



Methodology for estimating the increase charged cases in Crest's modelling of the impact and legacy of Covid-19 on the CJS

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The Crest Advisory model examining the impact and legacy of Covid-19 on the criminal justice system projects an increase in charged cases which depend on the scenario modelled.

Scenario 1: historical projection

In this scenario, the model projects that charged cases of the 9 offence types considered will go from 35,893 charged cases in 12/2019 to 44,274 charged cases in 12/2024, which is a 23% increase.

This is based on the empirical relationship between the volume of police recorded crime and charging crime rates. Given that police recorded crime is projected to go up based on historical trends, we have an overall increase in charged cases.

Note from the modelling team:

The rate at which recorded crime is changing. This has varied according to the type of crime. For example, violence offences and sexual offences have been increasing in the past few years. The forecasts are based on timeseries analysis of trends and seasonal behaviour over the period 2014 to 2018/19 (depending on the latest available published government data). The model dissects recorded crime into the indictable/triable either way offences (excluding fraud). The model analyses the prediction intervals involved and uses the 'average' forecast as a 'middle' assessment of the likely future level of recorded crime in each crime type.

Scenario 2: historical projection + police uplift

In this scenario, the model projects that charged cases of the 9 offence types considered will go from 35,893 charged cases in 12/2019 to 56,096 charged cases in 12/2024, which is a 56% increase.

This is also based on an empirical relationship between police officer numbers and charging rates by offence type. The model draws on historical data where police officer numbers were higher and determines what this relationship has been, empirically. Therefore, adding extra police resources has a proportional impact, by crime type, on increasing charging rates.

For example this volume of charged cases is not unprecedented. In 09/2014, the Home Office recorded crime figures and the reported charge rate at that time, taken together, imply that 56,812 were charged cases.

Note from the modelling team:

The rates at which offences brought to the police are detected and charged. There are a number of variables that influence this. The number of police officers and other resources to conduct investigations. The type of offence and the proportion of cases that have a suspect; the strength of the evidence etc.. These are generally different for the categories of crime. The model accounts for these differences by reference to the published police outcome data since 2014, and the corresponding levels of police resources. For example, in 2015 there were ~133,000 police officers and, in 2018, ~128,000 police officers. The corresponding national charge rates for violence offences were ~ 15% and 9.9%. These relationships, for each type of crime in the model, are used to assess the potential future police performance following the planned police uplift. It should be noted that the relationship is not linear and is bounded above by the historical outcome levels. It is of course recognised that there are many other factors involved – including how the police choose to deploy their additional resources - but the empirical approach provides, to a first approximation, an indication of what might be expected of police outcomes going forward.

Scenario 3: historical projection + police uplift + impact of Covid-19

In this scenario, the model projects that charged cases of the 9 offence types considered will go from 35,893 charged cases in 12/2019 to 61,563 charged cases in 2024 which is a 72% increase.

This additional increase is due to the additional volume of police recorded crime based on the assumptions explained in the modelling deck, driven by unemployment due to Covid-19, distributed by offence type. Thus, charging rates will increase proportionately, by offence type.

Note from the modelling team:

We have made an assumption that police performance is not influenced by the level of recorded crime. Higher numbers of police officers would have some deterrence effect; but there are many other factors which would influence the level of reporting of crime. This is therefore a neutral assumption in this respect.