Reoffending While on Bail

Analyses of Adult and Youth Defendants

NORTHERN TERRITORY GOVERNMENT

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Contact details	Criminal Justice Research and Statistics Unit Department of the Attorney-General and Justice
Author	Carolyn Whyte
Approved by	Gemma Lake
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Acronyms	Full form
COVID-19	Coronavirus disease 19
IJIS	Integrated Justice Information System
IOMS	Integrated Offender Management System
NT	Northern Territory

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1. Executive Summary

Aims: The likelihood of an individual committing a new offence while on bail or otherwise breaching their bail is one of the considerations taken into account by the judiciary when granting bail. On any given day, the probability that an individual reoffends or breaches bail is relatively low; however, a person may be granted continued periods of bail at successive court appearances that may add up to over a year in some cases. Over time, the probabilities of reoffending and breaches increase, but to an unknown degree. This study addresses the following questions:

(1) What is the probability of defendants committing a new substantive offence while on bail?

(2) What is the probability of defendants committing a new breach of bail offence while on bail?

(3) What is the probability of defendants going into custody while on bail?

(4) What factors are associated with significant differences in reoffending while on bail, and how does the risk change in association with these factors?

Individual probabilities of committing a new offence, breaching bail, and going into custody were calculated, as well as a combined incidence of all of the three outcomes.

Methods: A total of 2,926 periods of bail granted in NT criminal courts for cases created in 2019-20 were analysed, including 406 for youths and 2,520 for adults. Defendants were observed from the date that bail was first granted in the case to the earliest of the following: the date of the next alleged offence; the date of the next alleged breach of bail offence; the date of the next custodial reception; the date the person's bail ended; or the analysis date, if bail continued past the analysis date.

Survival analysis was used to calculate the cumulative incidence of committing a new offence, breaching bail, or going into custody while on bail. Competing risks regression was used to assess whether factors such as gender and age had a significant impact on the risk of reoffending while on bail.

Results: By 4 months on bail, 42% of youth bail and 21% of adult bail involved new offending while on bail. Overall, 65% of youths and 34% of adults either committed a new offence, breached bail, or went into custody without a new offence while on bail.

Amendments to the *Bail Act 1982* came into force on 2 March 2020, with breaches of bail conditions no longer representing an offence for youths. Bail issued following this period shows a large decrease in the incidence of youths breaching bail, and smaller decreases in the incidence of youths and adults offending while on bail.

Male gender, lower age, more prior periods in custody, more prior apprehensions, and being on bail for a violent offence were all associated with a significantly greater likelihood of new offending while on bail when other factors were held equal. Bail commencing after March 2020 was less likely to involve new offending than bail commencing earlier, though this is expected to be a temporary outcome of the COVID-19 restrictions.

Conclusions: This analysis provides insight into the risk of new offending occuring by defendants on bail, and identifies certain factors associated with an increased risk of offending. Further work might consider the impact of electronic monitoring on new offending, the severity of offences committed while on bail, and the factors associated with more serious offending.

2. Background

Bail is an agreement, entered into by persons charged with offences, to come back to court for a hearing. It allows individuals to remain in the community under specific conditions, rather than being remanded into custody. Bail may be granted by the NT Police or by the Courts, and an individual may have periods of both remand and bail in the course of a single case.

One of the considerations taken into account in determining whether to grant bail is the likelihood of the individual committing an offence or breaching bail in some other fashion if bail is granted (*Bail Act 1982*, Section 24(1)(d)). However, the likelihood of individuals offending while on bail, or otherwise failing to complete their bail, is not easily quantified due to the varying lengths of bail periods.

Breach of bail became an offence for youth in the Northern Territory in May 2011, with a subsequent increase in the number of youths charged and placed in detention for breach of bail. On 2 March 2020, an amendment to the *Bail Act 1982* came into force, removing breach of bail conditions as an offence for youth. Breach of bail undertakings (failure to appear in court) remained an offence.

This analysis identifies the proportion of bail periods that result in the commission of a new offence or breach of bail while on bail, and examines factors associated with reoffending, including the amendment to the *Bail Act 1982*. Offences allegedly committed after the defendant's period of bail ends are excluded.

3. Methods

3.1. Data

This analysis used records of court bail granted by 28 August 2020 for cases created in 2019-20. The bail data were extracted from the Integrated Justice Information System (IJIS) on 31 August 2020 and cleaned by checking against case orders and other data to remove obvious errors in dates (e.g. bail that ended before the date granted, bail that was granted before the case started). Data were also checked against prison records from the Integrated Offender Management System (IOMS), as some bail was granted while the defendant was still in custody (in such cases, the bail start date was set to the discharge date). For each defendant, consecutive and/or overlapping grants of bail were combined into a single observation period.

The following covariates were included in the analysis:

- the defendant's age at the time bail was authorised;
- whether the defendant was an adult or youth for bail purposes (defendants with bail issued in the Youth Justice Court regardless of age, or in the Supreme Court when aged under 18, were classified as youth);
- the defendant's gender and Aboriginal status;
- the number of instances in which the defendant had previously failed to appear in court[1];
- the category of the most serious offence for which the defendant was on bail (violent; property; drugs; driving/traffic; other);
- the number of prior apprehensions by Police;
- the number of prior custodial episodes; and

[1] Determined as a date where court appearance by the defendant is recorded as 'N' and either a breach of bail and/or warrants mesne/fail to appear offence is recorded

- the number of instances in which the defendant had escaped from lawful custody or been unlawfully at large.

All covariate and reoffending data were extracted from IJIS (apprehensions, offences, and court appearances) and IOMS (custodial episodes, offender status, receptions, and discharges from custody).

3.2. Analysis methods

Survival analysis uses time-to-event data to estimate the probability of an event occurring within a particular time period, and allows records for subjects who drop out of the analysis to be censored. This makes it well-suited to bail data, where the length of time that individuals spend on bail, and hence the likelihood of committing a new offence, varies greatly according to the time required to finalise the case.

Defendants given bail were observed over the duration of the period that they remained on bail and scored according to outcome. The observation period began on the date on which bail was initially authorised (or the date the person was released from custody, if bail was authorised while the person was in custody). The observation period ended on the earliest of the following: the date of the next offence allegedly committed; the date the person was next received into custody[2]; the date the period of consecutive bail ended; or the date the reoffending data were extracted (2 September 2020).

Separate (non-overlapping) periods of bail for the same individual were treated as independent observations for the purposes of estimating the proportion of defendants who reoffended. It is common to have some defendants appearing in separate, non-overlapping criminal cases within a year. As a person's criminal history is generally positively associated with the likelihood of reoffending, excluding repeat instances of bail for defendants could reduce the estimated likelihood of reoffending while on bail.

Survival analysis was used to determine the likelihood of bail resulting in a new justice-related incident. Three types of incidents were considered: commission of a new substantive offence (e.g. an offence other than breach of bail); commission of a breach of bail offence without a new substantive offence; and going into custody without having a new substantive offence or breach of bail offence recorded (for instance, for breach of a suspended sentence). These outcomes were treated as competing risks in the analysis. The *stcompet* procedure (Coviello, 2003) was used to estimate the cumulative incidence of reoffending, breaching bail or going into custody while on bail.

Competing risks regression, using the method of Fine and Gray (1999), was done to assess which covariates were significantly associated with the risk of offending while on bail. This analysis used only the first consecutive bail period per individual in the dataset.

All analyses were done using Stata/IC 16.0.

4. Results

4.1. Sample Description

Bail was granted to 2,448 individuals in 2,926 separate periods for cases created in 2019-20 (Table 1). Of these, 406 periods of bail (14%) were granted to 272 youths, and 2,520 periods of bail (86%) were granted to 2,180 adults. Four individuals had bail authorised both as a youth in the Youth Justice Court and as an adult in the Local Court. Hence, the total number of individuals is slightly less than the sum of youths and adults. Youths averaged 1.5 periods of bail per person, and adults averaged 1.2 per person.

[2] Custodial receptions on the last day of bail were excluded if they were due to sentencing, guilty finding or plea, or similar non-breach reasons (these receptions were deemed to be after the bail finished).

Table 1. Periods of bail granted by age and demographic group (numbers of individuals in brackets)

Age	Aboriginal female	Aboriginal male	Non-Aboriginal female	Non-Aboriginal male	Total
Youth	**66 (43)**	**314 (207)**	**4 (4)**	**22 (18)**	**406 (272)**
10-11	0 (0)	6 (5)	0 (0)	0 (0)	6 (5)
12-13	11 (9)	35 (22)	1 (1)	4 (1)	51 (33)
14-15	34 (18)	112 (70)	0 (0)	8 (8)	154 (96)
16-17	20 (15)	146 (100)	2 (2)	10 (9)	178 (126)
18-24	1 (1)	15 (10)	1 (1)	0 (0)	17 (12)
Adults	**515 (435)**	**1,490 (1,291)**	**89 (80)**	**426 (374)**	**2,520 (2,180)**
18-24	93 (82)	479 (399)	14 (14)	79 (69)	665 (564)
25-34	216 (183)	499 (442)	37 (33)	137 (120)	889 (778)
35-44	143 (117)	337 (297)	27 (22)	106 (93)	613 (529)
45-54	57 (48)	129 (112)	8 (8)	70 (60)	264 (228)
55+	6 (5)	46 (41)	3 (3)	34 (32)	89 (81)
Total	**581 (478)**	**1,804 (1,494)***	**93 (84)**	**448 (392)**	**2,926 (2,448)***

* Total individuals is slightly less than the sum of adults and youths as four individuals had bail granted as both a youth and an adult

On average, individuals who were granted bail spent 96 consecutive days on bail (Table 2), with little variation in average times for adults (96.1 days) and youths (95.8 days), though within demographic groups the average time on bail varied substantially.

Table 2. Average length of consecutive time on bail by age and demographic group

Age	Aboriginal female	Aboriginal male	Non-Aboriginal female	Non-Aboriginal male	Total
Youth	**86.1**	**97.8**	**97.3**	**95.2**	**95.8**
10-11	---	183.5	---	---	183.5
12-13	110.0	97.5	247.0	73.8	101.3
14-15	70.5	96.6	---	126.9	92.4
16-17	103.3	95.5	55.0	78.5	94.9
18-24	12.0	95.8	32.0	---	87.1
Adults	**92.9**	**95.4**	**102.1**	**100.9**	**96.1**
18-24	90.1	96.1	76.3	112.4	96.8
25-34	90.7	99.1	115.6	96.3	97.3
35-44	96.4	90.5	101.8	99.0	93.9
45-54	100.0	87.7	80.0	92.7	91.4
55+	66.8	105.7	116.3	115.5	107.2
Total	**92.2**	**95.8**	**101.8**	**100.6**	**96.0**

The youngest and oldest age groups averaged the longest time on bail, though there were relatively few individuals in these groups (Table 1). The time spent on bail depends on the time required to finalise the case, as well as whether the defendant does anything that leads to being placed on remand.

Overall, youths granted bail averaged 2.9 more prior apprehensions than adults (Table 3). In particular, youths in the 14-15 and 16-17 age categories averaged 4-7 more prior apprehensions than adults aged 18-24 and 25-34.

Table 3. Average number of prior apprehensions by age and demographic group

Age	Aboriginal female	Aboriginal male	Non-Aboriginal female	Non-Aboriginal male	Total
Youth	**13.7**	**14.7**	**4.0**	**6.9**	**14.0**
10-11	---	10.8	---	---	10.8
12-13	9.2	13.5	7.0	12.0	12.3
14-15	16.3	15.2	---	2.9	14.8
16-17	11.1	15.4	3.5	8.1	14.4
18-24	26.0	9.3	2.0	---	9.8
Adults	**8.1**	**13.5**	**5.0**	**8.0**	**11.1**
18-24	6.4	8.1	3.3	4.9	7.4
25-34	8.3	12.8	4.1	8.2	10.6
35-44	8.9	20.2	7.3	10.5	15.3
45-54	7.9	18.4	5.9	7.0	12.7
55+	7.5	13.7	1.0	8.2	10.8
Total	**8.7**	**13.7**	**5.0**	**7.9**	**11.5**

Aboriginal female youths averaged 5.6 more prior apprehensions than Aboriginal female adults, while Aboriginal male youths averaged 1.2 more apprehensions than Aboriginal male adults. Non-Aboriginal youths (male and female) averaged slightly fewer prior apprehensions than non-Aboriginal adults. The difference in prior apprehensions does not necessarily indicate that youths currently in the criminal justice system have longer criminal histories than adults in the system; it likely reflects a greater likelihood of granting bail to youths than to adults having similar numbers of prior apprehensions.

Table 4 shows the average number of prior periods in custody for individuals given bail. This counts non-consecutive periods on remand for the same offences as separate periods in custody.

Table 4. Average number of prior periods in custody by age and demographic group

Age	Aboriginal female	Aboriginal male	Non-Aboriginal female	Non-Aboriginal male	Total
Youth	**1.1**	**1.5**	**0.8**	**1.0**	**1.4**
10-11	--	0.0	--	--	0.0
12-13	0.5	0.8	1.0	1.0	0.8
14-15	1.4	1.3	--	0.3	1.3
16-17	0.7	1.8	1.0	1.6	1.7
18-24	7.0	0.9	0.0	--	1.2
Adults	**1.1**	**3.6**	**0.6**	**1.3**	**2.6**
18-24	0.7	1.3	0.6	0.5	1.1
25-34	1.2	3.1	0.4	1.5	2.3
35-44	1.3	6.3	0.8	2.0	4.1
45-54	1.4	6.5	0.6	1.1	3.8
55+	1.7	4.0	0.0	1.3	2.7
Total	**1.1**	**3.2**	**0.6**	**1.3**	**2.4**

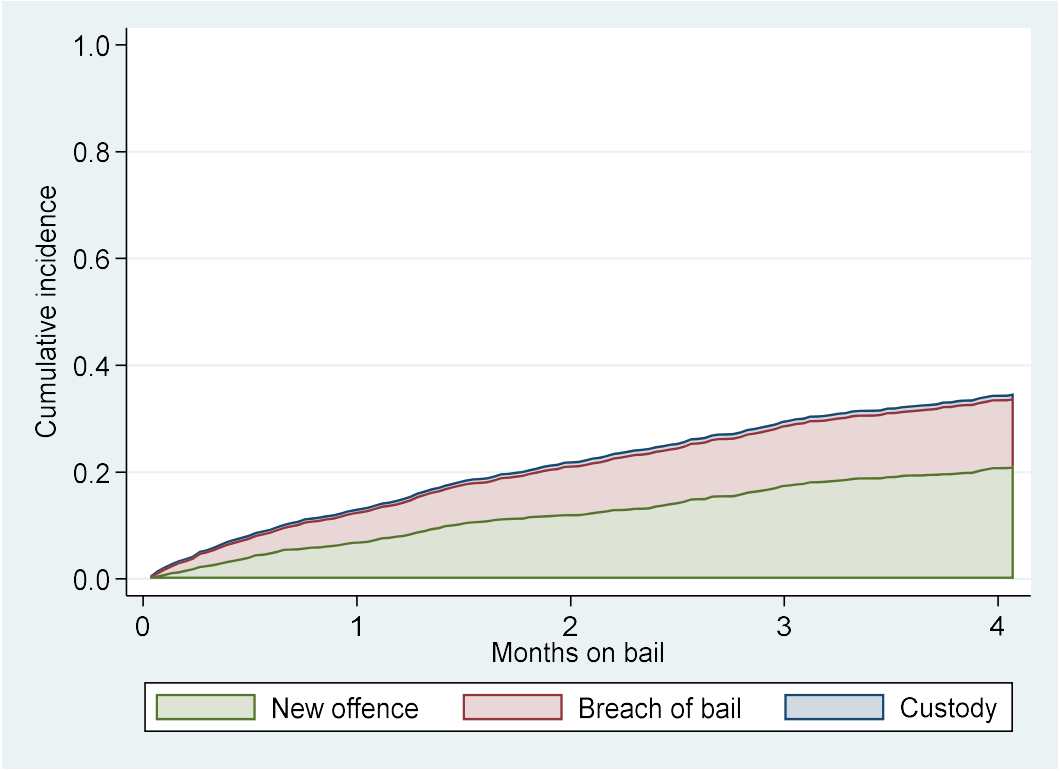
Aboriginal males granted bail had the largest average number of prior periods in custody, while non-Aboriginal females had the fewest. For males, adults averaged 1.3-2.4 times as many prior periods in custody as youths. For females, adults and youths showed little difference in prior periods of custody.

4.2. Survival Analysis

4.2.1. Adults

By four months on bail, an estimated 34% of adult bail periods had ended in one of the three events of interest. In 21% of bail periods, the next event was a new substantive offence; in a further 13%, the next event was a breach of bail offence without other offending; and in 1%, the next event was a return to custody without new offending being recorded, such as for a breach of a suspended sentence (Figure 1). The charts were truncated at four months on bail as relatively few defendants had longer consecutive periods on bail.

Figure 1. Cumulative incidence of adult bail periods ending in a new event



Because of the amendment to the *Bail Act 1982* that commenced on 2 March 2020, bail periods were split into those that ended prior to March 2020, those that spanned the beginning of March 2020, and those that commenced from March 2020 onwards. Although the amendment involved the removal of breach of bail conditions for youth as an offence, rather than changes for adults, the adult records were also considered across the three time periods, to provide a comparison for the youth data.

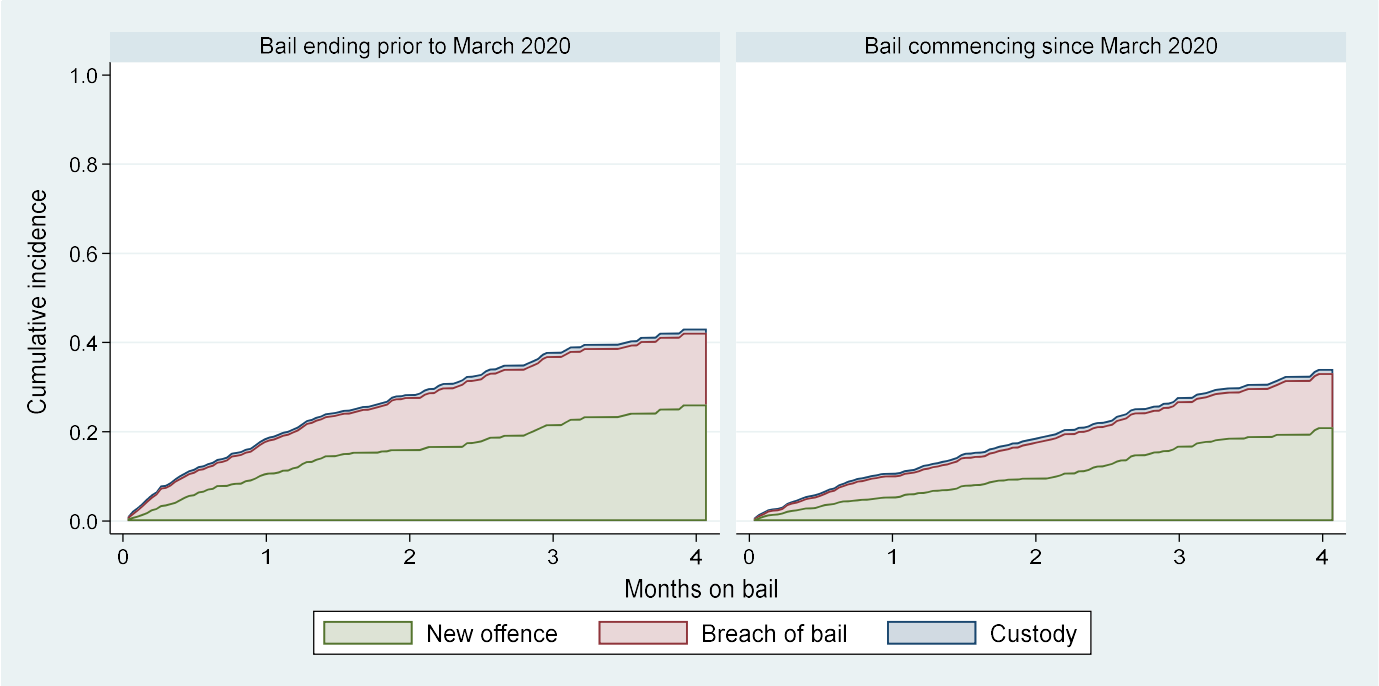
Table 5 shows the cumulative incidence of bail ending in one of the three events within 4 months, broken down by event type.

Table 5. Cumulative incidence of bail ending in a new event within 4 months, adults

	New offence	Breach of bail	Custody	Total
All periods on bail	21%	13%	1%	34%
Bail ending prior to March 2020	26%	16%	1%	43%
Bail spanning 1 March 2020	18%	11%	1%	30%
Bail beginning from March 2020	21%	12%	1%	34%

Figure 2 shows the cumulative incidence of the three types of events for bail ending before, or beginning since, March 2020. Both new offending and breach of bail reduced for adults on bail.

Figure 2. Cumulative incidence of adult bail ending in a new event, before and after March 2020

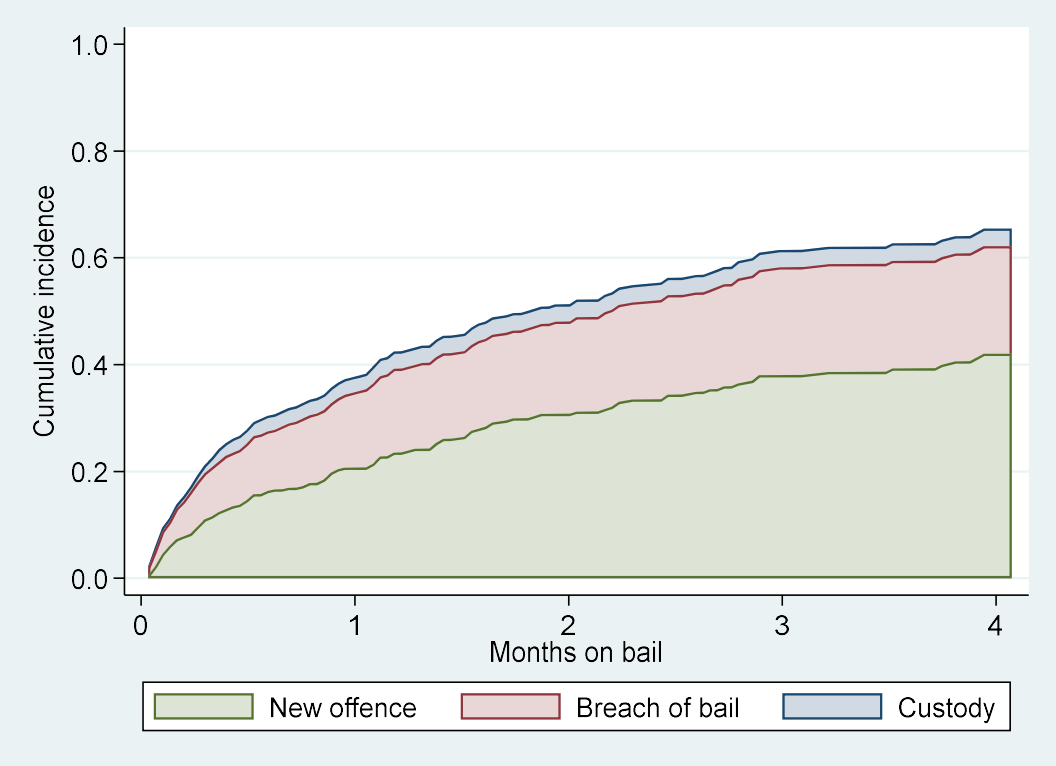


The percentage of adult bail periods ending in a new offence dropped from 26% to 21% for the before- and after-March periods, though offending for bail spanning March 2020 was lower still, at 18%. Bail ending in breach of bail dropped from 16% to 12% (again with breach of bail for bail spanning March 2020 being lower still, at 11%). Overall, the percentage of adult bail periods ending in a new justice-related event dropped from 43% to 34%.

4.2.2. Youth

By four months on bail, an estimated 65% of youth bail periods had ended in one of the three events of interest. In 42% of bail periods, the next event was a new substantive offence; in a further 20%, the next event was a breach of bail offence without other offending; and in 3%, the next event was a return to custody without new offending being recorded (Figure 3).

Figure 3. Cumulative incidence of youth bail periods ending in a new event



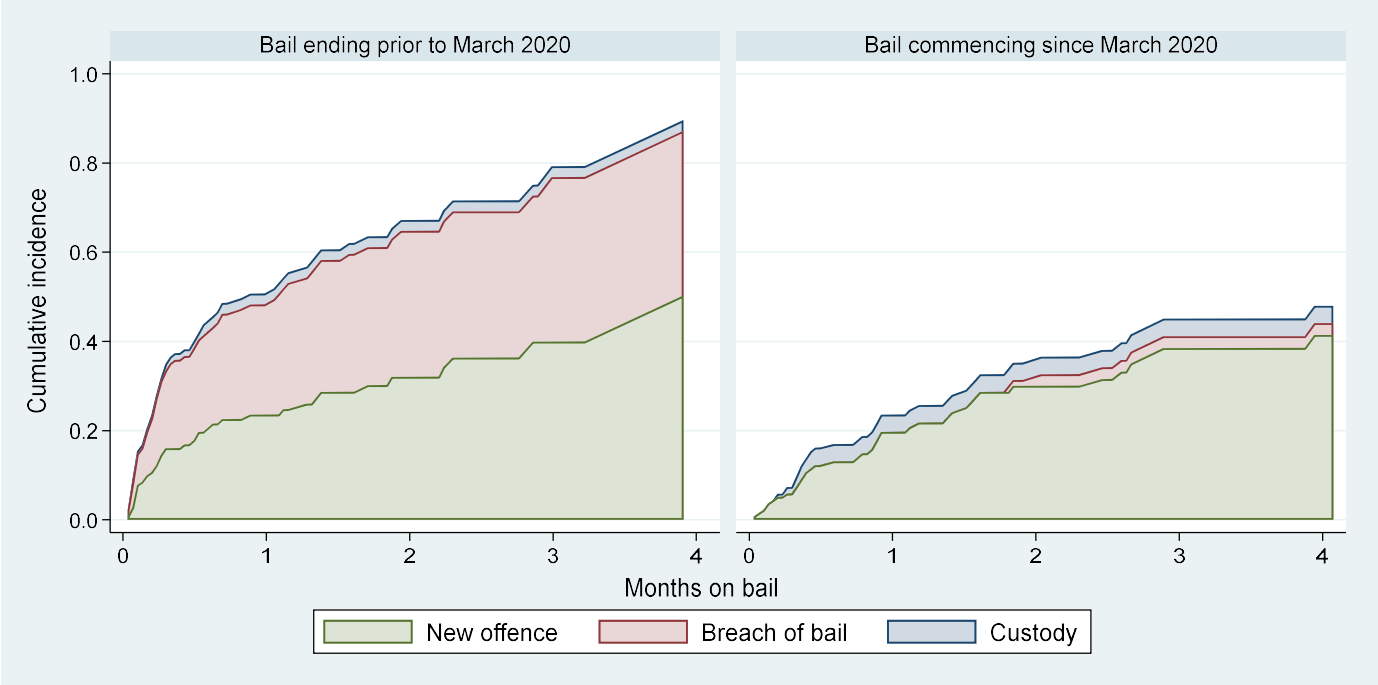
As expected, the incidence of bail periods ending in a breach of bail offence without other offending dropped substantially after the amendment to the *Bail Act 1982* came into force on 2 March 2020. For youth bail ending prior to March 2020, 90% resulted in the youth committing a new substantive offence, committing a breach of bail offence, or returning to custody without a new offence (Table 6). For bail commencing from March 2020 onwards, however, 48% of bail periods resulted in a new event, with only 3% resulting in a breach of bail offence without other offending.

Table 6. Cumulative incidence of bail ending in a new event within 4 months, youth

	New offence	Breach of bail	Custody	Total
All periods on bail	42%	20%	3%	65%
Bail ending prior to March 2020	50%	37%	2%	90%
Bail spanning 1 March 2020	41%	23%	3%	68%
Bail beginning from March 2020	41%	3%	4%	48%

Figure 4 shows the change in cumulative incidence for youth bail before and after the amendment. While the percentage resulting in a new substantive offence dropped from 50% to 41%, the before and after incidence values are similar for much of the time (green areas in the chart). The main difference is the reduction in the incidence of breach of bail offences (pink areas).

Figure 4. Cumulative incidence of youth bail ending in a new event, before and after March 2020



4.3. Competing risks regression

Competing risks regression was used to test the impact of the covariates on the event of interest (new offending while on bail) in the presence of the two competing risks (breaching bail or going into custody).

Six covariates had significant impacts on the likelihood of offending while on bail after accounting for other variables and the competing risks (Table 7). These were male gender, age group, number of prior periods in custody, number of prior apprehensions, being on bail for a violent offence, and the timing of bail (completed prior to March 2020, spanning March 2020, commencing since March 2020).

Table 7. Sub-hazard ratios for significant covariates

	Sub-hazard ratio	Std error	z	P>|z|	Lower 95%	Upper 95%
Male	1.569	0.234	3.02	0.003	1.1710	2.102
Age group	0.774	0.029	-6.82	0.000	0.7190	0.833
Prior periods in custody	1.036	0.016	2.23	0.026	1.004	1.069
Prior apprehension group	1.189	0.054	3.81	0.000	1.088	1.299
Violent offence	1.246	0.125	2.19	0.029	1.023	1.516
Timing	0.862	0.056	-2.29	0.022	0.759	0.979

The interpretation of the sub-hazard ratios is as follows. For males, the likelihood of offending while on bail was 1.6 times that for females, after taking other factors into account (Figure 5). As age group increased, the likelihood of offending was approximately 77% of the next lower age group—that is, the likelihood decreased by 23% as age group increased (Figure 6). For each additional prior period in custody, the likelihood of offending increased by approximately 4% (Figure 7). As prior apprehension group increased, the likelihood of offending increased by approximately 19% (Figure 8). Those who were on bail for a violent offence were approximately 1.3 times as likely to offend while on bail as those on bail for a different type of offence (Figure 9). As the timing of bail moved from prior to March 2020 to spanning

March 2020, and from spanning March 2020 to starting from March 2020, the likelihood of a new offence was approximately 0.9 times the previous level—that is, it decreased by approximately 10% (Figure 10).

Figure 5. Cumulative incidence of offending on bail by gender

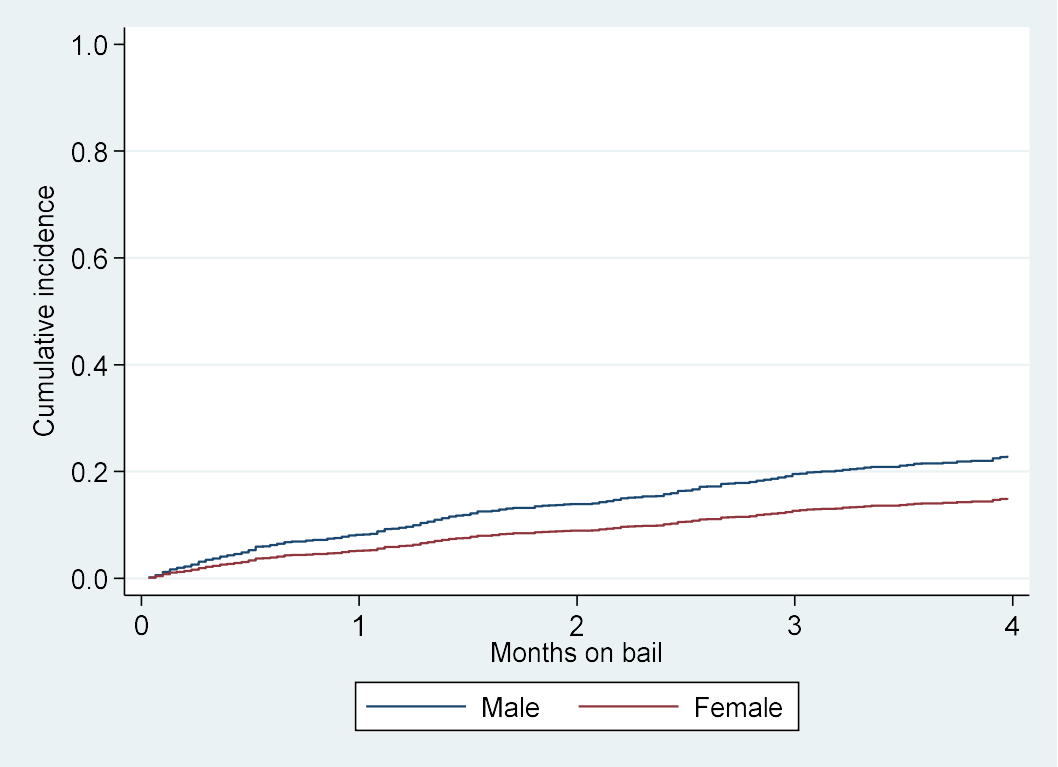


Figure 6. Cumulative incidence of offending on bail by age group

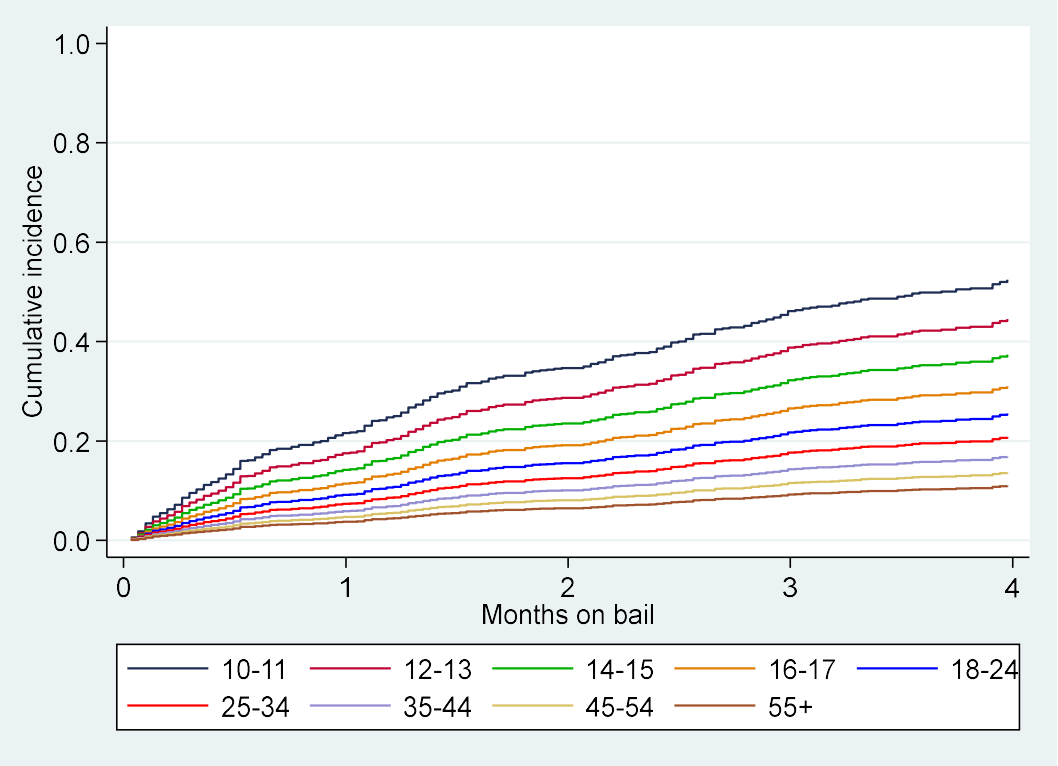


Figure 7. Cumulative incidence of offending on bail by number of prior periods in custody

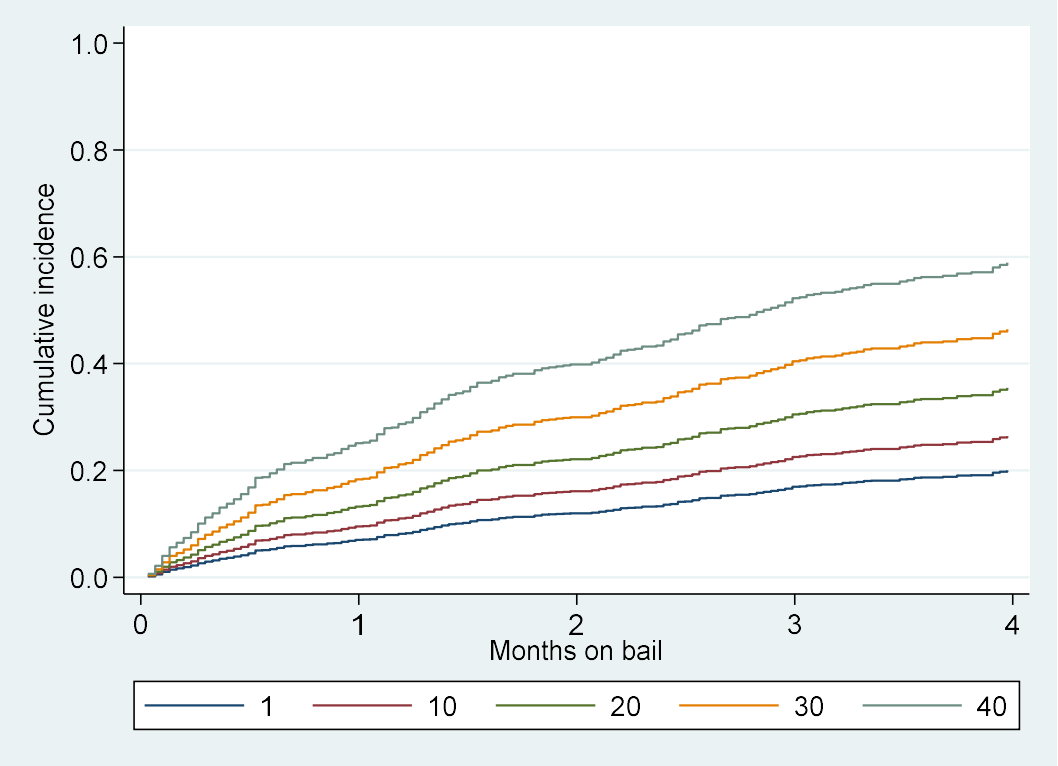


Figure 8. Cumulative incidence of offending on bail by number of prior apprehensions

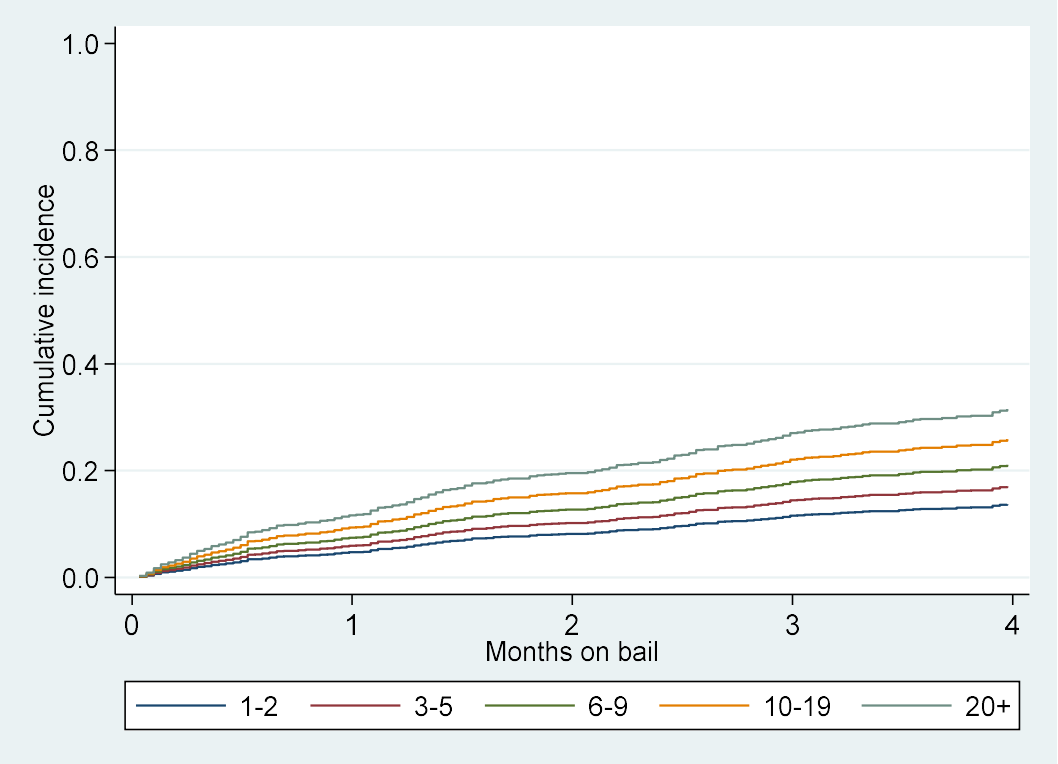


Figure 9. Cumulative incidence of offending on bail by offence type

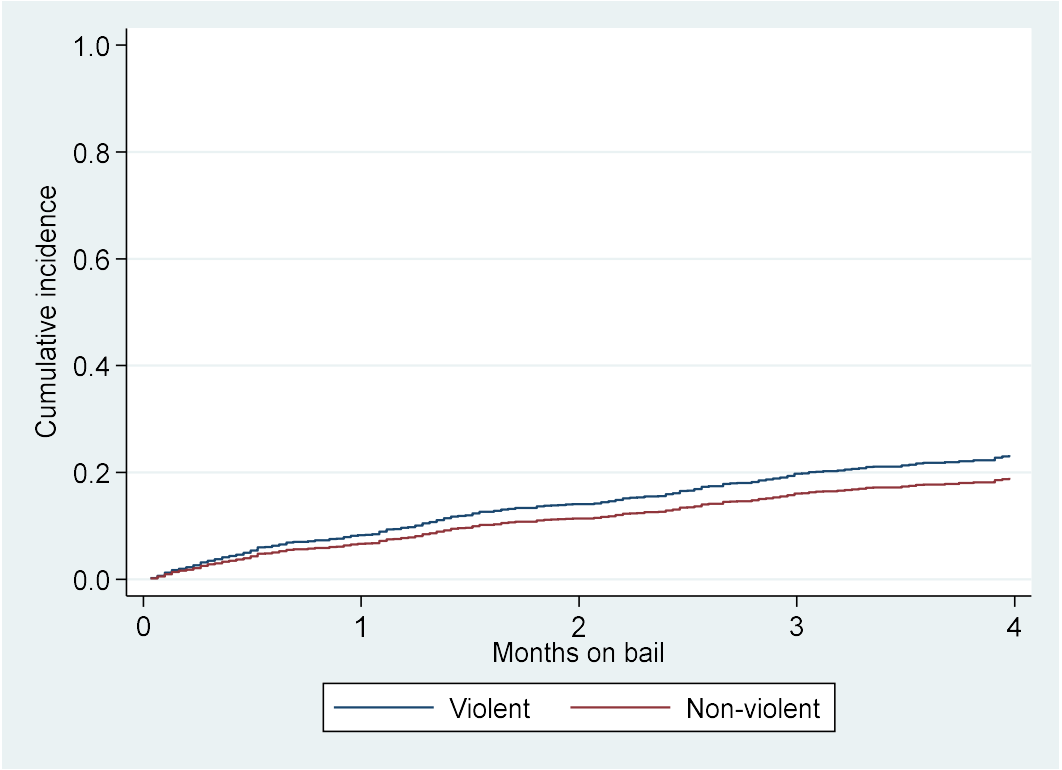
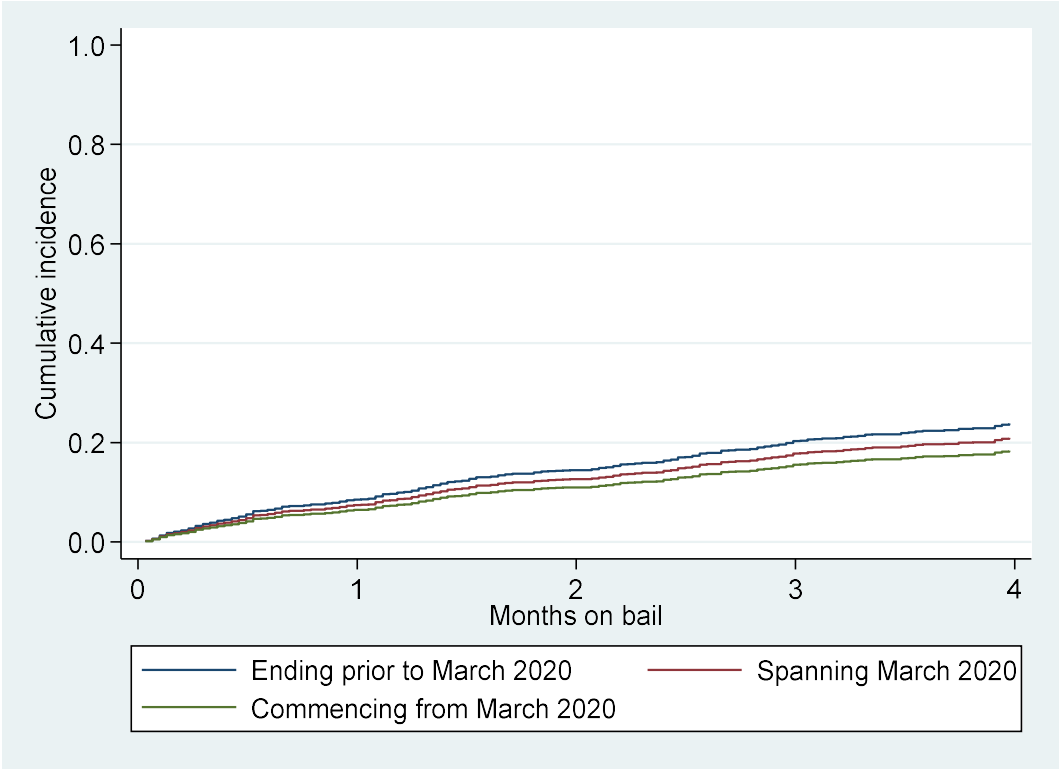


Figure 10. Cumulative incidence of offending on bail by timing of bail



5. Discussion

For both adults and youths, the incidence of bail ending in a new event (new offending, breach of bail offence, or custody) decreased over the period examined, with bail commencing since March 2020 having a lower rate of new events. For adults, the reduction may be due to the COVID-19 movement restrictions. The period from April 2020 through July 2020 saw reductions in Territory offences below the levels expected for the time of year. While this may have been a factor for youth as well, the primary reason for the decrease in the incidence of youth bail ending in a new event is the change to the *Bail Act 1982*, which commenced on 2 March 2020. The incidence of youth bail ending in a breach of bail offence dropped dramatically, while the incidence of youth bail ending in a new offence or custody showed less change.

Males, younger people, those with more prior periods in custody and prior apprehensions, and those on bail for a violent offence were more likely to offend while on bail than people who did not match those criteria. While bail commencing after March 2020 was less likely to involve new offending, this is likely to have been a result of the reduced offending during the COVID-19 restrictions, and thus, temporary.

Prior histories of escapes or going unlawfully at large while under corrections supervision and prior failures to appear in court while on bail were not significant predictors of new offending while on bail, though this may have been because of low frequencies: more than half of the bail records had no prior history of these events. Prior failures to appear in court might have been more likely to be associated with new breaches of bail, rather than new future offending.

Future assessments of offending while on bail might consider whether the defendant was subject to electronic monitoring, a breakdown of new offending by the severity of the new offence committed, and the covariates associated with more serious offending while on bail.

6. References

Enzo Coviello, 2003. "STCOMPET: Stata module to generate cumulative incidence in presence of competing events," Statistical Software Components S431301, Boston College Department of Economics, revised 11 Nov 2012.

Fine, J.P., and R.J. Gray. 1999. A proportional hazards model for the subdistribution of a competing risk. *Journal of the American Statistical Association* 94: 496-509.