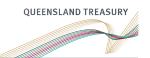


COVID-19 impact on crime, March to October 2020



Queensland Government Statistician's Office

Source: Queensland Police Service unpublished data, extracted 7 December 2020

Key findings

In comparing monthly recorded crime rates during the March–October 2020 focus period against the forecast for each offence category it was found:

- After reaching a peak of 953.9 offences per 100,000 persons in January 2020, the total recorded crime rate for Queensland plummeted to a low of 686.1 per 100,000 persons in April (22% lower than the expected rate), when the strictest COVID-19 containment measures were in place.
- The rate of total recorded offences in each of the eight months from March to October was significantly lower than the forecast estimate (6% lower in March and over 20% lower in each of the next seven months).
- Lower than expected rates were most evident in recorded property offences, which fell to 35–43% lower than forecast for the seven months from April to October. This was driven by:
 - unlawful entry with intent / burglary, break and enter, which peaked in February 2020 and dropped to less than half the forecast rate during May to July, the lowest level observed for that offence type in six years.
 - theft and related offences, which began to decline earlier, already evident in March when the observed rate first fell below the
 95% prediction interval (forecast range) and remaining well outside for the eight-month period in focus.
 - fraud, deception and related offences, which began to decline in February, first fell below the forecast range in April and remained well outside for the subsequent-months.
- Rates of recorded person offences were lower than expected across the first four months (significantly lower in March, April and May), then were higher than expected in the following three months (significantly higher in August).
 - The rate of acts intended to cause injury (almost entirely assault) was significantly lower in April and May and significantly higher in July and August, whereas the robbery, extortion and related offences rate was significantly lower from April through to July, and then again in October.
- Rates of recorded other offences performed quite differently over the March—October period, initially declining slightly below the forecast range in March and deemed to be significantly lower, before returning almost to the forecast estimate for April and exceeding the forecast estimates for May and June. However, a downward trend has seen the rate fall narrowly below the forecast range in September and October 2020, thus deemed to be significantly lower. The greatest changes were evident in the:

 illicit drug offences rate, which was significantly higher for each month from April to June. However, the steady rate reduction in subsequent months has seen the rate in September closer to the lower bound of the forecast range and in October 2020 it fell below and was therefore deemed significantly lower than forecast.
 - public order offences rate, which was significantly lower than forecast from April to June and significantly higher in July. In
 August to October, the rate returned closer to the expected level, and within the upper bound of the forecast range.

Introduction

This brief examines Queensland's monthly rates of crime reported to or detected by police (hereafter referred to as recorded crime) and assesses the impact of government–imposed COVID-19 containment measures, with particular focus on the eight months from March–October 2020. Historical trends and forecast rates based on monthly data are compared with recent divergences to identify likely impacts of these measures.

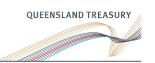
Since 11 March 2020, when the World Health Organization declared a global pandemic in response to the global spread of COVID-19, Australian Commonwealth and State and Territory governments have implemented border closures, travel restrictions, mandatory quarantine, business closures and social-distancing measures in efforts to contain the spread of the virus.

By the end of March, non-essential services, including pubs, clubs and restaurants were shut down and the Queensland border closed to all except local residents, essential travellers and freight. Queenslanders faced dramatically tighter restrictions, schools were closed, pupils were home-schooled and people not working in front-line essential services were directed to work from home if possible. Travel outside the home was banned except for four essential reasons, and breaches punishable by fines issued by police. Travel into remote Indigenous communities was banned under federal biosecurity laws. The highest level of restrictions was maintained throughout April. By 22 April, 130,000 Queenslanders were without a job. A staged easing of restrictions commenced in May, and hospitality venues permitted to reopen in a limited capacity from mid-May. From 31 May, Queenslanders were again allowed to travel unrestricted within the state. Further easing saw the state's border reopen from 10 July in a limited capacity, then repeatedly close again for periods when COVID-19 resurged in other states.

Since the pandemic was declared, police have been deployed to manage border control and assist with managing quarantine facilities. Roadside drink and drug driving tests were temporarily suspended between March and June.

While borders continued to be strictly controlled and social distancing enforced, restrictions within Queensland continued to ease from June onwards, allowing freedom of movement for the most part, and gathering of groups in greater (albeit still capped) numbers. Shops and other businesses began to re-open; people were urged to split their work between home and their usual workplace; children were called back to school; and places of worship were allowed to re-open.





Method of analysis

Administrative data from Queensland Police Service (QPS) form the basis of the quantitative analyses presented in this report. These data were derived from information on offences recorded in Queensland Police Records and Information Management Exchange (QPRIME).

Forecasting was performed to determine whether the observed offence rates since COVID-19 containment measures were introduced were significantly different to what would be expected if the pandemic had not occurred. If the observed rate was outside the 95% prediction interval (forecast range), it was deemed to be significantly different from a statistical perspective. The observed rate was also compared to the forecast point estimate as a measure of the size of difference or change between expected and observed rates.

For each separate forecast model discussed in this report, three forecasting methods were constructed and compared to determine the best forecasting model to use: an exponential smoothing state space (ETS) model, a non–seasonally adjusted auto-regressive integrated moving average (ARIMA) model, and a seasonally adjusted ARIMA model. Within each model type, the model specification and parameters were automatically selected based on the model with the lowest Akaike Information Criterion (AIC) value. Each of the three resultant models was then compared and the best model chosen based on the best forecast accuracy (i.e. the model with the lowest level of error as measured by the mean absolute percentage error (MAPE))¹. Monthly data from January 2015 to June 2019 were used to train the model, with monthly data from July 2019 to February 2020 used to test the model.

Once the best model was selected, offence rates were forecast for the months of March through to October 2020, based on monthly data from January 2015 to February 2020². As noted previously, COVID-19 containment measures were introduced in the latter half of March 2020, with substantial changes in community mobility in Queensland starting in that month as well. It was therefore decided that March 2020 should be included in forecasting, rather than used as an observed value from which to forecast.

Limitations to the analysis undertaken include:

- The data used for analysis relate to recorded offences and do not provide an accurate and true measure of all offending within Queensland. This is because not all offending is recorded, and not all recorded offences are proven in a court of law. Similarly, any increases or decreases in offending within the data could reflect changes in police detection and the community reporting offences rather than being indicative of actual changes in offending behaviour. Other publications may refer to recorded offences as reported offences.
- The use of forecasting based on historical trends relies on the strength of the relationship between past and future values. Where there is volatility or noise in the data, or low rates available for analysis, forecasts can become less reliable and result in wider prediction intervals, making statistical inference difficult. It is also possible that any divergence from the forecast trends is actually due to other factors, unrelated to COVID-19 containment measures, that occurred at the same time as the pandemic. This is probably unlikely, however, and thus any divergence from the forecast trends will be interpreted as providing evidence of the effects of the COVID-19 restrictions.

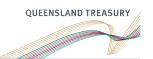
Please note the following:

- Recorded offence rates are presented monthly per 100,000 estimated resident population.
- When comparing, be aware of the wide variance in scale among the graphs in this paper.
- While the offence rates have been rounded to one decimal place, actual rates were used to calculate the
 percentage rate change between compared periods.
- Monthly data have been used in the table and graphs to illustrate seasonal variation over the year and to enable examination of each month across the focus period.
- Offence type is based on the Australian and New Zealand Standard Offence Classification (ANZSOC)³.

¹ The MAPE provides a measure of forecast error (the difference between an observed value and its forecast) and is therefore useful to evaluate the potential accuracy of a forecast. This was done by testing how well the trained models (January 2015 to June 2019) performed when forecasting the remaining pre-COVID-19 test data (July 2019 to February 2020), and the model with the lowest error value was deemed to be the 'best' model.

² Due to the large number of forecast models produced for analysis, the model specification and parameters that were ultimately selected for each will not be discussed.

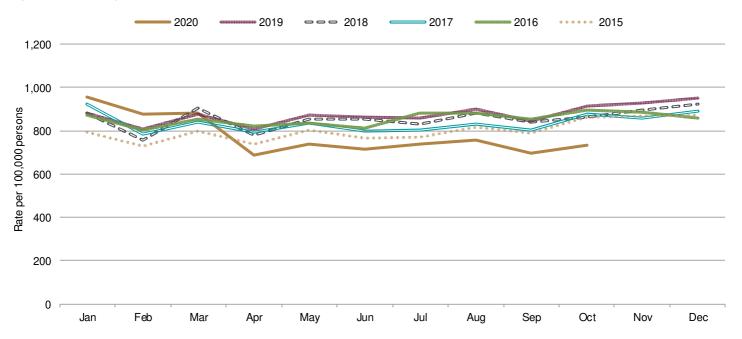
³ The Australian and New Zealand Standard Offence Classification (ANZSOC) provides a uniform national statistical framework for classifying criminal behaviour in the production and analysis of crime and justice statistics. (https://www.abs.gov.au/ausstats/abs@.nsf/mf/1234.0)



Overall crime trends

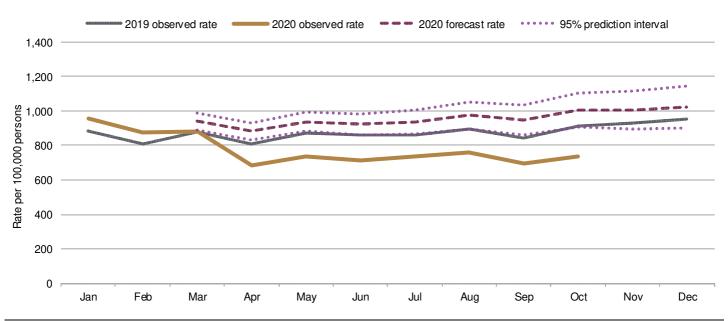
The containment measures implemented for COVID-19 appear to have had a significant impact on the rate of recorded crime in Queensland. In January 2020, the rate of 953.9 offences per 100,000 persons for the state was at a 6-year peak (Figure 1). The rate then declined in February, as seen in every other year in the time series. However, following social distancing measures and other restrictions implemented from mid-March, the total crime rate plummeted to 686.1 offences per 100,000 persons in April (22% lower than expected and 28% less than the peak in January 2020). The rate increase observed in May could potentially be attributed to the stage one easing of restrictions commenced at the beginning of the month. However, seasonal factors are also likely to have played a big part in the increase, as evidenced in previous years. Despite the further easing of restrictions in June, the total crime rate remained subdued throughout the months following, while continuing to display expected seasonal fluctuations.

Figure 1 Monthly rates of total recorded offences, Queensland, time series



When compared with the forecast rate, the observed rate in the eight months from March to October 2020 was significantly lower than expected (6% lower in March and between 21% to 27% lower in each month up to and including October). As can be seen in Figure 2, the observed rate fell below the forecast range every month in the period and it is fair to conclude that this is a result of COVID-19 restrictions.

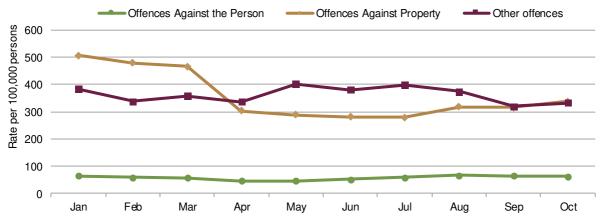
Figure 2 Monthly rates of total recorded offences, observed rates and ETS forecasts





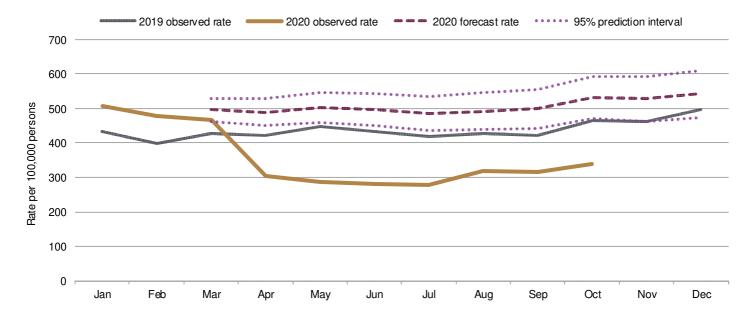
Looking below the aggregate reveals that recorded *property offences* have largely driven the pattern of the overall crime rate in 2020 (Figure 3), in particular the sharp drop in April as it contributed 83% of the total decrease in the counts of recorded offences. The change in *other offences* impacted the overall crime rate more in May when its increase outweighed the decrease in *property* offences, and in September when it contributed 91% of the total decrease in the counts of recorded offences. Fluctuations in *person offences* were less influential overall due to lower counts.

Figure 3 Monthly rates of recorded offences by category, Queensland, January to October 2020



Of all three offence categories, the lower than expected rates were most pronounced in recorded *property offences* (Figure 4), where the decline commenced as soon as COVID-19 restrictions were imposed and homes were seldom left unoccupied. In April–October, the observed property offence rate was 35–43% lower than forecast estimates, showing no indication of returning to the expected level despite the 14% increase from July to August and 7% increase from September to October.

Figure 4 Monthly rates of recorded property offences, observed rates and ETS forecasts





The overall rate of recorded *other offences* (including drugs, weapons and public order offences) followed a similar pattern of seasonal fluctuations in 2020 compared with 2019, with the more obvious divergence starting in August. The rate was significantly lower than forecast for March, just below the forecast range, and was close to the forecast rate in April (Figure 5). The sharp increase in May (up 20%) was likely to be influenced by the stage one easing of restrictions although the rate was not deemed to be significantly higher than expected considering the seasonal factors. The rate returned closer to the expected rate in June and July, whereas in August it fell narrowly within the forecast range. The rate of *other offences* overall fell just below the forecast range in September and October and was hence deemed to be significantly lower.

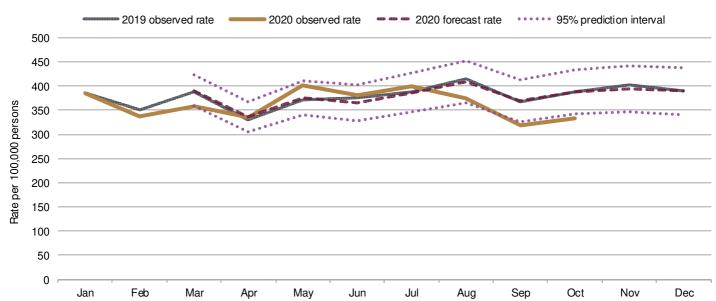


Figure 5 Monthly rates of recorded 'other' offences, observed rates and ETS forecasts

As can be seen in Figure 6, the rate of recorded *person offences* was lower than expected across the four months from March to June. It was significantly lower than forecast in March, April and May and, once restrictions began to ease and residents were again permitted to move more freely within the state, bounced back during the following three months and was significantly higher than forecast in August. In September and October, a downward trend back within the forecast range was observed.

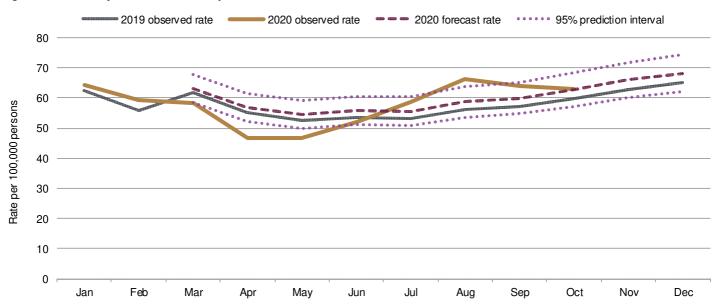


Figure 6 Monthly rates of recorded person offences, observed rates and ARIMA forecasts



Recorded crime rates by ANZSOC division

Table 1 presents the monthly rates of recorded offences by ANZSOC division for the eight months from March to October 2020, with the observed rates compared with forecasts, and any significant difference found. Some observed rates appear to be much lower than the forecast rates, however, if the rate falls within the 95% prediction interval (forecast range) it is deemed to be not significantly different from expectations.

Within recorded person offences, the rate for division 02 *Acts intended to cause injury* was significantly lower than forecast in April and May and significantly higher in July and August, whereas the rate for division 06 *Robbery, extortion and related offences* remained lower from April through to October and significantly lower for five of those seven months.

In terms of recorded property offences, significantly lower rates were evident over a prolonged period for recorded offences in divisions 07 *Unlawful entry with intent/burglary, break and enter*, 08 *Theft and related offences*, 09 *Fraud, deception and related offences* and 12 *Property damage and environmental pollution.*

For recorded other offences, the rate for division 13 *Public order offences* was significantly lower than expected during April to June, then rose sharply in July to above the forecast range and hence was significantly higher than expected. The rate for division 14 *Traffic and vehicle regulatory offences* fluctuated around the lower bound of the forecast range and fell below for the four months of March, April, August and September.

A surprisingly higher than forecast rate is evident for division 10 *Illicit drug offences* from April through to June. A detailed analysis of illicit drug offences over this period is presented in a separate brief. However, the steady rate reduction in subsequent months has seen the rate in September fall just inside the lower bound of the forecast range while in October 2020 it fell just outside.

These offences are explored in more detail in the following pages.

Despite some other observed rates falling just above or below the forecast range in some of the eight months of observation, these were considered more likely to be anomalous and less likely to be a result of COVID-19 restrictions.



Table 1 Monthly rates of recorded offences by ANZSOC division, forecast rate versus observed rate

	March 2020			April 2020				May 2020		June 2020		
ANZSOC Division	Forecast	Observed	Significant difference									
	Rate per 100,000 persons			Rate per 100,000 persons			Rate per 100,000 persons			Rate per 100,000 persons		
01 Homicide and related offences	0.2	0.2		0.2	0.1		0.2	0.2		0.2	0.3	
02 Acts intended to cause injury	43.3	41.2		38.2	32.7	Lower	38.3	33.4	Lower	37.4	36.6	
03 Sexual assault and related offences	8.9	8.0		8.9	6.3	Lower	8.2	6.6		9.7	7.3	
04 Dangerous or negligent acts endangering persons	8.6	10.8	Higher	8.0	9.5		8.4	8.9		8.1	9.1	
05 Abduction, harassment and other offences against the person	0.5	0.6		0.5	0.6		0.5	0.4		0.5	0.5	
06 Robbery, extortion and related offences	4.6	4.5		4.6	2.8	Lower	4.6	2.7	Lower	4.7	3.1	Lower
07 Unlawful entry with intent/burglary, break and enter	92.5	88.3		93.4	54.7	Lower	94.2	46.1	Lower	92.4	42.6	Lower
08 Theft and related offences	306.0	280.9	Lower	299.9	176.6	Lower	310.4	169.0	Lower	312.1	163.8	Lower
09 Fraud, deception and related offences	45.1	39.4		45.1	29.5	Lower	45.1	30.0	Lower	45.1	31.7	Lower
10 Illicit drug offences	135.8	130.0		116.0	145.0	Higher	140.8	187.7	Higher	134.3	164.7	Higher
11 Prohibited and regulated weapons and explosives offences	12.6	12.9		12.4	12.8		12.2	16.4	Higher	12.7	14.0	
12 Property damage and environmental pollution	66.2	62.3	Lower	62.8	47.6	Lower	61.2	47.6	Lower	60.6	48.8	Lower
13 Public order offences	52.9	48.6		48.1	34.7	Lower	48.2	37.1	Lower	46.8	37.9	Lower
14 Traffic and vehicle regulatory offences	70.5	53.8	Lower	55.0	44.1	Lower	63.4	58.2		68.4	59.4	
15 Offences against justice procedures, government security and government operations	104.4	97.2		93.1	86.7		95.1	90.3		92.5	91.3	
16 Miscellaneous offences	1.6	2.0		1.6	2.5		1.6	1.6		1.6	2.0	
Total	941.2	880.7	Lower	881.1	686.1	Lower	937.3	736.4	Lower	923.6	713.2	Lower

Note: The difference between a forecast rate and an observed rate is considered significant only if the observed rate is higher or lower than the 95% prediction interval.



Table 1 (cont.) Monthly rates of recorded offences by ANZSOC division, forecast rate versus observed rate

	July 2020			August 2020			S	eptember 202	0	October 2020		
ANZSOC Division	Forecast	Observed	Significant difference	Forecast	Observed	Significant difference	Forecast	Observed	Significant difference	Forecast	Observed	Significant difference
	Rate per 100,000 persons			Rate per 100,000 persons			Rate per 100,000 persons			Rate per 100,000 persons		
01 Homicide and related offences	0.2	0.1		0.2	0.3		0.2	0.3	Higher	0.2	0.2	
02 Acts intended to cause injury	37.8	42.6	Higher	41.7	49.2	Higher	41.5	45.2		43.0	47.5	
03 Sexual assault and related offences	9.1	8.3		9.0	7.9		8.9	9.7		9.5	7.1	
04 Dangerous or negligent acts endangering persons	8.3	8.1		8.0	9.3		7.9	10.2	Higher	8.5	9.5	
05 Abduction, harassment and other offences against the person	0.5	0.6		0.5	0.5		0.5	0.4		0.5	0.5	
06 Robbery, extortion and related offences	4.7	3.4	Lower	4.8	3.8		4.8	3.9		4.8	3.2	Lower
07 Unlawful entry with intent/burglary, break and enter	90.6	36.9	Lower	90.5	52.0	Lower	90.5	50.4	Lower	95.1	56.7	Lower
08 Theft and related offences	302.5	165.7	Lower	304.0	179.7	Lower	305.7	183.3	Lower	324.1	199.1	Lower
09 Fraud, deception and related offences	45.1	31.4	Lower	45.1	32.3	Lower	45.1	27.4	Lower	45.1	29.6	Lower
10 Illicit drug offences	148.2	165.3		154.6	143.4		133.9	110.3		138.7	112.2	Lower
11 Prohibited and regulated weapons and explosives offences	12.2	14.5		12.5	13.3		12.4	11.4		12.4	11.3	
12 Property damage and environmental pollution	60.6	52.0	Lower	62.8	58.9		65.0	58.5	Lower	69.2	57.2	Lower
13 Public order offences	47.5	54.0	Higher	50.2	52.2		47.4	48.5		49.4	50.6	
14 Traffic and vehicle regulatory offences	65.9	57.1		75.4	60.4	Lower	63.5	44.8	Lower	65.2	55.6	
15 Offences against justice procedures, government security and government operations	94.5	94.7		100.2	93.9		99.0	91.9		102.3	91.4	
16 Miscellaneous offences	1.6	1.5		1.6	1.5		1.6	1.4		1.6	1.4	
Total	937.5	736.3	Lower	973.6	758.4	Lower	946.7	697.8	Lower	1,004.7	733.1	Lower

Note: The difference between a forecast rate and an observed rate is considered significant only if the observed rate is higher or lower than the 95% prediction interval.



Division 02 – Acts intended to cause injury

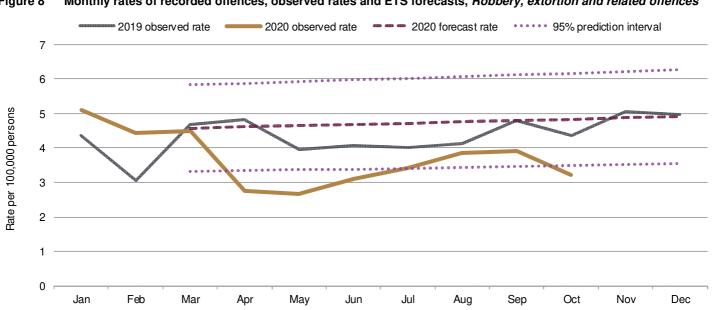
In April 2020, when COVID-related restrictions were at their tightest and pubs, clubs and other social venues as well as the Queensland border were closed, the rate of recorded acts intended to cause injury (comprising almost entirely assault) dropped to 32.7 offences per 100,000 persons, 14% below the forecast rate, which was statistically significant. When restrictions began to ease in May, the rate increased steadily to be significantly higher than forecast in July and August, then returning to within the forecast range from September. In August, the rate reached a six-year time series high of 49.2 offences per 100,000 persons.

••••• 95% prediction interval 2020 observed rate = 2020 forecast rate 60 Rate per 100,000 persons 30 20 0 Feb Mar May Jul Aug Sep Oct Nov Dec Jan Apr Jun

Monthly rates of recorded offences, observed rates and ARIMA forecasts, Acts intended to cause injury

Division 06 – Robbery, extortion and related offences

The rate of recorded robbery, extortion and related offences plummeted 38% from March to April 2020 before stabilising in the following month. When compared with the forecast, April and May rates were over 40% lower than expected. Despite the upward trend in subsequent months, both June and July rates were still significantly lower than expected and fell below the forecast range. In October, the rate was significantly lower than expected (-33%) although it followed the same seasonal pattern as the previous year. Within division 06, robbery offences accounted for over 95% of the offence count for the reporting period.



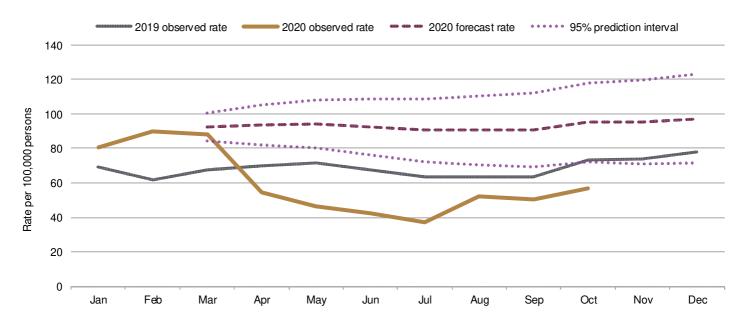
Monthly rates of recorded offences, observed rates and ETS forecasts, Robbery, extortion and related offences



Division 07 - Unlawful entry with intent / burglary, break and enter

Over the years since 2015, and particularly in the beginning of 2020, the rate of recorded *unlawful entry with intent / burglary, break and enter* offences has increased steadily and reached a six–year time series peak of 89.8 offences per 100,000 persons in February 2020. However, since the COVID containment measures were implemented in late March, the rate dropped significantly and reached a six–year time series low of 36.9 offences per 100,000 persons in July, nearly 60% lower than expected. The rate in subsequent months picked up from the trough although it remained more than 40% lower than expected and well below the forecast range.

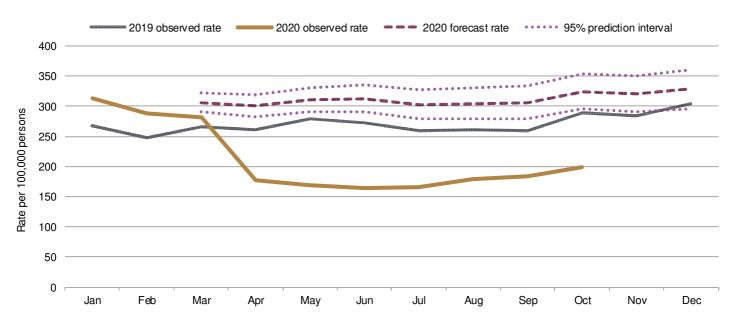
Figure 9 Monthly rates of recorded offences, observed rates and ARIMA forecasts, *Unlawful entry with intent / burglary, break and enter*



Division 08 - Theft and related offences

From March to April 2020, the monthly rate of *theft and related offences* decreased by 37% to reach 176.6 per 100,000 persons. The rate remained at a historically low level from April to October, ranging from 39% to 48% lower than expected and 29% to 40% lower than the same period in 2019.

Figure 10 Monthly rates of recorded offences, observed rates and ETS forecasts, Theft and related offences





Within division 08, subdivision 081 *Motor vehicle theft and related offences* made up around one-third of all offences. In contrast to the overall theft offences pattern, the rate of motor vehicle theft was similar to expectations in March 2020 at 97.5 offences per 100,000 persons. However, it plummeted over the next three months to reach a six–year time series low of 49.7 per 100,000 persons in June, which is almost half the rate forecast for June (Figure 11).

The rate of offences in subdivision 082 *Theft (except motor vehicles)*, which includes theft from retail premises, however, dropped dramatically over March and April then stabilised and remained at a historically low level in the subsequent months, in line with division 08 overall (Figure 12).

Figure 11 Monthly rates of recorded offences, observed rates and ARIMA forecasts, Motor vehicle theft and related offences

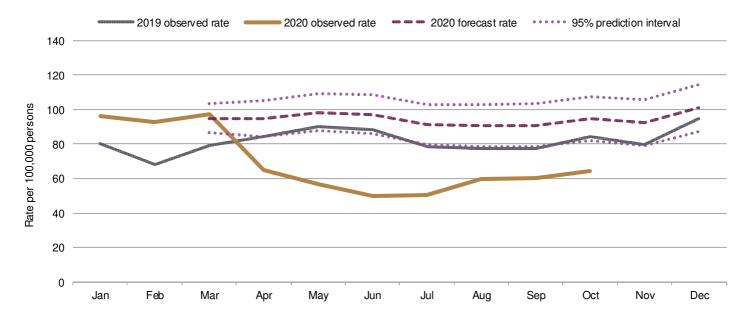
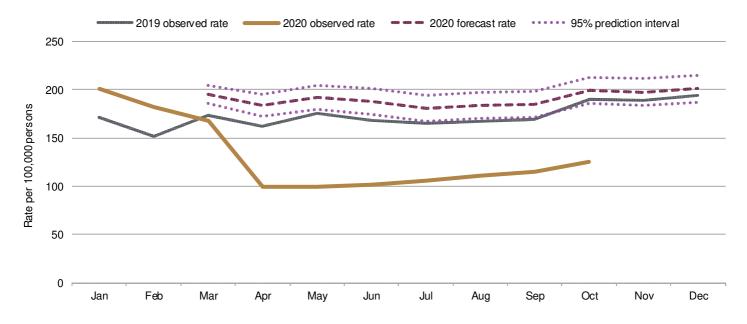


Figure 12 Monthly rates of recorded offences, observed rates and ARIMA forecasts, Theft (except motor vehicles)





Division 09 - Fraud, deception and related offences

The rate of *fraud*, *deception and related offences* began declining at the beginning of 2020, before COVID restrictions were imposed. In the three months from January to April, the rate decreased 43% to reach a trough of 29.5 offences per 100,000 persons. Compared with forecasts, the monthly rate throughout April to October was around 30% lower and clearly outside the forecast range.

2020 observed rate **2020** forecast rate 60 50 Rate per 100,000 persons 30 20 10 0 Feb May Oct Jan Mar Apr Jun Jul Aug Sep Nov Dec

Figure 13 Monthly rates of recorded offences, observed rates and ETS forecasts, Fraud, deception and related offences

Division 10 - Illicit drug offences

In the three months from February to May 2020, the rate of *illicit drug offences* increased 63% to reach a six–year time series high of 187.7 offences per 100,000 persons. Compared with forecasts, the monthly rate in April, May and June 2020 each rose above the forecast range and was deemed to be significantly higher than expected. However, the steady rate reduction in the months following has seen the rate in September fall narrowly inside the lower bound of the forecast range while in October it fell narrowly outside and was thus significantly lower.

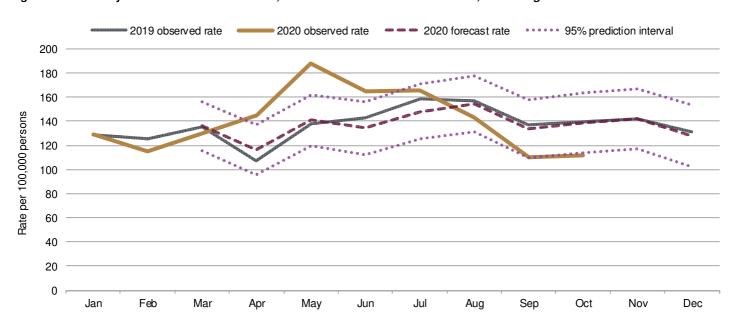


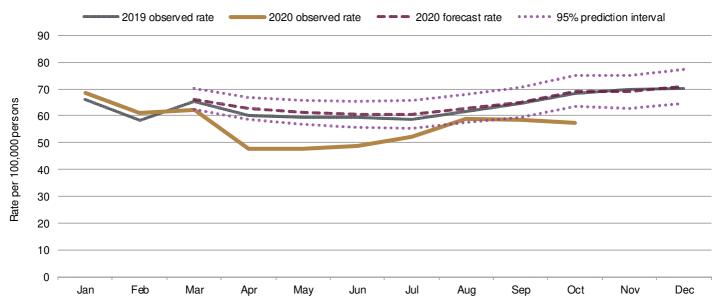
Figure 14 Monthly rates of recorded offences, observed rates and ETS forecasts, Illicit drug offences



Division 12 - Property damage and environmental pollution

Recorded offences for *property damage and environmental pollution* during the reporting period wholly comprised subdivision 121 *Property damage*. The rate dropped 24% from March to April 2020, remained at the historically low level in the months to July while slowly trending upwards. Apart from August, when the rate climbed to narrowly within the forecast range, the rate was found to be significantly lower than forecast for each month from March to October 2020 (ranging between 6% to 24% lower than the expected rates).

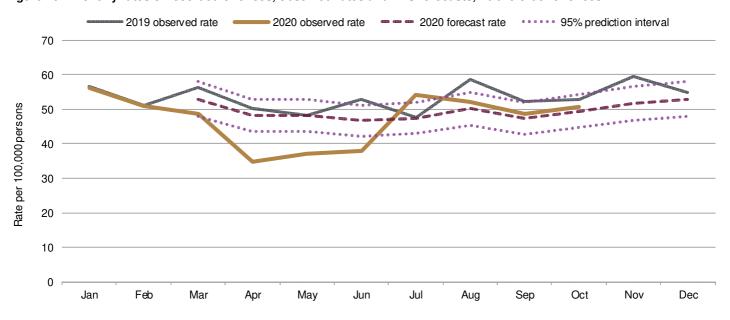
Figure 15 Monthly rates of recorded offences, observed rates and ETS forecasts, *Property damage and environmental pollution*



Division 13 - Public order offences

The rate of *public order offences* has been decreasing steadily over several years, with the unusually low rate more obvious during the period with strictest containment measures – April's rate was the lowest in the six–year time series and the rate in both May and June was around 20% lower than expected. However, the rate rose sharply in July to be significantly higher than forecast (54.0 offences per 100,000 persons). Within division 13, subdivision 131 *Disorderly conduct* contributed over 80% of the offence counts and shared a similar pattern, although its rate increase in July was less prominent and wasn't statistically significant.

Figure 16 Monthly rates of recorded offences, observed rates and ETS forecasts, Public order offences

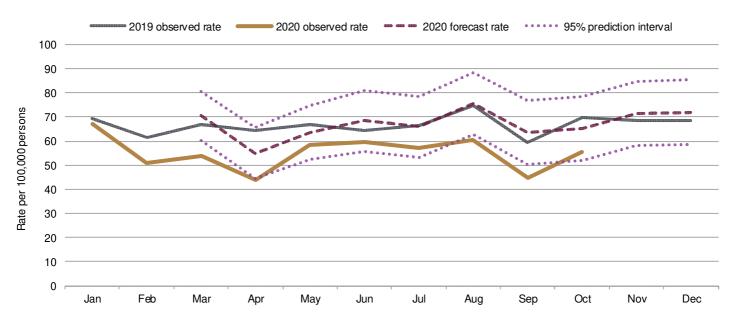




Division 14 - Traffic and vehicle regulatory offences

The rate of *traffic and vehicle regulatory offences* has been decreasing overall in recent years, with the larger than usual decline beginning in February 2020, before COVID-19 restrictions were imposed. The slight increase in March followed a similar pattern to the same period in 2019 although it was 24% lower than expected and fell below the forecast range. A further 18% drop in April resulted in the rate reaching a six–year time series low of 44.1 offences per 100,000 persons, which is significantly lower than both the forecast estimate for April and the corresponding period in 2019 (–20% and –31% respectively). Overall, the rate over these eight months fluctuated around the lower bound of the forecast range and fell outside for the four months of March, April, August and September.

Figure 17 Monthly rates of recorded offences, observed rates and ARIMA forecasts, Traffic and vehicle regulatory offences



Within division 14, drink and drug driving offences make up approximately 98% of offences under subdivision 143 *Regulatory driving offences* and was the major driver of the lower than expected rates. The suspension of roadside drink and drug driving tests by police from mid-March through to mid-June, coupled with the closure of pubs, clubs and other social venues at that time, are likely to have contributed to the lower than expected rate in March and April, although the rate was already tracking lower than expected before the pandemic was declared. In August and September, however, the rate decrease was largely driven by the decrease in drug driving offences, which corresponds with the overall decrease in illicit drug offences at that time.

Figure 18 Monthly rates of recorded offences, observed rates and ARIMA forecasts, Regulatory driving offences

