

CRIME AND JUSTICE

Occasional paper: The Effect of COVID-19 on Community Payback Order Unpaid Work or Other Activity Requirements

Date: 21 November 2023

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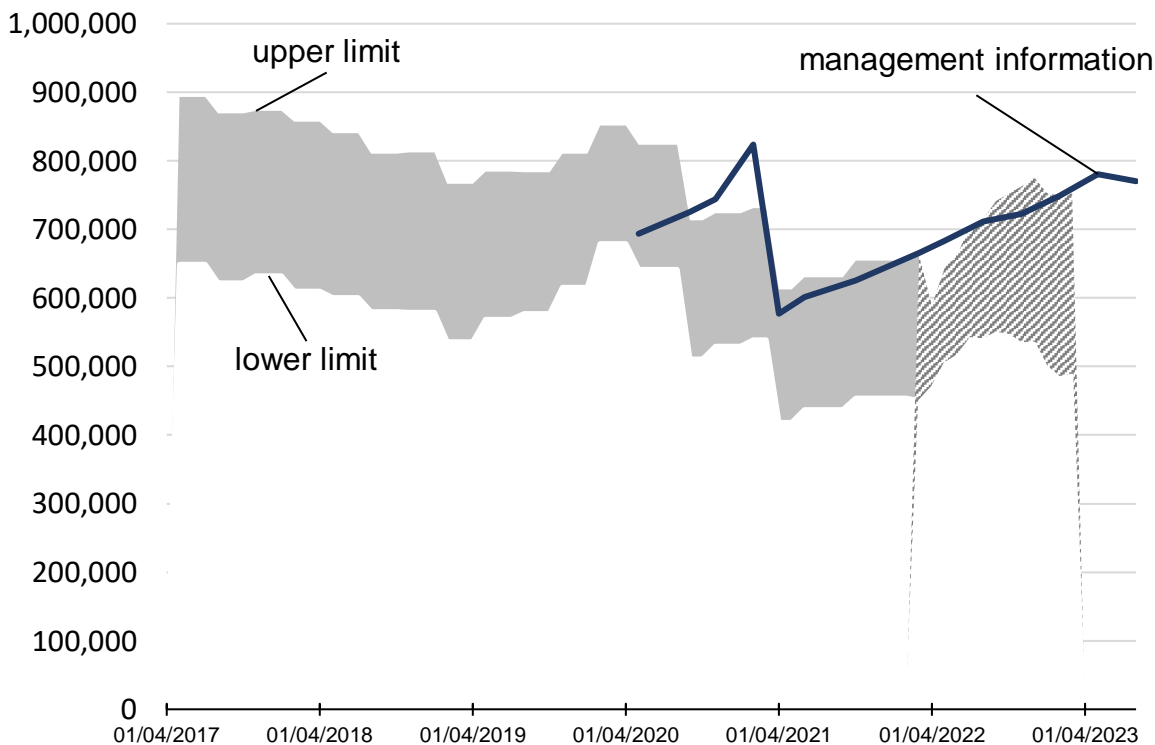
Executive Summary

Community payback order (CPO) unpaid work or other activity requirements are continuously being imposed and, at the same time, existing requirements are being completed. Therefore, there are always unpaid work hours that are being progressed and always outstanding hours in the system due to the time taken to do this work.

In the three years before the pandemic, there were 37,000 CPOs imposed with unpaid work or other activity requirements totalling 4.7 million hours in Scotland. The management of this activity is undertaken by local authority justice social workers.

The aim of this paper is to explore how the pandemic affected the ability to process unpaid work or other activity requirements. (For the purposes of this paper, the unpaid work or other activity will be referred to as “unpaid work”). A mathematical model estimates the outstanding unpaid work hours in the system before the pandemic. It then compares this model to management data collected throughout the pandemic. The aim is to understand how outstanding hours were affected by the pandemic.

Figure 1: Overall estimated outstanding unpaid work hours from model and management information on outstanding unpaid hours, Scotland, at various time points from May 2017 to August 2023



The mathematical model

The above graph illustrates a mathematical model that estimates the number of unpaid work hours outstanding for CPOs at Scotland level between 1 April 2017 to 31 March 2023. It covers the pandemic years (2020-21, 2021-22). The management information was collected from local authorities from May 2020 to August 2023.

The dark line on the graph is the management information. It shows a truer reflection of what was happening at specific points in time. The line is to be compared to the grey area on the graph, which estimates the outstanding unpaid work hours. The model estimates that the outstanding unpaid hours value would lie somewhere between the upper and lower limits. Comparing the model and the management information allows us to see what effect Covid-19 restrictions had on CPOs' unpaid work hours.

Findings

Using an estimation model is necessary, as some of the information required is not available from existing data sources. The model estimates that pre-pandemic (before March 2020) there were more than 500,000 hours outstanding at any one time, in the usual processing of unpaid work hours.

The model shows two distinct dips. Firstly, very few CPOs were issued due to many Scottish courts being closed due to the first national lockdown (March 2020). Then, the Community Orders (Coronavirus) (Scotland) Regulations 2021 legislation reduced the number of hours imposed in relevant orders (with some exceptions) by 35 per cent (March 2021). This legislation reduced the overall volume of hours to be delivered and ensure the continued effective operation of the community justice system.

The model assumes that local authorities were still able to continuously process unpaid work hours during this time ie not effected by national lockdowns. It also takes into account longer processing times during the pandemic years .The management information shows the reality of local authorities working within the social restriction requirements of the pandemic, with the outstanding unpaid work hours increasing until March 2021. The highest point of outstanding hours was 820,000. When the Coronavirus Regulations came into force, directly reducing hours, it became the lowest point in the time series at 580,000.

From April 2021, both the model and management information show the outstanding unpaid work hours increasing. This is due to CPOs increasing from 2020-21 onwards. The model finishes in March 2023.

In 2022-23, the management data mostly lies inside the grey area of the model, but it is nearer the upper limit of the model. The upper limit assumes that nearly all unsuccessful requirements had no hours completed, which is unlikely to be the case in reality. The model takes into account the longer time it took to process the hours during years impacted by Covid-19, but not the full effect of social restrictions due to the pandemic. If there was no backlog due to the pandemic, the management information line would lie more in the middle of the upper and lower limits of the graph. This indicates that the backlog created by the Covid-19 pandemic is still influencing the outstanding unpaid work hours in March 2023 at a national level. This cannot be quantified exactly due to the continuous nature of processing of unpaid work requirements.

Introduction

The community payback order (CPO) was introduced by the Criminal Justice and Licensing (Scotland) Act 2010. There are now ten different requirements which could be issued at the initial imposition of a CPO. Unpaid work or other activity is one of the most common requirements issued by the court. For the purposes of this paper, the unpaid work or other activity will be referred to as “unpaid work”. This requires a person to pay back to their community through their work. The work undertaken, as well as being reparative, should be of clear tangible benefit to the local community. Payback may involve requiring the individual to take responsibility for their own behaviour by spending time, through the "other activity" component of the requirement, on developing their interpersonal, educational, and vocational skills to support long-term desistance from offending. Unpaid work or other activity requirements can be no lower than the minimum of 20 hours and cannot exceed 300 hours. For the ease of reading only, these will be referred to as unpaid work requirements or unpaid work hours.

Local authorities are responsible for delivering and monitoring CPOs that are imposed on individuals who have been given a sentence by the court. During the years which were most affected by the Covid-19 pandemic, it was more difficult for local authorities to deliver CPOs. This was particularly the case for CPOs with unpaid work requirements, which were substantially more difficult to carry out due to national lockdowns and measures to keep people safe during 2020 and 2021.

The Scottish Government started collecting data from May 2020 to look at the changing position of outstanding unpaid work hours. This paper looks at the effect which Covid-19 had on the delivery of unpaid work hours. It does this by creating a mathematical model to try and examine what was happening to outstanding unpaid work hours before, during and after the pandemic. Using a model is necessary, as some of the information required is not available from existing data sources. This means that several assumptions have had to be made and estimates created based on what data is available. The aim of the model is to estimate an upper and lower limit of outstanding unpaid work hours over six years at national level.

The modelling estimates the number of outstanding unpaid work hours that are in the system over six years. The input data is available to the Scottish Government through official statistics and management information from 2017-18 onwards. Estimating outstanding unpaid work hours is complex, as new requirements are always being imposed and existing ones are being completed/terminated over time. There are therefore always requirements that are in progress. One of the most noticeable things about Scotland level data is the sheer volume of hours that are being processed. From 2017-18 to 2019-20, courts issued over 51,000 CPOs. These CPOs contained over 37,000 unpaid work or other activity requirements, with 4.7 million hours. Over the same period, 3.1 million hours were carried out as part of successfully completed requirements. Most of the graphs are measured on a scale of 100,000 hours, as this model is dealing with large volumes of outstanding unpaid work hours.

The model cannot take into consideration the complex structure which local authorities have in place to administer unpaid work hours and the issues faced by local authorities during the pandemic. However, it does try to put management information that was collected into perspective.

Three main assumptions were made to do this modelling at Scotland level.

- Outstanding unpaid work hours included in the model are reduced at a daily rate until the end date of the requirement (either provided or calculated).
- The daily rate is the average hours of work undertaken per day between the date the requirement started and the date it ended.
- A range was created for unsuccessfully completed requirements as to the number of hours actually completed. This is because the data for this was not available at Scotland level. This range covers different completion scenarios from 0% of hours completed through to 100% of hours completed.

It would take considerable time and additional burden on local authorities to provide the information behind these assumptions. This would especially be the case for estimating the hours completed as part of unsuccessfully completed requirements. That would require a national collection going back to 2017-18. As this is a one-off analysis to examine an exceptional time, the decision has been taken that the assumptions made will provide a good approximation. The model creates an upper and lower limit (ie a range) where the number of actual outstanding unpaid hours would lie within. The management information supplied by local authorities shows what is actually happening at a snapshot in time, while the model gives us an illustration of the trends, if the processing of unpaid work hours continued to run as usual over the pandemic.

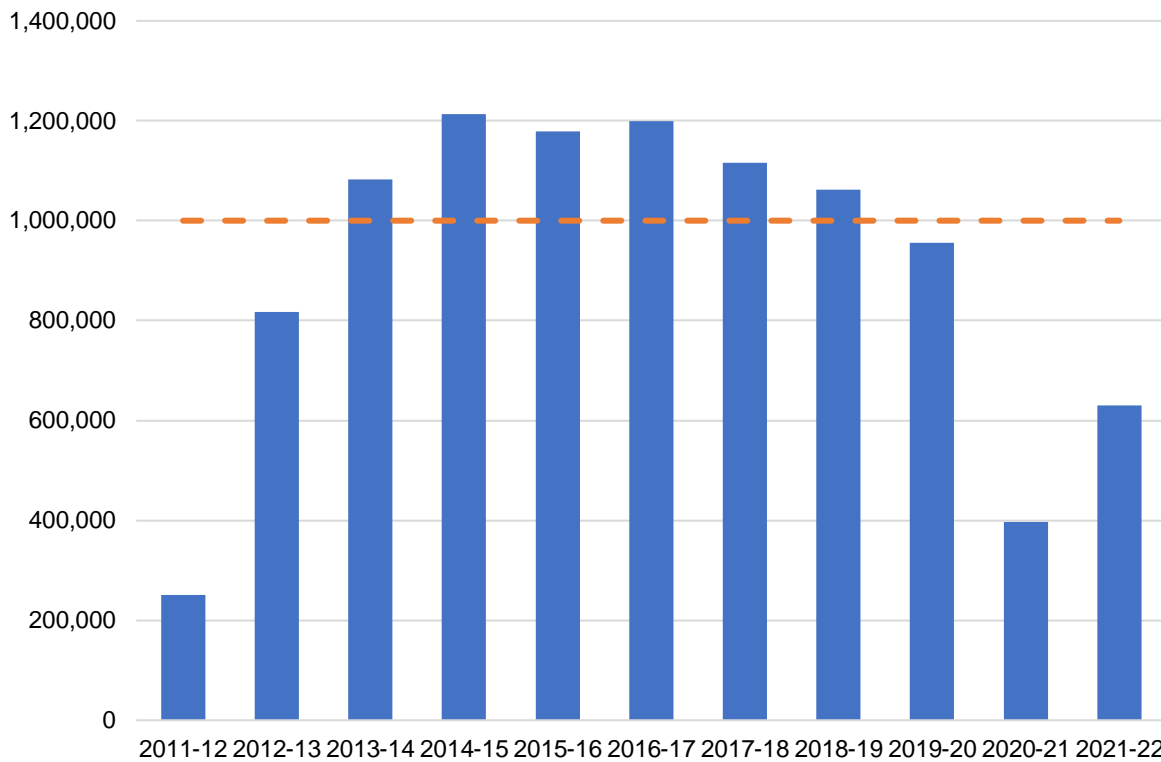
Background

The Scottish Government receive 'unit level data' on each CPO commenced and completed from Scottish local authority justice social work teams annually. This data contains specific information about individual CPOs and is only used for statistical analysis. This information has been collected from local authorities since 2012-13 and the results are published on [the Scottish Government website](#). These annual publications provide more information about CPOs and their requirements. A CPO can have up to 10 requirements. The average number of requirements was around 1.5 to 1.6 per order in the years 2017-18 to 2021-22. When a CPO ends, it can have various outcomes. The main outcomes are: successful completion, early discharge, revoked due to review, revoked due to breach, transferred out of the area and death.

However, this analysis looks specifically at an unpaid work or other activity requirement and whether or not it was successfully completed, as well as the date on which it was completed/terminated.

This unit level collection has specific pieces of information for every order. It does collect information on the number of hours imposed and the number of hours successfully completed unpaid work requirements, but it has never collected information on hours outstanding for unsuccessfully completed unpaid work requirements. Throughout the paper, the emphasis will be on the outstanding hours for these requirements. A successfully completed unpaid work requirement usually means that all hours set by the court were completed by the individual. An unsuccessfully completed unpaid work requirement means that the total hours imposed were not completed by the individual. As this information is not available, the model estimates this using upper and lower limits.

Figure 2 - CPO total unpaid work hours successfully completed, Scotland 2011-12 to 2021-22



Source: Justice Social Work statistics 2011-12 to 2021-22

Figure 2 shows that, for successfully completed requirements, over a million unpaid work hours a year on average were completed between 2013-14 and 2019-20. In the pandemic years (2020-21 and 2021-22) there was a large drop. This was due to a number of Covid-19-related factors as follows:

- Lower volumes of cases going through courts.
- A lower proportion of CPOs being given out with unpaid work requirements.
- The effect of national lockdowns and other measures to keep people safe.

The model uses the information that is collected in the unit level data to estimate outstanding unpaid work hours over time up to 31 March 2022. The second part of the analysis estimated the outstanding unpaid work hours from disposals dashboard management information on CPOs from April 2022 to March 2023.

Summary of the model

The unit level data which has been used in the analysis includes all CPOs with unpaid work requirements that were either:

1. Imposed between (both dates inclusive) 11 April 2017 and 31 March 2023, or
2. Imposed before 1 April 2017 but still in existence at any time on or beyond that date.

This amounted to 67,500 CPOs with unpaid work requirements over the six years. More technical information on the analysis and all assumptions made can be found in [Annex A](#). The main body of the paper will discuss how the model was created; it has been split into 6 building blocks which are summed to create the final estimations.

Diagram 1: First and second stage – building blocks for CPOs with unpaid work requirements from unit level data provided in the annual justice social work statistical returns

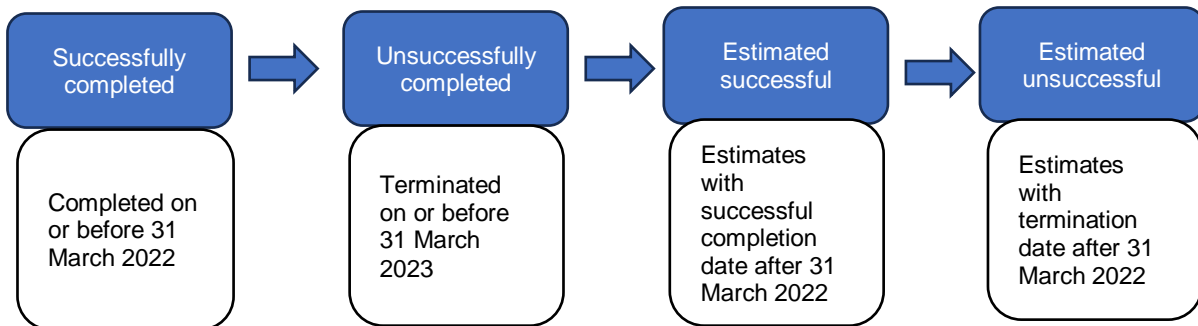
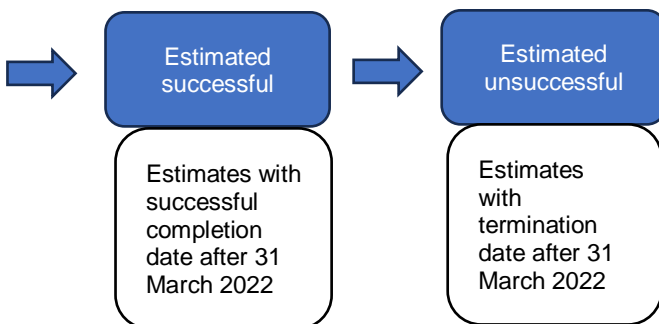


Diagram 2: Final stage – building blocks for CPOs with unpaid work requirement from the disposals dashboard management information



The first building block counts CPOs where the unpaid work hours had been completed successfully. These formed 57% of unit level records for CPOs with unpaid work between 2017-18 and 2021-22. They are assumed to have been completed because the hours being completed follow a consistent pattern between the start and end date of the requirement. This creates a smoothing effect and assumes work continues every day including weekends and public holidays. This is very different from the way CPOs are run in reality and does not reflect the fact that unpaid work was not taking place during points of the Covid-19 pandemic because of national lockdowns and social restrictions.

The general calculation used in the model is illustrated using the example below. Different assumptions are made for start dates, end dates, etc.. These are explained in more detail in [Annex A](#).

Example: An unpaid work requirement is imposed on 1 December 2018 with 50 hours. It ended on 28 February 2019, with all 50 hours having been completed.

The average hours assumed to have been completed per day is:

Total hours imposed divided by total days

$$\begin{aligned} \text{Total hours imposed} &= 50 \\ \text{Total days till ended} &= 31 \text{ days (Dec)} + 31 \text{ days (Jan)} + 28 \text{ days (Feb)} \\ &= 90 \text{ days} \end{aligned}$$

So assumed hours completed (daily rate) = $50/90 = 0.556$ hours per day.

Therefore, at close of business on 1 February 2019, the assumed outstanding hours are:

Total hours imposed minus hours completed (1 Feb)

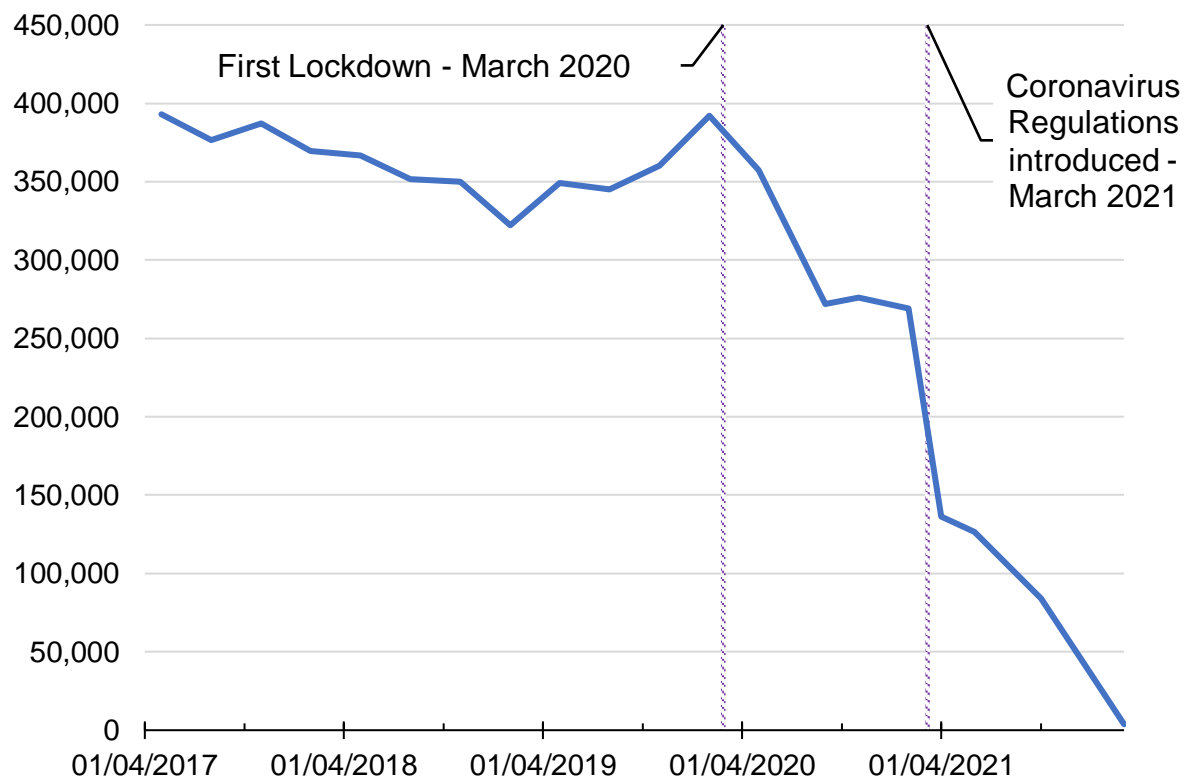
$$\begin{aligned} \text{Total hours imposed} &= 50 \\ \text{Hours completed at end of 01/02/2019} &= \\ &\text{number of days worked multiplied by number of hours worked per day} \\ &= [31 \text{ days (Dec)} + 31 \text{ days (Jan)} + 1 \text{ day (Feb)}] \times 0.556 \\ &= 63 \times 0.556 \\ &= 35 \text{ hours} \end{aligned}$$

$$\text{So assumed outstanding hours} = 50 - 35 = 15 \text{ hours}$$

This was done for all unpaid work requirements that were still running at specific dates. The dates in question were chosen to line up with management information collection dates. These hours were then summed to give overall estimated totals for hours outstanding at different time points. This calculation has a smoothing effect on the data.

Figure 3 is based on CPOs with unpaid work requirements that were successfully completed before 31 March 2022 and shows that the overall number of outstanding hours fell between April 2017 and March 2022. This is to be expected as the closer we move to March 2022, the more likely that requirements which started in the year 2022 will not yet have been finished. Such requirements are not captured in this first building block but in the third. The analysis does also show a noticeably sharp drop in outstanding hours in early 2021. This was due to the introduction of the [Community Orders \(Coronavirus\) \(Scotland\) Regulations 2021](#) which came into effect in March 2021. The regulations reduced the number of hours imposed in relevant orders (with exceptions for orders imposed in relation to domestic abuse, sexual offences, or stalking) by 35 per cent in order to reduce the overall volume of hours to be delivered and ensure the continued effective operation of the community justice system

Figure 3 - Estimated outstanding unpaid work hours for those requirements which finished successfully between 01 April 2017 and 31 March 2022, Scotland, at various time points from May 2017 to March 2022



The second building block is to estimate the unpaid work hours for requirements which ended but not successfully. For such requirements, there is no data from the unit level collection in the annual justice social work return on how many hours were completed before the order stopped. An end date is however supplied in the unit level collection. These requirements cover 29% of unit level records for CPOs with unpaid work between 2017-18 and 2021-22.

An assumption has been made that the unpaid work hours stay outstanding in the system until the end date. This model concentrates on unpaid work hours outstanding only. More statistics on completion of CPOs and types of termination can be found in [Justice Social Work Statistics](#).

While the proportion of hours completed is unknown for unsuccessfully completed CPOs, it is possible to apply different estimated proportions to show the range of possible scenarios. For instance, let us suppose the assumption is made that 25% of hours are done for such requirements.

Example: An unpaid work requirement is imposed on 1 March 2019 with 220 hours. It ended unsuccessfully on 13 June 2019 and the person was assumed to have done 55 hours (25% of 220) of work.

The average hours assumed to have been completed per day is:

Assumed hours completed divided by days worked

Assumed hours completed = 55

Total days till ended = 31 days (Mar) + 30 days (Apr) + 31 days (May)
+ 13 days (Jun)= 105 days

So, assumed hours completed (daily rate) = $55/105 = 0.524$ hours per day

Therefore, at close of business on 14 April 2019, the assumed outstanding hours are:

Assumed hours completed minus total hours worked

Total hours imposed = 220

Total hours worked = Total days worked multiplied by assumed average
hours worked per day

= (31 days (Mar) + 14 days (Apr)) x 0.524

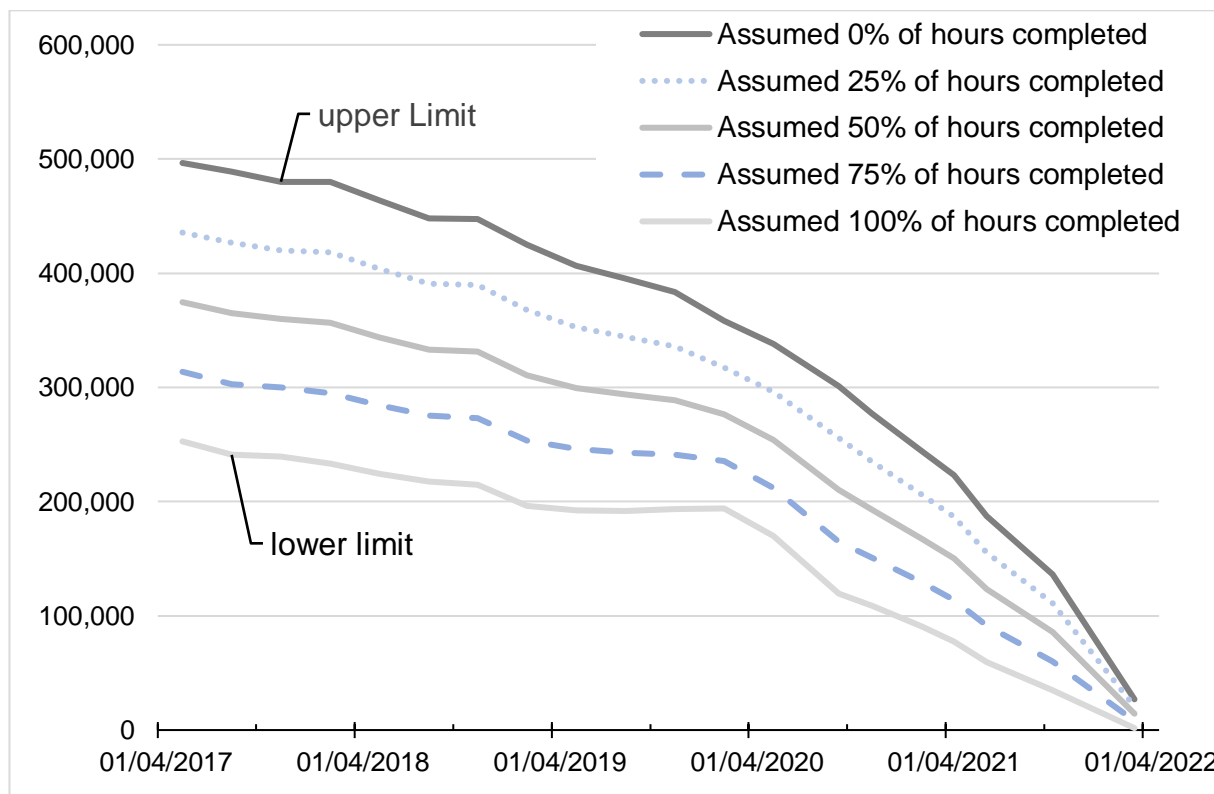
= 45 days x 0.524

= 24 hours

So estimated outstanding hours for this order = $220 - 24 = 196$ hours,
where it assumed only 25% of hours were completed.

Figure 4 shows the hours outstanding for this second group of orders (unsuccessfully completed on or before 31 March 2022) over the period April 2017 to March 2022 based on different assumptions. The lines relate to assumed completion levels of 0%, 25%, 50%, 75% and 100% for the proportion of hours being completed when the requirement is unsuccessfully completed. This chart illustrates that the higher the percentage assumed to be completed, the smaller the number of unpaid work hours outstanding. The assumption that 0% of hours were completed provides the maximum default for this model i.e., the upper limit. Where 100% of the unpaid work hours were assumed completed this provides the lower limit.

Figure 4 - Estimated outstanding unpaid work hours for those requirements which finished unsuccessfully between 01 April 2017 and 31 March 2022, Scotland, at various time points from May 2017 to March 2022



For this stage, the assumption that hours completed varied between 0% and 100% will cause the most variation in the model. This range is used as it provides the lower and upper limits of the model. The model gives us an illustration of possible outcomes if unpaid work hours could have run as usual over the pandemic.

It can be seen that Figure 4 smooths the effects of the pandemic i.e., there is a continual decline rather than a sudden drop. The nature of the calculations used in this analysis has assumed that work was still progressing regularly during the pandemic years but this will not have been the case in reality.

Like the first block, the pattern for hours fell sharply in the most recent time periods. This is also expected as requirements which started close to March 2022 will generally not have had sufficient time to be finished. These requirements are included in the fourth building block.

First stage of the model – Calculations on unpaid work requirements that ended by 31 March 2022

Figure 5 combines Figures 3 and 4, covering all the CPOs that ended by 31 March 2022. This is the first stage of building the model. The grey area represents the difference between the lower and upper limits for Figure 4, and gives the model an estimated range:

1. The top line of the grey area is the sum of unpaid work hours for those CPOs that eventually completed successfully and the unpaid work hours for unsuccessfully completed CPOs where it was assumed 0% of hours were completed. (i.e. the upper limit)

2. The bottom line of the grey area is the sum of unpaid work hours for those CPOs that eventually completed successfully and the unpaid work hours for unsuccessfully completed CPOs where it was assumed 100% of hours were completed. (i.e. the lower limit)

For this model the number of outstanding unpaid work hours at a specific point of time lies within the grey area.

As the requirements in the first and second blocks were completed by 31 March 2022, the outstanding hours decreases rapidly in the last two years.

Figure 5 – Estimated outstanding unpaid work hours for those requirements which finished between 01 April 2017 and 31 March 2022, Scotland, at various time points from May 2017 to March 2022

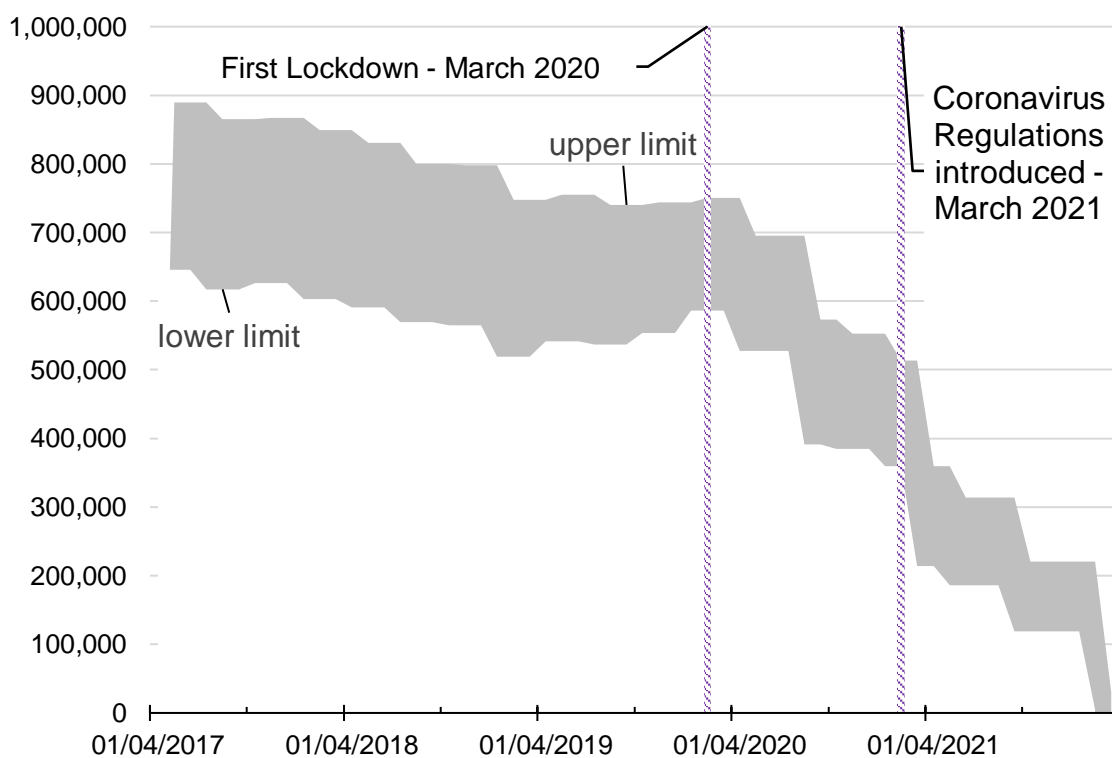


Figure 5 shows that the number of outstanding hours fell across the period April 2017 to March 2019. This is to be expected as, over this period, not only did the number of CPOs imposed fall but the number of unpaid work requirements associated with those CPOs also fell. The outstanding hours were relatively steady over year 2019-20. This was consistent with the fact that, while the number of CPOs imposed in that year went up slightly, the prevalence of unpaid work requirements fell.

Across the first three years (2017-18 to 2019-20), the lower limit of the model was never less than 500,000 outstanding unpaid work hours. This is not an unexpectedly high level, as across these three years:

- Around 130,000 unpaid work hours were imposed by courts each month
- Unpaid work requirements which were successfully completed took an average of around seven to eight months to finish.

Second stage of the model – Estimates on unpaid work requirements that was not completed by 31 March 2022

Stage two of the model contains the third and fourth building blocks covering requirements which were started but had not finished before the end of March 2022. This covered 14% of CPOs with unpaid work requirements over the five years.

For these blocks, it was not known how many hours would be done nor whether the requirements would go on to be successfully completed. The requirements were assigned (randomly) to two categories: successfully or not successfully completed. The split used was 65%/35% respectively. This ratio was calculated from previous years data, and further assumptions were made as to how many hours were completed and by what date. More information on the assumptions made can be found in [Annex A](#).

The same methodology of calculating an upper and lower limit has been applied to the unsuccessfully completed category as in the first stage. Again, this has created a range, shown by the grey area in Figure 6. The successfully completed hours estimated is the blue line in Figure 6.

Figure 6 shows that, for both categories, the number of hours outstanding increased across the period from April 2017 to March 2022. This rise was much more marked towards the end of this period than it was at the beginning. This is expected as, for example, a requirement which started in early 2022 was much more likely to have more hours outstanding than a requirement which started in April 2018.

There was a large decrease in both the line and the grey range area after the start of April 2022. This was expected as:

- All the requirements could only have finished on or after 1 April 2022, and
- Requirements which started from April 2022 onward are not included here but are in the final stage

Figure 6 - Estimated outstanding unpaid work hours still in existence at close on 31 March 2022, Scotland, at various time points from May 2017 to March 2022

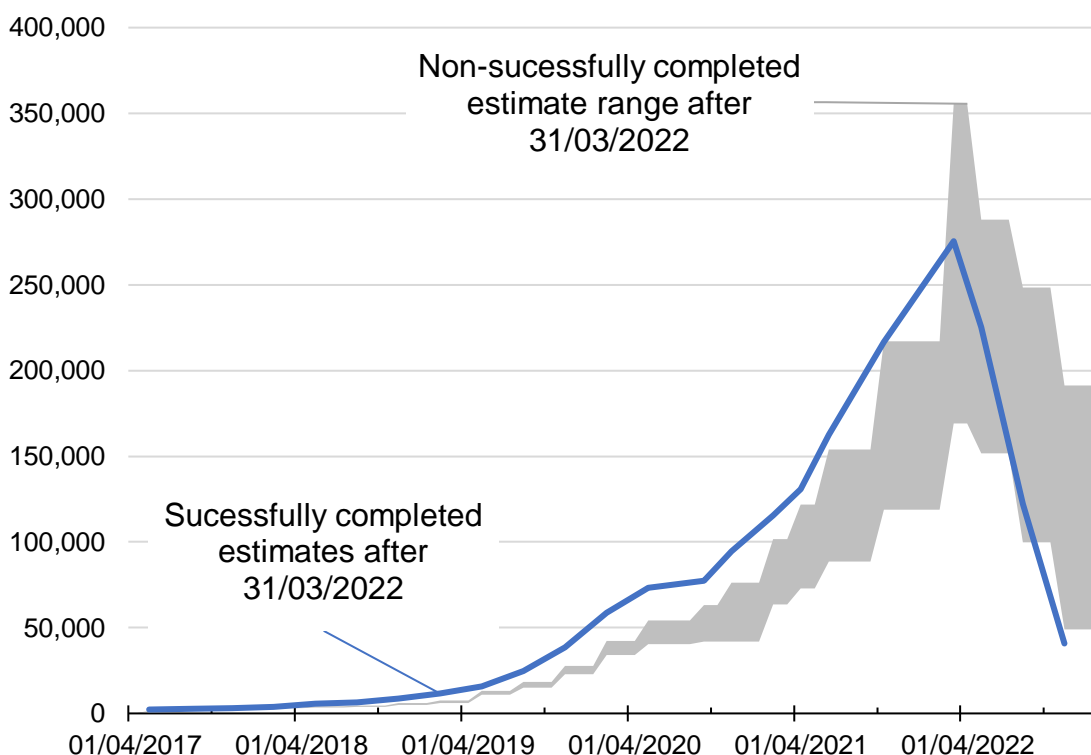
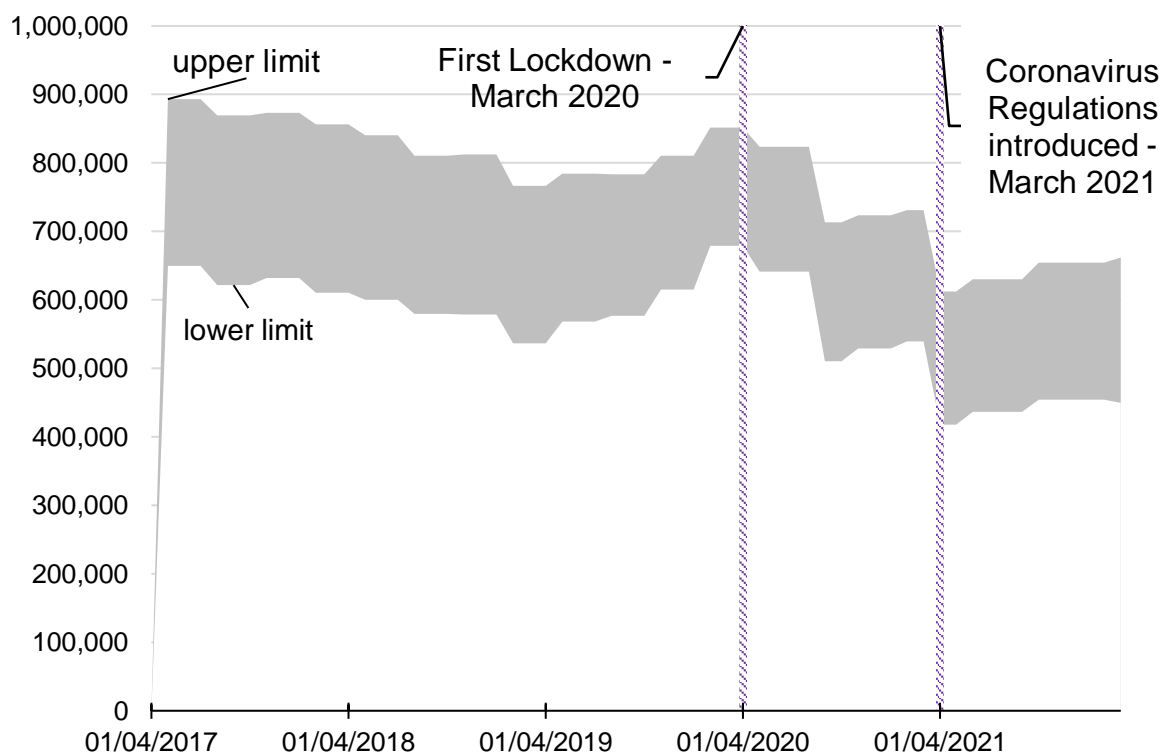


Figure 6 shows that it generally takes less time for a successfully completed requirement to finish than it does for one which was unsuccessfully completed, as the outstanding hours are generally higher for those assumed to have finished unsuccessfully than for those assumed successfully completed.

Adding the four building blocks together, the overall picture with all outstanding unpaid work requirements can be seen in Figure 7. The model indicates that the total number of outstanding hours was highest in the pre-Covid-19 period, varying between 500,000 and 900,000. The average difference between the upper and lower ranges for the first three years was about 230,000 hours. The outstanding hours fell in the period after the start of the pandemic, particularly after the Coronavirus Regulations in March 2021, which reduced the number of hours imposed in some orders. The graph does, however, show a rise in late 2021 and early 2022, with the lower limit just above 450,000 hours in March 2022.

Although the model assumes that a daily rate of hours are being completed, it also considers the increase in time taken to process unpaid work hours during the pandemic in 2020-21 and 2021-22. The time taken to process unpaid work requirement during the pandemic increased. Between 2019-20 and 2020-21, there was an increase between 3.5 to 7 months depending on the length of unpaid work hours imposed. A similar increase in length could be seen when comparing 2019-20 to 2021-22. ([Annex A](#)).

Figure 7 – Overall estimated outstanding unpaid work hours, Scotland, at various time points from May 2017 to March 2022



Model in relation to management information on outstanding unpaid work hours data collection

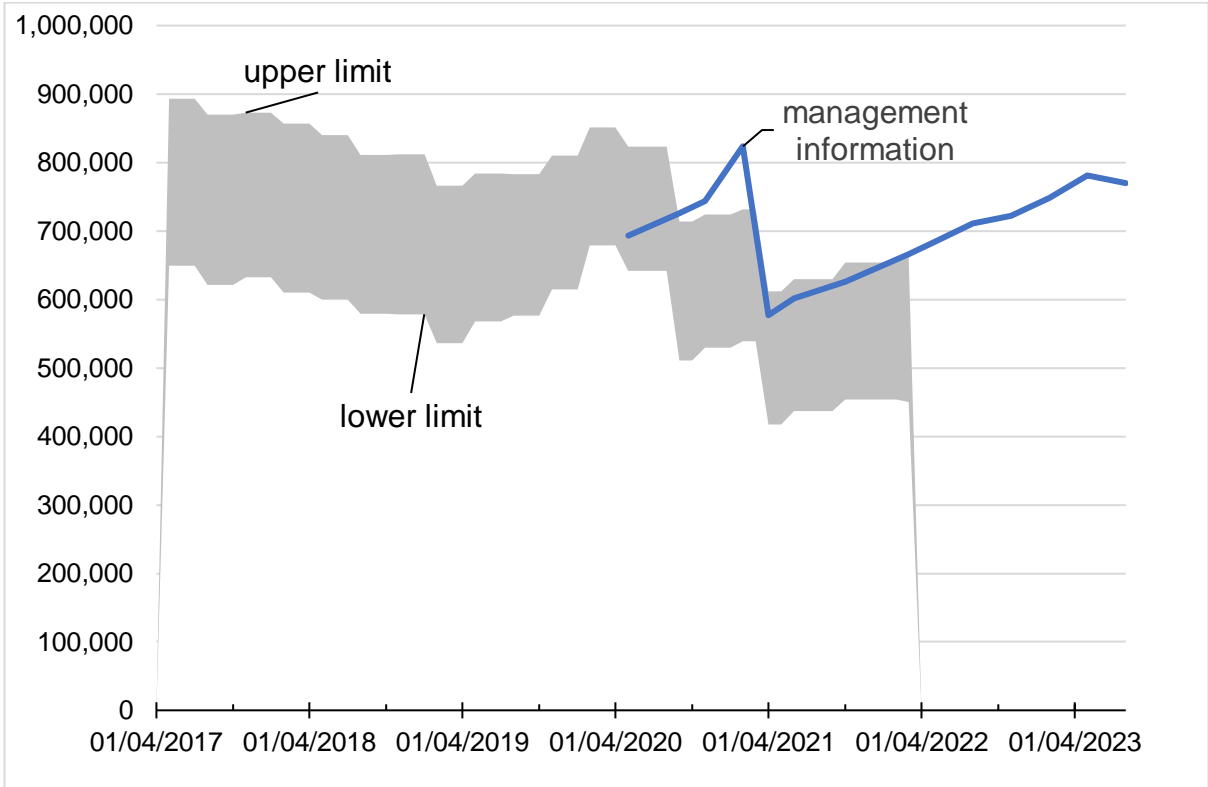
Management information on unpaid work requirements and hours outstanding was collected on an ad-hoc basis during the early period of the pandemic. This allowed the Scottish Government and stakeholders to monitor outstanding unpaid work hours during this time. This information was not available through the National Statistics unit level collection.

This data collection took place at times when it was deemed most appropriate to establish the up-to-date situation during the pandemic. However, from May 2022, the decision was taken to conduct the collection every three months. The information supplied is administrative data from various management IT systems from local authorities and excluded outstanding unpaid hours relating to breaches. It will vary day to day, as information is added and closed within the IT system as part of usual administration processes. In a small number of cases, estimates were calculated for this data collection. The nature of this data was to provide a broadly indicative summary, rather than a precise measure of activity. Therefore, the outstanding unpaid work hours data collection has been classified as management data and not official statistics.

The management data is displayed in the blue line in Figure 8. This information shows what happened with Scotland’s outstanding unpaid work hours during the first year of the Covid-19 pandemic (2020-21). The line starts to increase as the first national lockdown (March 2020) and social distancing restrictions started to impact on justice social work processes. The hours steadily increased until March 2021. When this is compared to the estimated model,

you can see the line is not within this grey area. This is to be expected, as the model does not consider the social restrictions and assumes the delivery of unpaid work hours continued as normal during that period, as the unit level data cannot provide this exact detail.

Figure 8 - Overall outstanding unpaid work hours from model and management information on outstanding unpaid work hours, Scotland, at various time points from May 2017 to August 2023



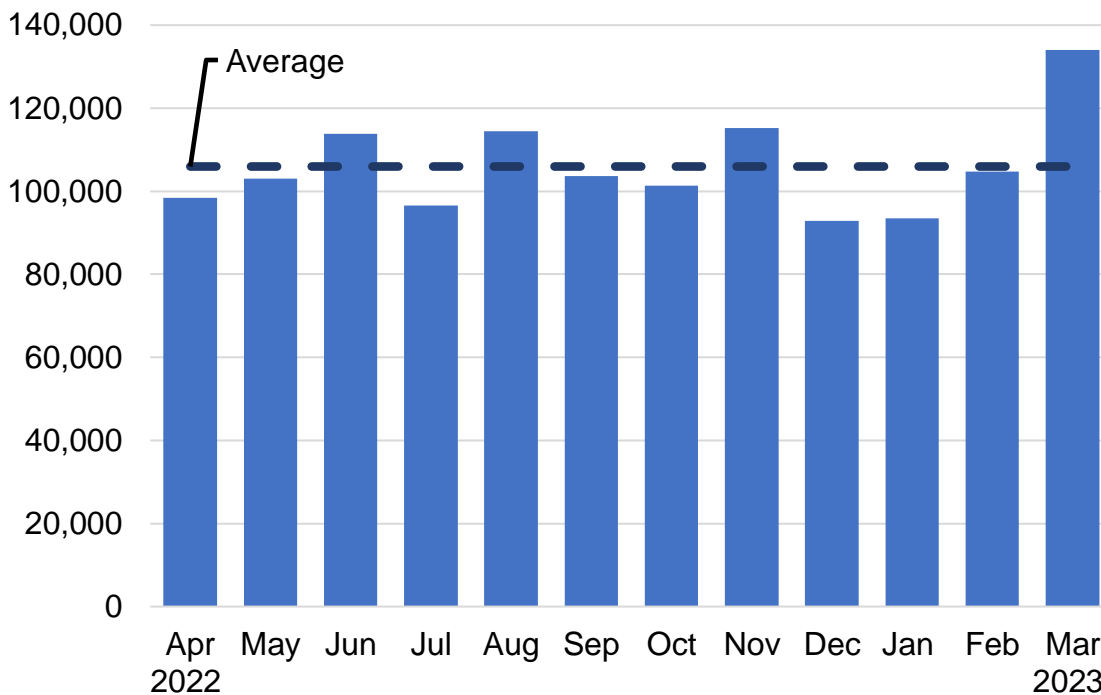
The model shows a decrease in hours between March and September 2020 which reflects the fact that very few CPOs were being issued by courts over this period, as a large number of courts were closed or operating at reduced capacity. Both the management data and the model show a decrease in hours outstanding because of the Community Orders (Coronavirus) (Scotland) Regulations 2021. This drop is more pronounced in the management data which fell by 250,000 hours between February and April 2021 from 820,000 to 580,000. For the model, this drop is much smaller, with both the upper and lower levels falling by around 120,000 hours. The estimated range for outstanding unpaid work hours in April 2021 was between 420,000 and 610,000. This is to be expected as the model is unable to show the true extent of social restrictions in the way it is calculated, this is instead what the management information shows.

Final stage of the model – Estimates on unpaid work requirements from 1 April 2022

The management data has continued to be collected from local authorities up to and including the collection for August 2023. However, the unit level data for 2022-23 will not be available for comparison until early 2024.

To try to understand what is happening from 1 April 2022, another source of data was used in the model. This data has been extracted from the management information used to publish the Scottish Government Justice Analytical Services Criminal Disposals Dashboard. This management information is based on the Scottish Courts and Tribunal Service (SCTS) administrative database (COPII). Information from this administrative database is based on management information. As such, results from the dashboard should be seen as providing a broadly indicative summary rather than a precise measure of activity. In order to indicate the change in the model due to the different data source, the grey area is patterned from figure 10 onwards).

Figure 9: Number of unpaid work hours calculated from Criminal Disposals Dashboard , Scotland, April 2022 to March 2023



Source: Scottish Government Justice Analytical Services Criminal Disposals Dashboard 2022-23

The management information used in the disposals dashboard shows the data at charge level, whereas the local authority data is at CPO unit level. For this model, it was adjusted to be nearer the unit level data by using only the maximum number of unpaid work hours per case-accused. Whilst this is not exactly how CPO unit level data is calculated, it did give a good approximation. In the pre-pandemic year (2017-18 to 2019-20) for example, this averaged maximum number of unpaid work hours per case-accused nationally about 3%

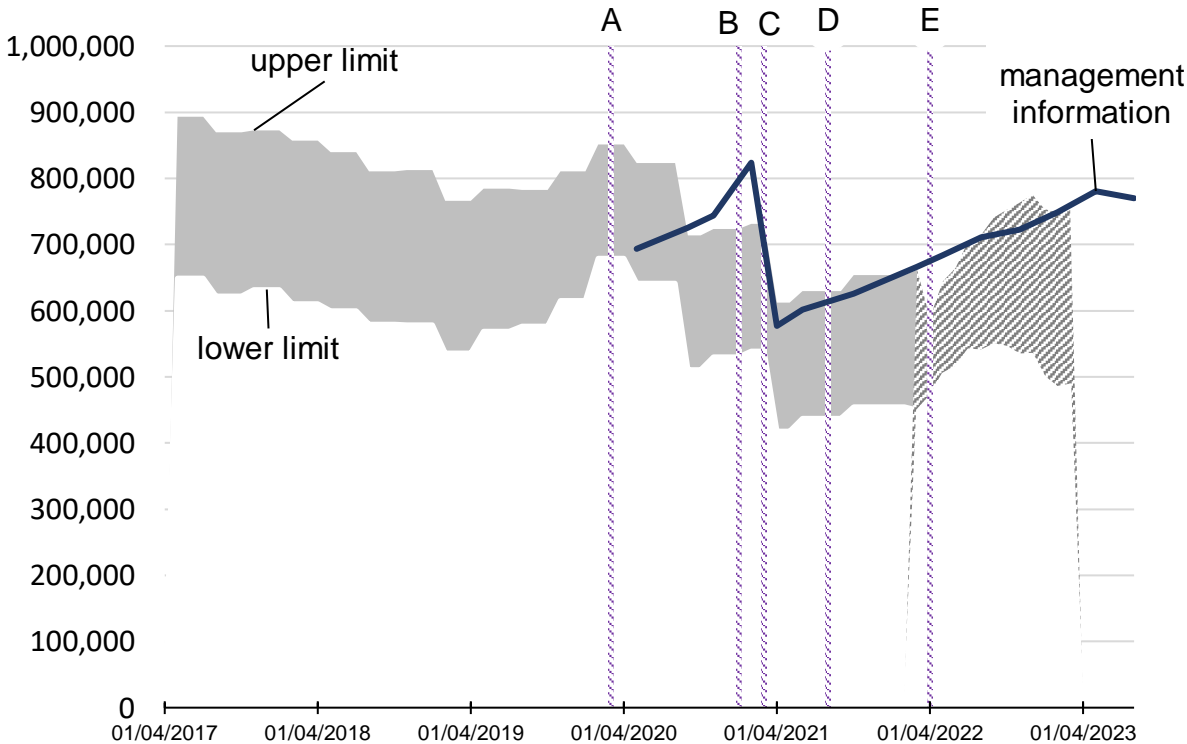
lower than the actual CPO unit level data. The disposals dashboard management information was considered a good approximation for 2022-23. Without this data, 2022-23 would not be modelled, making the model 18 months behind the management information rather than six months.

From April 2022 to March 2023, the courts imposed CPOs containing an average of just over 106,000 hours of unpaid work per month.

The numbers in Figure 6 (based on blocks three and four of the model) estimated the dates the requirements ended, for outstanding unpaid work hours still in existence at close on 31 March 2022. That same technique used in building blocks three and four was also used to create blocks five and six on the disposals dashboard management information. An adjustment has been made to the average length of time to complete the order to reflect the moving away from Covid-19 restrictions. This was estimated by averaging 2019-20 and 2021-22. This reduces the average length taken to a value between the pre-pandemic and pandemic years (see [Annex A](#)).

Figure 10 shows the completed model, which includes each of the six building blocks, and indicates key events relating to the pandemic.

Figure 10: Overall estimated outstanding unpaid work hours from model and management information on outstanding unpaid hours including key points during the pandemic, Scotland, at various time points from May 2017 to August 2023



Legend:

- A: First lockdown – March 2020
- B: Second mainland lockdown – January 2021

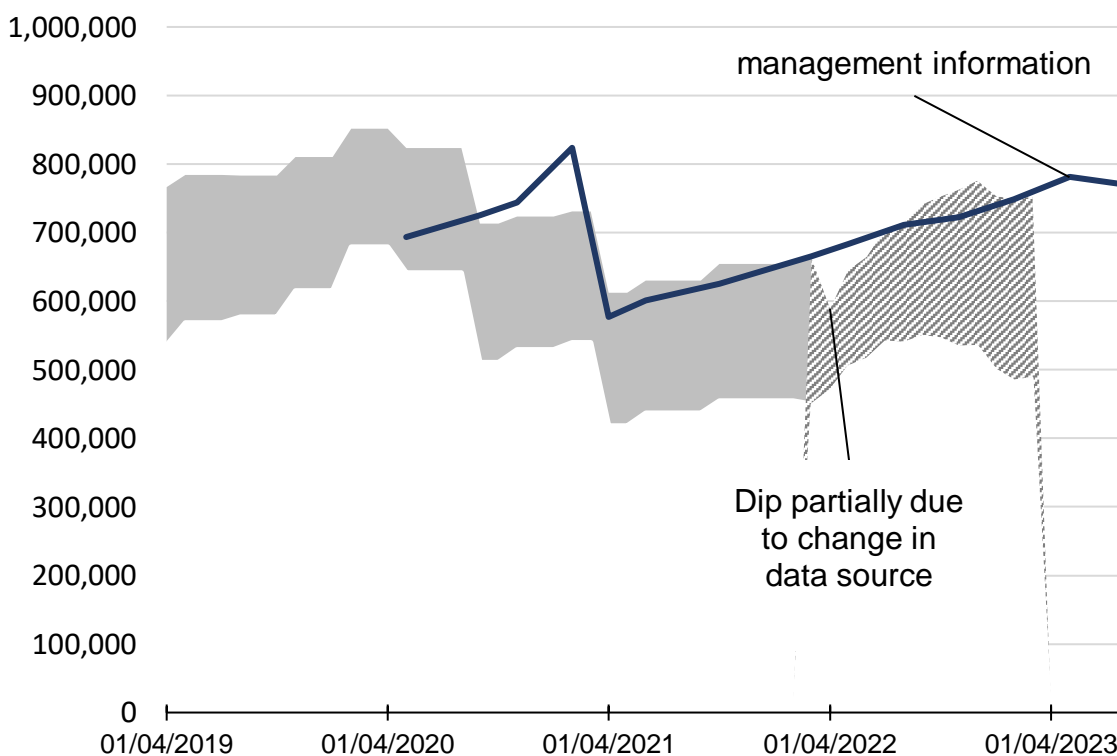
C: Coronavirus Regulations introduced – March 2021

D: Scotland moved to beyond level 0, when the legal requirement for physical distancing and limits on gatherings was removed. Some protective measures did stay in place such as the use of face coverings indoors – August 2021

E: Legal requirements to wear face coverings on public transport and most indoor settings ended – April 2022

Source: [Timeline of Coronavirus \(COVID-19\) in Scotland – SPICe Spotlight | Solas air SPICe \(spice-spotlight.scot\)](https://spice-spotlight.scot)

Figure 11: Overall estimated outstanding unpaid work hours from model and management information on outstanding unpaid hours, Scotland, at various time points from April 2019 to August 2023



In Figures 10 and 11, the introduction of the unpaid work requirements data from disposals dashboard management information has created an artificial dip on 1 April 2022. This is due to timing issues between the two datasets in the model. This corrected itself from May onwards.

Figure 11 is the same graph as Figure 10 without 2017-18 and 2018-19. Figure 10 is a simplified version with the event time points removed. It shows more clearly the use of the disposals dashboard management information in the model. This is the striped section.

The model is based on several assumptions. However, the overall trends for the model show the number of outstanding unpaid hours in the system were at their lowest estimate (range between 420,000 and 610,000 hours) after the Coronavirus Regulations were introduced in March 2021. Similarly at that time, the management data dramatically dropped from its highest point (820,000 hours) to its lowest point of 580,000 hours. The management data

starts to increase steadily thereafter. Again, this is reflected in the model, from May 2022 to December 2022. The model then decreases in the first two months of 2023 but increases again in March.

The model is only able to estimate up to the end of March 2023 due to data availability. The outstanding unpaid work hours management data collection was last collected in August 2023. This analysis shows that the pandemic did affect outstanding unpaid work hours and there is still a backlog of hours in the system at the end of the financial year ending 31 March 2023. In February 2023, the management information had 748,000 unpaid hours outstanding. For the same date the model's upper limit is 749,000. The upper limit assumes that no unpaid work hours were done for unsuccessfully completed unpaid work requirements. This would not be the case in reality. This indicates that the backlog created by the pandemic is still influencing the outstanding unpaid work hours but cannot be quantified exactly.

The management data increased to 781,000 outstanding unpaid hours in May 2023 and then dropped to 770,000 in August 2023. The increase in unpaid work hours in May 2023 is partially due to the above average number of hours being added to the system from March 2023 (Figure 9).

It would be advisable to check this model with 2022-23 unit level data to update the average length of order for 2022-23. It would also be advisable to continue collecting the management data from the local authorities, and making this publicly available, on a regularly basis for the foreseeable future, to help to monitor recovery from the pandemic. If there was no pandemic backlog remaining it would be expected that the management information would move away from the upper limit to sit more in the middle of the model.

Conclusion

It is hard to quantify the backlog of unpaid work hours created by the Covid-19 pandemic compared to normal processing. This mathematical model tries to address this question, from the data that has already been provided to the Scottish Government.

Across the years 2017-18, 2018-19 and 2019-20, this model shows that the normal level of outstanding unpaid work hours across Scotland was between 500,000 and 900,000 hours at different points in time. These outstanding unpaid work hours represent the minimum lower and the maximum upper limits of the model. The range of 500,000 and 900,000 hours may seem wide, but generally there was a difference of 230,000 hours between the upper and lower values of the model at specific dates in these three years.

This may seem like a large number but during the same period over 3.1 million hours were successfully completed. As in the three years prior to the Covid-19 pandemic, courts issued over 51,000 CPOs, of which just over 37,000 (73%) had an unpaid work requirement. In the three years before the pandemic, the model never showed outstanding unpaid work hours of less than 500,000.

This model has many assumptions, but the main area of interest is when it is compared to management data collected during the Covid-19 pandemic. The model smooths out the known backlog of unpaid work hours created by restrictions, as it assumes unpaid work continued to be done constantly during this period. The model does take into account that unpaid work requirements took longer to process in 2020-21 and 2021-22. It also reflects the

drop in outstanding unpaid work hours when the courts closed in March 2020 and very few CPOs were imposed. Similarly, it also shows the drop in March 2021 due to Coronavirus Regulations, which reduced the number of hours imposed in some orders, where hours were outstanding, by up to 35 per cent. At this lowest point the model's range of outstanding unpaid work hours was between 420,000 and 610,000 at April 2021.

The outstanding hours shown by the model can be seen to start increasing after March 2021. There were more CPOs with unpaid work requirements being issued by courts in 2021-22 than in 2020-21. This averaged about 106,000 per month for the financial year 2022-23. Similarly, the management data shows this increase as well.

The management data shows the real backlog created by the pandemic when unpaid work requirements could not take place. The management data is mostly within the model range from April 2021, but it is nearer the upper limit of the model. The upper limit assumes that nearly all unsuccessfully completed requirements had no hours completed, which is unlikely to be happening in reality. This indicates that the backlog created by the pandemic is still influencing the outstanding unpaid work hours but cannot be quantified exactly due the continuous nature of processing of unpaid work and other activity requirements.

Annex A

Legislation

More information on [The Community Orders \(Coronavirus\) \(Scotland\) Regulations 2021](#) is available in the Legislation.gov.uk website.

Data sources

There are three different sources of data used in this analysis:

1. Unit level data up to year 2021-22 on community payback orders, provided to the Scottish Government by local authorities for inclusion in the annual justice social work statistics publications.
2. Unit level data provided from the Scottish Government disposals dashboard, which enables this model to estimate for 2022-23.
3. Aggregate management information collected quarterly on the number of unpaid work requirements and hours outstanding.

A [spreadsheet](#) has been published alongside this paper with the model estimates and management information included.

Throughout the paper the terms “start date” and “end date” are used. These relate, respectively, to the dates on which the unpaid work or other activity requirement was imposed and the date on which it was completed/terminated.

All of the statistics were sourced from [Justice Social Work Statistics](#) unless otherwise stated.

Stage 1: Successfully completed requirements (building block 1)

Successfully completed includes all unpaid work requirements that were successfully completed or discharged early.

There were 33,143 such requirements between 2017-18 and 2021-22. For these requirements, information is held for:

- Date requirement imposed,
- Date requirement completed,
- Hours originally imposed,
- Hours of both unpaid work and other activity which were done.

This analysis has split these records down into different sub-categories but there was one common general assumption made for each of them. This was that the hours done were evenly spread over the life of the requirement.

These 33,143 records were analysed by the following sub-categories:

1. The biggest category (27,570 records) was for requirements where the number of hours done was exactly equal to the number of hours imposed. The estimates for hours outstanding at the different points was estimated by assuming even spread over the lifetime of the requirements.

2. There were 2,472 records where either:
 - a. More hours were done than were imposed, or
 - b. Less hours were done than were imposed but they were within 5 hours of each other.

These were treated in the same way as the first sub-category, with the hours outstanding based on the hours imposed rather than the hours done.
3. Requirements where information on hours completed was available but hours imposed was not (60 records). The hours imposed was assumed to be the same as hours completed for these records and they were subsequently calculated the same as the first sub-category.
4. There were 262 records where:
 - a. Less hours were done than were imposed and the difference was more than 5 hours, and
 - b. The requirement finished before the first national Covid-19 lockdown began on 26 March 2020.

This was made a separate sub-category as the number of hours imposed in some orders was reduced , but that was not the case with these records. The hours outstanding were also calculated based on the hours imposed.
5. Similarly, there were 94 records where:
 - a. Less hours were done than were imposed and the difference was more than 5 hours, and
 - b. The requirement finished after the first national Covid-19 lockdown began on 26 March 2020 but before 15 March 2021 when the number of hours imposed in a large number of orders was reduced by 35%.

For these 94 records, the hours outstanding were also calculated based on the hours imposed.
6. There were a further 68 records where:
 - a. Less hours were done than were imposed and the difference was more than 5 hours, and
 - b. The requirement was imposed after 15 March 2021 and so was not affected by the 35% reduction in the hours imposed.

For these 94 records, the hours outstanding were also calculated based on the hours imposed.
7. There were always going to be a large number of records which were in existence on 15 March 2021, and which were therefore going to be affected by the 35% reduction in hours imposed. There were 2,511 requirements where:
 - a. They finished on or after 15 March 2021, and
 - b. The hours not done formed no more than 38% of the total hours imposed. 38% was used as opposed to 35% in order to allow for rounding of hours.

A similar calculation was made based on hours imposed, although there was one slight difference. On dates prior to 15 March 2021, the hours outstanding during the life of the requirement could not fall below the number of hours which were taken off by 35% reduction in hours.

For instance, suppose a person was given 120 hours on 9 April 2020 and, following the reduction in hours imposed by 35% (42) on 15 March 2021, they successfully finished the requirement on 3rd April 2021. The hours outstanding were assumed to be done consistently over time. In this case that meant assuming the full number of hours being done in 360 days – an average of 0.333 hours per day. The outstanding hours at various points for such an order would be:

- By 5th October 2020 – 60 hours (120 less 60 hours done in 180 days)
- By 4th November 2020 – 50 hours (60 less 10 hours done in 30 days)
- By 4th December 2020 – 40 hours (50 less 10 hours done in 31 days)
- As at any date from 5th December 2020 to 14th March 2021 inclusive – still 40 hours
- As at any date from 15 March to 2 April 2021 inclusive – 0 hours as the 35% reduction had been applied by that point (ie. 40 hours is less than 35% of 120 (42 hours))
- By 3rd April 2021 – 0 hours as that is the date on which the requirement finished.

8. The remaining 106 records were ones where:
- a. They finished on or after 15 March 2021, and
 - b. The hours not done formed more than 38% of the total hours imposed.
- These requirements were assumed for the model to have not been affected by the 35% reduction in hours imposed. Therefore, the calculation of hours outstanding was a straight calculation based on hours imposed with no adjustment.

Stage 1: Requirements which finished without being successfully completed (building block 2)

There were 17,050 such requirements between 2017-18 and 2021-22. This covered requirements which did not reach a successful completion, for various reasons such as the order being revoked, the order being transferred out of the area or the death of the individual. For these requirements, information is held for:

- Date requirement imposed,
- Date requirement terminated,
- Hours originally imposed.

No information is available from the unit level collection for such requirements on the hours of unpaid work or other activity which were actually done. Therefore, while it is known that there were no hours outstanding following the requirement being terminated, the hours outstanding at points during the life of the requirement needs to be estimated.

An assumption has been made that all unpaid work hours that have not been done remain outstanding until the actual date on which the requirement is regarded as formally terminated.

In this analysis, calculations were made using different limits for the proportion of hours which were actually done for these requirements but the upper limit range is calculated using 0% and the lower limit is 100%.

As with requirements that were successfully completed, the assumption was made that hours done were evenly spread over time (ie a daily rate)..

Stage 2: Requirements still in progress at end of March 2022

There were 7,966 such requirements over the five years. For these requirements, information is held for:

- Date requirement imposed,
- Hours originally imposed.

The exception was 5 records which did not have information on the number of hours imposed. This exercise therefore proceeded with 7,961 records.

The biggest issue with these 7,961 records is that it is not known whether they have been successfully completed. Clearly though, some will successfully complete in the future, and some will not.

To get an idea of the likely outcome of these requirements, it was possible to go back to earlier years' data. For CPOs outstanding on 31 March 2018 which had an unpaid work requirement, 65 per cent of these where the outcome was known had gone on to be successfully completed. For those outstanding on 31 March 2019, exactly the same proportion were successfully completed.

It was assumed that 65 per cent of those outstanding at end March 2022 would go on to successfully complete. An exercise was therefore conducted to randomly allocate the 7,961 records as follows:

1. 5,175 requirements were assumed to go on to successful completion, and
2. 2,786 requirements were assumed to terminate without successful completion.

Stage 2: Requirements in progress, assumed to successfully complete (building block 3)

For those assumed to successfully complete, it was necessary to estimate the date on which these requirements would finish. It is known that the time it takes to finish a requirement varies by:

1. The number of hours imposed, and
2. The year the requirement was imposed. For example, requirements which began during the years that were most affected by Covid-19, generally took longer to complete.

The following table shows, for successfully completed unpaid work requirements which finished in different years, the number of days it took for them to complete. (Please note, comparison to Justice social work statistics is not exact as this information was created from the data used within the model).

Length (in hours)	Year in which requirement finished (days)					
	2017-18	2018-19	2019-20	2020-21	2021-22	Average of 2019-20 & 2021-22
50 or less	138	142	154	313	285	220
Over 50 - 100	171	181	178	350	305	242
Over 100 - 150	230	229	226	394	368	297
Over 150 - 200	268	272	289	461	426	358
Over 200 - 250	324	325	314	515	475	395
Over 250	341	352	366	552	519	443

These time periods were taken from the unit level data on CPOs collected from local authorities and were the average time taken for orders which completed successfully in those years. The longer time periods for 2020-21 and 2021-22 clearly reflect the pandemic, in particular the fact that the Coronavirus (Scotland) Act 2020 extended the time limit for the completion of existing unpaid work requirements in CPOs by 12 months, and required that any new requirements imposed during the period in which the legislation was in force had a time limit of at least 12 months. This came into effect on 7 April 2020. This resulted in particularly large increases in the time taken to complete level 1 (100 hours or less) requirements.

For each of the years 2017-18 to 2020-21, the time taken for requirements which finished in those years was felt to be a good proxy for the time taken for ones which began in those years. However, for 2021-22, as fewer and fewer restrictions were in place as that year went on, it was felt that the best figures to use were the average of the time periods for requirements finishing in that year and ones finishing in the most recent pre-pandemic year of 2019-20.

Where these time periods resulted in the calculation of a date of completion that was on or before 31 March 2022, the predicted completion date was defaulted to 1 April 2022 as it was known that the requirements were in existence at close on 31 March 2022. This affected 1,547 (30 per cent) of the 5,175 records. This relatively high proportion undoubtedly reflected the much longer time it was taking because of the Covid-19 pandemic to get orders to a conclusion.

Once the date of assumed successful completion was calculated, the calculations for hours outstanding were based around hours imposed and assumed to be evenly spread during the (assumed) life of the requirements.

Stage 2: Requirements in progress, assumed to terminate without successful completion (building block 4)

For those assumed to not successfully complete, it was necessary to estimate the date on which these requirements would terminate. Again, it is known that the time it takes to finish a requirement varies by the number of hours imposed and the year the requirement was imposed. (Please note, comparison to Justice social work statistics is not exact as this information was created from the data used within the model).

The following table shows the number of days it was assumed that each requirement would take to terminate:

Length (in hours)	Year in which requirement finished (days)					
	2017-18	2018-19	2019-20	2020-21	2021-22	Average of 2019-20 & 2021-22
50 or less	299	267	257	472	499	378
Over 50 - 100	306	296	287	414	490	389
Over 100 - 150	329	317	304	443	507	406
Over 150 - 200	340	339	344	480	558	451
Over 200 - 250	351	364	330	446	505	418
Over 250	452	355	389	549	548	469

As per building block 3, these time periods were taken from the unit level data on CPOs collected from local authorities and were the average time taken for orders which terminated unsuccessfully in those years. They were used as a proxy for the time taken for ones which began in each of the years 2017-18 to 2020-21. Again, the exception to this was for 2021-22, where it was taken as the average of the time for requirements terminating in that year and ones terminating in the most recent pre-pandemic year of 2019-20.

Where this resulted in a date of termination that was on or before 31 March 2022, the date was changed to 1 April 2022 as it was known that the requirements were in existence at close on 31 March 2022.

Once the date of assumed termination was calculated, the estimations can be made for hours outstanding. Again, as with requirements which had been terminated without success, it is not known what proportion of hours would go on to be completed before termination. Therefore, calculations needed to be done using different values for this proportion.

The calculations were based around hours imposed and hours that were assumed to be completed before termination. They also assumed hours were evenly spread during the (assumed) life of the requirements.

Final Stage: Requirements which were imposed between 1 April 2022 and 31 March 2023 (building blocks 5 and 6)

Unit level data on CPOs for year 2022-23 is being collected during 2023 and will not be available for use until it is published. This is likely to be in early 2024. Data supplied by SCTS to JAS for use in the [disposals dashboard](#) shows charges that are disposed with a CPO with an unpaid work requirement attached. This data is available for 2022-2023.

The management information used in the disposals dashboard shows the data at charge level, whereas the local authority data is at CPO level. For this analysis and, to adjust it to the local authority data, only the maximum number of unpaid work hours per case-accused (for all the charges resulting in a CPO that the accused can have) in each month have been extracted from the disposals dashboard management information.

The disposals data for this period (relating to CPOs with unpaid work requirements) contained 9,362 records and, for these requirements, information is held for:

- Date requirement imposed,
- Hours originally imposed.

Therefore, like the orders in Stage 2, it was necessary to conduct an exercise to:

1. Randomly allocate the 9,632 records between those assumed to go on to successful completion and those assumed to terminate without successful completion, again assuming that 65% of the orders would go on to successfully complete, and
2. Estimate the length of time the order would take to complete/terminate.

The 9,632 records were therefore randomly allocated as follows:

1. 6,261 requirements were assumed to go on to successful completion, and
2. 3,371 requirements were assumed to terminate without successful completion.

No information is currently available on the length of time requirements imposed from April 2022 onwards have been taking to finish. The following table shows the number of days it was assumed that these requirements would take to complete/terminate. This has been based on the assumption that the periods for year 2022-23 are now similar to pre-pandemic and the figures in this table are the average of the figures for the three pre-pandemic years 2017-18 to 2019-20.

Length (in hours)	Going on to successfully complete (days)	Going on to be unsuccessfully terminated (days)
50 or less	145	274
Over 50 - 100	177	296
Over 100 - 150	228	317
Over 150 - 200	276	341
Over 200 - 250	321	348
Over 250	353	399

Once the date of assumed completion/termination was calculated, the estimations are made in the same way for hours outstanding. Again, as with requirements which had been terminated without success, it is not known what proportion of hours would go on to be completed before termination. Therefore, calculations needed to also be done using different values for this proportion.

Again, the calculations were based around hours imposed and hours that were assumed to be completed before termination. They also assumed hours were evenly spread during the (assumed) life of the requirements.

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