) or a custodial alternative (e.g. new ICO, old ICO, home detention or suspended sentence). Outcomes for DV offenders were considered separately because the reforms included a presumption in favour of prison or supervision for this subset of offenders, and as a result, there was a larger effect on sentences imposed for this group (Donnelly, 2020). The second sub-group of interest, offenders who received short-term prison and custodial alternatives, is considered separately as the reforms were expected to have a larger impact on high-risk offenders through the greater use of supervision (i.e., by replacing unsupervised suspended sentences with new ICOs with mandatory supervision) and reducing short-term prison sentences.

METHOD

The sentencing reforms was a major overhaul of the penalty regime in NSW and had the potential to affect sentences for all adults found guilty of a criminal offence, with the exception of a small set of more serious offences which were deemed ineligible for an ICO.[4] This means there is no group of offenders (of substantial size) who appeared in a NSW court over the same period who can be used as a control group in order to assess the impact of the reforms on re-offending outcomes.

Consequently, we use a pre-post design which compares offenders sentenced before and after the reforms took effect. The major weakness of this method is that it is unable to separate the effects of the reforms from any other concurrent changes to policy or the offending environment. To minimise the impact of other potentially confounding factors we restrict the pre- and post-groups to matters finalised during a very small window around the time the reforms commenced (i.e. 13 weeks before and 13 weeks after). This means that a significant proportion of the follow-up period in which re-offending is measured overlaps for the two groups.

Two additional complications are that while the reforms occurred system-wide, some offenders were less likely to be sensitive to the reforms (e.g., those who committed more serious and more minor offences), and there was a shift from both short-term prison sentences and unsupervised community

4 An offender is not eligible for an ICO if the court is sentencing the offender for: murder/manslaughter, sexual offences involving children under 16 years and certain sexual assault offences against adults, some terrorism offences, contraventions of serious crime prevention orders or public safety orders or discharge firearm offences (Mizzi, 2018).

orders towards supervised orders (Donnelly, 2020). Thus, the treatment effect in the simple pre-post comparison may be "diluted" because offenders who were likely unaffected (for whom there is unlikely to be a treatment effect) by the reforms are included in the sample, and also because the reforms increased the likelihood of community-based supervision orders for both high and low risk offenders (with high risk offenders migrating from *more* onerous penalties while low risk offenders come from *less* severe penalties). To deal with the former, we supplement the pre-post analysis with an instrumental variables (IV) approach which seeks to estimate the impact of the reform on offenders who were most likely to receive a supervised order because of the reforms. We include a wide set of controls to deal with the latter issue but cannot preclude the possibility of the reforms having different impacts on higher and lower-risk offenders.

Data source and sample

Data for this analysis was sourced from the NSW Bureau of Crime Statistics and Research's (BOCSAR) Re-offending Database (ROD). The study group consists of adults aged 18 years and over with proven offences finalised in the NSW Local Court. The sample was restricted to those with an index principal offence with a statutory maximum penalty of imprisonment. Offenders appearing for an offence where an ICO could not be imposed were excluded from the analysis (Mizzi, 2018), as were those who were in custody for a prior offence.

We further restrict our sample to the period 25 June 2018 to 23 December 2018 (i.e. 13 weeks before and after the reforms), and count re-offending up to 29 February 2020.[5] This allows for all offenders to have at least 12 months follow-up time in which to measure re-offending and avoids measuring outcomes during the COVID-19 pandemic period when there were significant drops across a number of crime categories (see Kim & Leung, 2020). We also retain only the first court finalisation for the 2,729 (7.4%) offenders who had multiple finalisations over this 26-week period. This resulted in a sample of 36,941 finalisations for the entire sample of offenders, 7,820 finalisations for offenders found guilty of a DV-related offence and 4,901 finalisations for offenders sentenced to short-term prison or a custodial alternative.

Variables

Outcome variables

Three outcomes of interest were examined in this study.

1. Any re-offending (excluding breaches and offences committed while in custody):[6]
    - Whether a person had a proven non-breach re-offence within 365 free days of index finalisation (binary variable);
    - The number of free days to the earliest of a new proven non-breach re-offence, the end of the study or the date of death.
2. Serious violent, property, and illicit drug re-offending (excluding offences committed while in custody):[7]
    - Whether a person had a proven serious violent, property or illicit drug re-offence within 365 free days of index finalisation (binary variable);
    - The number of free days to the earliest of the first proven serious violent, property and illicit drug re-offence, the end of the study or the date of death.

5 A sample of offenders from the District and Supreme Courts were also extracted for comparative purposes.
6 All ANZSOC offences except breach of custodial order offences, community-based order, or violence and non-violence restraining orders (i.e. ANZSOC 151, 152 & 153).
7 Homicide and related; Acts intended to cause injury; Sexual assault and related; Robbery, extortion and related; Break and enter; Theft and related,; Fraud, deception and related; Abduction and related; Import or export illicit drugs; Deal or traffic in illicit drugs; Manufacture or cultivate illicit drugs (i.e. ANZSOC 01, 02, 03, 06, 07, 08, 09, 051, 101, 102, 103).

3. Any new custodial episode within 12 (calendar) months of finalisation (including new episodes for breach of a sentencing order or remand or sentence for completely new offences).

We consider a person to have re-offended within 365 free days with a particular offence type if the sum of free time to the new offence date and elapsed days (following the re-offence) to the end of the follow-up period was equal to or greater than 365 days. This ensures that our outcome measure captures 'free time' but does not exclude people who were subsequently remanded or returned to custody following a reoffence. If they committed a re-offence after 365 free days following finalisation or had not re-offended by the end of the study period (29 February 2020), they were counted as having not re-offended within 365 free days of their index finalisation. Finally, if they did not re-offend but did not have 365 days free time up until the end of the study period they were excluded from the analysis.

Explanatory variables

Our explanatory variable of interest is a binary variable denoting whether an offender had their matter finalised in the pre-sentencing reforms period (between 25 June and 23 September 2018) or post-sentencing reforms period (between 24 September and 23 December 2018).

We use a range of control variables in our regression analyses:

Socio-demographics

- Gender
- Age group: 18-24 years, 25-34 years, 35-44 years, 45 years or older
- Aboriginality as recorded by NSW Police at index contact: Aboriginal offender, non-Aboriginal offender/not recorded
- Index of relative socio-economic disadvantage (IRSD): Most disadvantaged, Disadvantaged, Advantaged, Most advantaged, Unknown
- Accessibility and Remoteness Index of Australia (ARIA): Major cities, Inner regional, Outer regional/ Remote/Very remote; Unknown[8]

Index court finalisation

- Whether an offender was refused bail at their first court appearance: Yes, No
- Plea to the principal offence: Guilty, Not guilty, No plea entered
- Number of other proven concurrent offences: 0, 1, 2 or more
- Proven index principal offence type: classified according to the Australian and New Zealand Standard Offence Classification (ANZSOC)
    - » Violent offences (ANZSOC divisions 01, 02, 03 and 06)
    - » Serious property offences (ANZSOC divisions 07, 08 and 09)
    - » Assault (ANZSOC sub-division 021)[9]
- Whether any proven offence at the index court appearance was domestic violence related (DV-related): Yes, No

Prior offending

- Number of court appearances in the previous five years with a proven offence(s): 0, 1, 2 or more
- Number of prison sentences in the previous five years: 0, 1 or more

8 IRSD and ABS remoteness area were never included in a regression model at the same time. This was because on each variable the same offenders are in the 'Unknown' category.

9 For adults with a proven DV-related offence assault was the only principal offence included in the regression analyses to distinguish between assault and other DV offences such as stalking. It was not included for the total sample or those with short-term prison or a custodial alternative.

Statistical analyses

Pre-post analysis

To identify the impact of the reforms on re-offending, we compare outcomes for offenders with a finalised matter in the 13 weeks before and after the reforms, controlling for other factors which may influence re-offending. Specifically, we undertake a range of regressions of each outcome variable against factors affecting re-offending, and the explanatory variable of interest (i.e. whether an offender's matter was finalised before or after the reforms). For these analyses to be considered causal, we must have accounted for all potential influences on re-offending. While we have included a range of factors (as illustrated above) we cannot rule out other unobserved differences between the pre- and post-reform groups which affect our estimates. One threat is other concurrent changes (i.e. in policies affecting the criminal justice system, the offending environment, etc.). However, this is unlikely to be a major concern given our restriction of the sample to the 13 weeks before and after the reforms.

Re-offending for any offence (excluding breaches) and serious violent, property and illicit drug re-offending

We used two statistical approaches to analyse the two re-offending outcomes. First, we compared the proportion who re-offended within 365 free days in the pre-reform and post-reform groups using logistic regression. We provide both unadjusted estimates (where no covariates are included) and adjusted estimates (which adjust for the full set of covariates).

The second statistical approach was to compare the pre-reform and post-reform groups on the number of free days it took until the first re-offence occurred. Graphically this can be shown as a survival curve with the Y-axis showing the proportion who have not re-offended at any given point in time. Kaplan-Meier analyses were conducted to derive survival curves and the log-rank test was applied. Descriptively the pre-reform and post-reform groups were compared on the number of free days it took for 15% of each to re-offend.[10] A shorter number of free days means that re-offending has occurred more quickly. Covariates were controlled for using Cox regression (Kleinbaum & Klein, 2012). The hazard ratio (HR) is reported which compares the treated group with the comparison group. A significant HR greater than one indicates that offenders in the treated group re-offend quicker (on average) than those in the comparison group, while a significant HR less than one indicates that offenders in the treated group take longer to re-offend. The only offenders excluded from the Kaplan-Meier log-rank test and Cox regressions were those who had zero free days available. A critical assumption of these analyses is the proportional hazards assumption, which specifies that the effect of a study factor and covariates on the hazard rate must not change over time.

There are slight differences in the outcome variables used in these two statistical approaches and the interpretation of the results. The logistic regression uses a flag for whether a person re-offended in 365 free days as the outcome variable, which excludes offenders who did not have enough free days and thus not enough opportunity to re-offend. The survival analyses only exclude those with zero free days (i.e. those who were in custody from the date their matter was finalised to the end of the study period or their death). Logistic regression estimates the reforms' impact on re-offending or return to custody at a particular point (365 days free time); the survival analyses estimate the impact of the reforms on the time taken for these outcomes to occur and use the entire follow-up period. It is possible, for example, that at 365 days free time both groups experience similar rates of re-offending, but for one group these reoffences occur sooner. Using these two approaches enables an understanding of both the rate and speed of re-offending.

10 For the short-term prison and custodial alternatives sub-group we report the number of free days taken for 20% to re-offend as a greater proportion of these offenders recidivate.

Any new custodial episode within 12 (calendar) months of finalisation

We estimate the impact of the reforms on any new custodial episode within 12 months of finalisation (a binary variable) by comparing the pre-reform and post-reform groups on this outcome using logistic regression (Hosmer, Lemeshow, & Sturdivant, 2013). A significant odds ratio (OR) greater than one indicates that the treated group was more likely to have a new custodial episode within 12 months. A significant OR less than one indicates that they were less likely to have a new custodial episode. We present ORs estimated with and without adjustment for covariates.

Instrumental variable analysis

Most offenders were not impacted directly by the sentencing reforms, in that the sentence they received was likely to have been similar regardless of whether the reforms had taken place. This can "wash-out" the effect of the reforms as only a small proportion of the total sample were affected.

Figure 1. Directed acyclic graph of instrumental variable approach

For this reason, we also estimate the impact of the reforms on re-offending using an instrumental variables approach, where the pre-post comparison is our "instrument" and the sentence of a supervised community order is our "treatment". Figure 1 illustrates the instrumental variable approach. The likelihood of receiving a supervised community sentence is influenced by observed risk factors (for example, the number of offences committed) and unobserved risk factors, which all in turn affect reoffending. If the sentencing reforms impacted the likelihood of receiving a supervised community order but not the observed or unobserved factors influencing reoffending, we can use it as an instrument to obtain the causal impact of receiving a supervised community orders on reoffending. To do this, we first estimate the change in the likelihood of a supervised community order because of the sentencing reforms (the first stage). Then we estimate the impact of the change in the likelihood of receiving such an order because of the reforms (which is unrelated to other observed and unobserved factors) on reoffending (the second stage).

This method has two advantages over the pre-post comparison. Firstly, it addresses the issue of treatment dilution by estimating the impact of receiving a supervised community order only for those induced to receive one because of the sentencing reforms. This is sometimes referred to as a "treatment-on-treated" estimate. Secondly, it accounts for any differences in unobserved risk factors between those that received a supervised community order and those that did not.

For this analysis to yield an estimate of the impact of receiving a supervised community order, the following four conditions must be met:

1. **Random assignment of the instrument:** We require that the timing of the sentencing reforms is "as good as random" or unconfounded with respect to the outcome. This would mean that being sentenced in the 13 weeks before or the 13 weeks after the reforms took place would not be determined by any factor that also influences re-offending. This relies on the same assumptions as required for the validity of the pre-post comparison - namely that there are no concurrent changes that are taking place that are impacting re-offending.
2. **Exclusion restriction:** The validity of the IV estimate also relies on the sentencing reforms only influencing re-offending through the increase in the proportion of individuals who receive a supervised community-based order. If the sentencing reforms also altered re-offending through other channels, this will bias our estimate. As the window we have taken for our sample is relatively small, we believe that it is unlikely to have included other significant changes.
3. **Relevance:** The sentencing reforms must be strongly related to the outcome of interest, in this case, the proportion of offenders who received a supervised community order. We find that the reforms are associated with an increase in the proportion supervised, from 18.2% to 26.2% (with declines in the proportion receiving prison sentences and unsupervised community orders), for those included in our analysis sample, yielding a corresponding F-statistic of 351.89; a very strong relationship. The first stage regressions are presented in the results section.
4. **Monotonicity:** For this assumption to hold, it must be true that the sentencing reforms did not make it less likely that any individual received a supervised community order. As the key objective of the NSW sentencing reforms was to increase the proportion of adult offenders sentenced to supervised community orders, we do not believe that there exists any subset of individuals who were less likely to receive a supervised community order after the reforms were implemented.[11]

The treatment-on-treated estimate is generated using a two-stage least-squares (2SLS) approach, with all explanatory variables included in both the first stage and the second stage of the estimation. In effect, this estimates the impact of the reforms on people who received a supervised community order because of the reforms.

11 The first stage relationship is always positive when estimated separately for each value of our explanatory variables. Although this is not sufficient to test the monotonicity assumption, it does confirm that this relationship does not reverse for any subset of the sample as defined by a single predictor.

RESULTS

Sample characteristics

Table 1 compares the pre- and post-sentencing reforms groups in the Local Court on demographic, prior offence, and index offence characteristics. The pre- and post-reform groups were similar (i.e. there were no statistically significant differences) on most characteristics. In both groups, just over three-quarters of offenders were male, almost one-quarter were aged 18-24 years and around 30% were aged 25-34 years. Almost two-thirds of each group resided in major cities, 22% were from inner regional areas and 8% were from outer regional or remote areas. Around 13% of both the pre- and post-reform groups had been sentenced to prison in the previous five years. Around 21% of each group had a DV-related proven offence at their index court appearance, while between 22 and 23% of each group had a proven violent principal offence.

However, we observe small but statistically significant differences in three potentially important variables. First, 11.8% of the pre-reform group were recorded by NSW police as Aboriginal offenders compared with 10.9% of the post-reform group. Second, the pre-reform group were significantly more likely to have two or more proven court appearances in the previous five years (37.6% vs. 34.4%), while the post-reform group were more likely to have no prior proven court appearances (47.5% vs. 43.6%). Finally, a slightly larger proportion of offenders in the pre-reform group had a proven serious property offence at index finalisation (12.5% vs. 11.6%).

Table 1 also shows differences between the groups with regard to the principal penalty received at the index finalisation. As expected, there was a smaller proportion of offenders who received prison (from 8.1% to 6.7%) or an unsupervised community order (from 37.2% to 31.8%) as their principal penalty in the post-reform group compared with the pre-reform group, and a higher proportion who received a supervised community order (from 18.2% to 26.2%). This included an increase in supervised custodial orders (from 5.3% to 7.2%) and in supervised non-custodial orders (from 12.9% to 19.1%). All these differences were statistically significant.[12]

12 Appendix A provides separate descriptive tables for DV offenders and offenders who received short prison sentences and custodial alternatives.

Table 1. Demographic, prior offending, index offence characteristics and principal penalty for the pre- and post-sentencing reforms groups (n = 36,941)

	Pre-sentencing reforms		Post-sentencing reforms		
	Number	Percentage	Number	Percentage	*p*-value
Demographic characteristics					
Gender[#]					= .085
Female	4,108	21.9%	4,104	22.6%	
Male	14,680	78.1%	14,047	77.4%	
Age group					= .063
18 - 24	4,356	23.2%	4,393	24.2%	
25 - 34	5,849	31.1%	5,497	30.3%	
35 - 44	4,449	23.7%	4,218	23.2%	
45 plus	4,134	22.0%	4,045	22.3%	
Aboriginality (Index contact)					=.013 *
Non-Aboriginal/unknown	16,579	88.2%	16,167	89.1%	
Aboriginal offender	2,209	11.8%	1,986	10.9%	
ARIA					= .965
Major cities	12,378	65.9%	12,006	66.1%	
Inner regional	4,088	21.8%	3,922	21.6%	
Outer regional/Remote(s)	1,538	8.2%	1,475	8.1%	
Not recorded	784	4.2%	750	4.1%	
Prior offence characteristics					
Proven court appearances past 5 years					< .001 ***
0	8,198	43.6%	8,613	47.5%	
1	3,531	18.8%	3,305	18.2%	
2 or more	7,059	37.6%	6,235	34.4%	
Prison in past 5 years?					= .684
No	16,302	86.8%	15,777	86.9%	
Yes	2,486	13.2%	2,376	13.1%	
Index offence characteristics (ANZSOC, 2011)					
DV for any proven offence	3,948	21.0%	3,872	21.3%	= .457
Violent principal offence (Divisions 01, 02, 03, 06)	4,173	22.2%	4,132	22.8%	= .205
Serious property principal offence (Divisions 07, 08, 09)	2,340	12.5%	2,096	11.6%	= .007 **
Principal penalty (Index)					
Prison	1,513	8.1%	1,212	6.7%	< .001 ***
Supervised community	3,414	18.2%	4,763	26.2%	< .001 ***
Supervised custodial	991	5.3%	1,305	7.2%	< .001 ***
Supervised non-custodial	2,423	12.9%	3,458	19.1%	< .001 ***
Unsupervised community	6,991	37.2%	5,769	31.8%	< .001 ***

[#] 2 offenders missing on gender, * $p < .05$, ** $p < .01$, *** $p < .001$

Descriptive analyses

We first examine whether the reforms were associated with an increase or a decrease in re-offending. Table 2 provides the descriptive statistics for any re-offending (excluding breaches) and for serious violent, property, and drug re-offending. These are presented separately for all offenders, DV offenders and the offenders who were sentenced to a short-term prison sentence or a community custodial sentence.

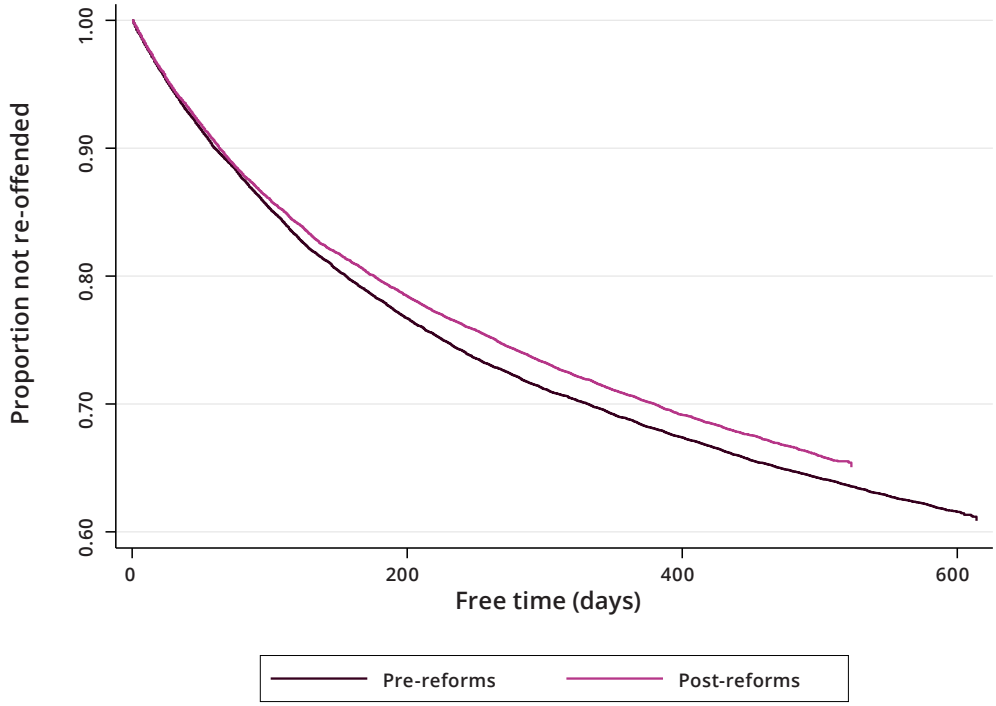
We find that rates of re-offending tend to be slightly lower among offenders sentenced after the reforms. In terms of any re-offending, 31.1% of all offenders sentenced prior to the reforms re-offended compared to 28.9% of those sentenced after the reforms. This was also observed for DV offenders (29.9% re-offending among those sentenced pre-reform vs. 27.0% re-offending among those sentenced post-reform) and for those sentenced to short prison sentences or custodial alternatives (43.0% pre-reform vs. 41.4% post-reform).

Table 2. Re-offending with any new offence (excluding breaches) and serious violent, property, and drug offending for the pre- and post-sentencing reforms groups

	Any re-offending (excluding breaches)		Serious violent, property, and drug re-offending	
All offenders	**Pre-reform**	**Post-reform**	**Pre-reform**	**Post-reform**
Re-offended within 12 free months of index finalisation date				
Percentage	31.1	28.9	17.0	15.6
95% CI	(30.4, 31.8)	(28.2, 29.6)	(16.4, 17.5)	(15.1, 16.1)
Number of free days for 15% to re-offend after index finalisation date				
Free days	103	111	280	316
95% CI	(98, 108)	(105, 116)	(266, 296)	(297, 337)
DV offenders	**Pre-reform**	**Post-reform**	**Pre-reform**	**Post-reform**
Re-offended within 12 free months of index finalisation date				
Percentage	29.9	27.0	18.9	17.3
95% CI	(28.5, 31.4)	(25.6, 28.5)	(17.7, 20.2)	(16.1, 18.6)
Number of free days for 15% to re-offend after index finalisation date				
Free days	122	133	250	283
95% CI	(112, 131)	(122, 148)	(226, 277)	(261, 307)
Short prison sentences and custodial alternatives	**Pre-reform**	**Post-reform**	**Pre-reform**	**Post-reform**
Re-offended within 12 free months of index finalisation date				
Percentage	43.0	41.4	29.1	28.5
95% CI	(41.1, 44.9)	(39.2, 43.6)	(27.3, 30.8)	(26.4, 30.6)
Number of free days for 20% to re-offend after index finalisation date				
Free days	101	107	185	193
95% CI	(93, 112)	(97, 117)	(165, 202)	(170, 224)

These small differences are also observed when examining the number of free days until first new offence after the index finalisation. It took 111 free days for 15% of all offenders in the post-reform period to re-offend, while it only took 103 free days for the pre-reform group. As Figure 2 shows the slower rate of re-offending for the post-reform group is maintained throughout the entire study period. We observe similar differences pre- and post-reform for DV offenders; those who were sentenced following the reforms re-offended more slowly, with 15% of them re-offending at 133 free days compared with 122 days for their pre-reform counterparts. Among offenders who were sentenced to a short-term prison sentence or a custodial alternative, it took 107 free days for 20% to re-offend post the reforms compared with 101 free days in the pre-reform period.

Figure 2. Proportion of all offenders who have not committed a re-offence (excluding breaches) over free days, by group



Pre-post estimates

Any re-offending (excluding breaches)

Table 3 presents unadjusted and adjusted regression estimates of the difference in re-offending before and after the reforms from the logistic regression (reported as odds ratios) and Cox regression models (reported as hazard ratios). Examining outcomes for all offenders, we find that re-offending within 12 free months was significantly lower among the post-reform group compared with the pre-reform group before adjusting for other factors (OR = 0.90, $p < .001$). However, the magnitude of this estimate is no longer statistically different from the null value of 1.00 once we adjust for control variables (OR = 0.98, $p = .339$). We also observe this pattern for the time to first re-offence. The unadjusted effect of the reforms was a statistically significant, suggesting a 6% reduction in the risk of re-offending at any time (HR = 0.94, $p < .001$). However once covariates were included, this effect diminishes to 2% and is no longer statistically significant (HR = 0.98, $p = .296$).

A similar pattern of re-offending results was found for DV offenders. Not adjusting for covariates, we find a statistically significant reduction in the odds of re-offending (OR = 0.87, p = .006), but this decreased after adjustment for covariates and was non-significant (OR = 0.94, p = .287). The Cox regression estimates also reflect this pattern with a 10% (significant) reduced risk of re-offending before adjustment for observed confounders (HR = 0.90, p = .007), compared to a non-significant 5% reduction after adjustment (HR = 0.95, p = .194).

As previously mentioned, the comparison of outcomes for offenders who were sentenced to a short-term prison sentence or a custodial alternative seeks to examine the impact of the new ICOs compared to the previous mix of penalties. No unadjusted significant effects were found for the post-reform group when using logistic regression (OR = 0.94, p = .291) and Cox regression (HR = 0.97, p = .472). We continue to find no significant differences before and after the reforms in the likelihood of any re-offending (OR = 1.00, p = .967) or the time to first any re-offence (HR = 0.97, p = .473) once we adjust for observed confounders.
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Serious violent, property, and drug re-offending

We also estimated whether the reforms were associated with reductions in serious violent, property, and drug re-offending (see Tables 2 and 3). Over the whole sample, those with a finalised matter in the post-reform period were significantly less likely to commit one of these more serious offences within 12 free months compared with the pre-reform group (15.6% vs. 17.0%). While this unadjusted effect was statistically significant (OR = 0.90, p < .001), it was no longer significant once adjusted for potential confounders (OR = 0.99, p = .809). Similarly, the unadjusted rate of re-offending was slower for the post-reform group compared with the pre-reform group, taking 316 free days for 15% to re-offend and 280 days, respectively (HR = 0.94, p = .014). However, after controlling for covariates this effect was no longer statistically significant (HR = 1.00, p = .862).

Among DV offenders there was no significant difference between the proportion of the post-reform group who re-offended within 12 free months compared with the pre-reform group (17.3% vs. 18.9%). This effect was not significant either unadjusted (OR = 0.90, p = .076) or adjusted for potential confounders (OR = 0.99, p = .852). While DV offenders in the post-reform group appeared to re-offend slower, taking 283 free days for 15% to re-offend compared with 250 for the pre-reform group, this effect was not significant either unadjusted (HR = 0.93, p = .118) or adjusted (HR = 0.98, p = .733) for covariates.

Among offenders sentenced to either a short-term prison sentence or a custodial alternative, 28.5% of the post-reform group re-offended within 12 free months compared with 29.1% of the pre-reform group. This difference was not significant unadjusted (OR = 0.97, p = .669) or after adjusting for potential confounders (OR = 1.07, p = .387). While the post-reform group appeared to be re-offending at a slower rate, taking 193 free days for 20% to re-offend compared with 185 days for the pre-reform group, this effect was not significant either unadjusted (HR = 1.01, p = .798) or adjusted (HR = 1.02, p = .642).

Table 3. Unadjusted and adjusted differences in any re-offending (excluding breaches) and serious violent, property, and drug offending for the pre- and post-sentencing reforms groups

	Any re-offending excluding breaches		Serious violent, property, and drug re-offending	
All offenders	**Unadjusted**	**Adjusted**	**Unadjusted**	**Adjusted**
Re-offended within 12 free months of index finalisation				
Odds Ratio	0.90	0.98	0.90	0.99
95% CI	(0.86, 0.94)	(0.93, 1.03)	(0.85, 0.96)	(0.93, 1.06)
p-value	< .001 ***	= .339	< .001 ***	= .809
Number of free days to first re-offence after index finalisation				
Hazard Ratio	0.94	0.98	0.94	1.00
95% CI	(0.90, 0.97)	(0.95. 1.02)	(0.90, 0.99)	(0.96, 1.05)
p-value	< .001 ***	= .296	= .014 *	= .862
DV offenders	**Unadjusted**	**Adjusted**	**Unadjusted**	**Adjusted**
Re-offended within 12 free months of index finalisation				
Odds Ratio	0.87	0.94	0.90	0.99
95% CI	(0.78, 0.96)	(0.84, 1.05)	(0.80, 1.01)	(0.87, 1.12)
p-value	= .006 **	= .287	= .076	= .852
Number of free days to first re-offence after index finalisation				
Hazard Ratio	0.90	0.95	0.93	0.98
95% CI	(0.83, 0.97)	(0.88, 1.03)	(0.84, 1.02)	(0.89, 1.08)
p-value	= .007 **	= .194	= .118	= .733
Short prison sentences and custodial alternatives	**Unadjusted**	**Adjusted**	**Unadjusted**	**Adjusted**
Re-offended within 12 free months of index finalisation				
Odds Ratio	0.94	1.00	0.97	1.07
95% CI	(0.83, 1.06)	(0.88, 1.15)	(0.85, 1.11)	(0.92, 1.24)
p-value	= .291	= .967	= .669	= .387
Number of free days to first re-offence after index finalisation				
Hazard Ratio	0.97	0.97	1.01	1.02
95% CI	(0.90, 1.05)	(0.90, 1.05)	(0.92, 1.12)	(0.93, 1,13)
p-value	= .472	= .473	= .798	= .642

* $p < .05$, ** $p < .01$, *** $p < .001$

New custodial episode within 12 calendar months of index finalisation

We now turn to the impact of the reforms on imprisonment rates. This outcome includes new custody episodes for both a new offence and for breaching an order.

Table 4 compares the pre- and post-reform groups on the proportion with a new custodial episode within 12 calendar months of their index finalisation in the Local Court. Among the pre-reform group, 14.3% recorded a new custodial episode within 12 months compared with 13.6% of the post-reform group. This was not a statistically significant difference ($p = .065$). Turning to DV offenders, 17.7% of those in the pre-reform group had a new custodial episode compared with 17.2% of the post-reform group, but this difference was not statistically significant ($p = .577$). Among offenders who were sentenced to either a short-term prison sentence or a custodial alternative, there was no significant difference between the pre- and post-reform groups (28.8% vs. 30.2%, $p = .267$). These results remained unchanged after adjusting for covariates using logistic regression.

Table 4. Percentage with a new custodial episode within 12 (calendar) months of index finalisation in the Local Court

All offenders	Percentage	Unadjusted			Adjusted		
		Odds Ratio	95% CI	*p*-value	Odds Ratio	95% CI	*p*-value
Pre-reform (n=18,788)	14.3	1.00			1.00		
Post-reform (n=18,153)	13.6	0.95	(0.89, 1.00)	= .065	1.01	(0.95, 1.08)	= .763
DV offenders	**Percentage**	**Unadjusted**			**Adjusted**		
		Odds Ratio	95% CI	*p*-value	Odds Ratio	95% CI	*p*-value
Pre-reform (n=3,948)	17.7	1.00			1.00		
Post-reform (n=3,872)	17.2	0.97	(0.86, 1.09)	= .577	1.04	(0.91, 1.18)	= .568
Short prison sentences and custodial alternatives	**Percentage**	**Unadjusted**			**Adjusted**		
		Odds Ratio	95% CI	*p*-value	Odds Ratio	95% CI	*p*-value
Pre-reform (n=2,970)	28.8	1.00			1.00		
Post-reform (n=2,473)	30.2	1.07	(0.95, 1.20)	= .267	1.07	(0.94, 1.21)	= .308

* $p < .05$, ** $p < .01$, *** $p < .001$

Instrumental variable estimates

We turn now to our instrumental variable estimates. As previously stated, this can be most easily interpreted as the change in outcomes for those who received a supervised community-based order due to the sentencing reforms.[13] This differs from the analysis in the preceding sections, which estimates the average impact of the reforms across all individuals found guilty of an eligible offence.

First, Table 5 presents the relationship between being sentenced after the sentencing reforms commenced and the likelihood of receiving a supervised community order (i.e. the first stage in our instrumental variables analysis). We estimate that individuals in the post-period are approximately 8 percentage points more likely to receive a supervised community order, with 18.2% receiving a supervised community order pre-reform and 26.2% receiving a supervised community order post-reform.

Table 5. Estimated change in the proportion of offenders who received a supervised community order after the sentencing reforms were introduced

	Unadjusted	Adjusted
Post-reform	0.081	0.088
95% CI	(0.072, 0.089)	(0.080, 0.096)
p-value	< .001 ***	< .001 ***
F-statistic	351.89	356.17

* $p < .05$, ** $p < .01$, *** $p < .001$

13 This estimate is difficult to interpret more generally as 'the impact of a supervised community order' as some people receive a supervised community order where they would have received a short prison sentence, while others receive a supervised community order instead of an unsupervised community order or a fine. It is therefore unclear whether the net effect of the reforms was to increase or decrease the intensity of the sentences received by impacted individuals, and what the average impact is for each of these groups separately.

In Table 6, we present the instrumental variable estimates for each of our outcome variables, for the total sample and for the two offender sub-groups. When considering all individuals in our sample, we do not estimate any meaningful impact on re-offending for those that received a supervised community-based order due to the sentencing reforms or any change in new custodial episodes. We estimate that those who received a supervised community-based order as a result of the sentencing reforms were 5 percentage points (p.p.) less likely to commit a new non-breach offence and 1 p.p. less likely to commit a new serious violent, property or drug offence than offenders (with a matter finalised before the reforms) who would have received a supervised order had they been sentenced following the reforms. But we also estimate that those who received a supervised community-based order as a result of the sentencing reforms were 1 p.p. more likely to have a new custodial episode in the 12 months after the index finalisation. All of these effects are, however, very small and none are statistically significant, with each estimate being well within our 95% confidence intervals.

Table 6. Estimated marginal change in proportion re-offending and returning to custody, for all individuals who received a supervised community-based order due to the reforms

Total in Local Court	**Any re-offending (excluding breaches) in 12 months free time**	**Serious violent, property, and drug re-offending in 12 months free time**	**Any new custodial episode in 12 calendar months**
Estimated change in proportion re-offending	-0.05	-0.01	0.01
95% CI	(-0.14, 0.04)	(-0.09, 0.06)	(-0.07, 0.08)
p-value	= .297	= .753	= .839
DV offenders	**Any re-offending (excluding breaches) in 12 months free time**	**Serious violent, property, and drug re-offending in 12 months free time**	**Any new custodial episode in 12 calendar months**
Estimated change in proportion re-offending	-0.05	-0.01	0.02
95% CI	(-0.14, 0.04)	(-0.09, 0.07)	(-0.06, 0.11)
p-value	= .271	= .840	= .571
Short prison sentences and custodial alternatives	**Any re-offending (excluding breaches) in 12 months free time**	**Serious violent, property, and drug re-offending in 12 months free time**	**Any new custodial episode in 12 calendar months**
Estimated change in proportion re-offending	0.00	0.03	0.06
95% CI	(-0.09, 0.09)	(-0.06, 0.11)	(-0.06, 0.17)
p-value	= .976	= .515	= .346

* $p < .05$, ** $p < .01$, *** $p < .001$

Looking at just DV offenders, we again do not estimate any meaningful impact on re-offending outcomes for those that received a supervised community-based order due to the reforms. We observe a similar pattern across the estimates, with differences that are very small in magnitude (-5 p.p. for any re-offence excluding breaches, -1 p.p. for serious violent, property, and drug offences and 2 p.p. for any new custodial episode) and non-significant.

Finally, looking at just those who were either sentenced to a short prison sentence or a community custodial sentence, we again find no evidence for a reduction in re-offending caused by receiving a supervised community-based order as result of the sentencing reforms. We observe a similar pattern across our three outcome measures (No difference for any re-offending, 3 p.p. for serious violent, property, and drug offences and 6 p.p. for a new custodial episode), and again these estimates are not statistically significant.

DISCUSSION

The aim of this study was to evaluate the impact of the NSW sentencing reforms on re-offending. To do this, we compared re-offending outcomes for offenders with a finalised matter in the Local Court in the 13 weeks before and after the 2018 reforms, adjusting for relevant offender and offence characteristics.

While the reforms increased the proportion of individuals receiving a supervised community sentence relative to short-term prison and unsupervised community sentences, we find no evidence to suggest that this change significantly reduced re-offending. Among all eligible offenders sentenced in the Local Court, 12-month unadjusted rates of re-offending declined from 31.1% to 28.9% after the reforms commenced. Reductions were also observed for DV offenders (from 29.9% to 27.0%) and offenders sentenced to short prison sentences or custodial alternatives (from 43.0% to 41.4%). However, these effects were not statistically significant once covariates were controlled for. The results were similar when more serious re-offending was considered. Counting only serious violent, property, or illicit drug re-offences, we found no significant differences between those sentenced before and after the reforms for the full offender sample (OR=0.99, p=.809) and for the two offender sub-groups (DV offenders: OR=0.99; p=.852; offenders with a custodial penalty or alternative; OR=1.07; p=.387) after adjusting for relevant covariates. These results were corroborated by the survival analyses which showed no change after the reforms in (free) time to first new offence. Taken together, these findings suggest that the reforms neither reduced the rate nor the time taken for offenders to re-offend.

To address the possibility that the results from the simple pre-post comparison were due to "treatment dilution" arising from the inclusion of a large number of offenders likely unaffected by the reforms, further analyses using an instrumental variables approach were undertaken. The estimates derived from the IV models had reduced precision compared to the pre-post analyses but confirmed that the reforms did not result in any meaningful change in re-offending rates. The largest effect found was for the probability of any new re-offence, for which we estimated a statistically insignificant reduction in re-offending of 5 p.p. for all offenders and DV offenders. The remaining estimates were all within 3 p.p. of zero.

These null results do not align with those reported in earlier offender studies which showed significantly lower rates of recidivism among offenders supervised by probation and parole authorities (Ringland & Weatherburn, 2013; Wan et al., 2015; Wang & Poynton, 2017). There are several possible explanations for the differing results. First, in the current study, the follow-up period used to measure re-offending was limited to 12 months (free time) in order to avoid bias arising from the first set of COVID-19 social distancing measures introduced in NSW in March 2020. Inclusion of the COVID-19 period would have been problematic for both the pre-post study design and the instrumental variables analysis as neither approach would be able to discern whether any observed reductions occurred because of the reforms or the changes in the offending environment resulting from the COVID-19 restrictions. If we were able to follow-up offenders for a longer period it is possible that we may have observed larger differences in re-offending during the post-reform period. The restricted study period also meant that we were unable to assess the impact of the sentencing reforms on the re-offending rate of offenders who had a matter finalised in the higher courts. Given that the magnitude of the sentencing changes was greater for matters finalised in the District and Supreme Courts (see Donnelly, 2020), it is possible that significant reductions in re-offending may have been detected among these more serious offenders.

Second, the reforms significantly increased the proportion of offenders who were sentenced to a supervised order, but the impact on the actual rate at which offenders were supervised in the community is likely to be much smaller. Corrective Services NSW only provides community supervision to offenders who are assessed as being at a medium to high risk of re-offending. The suspension of supervision for low risk offenders is partly to manage high demand but is also consistent with the Risk-Need-Responsivity model of offender management (Bonta & Andrews, 2007) and evidence suggesting that supervising low risk offenders may have a criminogenic effect (Lowenkamp & Latessa, 2004). In a descriptive analysis

of the LSI-R risk categories of offenders receiving supervised orders before and after the reforms (see Appendix B), we found that for every 10 additional offenders sentenced to a supervised order, only four would have been actively supervised in the community. This may account for the null effect found in our study.

A third explanation is that the reforms caused some (more risky) offenders who would have otherwise received short prison penalties plus other (less risky) offenders who would have otherwise received unsupervised community orders to receive supervised community orders. It is possible that there have been opposite effects on re-offending for each of these groups. For example, more supervision may have increased the likelihood of lower risk offenders being detected committing minor offences while being effective at reducing offending among higher-risk offenders.

While we do not find any evidence to support the effectiveness of the sentencing reforms in reducing re-offending, there is also no evidence that there has been any adverse impact of the reforms on the prison population, at least in the short-term. One concern with sentencing policies that seek to expand the use of community-based alternatives to prison is the potential for net-widening or "sentence-creep". That is, harsher penalties being imposed on less serious offenders who, in the absence of the newly introduced sentencing options, would have received a non-custodial sanction.[14] The concern is that people who breach a community-based custodial sanction are arguably more likely to go to prison than those breaching another type of community-based order so net-widening could, unintentionally, draw more offenders into the prison population (McInnis & Jones, 2010; Menéndez & Weatherburn, 2014). However, the analysis presented in this bulletin suggests that despite more offenders being placed on supervised orders after the sentencing reforms, there has been no adverse impact on imprisonment through additional breaches of supervised orders. We found no statistically significant difference between the pre- and post-reform groups in the proportion experiencing a new custodial episode within 12 calendar months of their index finalisation (e.g. 28.8% vs. 30.2% for short prison sentences and custodial alternatives). Given this result, further research could consider whether any savings have been achieved because of the reduction in short-term prison arising from the reforms. This would need to be assessed against the increased costs associated with actively supervising more offenders in the community. The longer-term effect of the sentencing changes on imprisonment rates should, however, continued to be monitored, particularly for more vulnerable groups such as Aboriginal people.

The abundance of evidence to support the effectiveness of community supervision in reducing recidivism suggests that further research into the extent and quality of supervision following the sentencing reforms may be worth pursuing. We know from the extant literature that supervision is most effective when it is active, high-quality and has a rehabilitative rather than a surveillance focus (Bonta & Andrews, 2007; Wan, Poynton, Van Doorn, & Weatherburn, 2014; Wan et al., 2015). It is possible that with a greater volume of offenders under community supervision after the new sentencing regime took effect (26.2% vs. 18.2%), the quality of services that were delivered were compromised. Assessing not only the frequency and type of contacts with community corrections officers but also the level of access that offenders had to behavioural change, education and employment programs during the post-reform period would be beneficial. The NSW Government recently announced further investment in this area, with $33 million committed to increasing supervision of offenders in the community and ensuring greater access to rehabilitation programs.[15] The impact of any newly funded initiatives to reduce re-offending rates should also be the subject of further evaluation.

14 Rather than a custodial sentence to be served in the community.
15 This includes funding for an additional 170 Community Corrections officers. See https://dcj.nsw.gov.au/news-and-media/media-releases/investing-in-community-supervision-and-safety.html

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APPENDIX

Appendix A. Descriptive tables for sub-groups of offenders

Table A1. Pre- and post-sentencing reforms groups in Local Court compared on demographic, prior offending, index offence characteristics and principal penalty: DV offenders (n = 7,820)

	Pre-sentencing reforms		Post-sentencing reforms		
	Number	Percentage	Number	Percentage	*p*-value
Demographic characteristics					
Gender					= .573
Female	750	19.0%	755	19.5%	
Male	3,198	81.0%	3,177	80.5%	
Age group					= .520
18 - 24	754	19.1%	745	19.2%	
25 - 34	1,251	31.7%	1,185	30.6%	
35 - 44	1,050	26.6%	1,016	26.2%	
45 plus	893	22.6%	926	23.9%	
Aboriginality (Index contact)					= .303
Non-Aboriginal/unknown	3,185	80.7%	3,159	81.6%	
Aboriginal offender	763	19.3%	713	18.4%	
ARIA					= .721
Major cities	2,472	62.6%	2,423	62.6%	
Inner regional	945	23.9%	906	23.4%	
Outer regional/Remote(s)	418	10.6%	438	11.3%	
Not recorded	113	2.9%	105	2.7%	
Prior offence characteristics					
Proven court appearances past 5 years					< .001 ***
0	1,693	42.9%	1,806	46.6%	
1	753	19.1%	744	19.2%	
2 or more	1,502	38.0%	1,322	34.1%	
Prison in past 5 years?					= .539
No	3,400	86.1%	3,353	86.6%	
Yes	548	13.9%	519	13.4%	
Index offence characteristics (ANZSOC, 2011)					
Assault principal offence (Subdivision 021)	1,775	45.0%	1,729	44.7%	= .786
Principal penalty (Index)					
Prison	502	12.7%	415	10.7%	= .006 **
Supervised community	1,025	26.0%	1,693	43.7%	< .001 ***
Supervised custodial	279	7.1%	320	8.3%	= .047 *
Supervised non-custodial	746	18.9%	1,373	35.5%	< .001 ***
Unsupervised community	1,865	47.2%	1,302	33.6%	< .001 ***

* $p < .05$, ** $p < .01$, *** $p < .001$

Table A2. Pre- and post-sentencing reforms groups in Local Court compared on demographic, prior offending, index offence characteristics and principal penalty: Short prison sentences and custodial alternatives (n = 5,443)

	Pre-sentencing reforms		Post-sentencing reforms		
	Number	Percentage	Number	Percentage	*p*-value
Demographic characteristics					
Gender					= .561
Female	423	14.2	366	14.8	
Male	2,547	85.8	2,107	85.2	
Age group					= .200
18 - 24	464	15.6	439	17.8	
25 - 34	1,002	33.7	814	32.9	
35 - 44	863	29.1	689	27.9	
45 plus	641	21.6	531	21.5	
Aboriginality (Index contact)					= .914
Non-Aboriginal/unknown	2,295	77.3	1,914	77.4	
Aboriginal offender	675	22.7	559	22.6	
ARIA					= .347
Major cities	1,797	60.5	1,513	61.2	
Inner regional	733	24.7	624	25.2	
Outer regional/Remote(s)	302	10.2	216	8.7	
Not recorded	138	4.7	120	4.9	
Prior offence characteristics					
Proven court appearances past 5 years					= .085
0	513	17.3	484	19.6	
1	460	15.5	363	14.7	
2 or more	1,997	67.2	1,626	65.8	
Prison in past 5 years?					= .103
No	1,888	63.6	1,519	61.4	
Yes	1,082	36.4	954	38.6	
Index offence characteristics (ANZSOC, 2011)					
DV for any proven offence	872	29.4	723	29.2	= .920
Violent principal offence (Divisions 01, 02, 03, 06)	923	31.1	792	32.0	= .453
Serious property principal offence (Divisions 07, 08, 09)	675	22.7	558	22.6	= .886
Principal penalty (Index)					= .148
Prison (<= 24 months)	1,448	48.8	1,157	46.8	
Custodial alternatives	1,522	51.2	1,316	53.2	

* $p < .05$ ** $p < .01$ *** $p < .001$

Appendix B. Changes in active supervision pre- and post-reform

While more offenders were sentenced to a supervised order in the post-reform period, a fewer number were likely actively supervised in the community. Community Corrections (an agency within Corrective Services NSW), who is responsible for managing offenders in the community, only actively supervises offenders who are assessed at Medium, Medium-High, and High risk of re-offending based on their scores on the Level of Service Inventory – Revised (LSI-R; Andrews & Bonta, 2005).[16] Supervision is suspended for offenders assessed as 'Low' or 'Medium-Low' on the LSI-R and can be reactivated if the offender comes into contact with police.[17]

To investigate the extent to which active supervision increased because of the reforms, we examined LSI-R assessment data for offenders who received supervised community orders before and after the reforms. We examine these separately for supervised custodial community orders and non-custodial community orders. Custodial community orders are those where a judicial officer must first determine whether imprisonment is an appropriate penalty before considering whether the sentence should be served in the community. The reforms replaced previous custodial alternatives (ICO, unsupervised and supervised suspended sentences, home detention) with a strengthened ICO, which included compulsory supervision.

As LSI-R assessments are a dynamic risk assessment we only use the first LSI-R assessment within 3 months of finalisation, or the most recent LSI-R assessment in the 12 months prior to finalisation (in cases where there was no valid LSI-R assessment within 3 months post-finalisation).

Figure B1. LSI-R groupings for offenders receiving supervised custodial and non-custodial community orders, finalised in the 13 weeks before and after the 2018 sentencing reforms

Figure B1 shows the number of offenders receiving a supervised custodial community sentence before and after the reforms, by whether they were categorised as Medium, Medium-High, and High risk, or Low or Medium-Low risk. The number of offenders receiving 'custodial' supervised community orders (Figure A1(a)) increased from 907 before the reforms to 1,218 (an increase of 311 offenders). This is comprised of an increase of 190 (approximately 61% of the increase) offenders in the Low and Medium-Low risk categories, and 121 offenders in the Medium, Medium-High, and High categories (the remaining 39%). Thus, at least within our sample, only 40% of the increase in custodial community supervised orders involved active supervision.

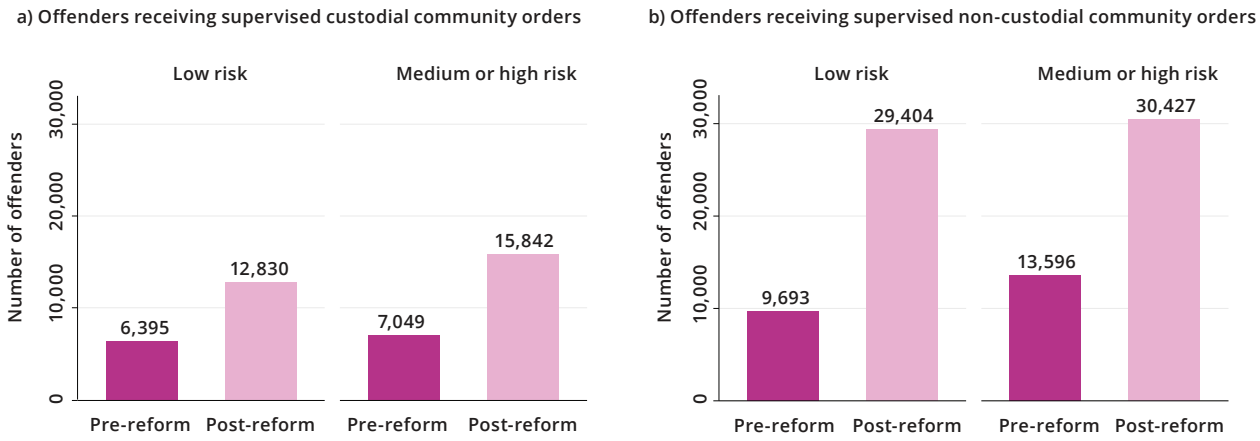
16 See: https://correctiveservices.dcj.nsw.gov.au/csnsw-home/reducing-re-offending/initiatives-to-support-offenders/offender-assessment.html
17 A small group of low and medium-low risk offenders may be actively supervised because of the nature of their offence or penalty imposed (e.g. those with an electronic monitoring order, with proven sex offences or terrorism related offences).

The corresponding analysis for offenders who received non-custodial supervised orders is presented in Figure B1(b). Note that these should be considered with caution as almost one fifth (18%) of these offenders do not have a valid LSI-R and are therefore not included. Considering only those with a valid LSI-R, we observe an increase of 1,221 offenders receiving these orders after the reforms. The majority of this increase occurred among offenders assessed as at Low and Medium-Low risk of re-offending (867 or 71% of the total increase).

This analysis suggests that most of the offenders (57%) who received supervised community orders after the reform in our sample, may have had the supervision component suspended. To examine whether this is also the case more generally, we examine Community Corrections data regarding LSI-R or CIA assessment status for offenders sentenced to a community order between 1 January 2016 through to 20 December 2021, which includes their risk classification level on the LSI-R or the Community Impact Assessment (CIA), which assesses the consequence of re-offence both to the community and the organisation. As with the previous analysis, we consider the change in the number of offenders receiving each type of order by their risk level (Figure A2). We exclude all offenders whose risk assessment status was pending.

There was an increase of 15,228 offenders receiving supervised custodial community orders following the reforms. This was comprised of an additional 8,793 (58%) offenders who were assessed at medium risk level or higher. Meanwhile, of the additional 36,542 offenders receiving supervised non-custodial community orders, 16,831 (46%) were assessed at the medium or higher risk level.

Figure B2. Risk classification of offenders receiving supervised custodial and non-custodial community orders between 1 January 2016 and 20 December 2021



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