Ministry of Justice

Analytical Summary 2018

The reoffending impact of increased release of prisoners on Temporary Licence

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Research from the USA suggests temporary release from prison is an effective way to improve offenders' reoffending and employment outcomes. This study assesses the impact of Release on Temporary Licence (ROTL) in England and Wales from a dose-response perspective. The effects on individuals' reoffending outcomes of increasing numbers of temporary releases in the period leading up to release from prison on individuals' reoffending were examined. Data of those released from prison in 2012 and 2013 were used in the analysis.

Key findings

- Results suggest that increased use of ROTL overall was associated with reduced reoffending for those to whom it was given prior to release from prison in 2012 and 2013. This was after controlling for offenders' characteristics, offending history and ROTL failure.
- For those given at least one ROTL, additional ROTLs in the six-month period leading up to release were associated with small but statistically significant reductions in rates of proven reoffending and frequency of reoffences.
- The reoffending effects associated with increased ROTLs became larger the closer individuals were to release.
- The categories of ROTL were associated with different impacts. For example, after controlling for other variables, in the six-month period leading up to release:
  - Each additional Resettlement Day Release was associated with a 0.5% reduced odds of reoffending over a one-year follow-up period.
  - Each additional Resettlement Overnight Release was associated with a 5% reduced odds of reoffending over a one-year follow-up period.
- Further analysis comparing those with under 25 ROTLs within six months prior to release with similar offenders with 25 or more ROTLs confirmed that the higher ROTL group had a 3.1 percentage points lower reoffending rate over a one-year follow-up period (and 0.1 fewer reoffences per offender on average).
- While the approach taken in this study involved adjusting for offenders' characteristics, offending history and ROTL failure, it cannot definitively control for all factors that may influence the findings. In particular, the available data do not include ROTL release duration or contextual details such as the quality of the ROTL release.

Introduction

Release on Temporary Licence (ROTL) is "the mechanism that enables [offenders] to participate in necessary activities, outside of the prison establishment, that directly contribute to their resettlement into the community and their development of a purposeful, law-abiding life" (National Offender Management Service (NOMS), 2015).

Decisions on whether to grant ROTL are taken by the prison governor or a delegate (acting on behalf of the Secretary of State) following a risk assessment process, although some prisoners are expressly prohibited from getting ROTL (see Appendix A). In practice, many prisons operate ROTL boards to which prisoners apply for ROTL.

There are four main categories of ROTL:

- *Special purpose licence:* Visits to dying relatives who are close family members; going to funerals of close family members; marriage or religious services; medical treatment – for as long as the hospital appointment or treatment lasts; going to court, tribunal or an inquiry.
- *Resettlement day release:* Working out / taking part in community service projects or other things offenders have to do outside prison as part of their sentence to get ready for release; keeping in touch with family; training or education courses about life and work skills.
- *Resettlement overnight release:* Similar to the day release, but also to spend time at the place the offender will be living once they are released from prison.
- *Childcare resettlement:* For certain prisoners who are the only parent or carer for a child under 16.

Use of temporary release

There have been a number of changes to ROTL policy following three instances of serious offending on temporary release in 2013. In response, the then Justice Secretary commissioned an internal review of the policy and practice of ROTL and reviews of each of the cases by Her Majesty's Inspectorate of Prisons (HMIP, 2014). These reviews found a number of weaknesses in the use of ROTL around England and Wales,[1] and led to new guidelines for ROTL being issued (NOMS, 2015).

Eligibility criteria and assessment practice were made much tighter and the number of ROTLs fell substantially (by around 37% in 2015 compared to 2013).

Despite a fall in numbers of ROTL given following the revised guidelines, ROTL is still used very frequently in England and Wales. In 2016, there were around 7,000 individuals released on ROTL (an average of around 47 incidences of ROTL per individual), with most ROTL incidences being resettlement day release. ROTL failures (i.e. returning late, failing to return, alleged offending, or other breaches of licence conditions) were relatively rare – less than 0.1% of ROTL incidences ended in a recorded release failure in 2016, an overall failure rate of 75 per 100,000 ROTL incidences.

Effectiveness of ROTL

Evidence suggests that use of temporary release may carry benefits for offenders and the wider community. Building family ties, stable accommodation and employment, all of which may be addressed through ROTL, have been associated with positive offender outcomes (e.g. Ministry of Justice, 2013a; Ministry of Justice 2013b).

A systematic review, which searched internationally but only found studies from the USA, concluded that "both home leave and work release schemes can be effective in reducing recidivism rates, while work release may also enhance post-release employment prospects" (Cheliotis, 2008: p. 153). Although there were several different forms of release scheme (e.g. differing on frequency of release and associated therapeutic interventions), the positive effects of temporary release were quite consistent.

However, while there is anecdotal evidence from England and Wales that supports the use of ROTL (e.g. Aresti and Darke, 2015) there is no quantitative research on its impact. As a result, it is challenging to assess whether ROTL is being used effectively, and to evaluate changes in ROTL policy and practice.[2]

Aims

This analysis aimed to explore the impact of different types of ROTL on reoffending in England and Wales. Aside from a very small number of compassionate releases, every incidence of ROTL is designed to further the prisoner's rehabilitation. Reoffending is a relevant

[1] The review concluded: (1) A uniform approach to managing all prisoners meant risk management was no more robust for the highest risk cohort. (2) Confusion about the purpose of ROTL meant that granting ROTL had become 'a presumption' in open prisons. (3) There were inconsistencies in the way ROTL was operating across the prison estate.

[2] The ROTL failure rate (as reported above) is a useful but limited measure that does not take into account quality of ROTL (which may relate to process issues as highlighted by HMIP's ROTL review).

outcome for the overall aim of ROTL as set out above (NOMS, 2015) and for the criminal justice system as a whole. There were two main research questions.

1. What is the impact of ROTL on reoffending outcomes?
2. Are there different impacts associated with the different categories of ROTL?

Method

There are several challenges for analysing the impact of ROTL, largely concerning how to generate a robust counterfactual.

A fully experimental approach with offenders assigned to a release or non-release group (e.g. a randomised controlled trial design) was not practically possible to achieve for this project. It may be considered unfair and potentially contrary to the public interest to refuse ROTL to someone who was both eligible and suitable for it, where it had been identified in their sentence plan as the best tool for tacking their resettlement needs. A quasi-experimental approach where those released on ROTL are compared with similar offenders who were not released on ROTL was complicated by the following issues.

- While we could in theory have compared those who have experienced ROTL with those who have not, in practice there were likely to be substantial (systematic) differences between the two groups. Risk assessments for ROTL are generally undertaken by boards within prisons. The recommendation by the boards may be correlated with offender outcomes – since high-risk offenders, who may be more likely to reoffend, will tend to be refused ROTL.
- Further, it would not be possible to disentangle the impact of the actual experience of ROTL with that of going through the ROTL board (e.g. being trusted for temporary release).
- It was considered unlikely that an open establishment would have many prisoners that had not been afforded at least one incidence of ROTL, which carried sample size issues for comparison groups if trying to construct comparison groups within open prisons. On the other hand, trying to compare individuals in different prison conditions (open vs closed) was problematic, as again there were likely to be systematic differences between prisoners that may not be observable in the available data. Looking at closed prisons alone would also be difficult due to sample size issues (too few ROTLs) and difficulties in generalising to open conditions (the real ROTL target group).

To overcome these challenges, a dose-response approach was followed.

The dose-response approach

Dose-response models have mainly been used in medical / epidemiological research, where the risk associated with exposure to a stressor is the subject of interest (see Steenland and Deddens, 2004; Stayner *et al*, 1995; Checkoway and Eisen, 1998). Such models describe the change in effect associated with differing levels of exposure to an activity, event or stimulus ('doses'), with the aim of inferring causality.

The dose-response approach avoids difficulties noted above with identifying a counterfactual group by focusing on 'change by incremental use' (following caveats outlined below), so using the group of those who have received ROTL as their own reference. It thereby enabled estimation of the impact that may be associated with ROTL – that is, how offender outcomes may change with different numbers of ROTL incidences, for offenders receiving at least one ROTL. Examining ROTL from a dose-response perspective also has policy relevance, as it may help identify a level of ROTL that maximises the benefits.

The application of this medical / epidemiological method to a criminological context is reasonably novel, although not without precedent (e.g. Loughran *et al*, 2009; Meade *et al*, 2013). It was hypothesised that, on average, the more ROTLs a prisoner had the better their outcomes would be – i.e. their reoffending would decrease. If true, this would invert the standard dose-response curve, where generally there is an increasing potential for an effect (usually negative) following exposure to a stressor. Such a pattern does not, however, affect the essential method.

An important aspect of the dose-response relationship in the medical literature is that the stressor must be cumulative – i.e. the effects of an additional exposure builds on the previous one. With ROTL, we could not be sure that this was the case – in fact, it was reasonable to assume that any impact of being released temporarily would reduce over time (e.g. as resettlement activities on temporary release may not be resilient over the longer term). For this reason, the analysis was undertaken on the basis of examining ROTL rate rather than basic 'dose'. This also had advantages in light of limitations with available temporary release data, as discussed below.

Data and cohort

Information about offenders' history, ROTL history (including ROTL failures), and reoffending outcomes were required for the present analysis. This necessitated data linking between several administrative datasets.

The first step was to obtain ROTL data. Data on each ROTL incident was obtained for each full year from 2011 to 2014 inclusive (data were also obtained for Q1 2015 but not used in this report). A total of 1,556,089 incidents were included. This did not, however, account for ROTL failures, which are held on a separate database.

Information on ROTL failures was obtained for the same period, including details of 1,086 ROTL failures in total. These were matched to ROTL incidents using the unique prisoner number, prisoner surname, initials, and date of birth. This resulted in 1,030 of the 1,086 ROTL failure records being matched (i.e. a loss of 5%).

The number of days between the matched ROTL incident date and failure incident date was then examined. A difference of up to five days was achieved in 97% of the matches (0 days in 64%). This was considered an acceptable threshold to use in the context of the present analysis. Any matches with differences that were over five days were therefore discarded.

This provided a total pool of 1,556,059 ROTL incidents / failure records (including 1,001 failed ROTLs) involving 23,592 unique individuals. These data were then matched to proven reoffending data for the prisoners involved, derived primarily from the Police National Computer (PNC). Reoffending data were available for those released in 2012 and 2013. In accordance with MOJ proven reoffending statistics, reoffending in this study relates to a reoffence committed in a one-year follow-up period that leads to a court conviction or caution in a one-year follow-up or within a further six-month waiting period to allow the offence to be proven in court. Where offenders were in the dataset twice, having had two ROTL spells (i.e. having been released from prison and reoffended, they were then given ROTL in their second spell), their first ROTL spell was taken account of in analysis – in practice this was the case for only five individuals in the data.

Analysis

Due to changes in administrative IT systems at the time, there are no centrally-held data for ROTL incidences in 2009 and 2010. One implication of the available ROTL data is that we cannot be sure for all of those in prison in 2011 or later (depending on their conviction dates and sentence lengths) whether they had temporary releases between 2009 and 2010. This framed our analytical approach. In accordance with the literature on dose-response relationships, we focused on rate of ROTL which allowed us to limit our cohort of interest and circumvent this data issue somewhat. The analysed cohort was all those offenders who were released in either 2012 or 2013. The 'dose' was the number of ROTLs in a given period pre-release, which was set at default to six months (but was also manipulated during analysis). Those who were not in prison for the requisite number of months in 2012 before release were not included in the analysis.

Negative binomial and logistic regression models were designed, looking at the influence of the number of ROTLs on reoffending frequency and rate. Modelling controlled for a number of factors, including demographic characteristics of offenders, offending history, and aspects of the current conviction that have previously been found to be correlated with risk of reoffending (e.g. Ministry of Justice, 2013b). It was not possible to control directly for characteristics that may make prisoners apply for ROTL (e.g. higher motivations to gain ROTL). ROTL failure may lead to a return to closed prison conditions, and to non-eligibility for future ROTLs, and so was also accounted for in the analysis.

Limitations

There are caveats to the approach that should inform interpretation of findings.

- It is possible that the NOMS 2015 guidelines altered the impact of ROTL (there was a substantial fall in use of ROTL in 2014, which may be connected to the general focus on ROTL). At the time of completing the analysis, the reoffending data were not available to assess ROTLs after the guideline changes. Therefore, results concern the historical impact of ROTL, rather than its current impact.
- The dose-response approach cannot definitively establish causality. A lower risk of reoffending would tend to lead to more ROTLs. As we are able to control for known correlates of reoffending (e.g. Copas rate, age of onset) in the present analysis, however, we can be more confident in the directional causality of the findings. In essence, including these factors should allow us to take account of risk of reoffending and so isolate the impact of ROTL.
- The data do not contain contextual details of the prisoners' ROTL releases that may be relevant for outcomes. For example, some ROTLs (for resettlement in particular) will be for specific reasons (e.g. to undertake specific tasks), and the number of ROTLs will change accordingly. In these cases, it is

possible that the success of the task and not the number of ROTLs will be associated with offender outcomes. In addition, the quality of ROTL may be different – with some establishments able to offer work placements which are more likely to lead to permanent employment on release, for example, which may affect outcomes. Further, while we have data on ROTL failures, we have none on ROTL requests that have been turned down.

- By necessity, the analysis looks at the average impact of ROTL for prisoners, which may gloss over the individualised nature of ROTL and its purpose. For example, an offender may experience rejection or acceptance, and these experiences may affect future ROTL decisions. Some offenders get ROTL because they are doing well; alternatively, others may fare less well and are given further ROTLs to try again. Further, it is possible that temporary release may have rehabilitative benefits, even if the terms of the ROTL are breached.
- There may be differences in ROTL practice between establishments which are not recorded in the ROTL data that complicate comparisons. For example, some establishments may operate a practice of 'supervised' ROTL, whereby a prisoner is escorted outside of the prison – although anecdotally this is thought to be rare. However, we would expect trends seen in the data to be representative of the overall national picture.
- Results may not be easily generalisable to the overall offender population. For example, this study may be subject to a 'healthy worker' effect (e.g. Li and Sung, 1999) – a selection bias noted in occupational studies of morbidity where those who are tested tend to be healthier than the general population, since they have been selected to work. Similarly, the ROTL group have been selected for eligibility for ROTL (and for the most part for open prison conditions), and so may be less likely to offend than the overall offender population. The analysis related specifically to those prisoners given at least one ROTL.
- The ROTL data do not allow us to examine the duration of individual releases. The number of ROTLs for each individual does not necessarily equal the number of days they are released for (in practice the two will be extremely similar because around 94% of ROTL is day release, but the available data do not allow us to say how much). Specifically, Resettlement Overnight Release will effectively be a release over two to five days. This feature of the data does not limit the analysis, but should inform its interpretation (i.e. we analyse numbers of ROTL, not durations).
- Finally, the dose-response approach assumes that there are no other events, activities or stimuli that are directly correlated with the main 'stressor' (in our analysis, the ROTL incident) that may explain any effects found. While we have checked this assumption with practitioners, we cannot conclusively rule out the chance that another variable may explain any effects. The data do not allow us to isolate the impact of the release as separate from the other activities that go alongside it (e.g. offenders requesting ROTL, risk assessment process, pre-ROTL preparations, etc.). Nevertheless, the dose-response approach limits the potential for bias somewhat by ensuring we are comparing only those who have been through the same initial ROTL preparation processes.

Findings

After the data matching processes and restricting the ROTL incidents to those given within six months prior to release, a total of 197,007 ROTL incidents were captured in the data, comprising 5,879 unique individuals. The mean average number of ROTLs per person was 34 (standard deviation = 40), and the distribution was highly positively skewed (see Figure B1).

Demographic characteristics of these individuals are provided as Table B1. The vast majority of ROTL incidents (94%) were for resettlement day release (see Table B2). The data also captured 138 cases of ROTL failure during the six months leading up to release (no individual had more than one failure) – a failure rate of less than 0.1%. Proven reoffending was relatively rare across the cohort, as might be expected given the risk assessment-based ROTL allocation process as described above. For those who had been released on temporary licence within six months of their release, the overall one-year proven reoffending rate was around 13%, with an average of 0.3 reoffences per individual (a range of between 0 and 16 reoffences). The proven reoffending rate for all adult offenders released from custody in England and Wales during 2013 was around 46% (Ministry of Justice, 2015), indicating the ROTL cohort was overall less at risk of reoffending than the general prison population (not accounting for any differences in the characteristics between the two groups).

ROTL failures

The total number of failure incidents captured in the original ROTL data (i.e. before matching to reoffending data) is provided in Table B3. As noted above, the total number of ROTL failures is very low (less than 0.1% of total ROTLs). The highest proportion of failures of the main ROTL categories was for Resettlement Overnight Release, although this was still very low (around 0.3% of these ROTL incidents ended in failure). The proportion of failures captured in the data decreased each year from 2012 to 2014.

The data were analysed further to examine how many ROTLs individuals have on average before failure. First, the data were limited to only those convicted in 2012 or later. This was in order to ensure that the data accounted for an individual's total number of ROTLs and failures during their prison spell. However, it substantially reduced the number of ROTL failures available for analysis, to 29 failures. While the data suggested that most of these failures happened during an individual's first ROTL, the number of incidents being examined was too few to draw reliable conclusions.

Failures that occurred in the six months before release were therefore also examined (see Figure B2). Survival analysis was undertaken on these data, examining the likelihood of failure following each further ROTL in this period (see Figure B3). Analysis suggested that most failures happened during an individual's early ROTLs during the six-month period, with the chance of failure decreasing with the more ROTLs completed.[3]

These analyses informed development of a dose-response analysis of ROTL impact. If risk of ROTL failure decreased the more ROTLs an individual had, there was a potential selection pressure on the dose-response relationship – i.e. those with more successful ROTLs may also tend to have higher numbers of ROTLs. However, given that the proportion of failures was very low, this potential selection effect was not thought to be a serious issue for the analysis (and we anyway control for the impact of ROTL failures).

Dose-response analysis

Increasing the number of ROTLs

Figures B4 and B5 show proven one-year reoffending outcomes (reoffending rates and frequencies respectively) for those given different numbers of ROTLs in the six months prior to release.

The impact of an increased number of ROTLs on reoffending was assessed, controlling for offenders' characteristics and offending history. A small dose-response relationship was found between the number of ROTLs given overall and reoffending.

Increasing numbers of ROTLs within six months prior to release were associated with a small but statistically significant impact on reoffending, controlling for other variables (see Tables B4 and B5). Each additional ROTL was associated with a reduced odds of proven reoffending (one-year follow-up) of 0.5%, after controlling for other variables. Each additional ROTL also reduced the reoffending incidence rate by 0.5%, which equates to 16% fewer reoffences for those getting the average 34 ROTLs. Results were very similar for the two-year follow-up.

Number of ROTLs and time to release

In order to test the effects of different ROTL doses in various time periods leading up to release from prison, the overall dose-response effects were further examined using different periods before release in which individuals were given ROTLs (one month, three months, and 12 months) controlling for the same variables as above.[4]

A summary of results is provided in Table B6. This analysis indicated that the closer the offender got to release, the greater the reoffending impacts of increasing their number of ROTLs. The results were again very similar for the reoffending rates and frequencies.

These time-to-release effects were also tested for different categories of ROTL (see below), indicating that they were not affected by the possibility that particular types of ROTL may tend to be given closer to release.

Number of different categories of ROTL

The overall analysis above contained all the ROTL categories, which masked the effects of the specific ROTL types. Regression models were therefore completed to examine the outcomes associated with different numbers of ROTL types. A summary of results is provided in Table B7–8. The analysis indicated that

[3] Although the survival curve suggests a further fall in likelihood of failure at around 100 ROTLs, the number of individuals getting this number of ROTLs was relatively low, so the survival estimates at this end of the curve may be less robust.

[4] This approach produced several different datasets which were analysed separately to examine the impact of each additional ROTL within that period to release.

particular types of ROTL had stronger dose-response effects. In particular, after controlling for other variables:

- Each additional Resettlement Day Release was associated with a 0.5% reduced odds of reoffending, and a 0.6% reduction in the reoffending incidence rate.
- Each additional Resettlement Overnight Release was associated with a 5% reduced odds of reoffending, and a 6% reduction in the reoffending incidence rate.
- Each additional Special Purpose Release was associated with a 7% reduced odds of reoffending, and a 12% reduction in the incidence of reoffending. These results should be taken with caution, as there were relatively few Special Purpose Releases and the majority of them were medical releases. These could be correlated with poor health, which may make an offender physically less able to reoffend following release.

The majority (71%) of the Resettlement Day Releases were for working out (i.e. employment). A further analysis was undertaken to compare increasing the number of working out ROTLs and the number of overnight releases. This found that each working out ROTL was associated with a 0.4% decreased odds of reoffending. Each overnight release was associated with a 5% decreased odds of reoffending (significant at the 0.055 level).[5]

Each ROTL category was examined using the different periods before release as before (one month, three months, and 12 months). This confirmed that proximity to release seemed to increase the effects of each additional ROTL (see Table B9). The most dramatic increases were for Resettlement Overnight Releases:

- Each additional Resettlement Overnight Release ROTL within 12 months of release was associated with a not statistically significant 1.3% reduction in odds of reoffending.
- Each additional Resettlement Overnight Release ROTL within one month of release was associated with a 22% reduction in odds of reoffending.

Propensity Score Match

To further test the findings from the regression models, we undertook a propensity score matching analysis – comparing those with fewer than 25 instances of ROTL in the six months before release with those with 25 or more.[6] Propensity score matching is less sensitive than regression analysis to model misspecification (for more details on propensity score matching, see Apel and Sweeten, 2010). Matching was undertaken on the same variables as used above.

Analysis supported the finding that use of ROTL overall was associated with reduced reoffending. The 'higher' ROTL group had a 3.1% lower reoffending rate and 0.1 fewer reoffences on average (over both one- and two-year follow-up periods). These differences were statistically significant.

Conclusions

Results of this analysis are consistent with the conclusion that ROTL reduces reoffending. Once an individual had been granted at least one ROTL, increasing their number of temporary releases in the six months prior to their release was associated with slightly lower odds of reoffending on release and fewer reoffences. This finding would generally support the use of ROTL, and is in line with international evidence of the benefits of temporary release.

Although a dose-response relationship was found, the reoffending impacts associated with increasing the number of ROTLs overall were small. This might be expected given: (1) The ROTL cohort will anyway be relatively lower risk of reoffending (since they will be assessed by ROTL boards). (2) As discussed above, if ROTLs were sometimes of low quality during the data period (as identified by HMIP, 2014) this may have weakened an underlying dose-response relationship. (3) No contextual information was available on the releases, and so the general dose-response effects identified in this study may be diluted by ROTLs for specific purposes.

Two other main results were presented in this study. First, impacts varied depending on the ROTL category. For example, increasing the number of Resettlement Overnight Releases was associated with a larger reducing reoffending impact than increasing the number

[5] No significant interactions were found between the ROTL categories.

[6] Using a caliper of 0.05 (approximately 0.3 times the standard deviation of the propensity scores), nearest neighbour match without oversampling or replacement. Around 15% of 'treatment' cases (those with >25 ROTLs) were lost in the matching process (there were 1,917 matched pairs overall). Two of the standardised mean differences were very slightly over 5% (6%) and the rest were under 5%, indicating a good match was achieved.

of Resettlement Day Releases. Analysis therefore suggests that home leave had a greater impact (for those who had at least one ROTL) than work release, on a dose-response basis.

Second, analysis suggested that increasing the frequency of ROTL the nearer offenders got to their release was associated with larger reoffending impacts. This was particularly the case for Resettlement Overnight Release. The result implies that ROTLs closer to release provide greater benefit relative to risk of release than those further away. A pattern of temporary releases where ROTL use gets more intensive the closer an individual gets to release might therefore be associated with better reoffending results.

This study represents the first time (to the authors' knowledge) that the impact of ROTL in England and Wales has been thoroughly explored, yet there remains scope to continue building an evidence base around temporary release. ROTL is just one of a number of tools for prisoner rehabilitation, and to operate well will need to be part of an overall effective system, and it may be valuable to explore the interactions of ROTL with these elements. [7] This analysis cannot take into account individuals' experiences on ROTL (beyond examining failed ROTLs) – although the fact that different categories of ROTL were associated with different impact suggests that the experience of temporary release is important, rather than simply release from prison. There are also other outcomes not covered by the data used in this analysis that are relevant for ROTL – for example, employment, immediate resettlement outcomes, and prisoners' confidence about release and resettlement.

This analysis nevertheless provides evidence that indicates the dose-response approach is a practical method for examining the impact of ROTL in the context of challenges with other experimental approaches, as described above. Future applications of the dose-response approach may be refined to allow comparisons of ROTL regimes both between prisons (the data for which was not available for the present analysis), to explore other outcome measures for temporary release, and to evaluate changes in ROTL policy.

[7] Differences in reoffending with varying ROTL 'doses', therefore, may imply effects of other parts of the system connected with temporary release.

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Appendix A: ROTL eligibility

Determinate sentenced prisoners are eligible for ROTL at the halfway point of their effective parole eligibility date (PED) or the effective conditional release date (CRD), less half the remand time served, or a period of 24 months before the end of their sentence – whichever comes later. This means that, for example, a determinate prisoner serving a sentence of four years with no previous remand would be eligible for ROTL after serving one year.

Determinate sentenced offenders are eligible for Resettlement Day Release (RDR) ROTL either two years prior to the effective CRD/PED or the date as obtained as a result of the calculation above, whichever produces the later date (i.e. a date nearer the effective release date). This means that offenders should have no RDR ROTLs more than two years before their effective release date, and many will have all their RDR ROTLs much closer to their release.

Indeterminate sentenced prisoners have eligibility based on dates of parole hearings.

The following prisoners are not eligible for ROTL (PSI 13/2015):

- Category ‘A’ or on the escape list.
- Unconvicted and convicted, but with no sentence yet.
- Subject to extradition proceedings – wanted by another country because they may have committed an offence there.
- Sentenced, but on remand on further charges or waiting to be sentenced for other convictions.
- Category B prisoners cannot get a resettlement day or overnight release, but may be allowed to leave if a close family member is dying.
- Those serving a sentence who then get another on top for not paying a confiscation order can only apply for ROTL during this later bit, not on the original sentence.
- Prisoners serving a life sentence will usually only be released on a temporary licence if they are in open or semi-open prisons. Prisoners serving a life sentence in closed conditions will be able to be released on temporary licence if they could be living in open or semi-open prisons, but cannot be moved because of medical reasons.

Appendix B: Results

Figure B1: Number of ROTLs within six months prior to release

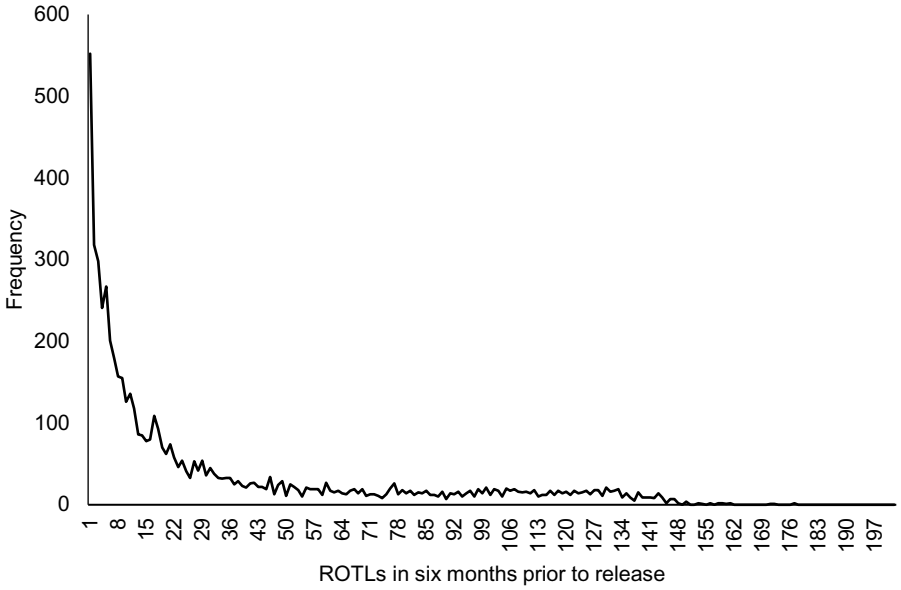

Table B1: Characteristics of those with ROTLs within six months prior to release

	Males	Females
Ethnicity		
White	3,928 (73.5%)	433 (81.2%)
Black	738 (13.8%)	58 (10.9%)
Asian	551 (10.3%)	19 (3.6%)
Not recorded	76 (1.4%)	18 (3.4%)
Other	53 (1.0%)	5 (0.9%)
Total	**5,346**	**533**
Mean age at conviction for current offence	32.9	36.3
Mean age at release for current offence	34.7	37.6
Mean number of previous convictions	1.7	1.0
Mean number of previous prison spells	6.5	4.4

Table B2: ROTLs within six months prior to release

	N	%
Resettlement Day Release	184,626	94%
Resettlement Overnight Release	8,048	4%
Special Purpose	4,231	2%
Childcare resettlement	102	<1%
Total	**197,007**	**100%**

Table B3: Failed ROTLs captured in the data (2012–14)

	2012	2013	2014	Total
Resettlement Day Release	301 (0.1%)	277 (0.1%)	179 (0%)	**757 (0.1%)**
Resettlement Overnight Release	69 (0.4%)	66 (0.3%)	49 (0.3%)	**184 (0.3%)**
Special Purpose	19 (0.1%)	11 (0.1%)	2 (0%)	**32 (0.1%)**
Childcare resettlement	0 (0%)	0 (0%)	0 (0%)	**0 (0%)**

Figure B2: Number of ROTL incidents (within six months prior to release) before failure

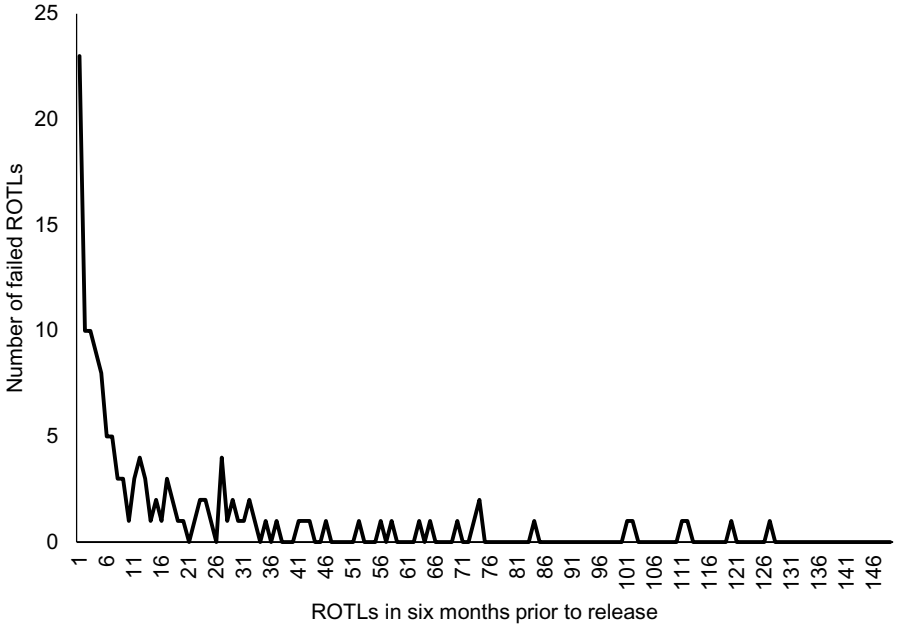

Figure B3: Kaplan-Meier estimate of the survival function (number of ROTLs within six months prior to release and ROTL failure): note non-zero vertical axis

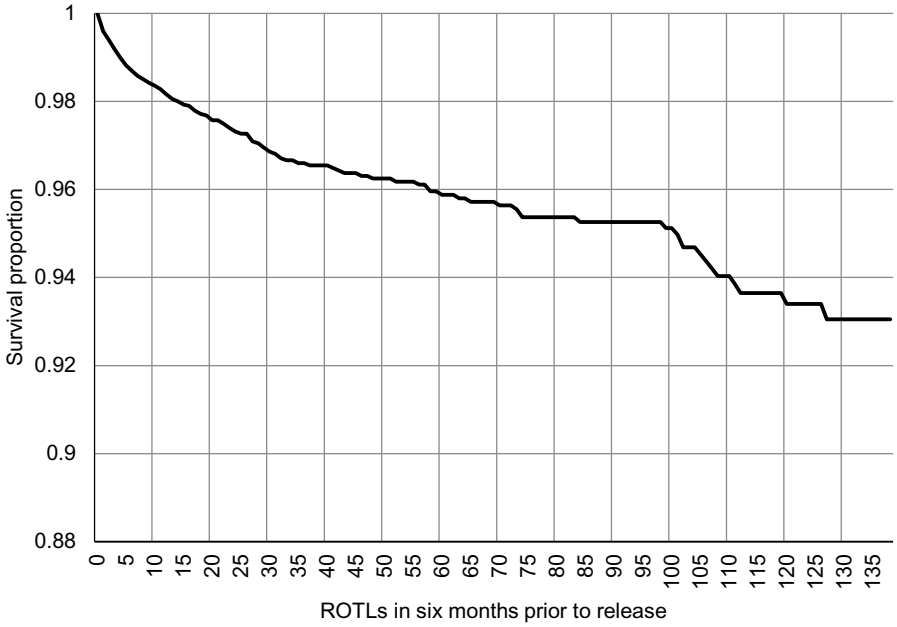

Figure B4: ROTLs within six months prior to release and one-year binary reoffending outcomes

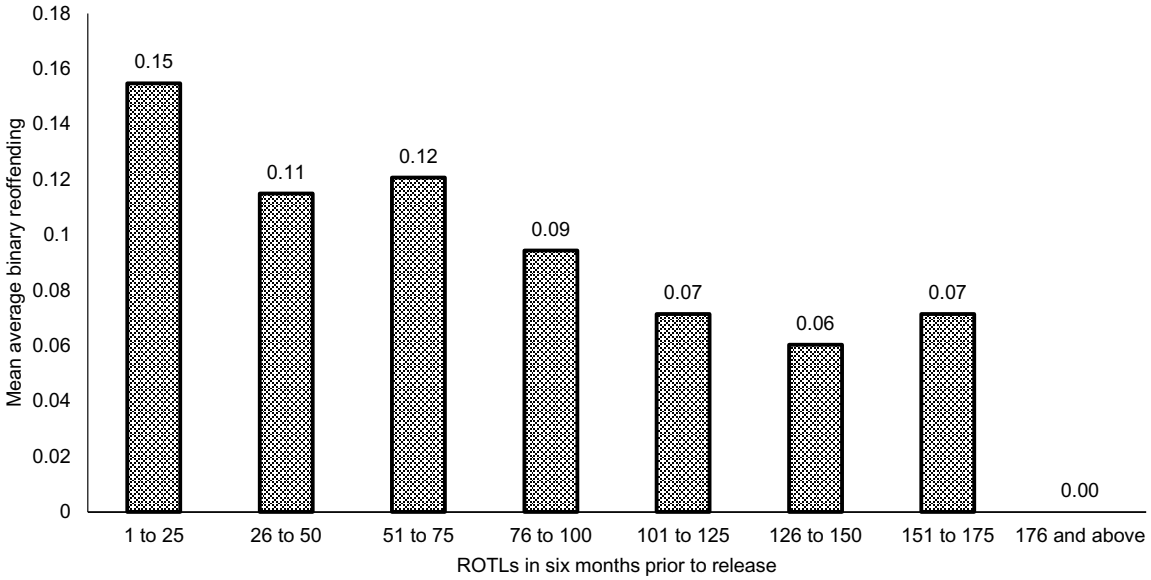

Figure B5: ROTLs within six months prior to release and one-year frequency reoffending outcomes

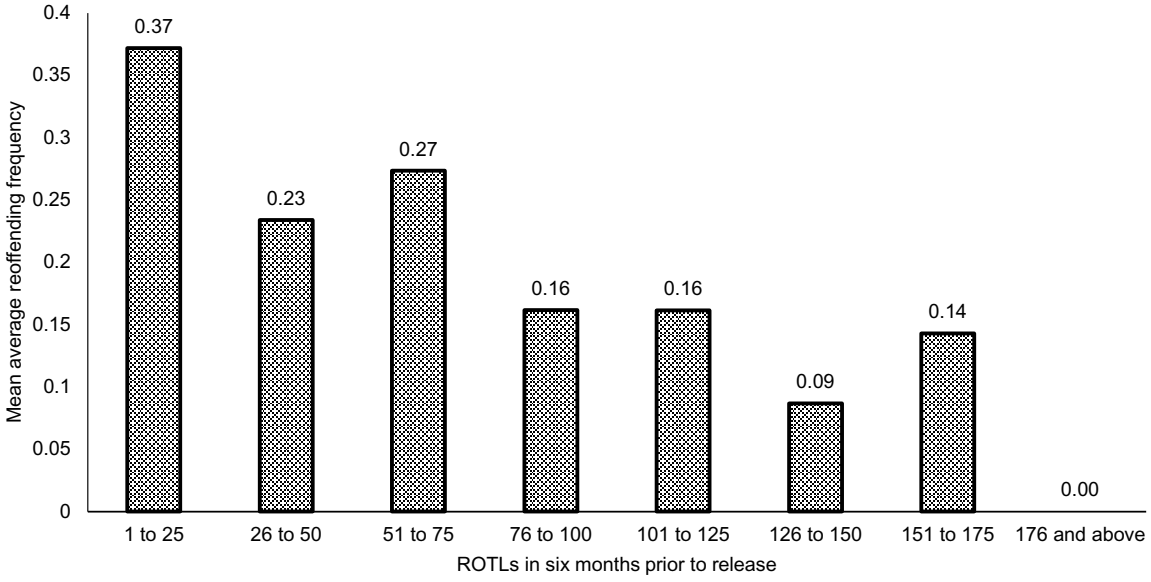

Table B4: Logistic regression – one-year rate of reoffending (ROTLs within six months prior to release)

Parameter	Estimate	Standard Error	Z value	Sig	
Intercept	1.186	0.229	5.182	<0.001	*
Age at current conviction	-0.088	0.024	-3.672	<0.001	*
Age at release	0.044	0.023	1.88	0.060	
Age at first offence or caution	-0.007	0.010	-0.652	0.514	
Copas rate[1]	1.000	0.120	8.349	<0.001	*
Ethnicity (0=non-white)	-0.081	0.101	-0.799	0.424	
Failures in six months prior to release	0.392	0.210	1.865	0.062	
Gender (0=male)	-0.458	0.198	-2.314	0.021	*
Index offence group 1[2]	-0.511	0.120	-4.253	<0.001	*
Index offence group 2	-0.567	0.111	-5.123	<0.001	*
Index offence group 3	-0.238	0.130	-1.822	0.068	
Previous conviction events	-0.016	0.013	-1.217	0.224	
Previous prison events	0.091	0.019	4.766	<0.001	*
ROTLs in six months prior to release	-0.006	0.001	-4.152	<0.001	*

1. The Copas rate (Copas and Marshall, 1998) controls for the rate at which an offender has built up convictions throughout their criminal career. The higher the rate, the more convictions an offender has in a given amount of time and the more likely it is that they will reoffend.
2. Index offence groups based on prevalence in dataset, in order to guard against model over-fit. Group 1 = Violence (24% of total); Group 2 = Drugs (supply) (38% of total); Group 3 = Robbery (10% of total); Group 4 is the reference category and represents all offences not in the other groups (42% of total, the main single components being Fraud and Forgery, 8% of total, and Theft, 5% of total).

Table B5: Negative binomial regression – one-year frequency of reoffending (ROTLs within six months prior to release)

Parameter	Estimate	Standard Error	Z value	Sig	
Intercept	1.684	0.221	7.605	<0.001	*
Age at current conviction	-0.077	0.027	-2.876	0.004	*
Age at release	0.028	0.026	1.08	0.280	
Age at first offence or caution	0.008	0.009	0.824	0.410	
Copas rate	1.040	0.114	9.1	<0.001	*
Ethnicity (0=non-white)	-0.131	0.100	-1.319	0.187	
Failures within six months of release	0.235	0.226	1.04	0.299	
Gender (0=male)	-0.420	0.185	-2.267	0.023	*
Index offence group 1	-0.627	0.122	-5.141	<0.001	*
Index offence group 2	-0.552	0.108	-5.098	<0.001	*
Index offence group 3	-0.397	0.137	-2.894	0.004	*
Previous conviction events	-0.023	0.013	-1.736	0.083	
Previous prison events	0.113	0.020	5.672	<0.001	*
ROTLs within six months of release	-0.005	0.001	-4.12	<0.001	*

Table B6: Reoffending impact associated with each additional ROTL within one, three, six and 12 months prior to release

	Months before release			
	1	3	6	12
Odds ratios (reoffending rate)	0.988*	0.993*	0.995*	0.996*
Incidence rate (reoffending frequency)	0.991	0.993*	0.995*	0.996*

* Significant at 0.05 level or below

Where greater than one the odds ratio indicates increased odds of an offender reoffending; where less than one decreased odds of an offender reoffending.

Table B7: Logistic regression – one-year rate of reoffending (ROTLs within six months prior to release), different ROTL types

Parameter	Estimate	Standard Error	Z value	Sig	
Intercept	1.200	0.228	5.254	<0.000	*
Age at current conviction	-0.094	0.023	-4.072	<0.001	*
Age at release	0.053	0.022	2.335	0.020	*
Age at first offence or caution	-0.007	0.010	-0.667	0.505	
Copas rate	1.004	0.120	8.376	<0.001	*
Ethnicity (0=non-white)	-0.100	0.101	-0.986	0.324	
Failures within six months of release	0.395	0.210	1.877	0.061	
Gender (0=male)	-0.437	0.202	-2.164	0.030	*
Index offence group 1	-0.522	0.120	-4.333	<0.001	*
Index offence group 2	-0.567	0.111	-5.125	<0.001	*
Index offence group 3	-0.250	0.131	-1.911	0.056	
Previous conviction events	-0.017	0.013	-1.303	0.193	
Previous prison events	0.090	0.019	4.754	<0.001	*
Resettlement day release ROTLs	-0.005	0.001	-3.546	<0.001	*
Resettlement overnight release ROTLs	-0.052	0.025	-2.046	0.041	*
Special purpose release ROTLs	-0.074	0.031	-2.356	0.018	*
Childcare ROTLs	-0.291	0.560	-0.519	0.604	

Table B8: Negative binomial regression – one-year frequency of reoffending (ROTLs within six months prior to release), different ROTL types

Parameter	Estimate	Standard Error	Z value	Sig	
Intercept	1.705	0.220	7.740	<0.001	*
Age at current conviction	-0.087	0.026	-3.402	<0.001	*
Age at release	0.042	0.025	1.675	0.094	
Age at first offence or caution	0.007	0.009	0.808	0.419	
Copas rate	1.042	0.114	9.153	<0.001	*
Ethnicity (0=non-white)	-0.159	0.100	-1.589	0.112	
Failures within six months of release	0.252	0.225	1.121	0.262	
Gender (0=male)	-0.400	0.190	-2.107	0.035	*
Index offence group 1	-0.627	0.121	-5.161	<0.001	*
Index offence group 2	-0.554	0.108	-5.121	<0.001	*
Index offence group 3	-0.419	0.137	-3.061	0.002	*
Previous conviction events	-0.024	0.013	-1.826	0.068	
Previous prison events	0.111	0.020	5.607	<0.001	*
Resettlement day release ROTLs	-0.004	0.001	-3.371	<0.001	*
Resettlement overnight release ROTLs	-0.064	0.025	-2.558	0.011	*
Special purpose release ROTLs	-0.133	0.034	-3.946	<0.001	*
Childcare ROTLs	-0.568	0.610	-0.931	0.352	

Table B9: Reoffending impact (odds ratios) associated with each additional ROTL within one, three, six and 12 months of release

	Months before release			
	1	3	6	12
Resettlement Day Release	0.988*	0.993*	0.995*	0.996*
Resettlement Overnight Release	0.779*	0.920*	0.949*	0.987
Special Purpose Release	0.936	0.916+	0.929*	0.974
Childcare Release	0.598	0.767	0.748	1.090

* Significant at 0.05 level or below

\+ Significant at 0.055 level

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