

Virtual Court pilot Outcome evaluation

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Ministry of Justice Research Series 21/10 December 2010

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Consulting Inplace

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First Published 2010

ISBN: 978-1-84099-453-7

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Acknowledgements

The Consulting Inplace evaluation team are grateful for the cooperation they received from a range of criminal justice agencies and practitioners in the completion of this evaluation.

Lessons learnt

- The Virtual Court pilot demonstrated that a video link between a police station and a court could be successfully used to conduct a first hearing in the majority of cases. If it is deemed useable for remote communication with defendants, it may also be possible to extend its use to other parts of the criminal justice system, such as with witnesses and victims. Broadening the use of the technology might improve the economic case for its installation, as the technology costs borne by the pilot were high.
- The Virtual Court pilot has demonstrated that efficiency benefits may be possible through the use of a secure electronic file-sharing system between criminal justice agencies. The pilot system duplicated some processes that already took place in the primary criminal justice system. A more integrated and fundamental inter-agency system would probably deliver better efficiency savings.
- The Virtual Court pilot demonstrated that a court could operate extended hours. However, the value of this in efficiency terms is restricted if extended hours are limited to a single court, and does not include other relevant elements of the criminal justice system.
- Any future roll-out of Virtual Courts should seek to identify an alternative to the pilot's system of four 15 minute hearings an hour. This was inflexible and less efficient than the traditional court process.
- Generating significant savings through a future roll-out of the Virtual Court concept may require higher case and hearing volumes, as well as a reduction in delivery costs. Cost savings are greatest for custody cases where transport and cell costs are reduced. However, transport savings may not be retained at this level when service contracts are next renegotiated.

Research summary

Context

The Virtual Court process was an initiative that was designed to deliver speed and efficiency improvements to the criminal justice system. In the 'traditional' process, a defendant would be expected to appear in person at a magistrates' court for their first hearing after being charged with an offence. In the Virtual Court pilot, a defendant would appear in a magistrates' court for their first hearing by means of a secure video link while remaining physically located in the police station where they were charged. Defence representation was either provided at the police station or in court. Other courtroom practitioners remained located in court. New electronic systems facilitated hearing bookings and the confidential transfer of case files between criminal justice agencies.

The pilot ran from May 2009 for 12 months in two magistrates' courts in London and North Kent, covering 15 police stations in London and one in North Kent. More detail on the pilot can be found at Annex A.

The objectives of this evaluation were:

- to assess the extent to which the Virtual Court pilot delivered financial benefits (and disbenefits), including its impact on Legal Aid costs and defence solicitor business models;
- to assess the extent to which Virtual Courts reduced the time between a defendant being charged and his/her first hearing.
- to assess whether the Virtual Court process was no less fair than a traditional court;
- to identify any unintended consequences arising as a result of the pilot.

Evidence was gathered through: semi-structured interviews with criminal justice practitioners; observations in police stations and magistrates' courts; a survey of victims; and detailed analysis of criminal justice data. The pilot's performance is measured against a comparator area, namely the whole of London excluding those courts and police stations that were directly affected by the pilot. This comparison is made for the four months of January to April 2010. More detail on the methodology and fieldwork can be found at Annex B.

Did Virtual Courts deliver financial savings?

The evaluation evidence indicates that, overall, the Virtual Court pilot added cost to the delivery of criminal justice in the London pilot area, compared to the traditional court process. Some cost savings were released by Virtual Courts, including the following.

- Reduced prisoner transportation costs resulting from defendants remanded in police custody¹ not having to be taken to court for their first hearing. These savings may not continue when service contracts are renegotiated and contractors are able to take account of the Virtual Court process in their pricing models.
- Reduced Crown Prosecution Service (CPS) costs resulting from the electronic transfer of case files between agencies, rather than the use of couriers.
- The rate of defendants failing to appear at court for their first hearing was 1% in Virtual Courts, compared to 5% in the comparator area. This resulted in a saving for the police, who had fewer defendants to track down when a warrant was issued for their attendance at court, plus additional savings for courts and prisons.
- Enabling custody cases to be heard on the day of charge resulted in non-cashable savings on overnight police cell costs.

The savings made by the pilot were exceeded by the additional costs generated by the Virtual Court process, including the following.

- High set-up and running costs for the Virtual Court technology.
- Higher Legal Aid costs resulting from the change to the Legal Aid fee structure for the pilot (which included no means testing).
- Virtual Court activity placed an additional resource burden on police Custody Officers, case file handlers and, most significantly, Designated Detention Officers (DDOs), who were charged with overseeing Virtual Court hearings in custody suites.
- A trial of extended court operating hours, which incurred additional staffing costs.

Economic modelling suggests that a roll-out of Virtual Courts across London based on the structure and performance of the pilot would cost more than it would save over a ten-year period, for the reasons set out above. Scenario analysis suggests that achieving a breakeven point with roll-out might be possible, but that it would require substantial changes to be made to improve the performance of the process. All of the following would be required in such a scenario.

- Virtual Courts could deal with custody cases only, which would maximise the benefits of prisoner transport and police cell cost savings.
- Removal of the Collaboration Space technology would save on technical equipment purchase, installation and running costs. However, this assumes that an alternative process could be identified, which may incur additional cost. Alternative solutions have

¹ In this report 'custody cases' refers to those cases where defendants are remanded in police custody in advance of their first hearing.

not been specifically recommended by the evaluation; rather this element of the analysis was designed to quantify the sizeable technology costs borne by the pilot.

- Increasing the proportion of cases from each participating police station to that of the best performing pilot station would improve the throughput of cases and associated benefits.
- Increasing the number of hearings heard in court from the current four to six per hour would improve the efficiency of the court. This would probably require the abandonment of the current pilot practice of holding four hearings per hour on a fixed time slot basis. The evaluation does not make a judgement as to the practical efficacy of this alteration, rather it highlights the negative economic impact of having a limited throughput of cases in court.
- Roll-out would probably reduce the number of cases being processed through traditional courts, which may allow for some reduction in the total number of courtrooms. Savings could therefore be made through a consequent reduction in the number of courtroom prisoner escort staff.

Full details of the economic model can be found at Annex C.

Were Virtual Courts quicker?

The pilot was successful in significantly reducing the average time from charge to first hearing, in particular through the use of electronic file sharing and the removal of the need for defendants to travel to court. The biggest time benefits occurred when charge and hearing took place on the same day, a situation that was relatively rare in traditional court cases, but which accounted for the majority of cases in the pilot (57% of cases in the pilot took place on the same day, compared to 12% in the comparator area).

The average number of hearings per case was slightly higher in the pilot compared to the comparator area (2.3 and 2.2 hearings per case respectively; and slightly higher still during extended hours (2.4). This was reflected in a higher rate of adjournments. This appears to have been caused by a number of factors, including the inability to set trial dates during extended hours (when other courts were closed), and the lack of flexibility in the fixed hearing slot system to put cases back, for example to hear a Probation Service report on the same day. A higher number of hearings, although modest, is likely to increase the overall time and costs to complete those cases that are affected.

Did Virtual Courts impact on judicial processes and outcomes? (p.29)

The issue of 'fairness' is addressed through an examination of the impact of the pilot on judicial processes and outcomes. This has involved the consideration of a number of factors.

- The physical separation of defendants (and sometimes their solicitors) and the courtroom raised some concerns among practitioners. The separation made it harder for defence and CPS advocates to communicate before and during hearings, for example.
- The time pressures resulting from the court running fixed 15-minute slots, which were judged by some magistrates and District Judges as risking delivering 'hasty justice', or a perception of such. The fixed time slots were not thought suitable for more complex cases.
- Some magistrates and District Judges thought that the court had more difficulty in imposing its authority 'remotely', and perceived that defendants took the process less seriously than they would if they appeared in person.
- The rate of guilty pleas and custodial sentences were higher in the pilot than in traditional courts (although it should be noted that differences may exist in defendant characteristics between the pilot and comparator area for which this evaluation's analysis has not been able to control).
- The rate of defence representation was lower in Virtual Courts compared to the expectations of the pilot in the original business model, and the comparator area.

Implications

The Virtual Court pilot has been trialling a number of substantial changes to the criminal justice system. This has involved the introduction of new technologies and working processes for all the main criminal justice agencies, as well as substantial culture change for the practitioners involved. This has been a complex process.

The pilot has demonstrated that a video link between a police station and a court could be successfully used to conduct a first hearing, although it is not suited to all cases, most notably those involving people with additional language needs. The video technology may also have benefits in other areas of the criminal justice system.

The economic model reinforces the message that a roll-out based on the pilot's performance and parameters is likely to cost more money than it saves. However, even when controlling for some of the most costly pilot variables, delivering a system that makes significant cost savings is still likely to be a challenge.

The impact of the pilot on judicial processes and outcomes is complex. The evidence points to a series of factors that may be regarded as giving cause for concern, but the frequency with which they occur is very difficult to judge. If the Virtual Court concept is rolled out in future, it is recommended that these issues are further explored.

1 Context

The Virtual Court pilot

The Virtual Court pilot was an initiative designed to deliver speed and efficiency improvements to the criminal justice system. In the 'traditional' criminal justice system process, a defendant would be expected to appear in person at a magistrates' court for their first hearing after being charged with an offence. In the Virtual Court pilot, a defendant would appear in a magistrates' court for their first hearing by means of a secure video link while remaining physically located in the police station where they were charged. Defence representation was either provided at the police station or in court. Other courtroom practitioners remained located in court.

The Virtual Court business process introduced three new electronic systems.

- A secure video link for communication between police station and court, both for hearings and to allow confidential communication between defendants and their legal representatives if required. Secure video links were not entirely new to courts, having already been used to allow prisoners to appear in court from prison, although the Virtual Court technology was expected to provide higher quality video and audio.
- An online diary system, known as the Scheduling Tool, to enable police stations to book hearing slots at court.
- A secure online 'shared space', known as the Collaboration Space, that allowed case files to be created and shared electronically between criminal justice agencies.

In the traditional² court process, Legal Aid was sometimes provided by way of a means test to ensure legal representation was available to those who could not afford to pay for it themselves. The means test for Legal Aid was removed in the pilot, so Legal Aid was available to all defendants (the speed of the Virtual Court process meant that there was no time for means testing to take place). The Legal Aid fees were altered to reflect this universal availability and other aspects of the pilot (see Annex C).

A defendant had to be suitable to appear in a Virtual Court according to set criteria. For example, defendants under the age of 18, cases involving more than two defendants, and cases where there was a risk that a defendant might become violent were not suitable. The full suitability criteria can be found at Annex A.

The Virtual Court pilot operated for 12 months from May 2009 in two magistrates' courts and 16 police stations in London and North Kent. The focal point of the pilot was London, where 15 police stations were involved, accounting for more than 95% of Virtual Court cases. The

² Non-Virtual Courts are referred to in this report as 'traditional' courts.

London pilot also trialled extended court operating hours in mornings and evenings during periods of the pilot, and fixed hearing slots of four per hour. More details about the pilot are at Annex A.

The pilot was informed by a prototype, which was trialled in London in 2007. A baseline evaluation report³ was commissioned for the pilot which identified the key business processes and outcomes that were expected to change as a result of Virtual Courts. The baseline informed this evaluation by helping to identify areas where an examination of business process efficiencies was required.

³ Virtual Courts Project Baseline Evaluation Report, PA Consulting 2009. Not publicly available.

2 Approach

Research objectives

The objectives of this evaluation were:

- to assess the extent to which the Virtual Court pilot delivered financial benefits (and disbenefits), including its impact on Legal Aid costs and defence solicitor business models;
- to assess the extent to which Virtual Courts reduced the time between a defendant being charged and their first hearing;
- to assess whether the Virtual Court process was no less fair than a traditional court;
- to identify any unintended consequences arising as a result of the pilot.

Evaluation sites

The focus of this evaluation has been the pilot in London rather than Kent. London provided a more substantial area to examine, as it accounted for 15 of the 16 police stations involved and the vast majority of Virtual Court cases. The pilot in Kent only involved a single police station and case volumes during the pilot were very low (37 cases from January to April 2010, compared to 1,592 in London). Where lessons have been learned from the Kent process, these have been included in the report.

Comparative analysis has been carried out for the London pilot sites and areas only. The comparator area was the whole of London, excluding those courts and/or police stations involved in or likely to have been affected by the pilot. A further explanation of this is provided in Annex B.

Fieldwork

The fieldwork for the evaluation has taken the form of interviews, observations and surveys.

- Observations of court operations in the pilot and a comparator court in London. These were designed to provide qualitative evidence on the pilot delivery process.
- Semi-structured interviews with pilot and non-pilot court practitioners, including: magistrates, District Judges, Crown Prosecution Service advocates and administrative staff; Probation Service staff; listings staff; and legal advisers.
- Visits to all 16 pilot police stations, including semi-structured interviews with Custody Officers, Designated Detention Officers, and police administrative staff.
- Semi-structured interviews with defence solicitors.

- An email survey of magistrates with experience of the pilot.
- Structured telephone interviews with 14 victims whose cases were dealt with through the pilot.

In total, some 120 practitioners have been interviewed or surveyed.

Quantitative data have been gathered from management information systems from a variety of agencies including HM Courts Service (HMCS), Metropolitan Police Service (MPS), Legal Services Commission (LSC), Probation Service (PS) and Crown Prosecution Service.

Methodological challenges

A number of challenges have had to be addressed in the delivery of this evaluation..

- For the first eight months of the pilot, defendants had to give their consent to appear in a Virtual Court. This risked the introduction of selection bias into the population of Virtual Court defendants. The evaluation has therefore focused on evidence from January to April 2010, following legislation which removed the need to seek a defendant's consent.
- The operation of the pilot has varied over time, with some processes being altered during the course of the evaluation. This has included changes to court operating hours and the treatment of some bail cases. It has, therefore, not been possible to evaluate the pilot in a 'steady state'.
- Data and resource limitations ruled out a strict propensity score matching or similarly robust approach to the comparison of the pilot and comparator samples in terms of defendant and offence characteristics. While it has been possible to exclude those aged under 18 from the comparator sample, in line with the pilot's suitability criteria, it has not been possible to control for other factors (see Annex B).

As a result of these challenges, the evaluation has not been able to control for a number of variations that may exist in the data, either in terms of changes within the pilot over time, or differences between the pilot and comparator samples. The precise implications of these limitations are not known, but readers are encouraged to bear the limitations in mind when considering the evaluation's findings. The evaluators are nevertheless confident in the robustness of the conclusions that have been drawn in this report.

More details on the evaluation's approach, fieldwork and challenges are provided at Annex B.

3 Results

Pilot delivery

The Virtual Court pilot introduced a series of changes to the process of preparing for, and holding first hearings. A number of these changes had implications for the main findings of this report.

Volume of cases

Case volumes through the pilot to the end of 2009 were particularly low, a result of the need to obtain the consent of defendants to participate in the Virtual Court process (see Annex A). The average number of cases per week, per pilot police station, was less than two for the first six months of operation (258 in total).

Throughput since consent was removed was higher in London, but the Virtual Court system remained under-utilised. Of approximately 2,500 hearing slots available in the first four months of 2010 in London, 1,592 cases were heard (64% utilisation). The proportion of Virtual Court cases coming from the London pilot police stations varied considerably. Table 3.1 shows how the volume of Virtual Court cases varied from station to station. In the lowest volume station, 3% of all adult cases were directed through the Virtual Court; in the highest, the proportion was 23%. The average for London was 14%.

Table 3.1Virtual Court cases as a proportion of all cases
(source: ATOS and NSPIS)

Proportion of Virtual Court cases	Number of police stations	
Less than 5%	1	
5-10%	5	
10-15%	4	
15-20%	4	
20-25%	1	

The reasons for the lower volume of cases are judged likely to include the following, although the relative importance of each is not possible to verify.

- Some cultural resistance to the Virtual Court concept at operational level within the police which may result in fewer cases being put forward. This was mentioned in a small number of practitioner interviews.
- Technical problems which, when serious, resulted in the Virtual Court pilot being temporarily suspended entirely.
- Difficulties in securing vacant hearing slots, especially later in the day (see below).

Fixed hearing slots

The London pilot courtroom at Camberwell Green operated under a system of four fixed hearing slots per hour, with slots being booked in advance by police stations using the Scheduling Tool. This helped to give police stations an element of certainty as to when a hearing would take place, allowing them to plan for the use of the Virtual Court hearing room, and escort the defendant and solicitor into the custody suite. However, it also introduced a number of limitations to the potential efficiency of the Virtual Court process.

- Four hearings an hour was not regarded by courtroom practitioners as an effective use of a court's time. According to practitioners, this was far less throughput than a standard court would regard as efficient, and this was borne out by observation at a non-Virtual Court. In practice, due to low utilisation, the Virtual Court heard fewer than four hearings an hour on average.
- Fixed slots did not allow for flexibility in the time spent on a single hearing, or in rearranging the court listing to accommodate the differing requirements of individual cases. Observational evidence demonstrated that some Virtual Court hearings only took two or three minutes to complete, leaving the court with nothing to do until the next slot. In others, hearings ran over time with a consequent impact on the scheduling of subsequent hearings during the session. Observation also highlighted the increased flexibility available in a non-Virtual Court to put cases back and bring others forward in a manner that maximised the efficiency of the court's time.
- Slots later in the court session could get filled up by hearings put back from earlier in the day (for example, to enable a Fast Delivery Report by the Probation Service). A review of listings information for March and April 2010 suggests that, on average, two cases were put back every day, although on several days this number was as high as six. While putting cases back reduced the need for a formal adjournment, it restricted the slots available to new cases.

Extended Hours

The pilot trialled an extension to court operating hours.

From 25 January 2010, morning hours were extended to begin at 8.45am (rather than 10am), providing an extra five slots per day. This was halted after two weeks due to limited uptake. Interview evidence indicates that this had a number of causes. In particular, the early slots did not fit with the working hours of some criminal justice system staff. Custody cases tended to be charged towards the end of the day, leaving practitioners insufficient time to prepare a case for early the next day.

• Extended evening hours were also introduced from 25 January and remained in place to the end of the pilot. Hours were extended from 16.00.to 18.45, providing an additional 16 slots per day. While this increased overall hearing volumes, the utilisation of later slots was not as high as during normal operating hours. The proportion of used hearing slots between 10.00 and 15.45 was 71% on average from January to April 2010, compared to 55% between 16.00 and 18.45.

HMCS have resourced extended hours primarily by members of staff volunteering to vary their working hours. The long-term sustainability of extended hours if the pilot was rolled out would require a more permanent arrangement with staff and unions.

Technology

The audio and video technology used in the pilot delivered a good quality of sound and vision in the majority of cases, according to practitioners and observational evidence. Practitioners reported that the picture quality in particular was better than that provided by the existing prison video link used by courts. There have, however, been some concerns with the video technology.

- Time delays in the audio link were reported by practitioners as being common, and were witnessed during courtroom observations. While the delays themselves were quite short (a second or less), it was sufficient to cause individuals to repeat themselves on several occasions, and people on opposite ends of the link spoke over one another (similar to some long distance telephone calls). This did not appear to be a problem in the majority of cases, in that it did not result in confusion or delays to the hearing process. However, it did cause some communication problems where a defendant had language difficulties, or where an interpreter was being used.
- Technical problems with the video link have been a long-standing challenge for the pilot, not for their complexity but because of the frequency of the problems (a monthly average of 45 incidents in April and May 2010) the knock-on delays they caused to the court due to the operation of fixed hearing slots, and the perception it gave to those in court about the quality of the service being delivered. It would appear that nearly one-third of recent technical problems reported have been due to unspecified 'user errors' (31% of reported incidents in April and May 2010) which may suggest that some practitioners still struggle from time to time with the correct use of the equipment.

The introduction of the Scheduling Tool has improved the speed and efficiency with which the police are able to book Virtual Court hearing slots. Previously in the pilot, police stations had to ring the court to book a slot. The technology is straightforward to use and largely error-free.

The Collaboration Space shared file system has taken time for practitioners to get used to. It is not an intuitive system, and practitioners have to monitor the system actively (frequent screen refreshes and log-ins) in order to identify new cases and track existing ones. As a separate system overlaying existing criminal justice information systems, it involves some duplication of data entry that also takes place on the NSPIS (MPS) and LIBRA (HMCS) systems. Culturally, many users have seemed unsure of what others within the Collaboration Space system are doing, and interviews with practitioners suggest that the system does not appear to have bred improved communication between the various players in the process. For Virtual Courts to deliver time reductions between charge and first hearing, while still permitting the effective operation of the court, the process had to be able to prepare and deliver case papers speedily to the court. Printing papers at court in advance of a hearing was therefore an important part of the process. However, in practice, the printing process proved very slow and erratic. The technology was not able consistently to provide case papers to court in advance of Virtual Court hearings, and in some cases failed entirely. The frequent absence of the correct papers in time for hearings caused frustrations for the practitioners concerned, especially CPS advocates, as well as contributing to hearing delays and adjournments.

Physical infrastructure

The court end of the Virtual Court process worked well from an infrastructural perspective. However, Camberwell Green runs a dedicated Virtual Court courtroom, which would otherwise have been used as a traditional court. With a maximum of four hearings per hour through the pilot, practitioners reported that the dedicated use of a courtroom for the pilot had increased the case volumes for other (non-pilot) courtrooms at Camberwell Green. The pilot will have also reduced case numbers to other courts in the pilot area (where a defendant is seen by the Virtual Court, and would otherwise have been seen in person at the relevant home court). However, practitioners reported that no effect had been identified in the performance statistics of these courts, due to the low number of Virtual Court cases involved.

Police stations managed well with the infrastructural requirements of Virtual Courts despite limited space. Many custody suites were small and had only one or two interview rooms that were suitable to act as a Virtual Court room. Due to the relatively low volume of cases, the infrastructure has not yet been tested under conditions of high utilisation where, for example, Virtual Courts may have an impact on the number of defendants being held in custody (those who would normally be transported to court in the traditional process).

Did Virtual Courts deliver financial savings?

This section considers whether the Virtual Courts pilot delivered its expected financial benefits, and is based on the London element of the pilot only. The figures used in this section are derived from an economic model of the Virtual Court process and outcomes, the details of which can be found at Annex C.

The figures in this section are based on a wide variety of sources,⁴ with differing levels of statistical robustness. As such, the results should be viewed as estimates only, and are highly sensitive to changes in the inputted data. Figures should therefore be considered as 'best estimates'.

Cashable and non-cashable benefits

Cashable benefits release money and therefore reduce expenditure. Non-cashable benefits are savings such as productivity gains, which do not release cash. The benefits (and costs) realised by the pilot compared to non-Virtual Courts are outlined in Table 3.2. The pilot delivered a net additional cost per case of £247 compared to a non-Virtual Court case. The total additional cost of running the pilot from January to April 2010 was £393,000 (monthly differences were primarily caused by variations in pilot case volumes).

	Cost/saving per case (negative values are costs)			
Category	Cashable	Non-cashable	Total	
Direct savings	£10	£43	£53	
Technology	-£225	-£15	-£240	
Legal Aid	-£3	£0	-£3	
Extended hours	-£16	£0	-£16	
'Downstream' costs	-£32	-£15	-£47	
Total per case	-£260	£13	-£247	
Total (1593 cases)	-£414,000	£21,000	-£393,000	

Table 3.2Cashable costs/savings per case
(source: economic evaluation model)

Overall, the direct savings made by the pilot in the four months included the following.

- Prisoner transportation cost savings of £23,000, which are considered in more detail below.
- Police cost savings of £33,000 due to a reduction in the resource required to pursue defendants who failed to appear at their first hearing. The proportion of defendants who were served with a Failure To Attend (FTA) warrant was 1% in the pilot, compared to in the comparator area. Other agencies also made savings through a reduction in warrantrelated administration.
- Police costs of £94,000 due to a reduction in the number of defendants held overnight in custody suite cells (see Annex C for more details).

⁴ These are provided in full in Annex C. The main sources are primary data gathered as part of the evaluation, self-reported data on activities from staff gathered prior to the evaluation, Ministry of Justice published statistics, and internal Ministry of Justice cost estimates.

'Downstream costs' in Table 3.2 refer to the impact of Virtual Courts on Early Guilty Pleas, average number of hearings per case and sentencing outcomes. These are covered in further detail below and in Annex C.

Savings in prisoner transport costs

The pilot reduced prisoner transport costs where defendants held in police custody prior to their first hearing would normally have been taken to court by the service contractor: a saving of £34 per case. The cost of transporting a defendant to court within the pilot area is based on the existing contract fee and the distance between pilot police stations and their home courts (£34 is the contract cost of a journey of less than ten miles, which applies to all cases here). The contract also provided for 'bulk discounts' which were dependent on overall monthly volumes across the contract area. These discounts were not affected by the number of custody cases in the pilot.

The new transport arrangements are likely to have impacted on the structure of the service provided by the contractor. Transportation of prisoners to prison is likely to be less efficient for the contractor under Virtual Courts. In the traditional model, prisoners are held in the cells at court for 'bulk' transportation to prison at the end of the day. In Virtual Courts, the contractor has to pick up individual prisoners from police stations on a more *ad hoc* basis, within an hour of a hearing ending. This is likely to increase operational costs to the contractor (more journeys, and fewer prisoners per journey), although the price that the National Offender Management Service (NOMS) paid to transport these defendants to prison was unchanged. Contractors may seek to take these changes into account when contracts come up for renegotiation in the future. Transport savings incurred by the pilot may therefore not be realised under future contracts. However, under the current contract, the increased operating costs of the contractors are not passed on to the criminal justice agencies. Hence there is an overall saving of £34 for every case that would have required transporting from the police station to the courtroom.

Additional technology costs

The set-up costs for the Virtual Court technology were £1.8m, including purchase and installation of the video equipment, Collaboration Space and Scheduling Tool. These initial capital outlay costs have not been included in the cost/benefit calculation for the pilot period, but they are included in the roll-out model below. Any roll-out of the pilot, based on the existing technical infrastructure, would require participating police stations and courts to be fitted out with the appropriate equipment at additional cost.

Running costs for the first four months of 2010 amounted to £382,000 in London, approximately two-thirds of which were allocated to maintaining the Collaboration Space and providing a help-desk function. The overall running costs of the pilot were primarily fixed, so the technology running cost per case would be expected to reduce with higher case volumes.

For the pilot the smallest unit over which technology costs are variable is a police station. Adding an additional police station incurs extra costs, but putting extra cases through the Virtual Court at a police site with all the technology already installed incurs no additional technological costs.⁵

Additional Legal Aid costs

The pilot baseline established a model for calculating Legal Aid costs. This has been reviewed and verified through consultations with Legal Aid experts from MoJ and the Legal Services Commission. There are many permutations involved in estimating Legal Aid costs, and the model used for this evaluation is an approximation. However, it does attempt to be as accurate as possible by modelling Legal Aid costs based on the following key variables (the first two having the most significant influence on costs):

- the total number of cases charged;
- the proportion of cases where a defendant received legal representation;
- the type of representation received, for example a Court Duty Solicitor or own solicitor;
- the proportion of defendants who are eligible for Legal Aid in the non-Virtual Court system (Legal Aid was not means tested in the pilot, so was available to all);
- the Legal Aid fee for Virtual Court cases, which is different to non-Virtual Court cases;
- the time of hearing, as there was a higher rate for out-of-hours work in the pilot;
- the number of hearings per case.

Based on this model, the average additional cost per case of Legal Aid in the pilot was \pounds 3 (this is the average for all cases, not just those cases receiving Legal Aid). The model is particularly sensitive to the proportion of defendants receiving legal representation. Representation rates were lower than expected in the pilot: 54% compared to 68% estimated in the original Legal Aid model developed prior to the pilot. This evaluation's review of the Legal Aid model (with the Ministry of Justice (MoJ) and LSC) suggested that a more accurate representation rate for non-Virtual Court cases was 72%, which was found by the baseline report⁶ to be the representation rate at first hearing for adults in London. The lower than anticipated representation rates had been at 72%, the average additional Legal Aid in the pilot would have been £12 (the average for all cases, not just those receiving Legal Aid).

⁵ In other words, the marginal cost of technology of an additional case going through the Virtual Court is zero at a police station which already possesses the relevant technology.

⁶ Virtual Courts Project Baseline Evaluation Report, PA Consulting 2009. Not publicly available.

It is possible that the mix of cases in the pilot, compared to the comparator sample, might have been different in ways that affected the demand for representation. For example, the suitability criteria for Virtual Courts excluded cases where case files had more than 50 pages. These are likely to be complex cases where representation might be more likely than an 'average' case.

Other additional costs

In a number of other areas, the pilot introduced additional costs, including the following.

- Designated Detention Officers spent 80-90 minutes on average administering a Virtual Court case.⁷ This included booking a court slot, arranging and supervising the hearing, and escorting defendants and their solicitors while in the custody suite.
- Payments to criminal justice agency staff (including overtime and incentives) to cover the extended operating hours of the Virtual Court.
- Downstream costs associated with different hearing and sentencing outcomes under the pilot, such as increased rates of custodial sentences compared to non-Virtual Courts.
 For courts, these additional costs outweigh the benefits resulting from higher numbers of early guilty pleas. These are discussed later in the report.

Impact on defence advocate business models

The Virtual Court process required defence solicitors to alter their ways of working, in particular where they had to represent their clients from a police station rather than at court. Defence solicitors were interviewed in order to understand how the pilot had affected their business models.

The non-Virtual Court process allowed defence practices to concentrate their advocacy work at court, which helped to maximise the number of cases that any one advocate was able to handle during a working day. While defence solicitors had the option of representing their clients from court under the pilot, the majority of cases observed during the evaluation involved representation from the police station. This was judged by defence solicitors as being likely to reduce the total amount of chargeable work that an advocate was able to carry out on a given day, with a likely negative impact on the finances of the practice. Defence solicitor concern about the quality of communication with their clients over the video link (discussed later in this report) is likely to be a contributing factor in leading solicitors to represent from police stations.

Defence solicitors noted that the court duty solicitor scheme could represent good value to them in a busy court. Duty solicitors were well placed to be proactive in offering their services to bail or custody defendants waiting for their hearings. Such opportunities have occurred in the pilot, but observation evidence suggests they have been less common than in a non-Virtual Court environment.

⁷ Self-reported evidence from MPS internal survey and evaluation interviews.

The pilot operated a Virtual Court duty scheme, in addition to the duty scheme provided as standard at all police stations (existing duty solicitors who were willing to act in Virtual Court cases), to ensure that defendants had the opportunity to receive legal advice at the police station. Defendants were offered access to representation, with contact being facilitated by the police. Solicitors suggested that this process reduced the amount of business they received compared to a non-Virtual Court situation where solicitors were on hand at court, and where defendants had more time to consider their need for legal advice.

Notwithstanding defence solicitor comments, it has not been possible to quantify what financial impact this might have on their operations, primarily because the number of Virtual Court cases was a relatively small proportion of their total business activity during the pilot. It should be noted that any potential negative changes to defence solicitor business models would not have a direct effect on criminal justice agency budgets – they would be borne by the practices themselves. However, the criminal defence community might be expected to seek to address any financial shortfall caused by a change in the criminal justice system through other means, such as the negotiation of rates for Legal Aid work.

Economic evaluation

The economic evaluation models the roll-out of Virtual Courts across the MPS area of Greater London. It provides a Net Present Value (NPV) for implementation over ten years. NPV calculates the present value of future costs and savings by applying a discount rate (see Annex C). All figures below refer to the cost or benefit over ten years.

It should be noted that the costs and benefits of roll-out may differ in geographical areas other than London. For example, distances between police stations and courts may be greater, affording more sizeable prisoner transport cost savings. (Under the existing service contract, longer distances incur higher costs per prisoner journey.) Similarly, lower volumes would reduce the financial savings in this area.

The baseline scenario (the 'do nothing' option) against which these scenarios are measured is for no Virtual Courts technology to be rolled out. First hearings would continue to be conducted in the traditional manner (i.e. with the defendant physically located at the courtroom) with the same costs as they currently incur. No specific assumptions are made about future policy or operational changes.

Two scenarios have been provided in this report, although many others are possible. The first scenario estimates the costs and benefits of a roll-out that closely resembles the structure and performance of the pilot (Table 3.3). The second 'alternative' scenario models a cost/ benefit break-even point by changing the parameters of the delivery of Virtual Courts where

these are likely to have the greatest impact on the economic case (Table 3.4). Together, the two scenarios are designed to demonstrate the extent to which some pilot parameters might have to change in order to generate economic savings.

The model makes the following assumptions which apply to both scenarios. Changes in these assumptions, for example increasing the estimated economies of scale, could in themselves make a difference to the economic case. But it is not possible to list all possible permutations in this report.

- Roll-out would be staggered over three years (i.e. not all police stations would be online for the first three years), which is designed to reflect the scale and potential complexity of the roll-out process.
- There is no late prison reception for defendants dealt with during extended hours. Defendants would, therefore, have to be taken back to police cells until the next morning.
- Only those police stations with high charging volumes (more than 1,500) are included to ensure that start-up and running costs are spread across a high number of cases relative to the number of police stations involved.
- Technology costs reduce with time, and would generate economies of scale, which reflect common assumptions in business planning.
- The cost of building Virtual Court rooms at police stations is not included, but would be required in practice (the costs are likely to be highly variable on a case by case basis).
- Prisoner transport savings are made 50% of the time, i.e. the reduction in journeys
 resulting from rollout will remove the bulk discount element of the transportation contract
 50% of the time. This is based on an estimate of Virtual Court cases and knowledge of
 the volume bands for the bulk discount in the current contract.

Based on the economic model, a roll-out that closely matched the pilot in terms of structure and performance would generate a net additional cost to the criminal justice system of £12.1m. The 'Alternative' scenario would generate a net saving of £0.4m and break even in the ninth year of operation.

Table 3.3 Rollout Scenario One – 'Pilot' (source: economic evaluation model)

Number of police stations (at full rollout)	37
Number of courts (at full rollout)	3
Estimated volume of Virtual Court cases (at full rollout)	14,000
Benefit per case	£52
Total benefits (NPV, ten years)	£5.4m
Total costs (NPV, ten years)	£17.5m
Benefits minus costs (NPV, ten years)	-£12.1m

Assumptions:

Court extended operating hours are retained at pilot levels (i.e. late hours to 1845).

The proportion of custody and bail cases remains at pilot levels.

Pilot technology is retained.

The proportion of cases going to Virtual Court from each participating police station is at the pilot average (14.1%).

Court schedules four Virtual Court hearings per hour, as per the pilot fixed slot schedule.

The proportion of defendants receiving legal representation remains at the pilot rate (53.6%).



Table 3.4 Rollout Scenario Two – 'Alternative' (source: economic evaluation model)

Number of police stations (at full rollout)	37
Number of courts (at full rollout)	1
Estimated volume of Virtual Court cases (at full rollout)	8,000
Benefit per case	£158
Total benefits (NPV, ten years)	£9.8m
Total costs (NPV, ten years)	£9.4m
Benefits minus costs (NPV, ten years)	£0.4m

Assumptions (where different from Scenario One):

Custody cases only are processed through Virtual Courts.

Collaboration Space technology is removed.

The proportion of cases going to Virtual Court from each participating police station is that of the best performing pilot site (23.7%).

Court schedules six Virtual Court hearings per hour.

Courtroom escort costs are saved through a reduction in the number of traditional courtrooms. Higher rate of guilty pleas in the pilot is reflected in different sentence tariffs.

Figure 3.2 Scenario Two: 'Alternative"



The 'Alternative' scenario generates savings due to changes in the following variables.

- Virtual Courts deal with custody cases only, which reduces the total number of cases heard but maximises the benefits of prisoner transport and police cell cost savings.
- Removal of the Collaboration Space technology saves on technical equipment purchase, installation and running costs. However, it assumes that an alternative process could be identified, which would be likely to incur additional cost.
- Increasing the proportion of cases from each participating police station to that of the best performing pilot station improves the throughput of cases and associated benefits.

- Increasing the number of hearings heard in court from the current four to six per hour improves the efficiency of the court, but would probably require the abandonment of the fixed slot practice used in the pilot (a flexible model was being trialled in the pilot area following the completion of the evaluation fieldwork).
- Roll-out would probably reduce the number of cases being processed through traditional courts, which may allow for some reduction in the total number of courtrooms. Savings could, therefore, be made through a consequent reduction in the number of courtroom prisoner escort staff. It is unlikely that entire court buildings could be closed as a result of roll-out because the overall number of cases going through Virtual Courts (based on pilot performance) would be low relative to the total number of cases across London.
- More defendants plead guilty at their first Virtual Court hearing compared to a traditional court (this is discussed later in the report). Adjustments are made to reflect the likely change in sentencing tariffs for those who plead guilty at the earliest opportunity, which generates a small saving.

These changes result in the cost savings outlined in Table 3.5. Switching to custody cases and removing the Collaboration Space make the most substantial impact on the costs of rollout over ten years.

	Saving made over ten years,
Factor	compared to Scenario One (pilot)
Custody cases only	£5.5m
Remove Collaboration Space	£3.4m
Increase proportion of cases from police stations	£0.8m
Increase hearings to six per hour at court	£1.3m
Savings in courtroom escort staff	£1.0m
Savings through increased rates of guilty pleas at first hearing	£0.4m
Total saving	£12.4m

Table 3.5Savings per variable under Scenario Two (source: economic
model)

Conclusions

The evaluation evidence indicates that, overall, the Virtual Court pilot added net cost to the delivery of criminal justice in the London pilot area, compared to traditional courts. Some cost savings were released by Virtual Courts, with the most significant savings being made in prisoner transportation costs. However, these savings were exceeded by the additional costs generated by the pilot, including through new technology, a different Legal Aid tariff, and the operation of extended hours. Evidence suggests that focusing Virtual Courts on custody cases would help to improve the financial benefits of the model. However, any future roll-out predicated primarily on saving money through reducing these costs might be vulnerable when transportation contracts are renegotiated.

Any roll-out across London based closely on the current Virtual Court pilot's structure and performance would be expected to cost more money than it saved. This does not mean that a cost-effective model could not be established. But such a model would need to address some key areas where costs have been driven up in the pilot, most notably the following.

- An expensive technology infrastructure, relative to the number of cases it supported; more cost-effective solutions may be available; other uses for the technology beyond Virtual Courts might also improve the wider financial benefits to the criminal justice system.
- A more expensive Legal Aid fee system (although, based on the pilot's representation rate, the additional costs have been lower than anticipated).
- Low hearing volumes and fixed hearing slots, which reduce the efficiency of courts.

Were Virtual Courts quicker?

The Virtual Court pilot was expected to reduce the average time between charge and first hearing. Other factors have an impact on the overall time it takes for a case to be processed which were not affected by Virtual Courts, such as the time it takes to build a case in advance of a decision to charge, or the time between the Virtual Court first hearing and any subsequent hearings. The total number of hearings required will also affect the overall time taken to complete a case, and the pilot's impact on this factor has also been investigated.

Average time from charge to first hearing

The average time from charge to first hearing was reduced in the pilot, often substantially so, compared to non-Virtual Courts. In particular, the average time for bail cases was reduced by more than ten days. The impact on average time for custody cases was more modest and measured in minutes. Table 3.6 shows average times for bail and custody cases for the four months under evaluation. These averages have been relatively consistent on a month-by-month basis.

Outliers in the comparator dataset were excluded because they were judged to have been caused by errors in data entry and distorted the figures considerably (in some cases by months). The data used have therefore been restricted to the 95% of cases where the time from charge to first hearing was 28 days or less.

	Ba	ail	Custody				
	Time	Number of cases	Time	Number of cases			
Virtual Courts	17 hrs	882	15 hrs 53 mins	586			
Rest of London	11 days 8 hrs	12,794	16 hrs 10 mins	7,749			
Difference	10 days 15 hours		17 mins				

Table 3.6 Average time from charge to first hearing (sources: ATOS, NSPIS)

The most substantial time savings were delivered where the pilot process was able to secure a hearing on the same day as a charge. Same day hearings were relatively rare in the comparator area: fewer than 12% of all cases. In the pilot, same day hearings represented 57% of cases. In any roll-out of the pilot, the ability to conduct more hearings on the day of charge is therefore likely to substantially improve the average time from charge to first hearing.

The speed of the Virtual Courts process is likely to have contributed to the reduction in the number of defendants failing to appear at their first hearing. In the pilot, the failure to appear rate was 1% compared to 5% in the comparator area. This has financial benefits for the police, which have been incorporated into the economic model.

Constraints and limitations

The following pilot process factors acted as constraints on the ability of Virtual Courts to improve on the timeliness figures.

- A minimum of three to four hours was required between charge and first hearing to complete essential administrative and process functions, including uploading case files onto the Collaboration Space; CPS case file review; and the arrangement of defence representation.
- With only one London courtroom dedicated to operating as a Virtual Court, and a fixed number of slots per hour, the number of hearing slots were limited. The availability of a slot at the earliest possible point could not therefore be guaranteed. This became more of a problem as a court session progressed, with slots being filled by new cases from other stations, or with existing cases that had been put back from earlier in the day.
- The use of the Scheduling Tool by police, while improving the ease and efficiency of booking a hearing slot, was not able to stop individuals from booking slots at later times than might be necessary. This was noted by court listings staff and witnessed in court observations, but the reasons why this happened are unclear, and the frequency of it occurring is unknown.

Number of hearings

The pilot appears to have had an impact on the number of hearings per case for some offence categories, despite an increase in early guilty pleas (see later section). Overall, the average number of hearings in the pilot was slightly higher than in the comparator area: 2.3 hearings per case, compared with 2.2 for traditional courts. So, on average, one extra hearing was created for every ten cases. This reflects higher rates of adjournments in Virtual Court hearings compared to the comparator group. At least two reasons have been identified which may have contributed to this. The first is adjournment for pre-sentence reports. With the fixed slot system, it was not always possible to find space in the court schedule for the Probation Service to submit a (same day) Fast Delivery Report. The second reason is offence-specific.

Table 3.7 shows the difference in the average number of hearings in finalised cases for the most common offence categories under the pilot (including extended hours for the pilot). For most cases, the difference between the pilot and comparator area is small. What is most notable is the increase in the average number of hearings for motoring offences. With an additional 0.44 hearings on average, the Virtual Court pilot has added an extra hearing to nearly every other case in a category that accounts for a large proportion of all pilot cases. The lack of availability of the Driver and Vehicle Licensing Agency's (DVLA's) information on previous convictions was cited as a reason for some adjournments.

•		•		•	
	Virtua	Virtual Court		Comparator area	
		Average		Average	
		number of		number of	
Offence category	Cases	hearings	Cases	hearings	Difference
Drugs	174	2.08	2,808	1.94	0.14
Motoring	224	1.89	7,666	1.45	0.44
Offences against the person	249	3.03	3,547	3.22	-0.19
Public order	139	2.15	1,979	2.22	-0.07
Theft and handling	261	2.10	3,948	2.21	-0.11
All offences	1,304	2.33	24,629	2.19	0.14

Table 3.7 Average number of hearings for finalised cases (source: CPS)

The creation of additional hearings is a negative impact for two reasons. First, extra hearings are likely to extend the overall time a case takes to be finalised (notwithstanding the time saved between charge and first hearing). Secondly, the introduction of additional hearings will add to the overall cost to the criminal justice system of hearing those cases.

The average number of hearings per finalised case was slightly higher again during extended hours periods of the pilot (2.3 hearings during normal hours, and 2.4 in extended hours). Some practitioners had voiced concerns that later hearings were more likely to be adjourned than in a traditional court, for example because of difficulties in setting trial dates when other courts had closed for the day. The data suggest that this may have had an effect.

Conclusions

The pilot has demonstrated that substantial time savings can be made between charge and first hearing through the Virtual Court process. This is particularly the case where both occur on the same day. However, it would appear that the pilot has caused more hearings to take place for motoring offences than would be expected in the traditional process. This is likely to increase the overall time and costs for those cases that are affected.

Did Virtual Courts impact on judicial processes and outcomes?

The issue of 'fairness' is addressed in this section through an examination of the impact of the pilot on judicial processes and outcomes. This has involved the consideration of a number of factors:

- the physical separation of defence and the courtroom;
- time pressures;
- the authority and conduct of the court;
- rates of guilty and not guilty pleas;
- legal representation;
- hearing outcomes;
- sentencing outcomes;
- any variance in impact according to defendant characteristics (age, gender and ethnicity);
- the views of victims.

Many of the qualitative factors raised in this section are based heavily on the perceptions and experiences of courtroom practitioners, and it has not always been possible to verify their significance or frequency independently. Nevertheless, all the factors mentioned here have been raised by more than one practitioner and, in many cases, by more than one criminal justice agency.

Physical separation of defence and courtroom

A number of concerns were raised by practitioners about the impact of defendants (and sometimes their solicitors) being physically remote from the courtroom.

- Defence solicitors and some courtroom practitioners did not regard police stations as being sufficiently 'neutral' venues to hold a hearing, in that defendants might view the police as part of the prosecution element of the process. Defence solicitors in particular were concerned that the location in a custody suite within a police station might influence the behaviour of defendants, for example by encouraging them to plead guilty or refuse representation as a means of speeding up the process. Guilty plea rates were higher in the pilot than in traditional courts, and representation rates were lower. However, it is not possible to confirm a link between this and the use of police stations as venues for the pilot.
- Where a solicitor was representing from a police station (which was more common than representation from court), the physical separation made it harder for defence and CPS advocates to communicate before and during hearings, which could cause some hearings to go on for longer than necessary and might have resulted in otherwise unnecessary adjournments. This was raised by defence solicitors and CPS prosecutors, and was witnessed during courtroom observations.

• Where a solicitor represented from the courtroom, his/her physical separation from their client could hamper confidential communication and the provision of legal advice during the hearing. A separate video link was available at court for confidential pre-hearing discussions between solicitors and their clients. However, during a hearing, such discussions could require the court to be cleared (this was observed). This was raised by a number of practitioners from different agencies, and witnessed during courtroom observations.

Impact of time pressures

The time pressures resulting from the use of fixed hearing slots led magistrates and District Judges to raise concerns about the effects on the delivery of justice.

- Some magistrates were concerned that there was a danger of delivering 'hasty justice', or being perceived as doing so, when they felt under time pressure to complete a hearing within the stipulated 15-minute slot. Where previous hearings had overrun, the pressure of time on subsequent hearings was particularly evident during courtroom observations, but it was not possible to judge the impact on the delivery of justice, or on hearing outcomes.
- Some magistrates and District Judges felt that some cases were not suitable to be handled in Virtual Courts due to their complexity and the time that was required to hear them. While opinions varied, this included cases requiring interpreters and cases involving complex bail applications, both of which were more likely than most to need more time or flexibility than was available. Courtroom observations confirm that these cases tended to take longer to be heard than the 15 minutes allowed in the pilot, which caused knock-on delays for other cases heard during the same session.

Defence solicitors also commented that they did not always feel they had sufficient time to take instruction and advise their clients in advance of a Virtual Court hearing as notification of hearings allowed them a limited amount of time to attend at a police station, nor was the 15-minute hearing slot always regarded as a suitable timescale for a hearing.

The authority and conduct of the court

Some magistrates and District Judges in particular voiced concerns about how the authority and conduct of the court was negatively affected in the pilot.

- The difficulty of the court to impose its authority on defendants who were not in the courtroom.
- The perception of practitioners that defendants took the process less seriously than they would if they had appeared in person.

• The impact of technical problems on the court's efficiency and the negative impression this might have given to participants and observers of the judicial process.

Legal representation

Representation rates in the pilot were lower than anticipated in the original Virtual Court baseline. The proportion of defendants receiving representation in the pilot was 54%, compared to the baseline estimate of 68%, and the revised estimate for traditional cases used in the economic model of 72% (official statistics for representation rates in traditional courts were not available). The lower rate in the pilot would seem to confirm courtroom practitioners' reported perceptions of representation levels.

No single reason was identified to explain this lower rate. Given that Legal Aid was available without means testing in the pilot, it can be assumed that financial considerations were not a significant factor. A number of other suggestions were made by practitioners.

- The difficulties experienced by some defence solicitors in reaching a police station in time for the Virtual Court hearing, and the hearing going ahead without them (with the defendant's agreement). This was witnessed during courtroom observations.
- The reluctance of some defence solicitors to attend Virtual Court hearings, either for logistical reasons or due to a more general unease with the Virtual Court process. This reflects defence solicitors' own statements about the challenges of reaching police stations in time to represent at a Virtual Court, and comments from some police practitioners about their experiences of dealing with defence solicitors at a small number of pilot stations.
- The desire of some defendants to 'get it over with' as soon as possible, and their perception that a request for representation might hold up the process. This was witnessed during courtroom observations.
- The accessibility of solicitors by defendants (and vice versa), which was heavily dependent on police facilitation in the pilot in comparison with the more direct contact afforded in a non-Virtual Court. This issue was one of ease of access,rather than a criticism of the police role in the process.

The suggestion that issues relating to individual police stations and defence practices might be affecting representation rates appears to be borne out by the data. For example, in two police stations with similarly high Virtual Court volumes (194 and 170), representation rates varied by 33 percentage points (74% and 41% respectively). This demonstrates a pattern that exists across the participating police stations, although it is possible that other factors may be involved (such as the nature of the offence or the defendant).

Guilty and not-guilty plea rates

Guilty pleas for Virtual Courts cases were three percentage points higher than in the comparator area (Table 3.8). The data are only available for finalised cases, which accounted for 83% of all Virtual Court cases during the four-month period.

	Plea at fir		
	Guilty	Not guilty	Number of cases
Virtual Courts	75%	24%	1,040
Pilot area, non-Virtual Courts	74%	23%	5,594
Rest of London	72%	26%	15,493

Table 3.8 Plea rates, pilot and comparator area (source: CPS)

Table 3.9 shows that differences existed in guilty plea rates between the pilot and comparator area depending on the offence category. Theft, public order and motoring offences were substantially higher.

Table 3.9Proportion of guilty plea rates for large volume offences
(source: CPS)

Principal Offence category	Comparator area	Virtual Court	Difference
Offences Against The Person	47.2%	45.5%	1.7%
Theft And Handling	92.5%	84.6%	7.9%
Drugs Offences	90.0%	89.8%	0.2%
Public Order Offences	76.9%	68.2%	8.7%
Motoring Offences	82.3%	76.1%	6.3%
Total	75.0%	71.9%	3.1%

Table 3.10 shows that plea rates within the pilot area differed depending on whether a defendant received representation. Guilty pleas were slightly higher where defendants were unrepresented, which drove up the whole pilot average. It has not been possible to determine whether a similar variation exists in traditional court cases.

Guilty plea at	Repre	sented	Unrepresented		
first hearing	Proportion	Number of cases	Proportion	Number of cases	
Yes	74%	258	78%	342	
No	26%	93	22%	95	
Total	100%	351	100%	437	

Hearing outcomes

Hearing outcomes at first hearing appear to be affected by representation rates. Table 3.11 shows the extent to which unrepresented defendants were more likely to be sentenced at first hearing: 11 percentage points higher than the pilot as a whole. That hearing outcomes are correlated with representation may also be the case in a non-Virtual Court, although the data have not been available to verify this. However, it does suggest that sentencing rates might have been higher in the pilot, compared with non-Virtual Courts, due to the higher proportion of unrepresented defendants.

(Source	e: ATUS, 159	z cases)			
	Soli	citor			Difference,
					Unrep-
Outcome at first			Unrep-		resented vs.
hearing	Own	Duty	resented	All cases	All cases
Sentenced	29%	21%	41%	30%	+11
Adjourned	59%	69%	51%	61%	-10
Other (e.g. dismissed,	12%	10%	8%	9%	-1
withdrawn, etc.)					

Table 3.11Pilot hearing outcomes according to representation
(source: ATOS, 1592 cases)

Sentencing outcomes

Virtual Court cases were more likely to receive a custodial sentence and less likely to receive a community sentence than in the comparator area (Table 3.12). Analysis at the level of individual offence types suggests that the difference between community and custody penalties occurs across the board: it was not offence-specific.

Table 3.12Custodial and community penalties as a proportion of all offences
(source: PNC)

Disposal category	Virtual Court	Comparator area	Percentage point difference
Absolute discharge	0%	0%	0
Conditional discharge	5%	5%	0
Fine	17%	18%	1
Community penalty	14%	17%	3
Fully suspended	3%	3%	0
Immediate custody	10%	7%	-3
Other	50%	48%	-2

The reasons for this difference in sentencing outcomes are not identifiable from the evidence, but the following factors may be relevant.

- Some police practitioners reported that Camberwell Green was regarded as being a 'strict' court in terms of sentencing. This was attributed to comments made to them by local defence solicitors.
- Lower representation rates may be a factor, on the assumption that a solicitor is better placed to deal with mitigation than a defendant representing himself/herself.
- Differences may exist in defendant characteristics between the pilot and comparator area which this evaluation's analysis has not been able to control for (for example, previous offending history). Methodological challenges are examined in more detail in Annex B.

Equalities impacts

The evaluation has not identified any major equalities impacts in relation to whether outcomes for defendants are affected by their age, gender or ethnicity.

The age and gender profile of defendants was similar in the pilot area and the comparator group. There were differences in the proportion of defendants from three high-level ethnic groupings when comparing the pilot and the rest of London⁸ (Table 3.13). The relative proportion of Asian and Black defendants passing through Virtual Courts is likely to have been heavily influenced by the specific ethnic make-up of the pilot area, for example its lack of a sizeable Asian community relative to London as a whole.

Table 3.13 Statistically significant variance in ethnicity – proportion of all defendants, January-April 2010 (source: ATOS, NSPIS)

Category	Virtual Courts	Rest of London	Variance
Asian	5%	14%	-9
Black	28%	23%	+5
White	55%	50%	+5

When comparing the ethnicity of pilot defendants with non-Virtual Court defendants from within the pilot area (to control for localised differences in population), there remains a higher and statistically significant chance of a Virtual Court defendant being White (55% of pilot defendants, compared to 51% of non-Virtual Court defendants in the pilot area). When this category is broken down further, the data show pronounced differences between the proportions of White British and White 'Other'; specifically, the much lower proportion of Virtual Court defendants in the latter category (9% of Virtual Court defendants, compared with 12% of non-Virtual Court defendants in the pilot area). This category includes many EU migrant workers and residents where language may be a contributing factor. The Virtual Court suitability criteria state that, when required, a hearing should only take place if an interpreter can be found to attend in sufficient time. This may preclude some defendants with language support needs when an interpreter cannot be provided in time. This appears to be

⁸ Due to the relatively small number of Virtual Court defendants from each specific ethnic group, analysis was undertaken at an aggregate level (Asian, Black, White).

confirmed by other data. The proportion of pilot cases requiring an interpreter was lower than for the comparator area, and statistically significant: 4% and 9% of all cases respectively.

There were no statistically significant differences in sentencing outcomes between ethnic groups, but the evaluation has not been able to control for other potentially relevant variables, such as an individual's previous criminal convictions.

Views of victims

The number of Virtual Court cases involving victims has, according to Witness Care Units, been quite low. The reason cited was the nature of offences, many of which did not have an identifiable 'victim' (for example possession of drugs and motoring offences). Structured interviews were held with 14 victims, 12 of whom either agreed or strongly agreed that it was important to them that their case was heard within hours of the defendant being charged. Nine stated that this was more important than the defendant appearing physically in court. This is a very small number of responses, so it may not be reasonable to generalise this result.

4 Implications

Financial and economic benefits

The Virtual Court has been a complex pilot to establish and run. It has been trialling a number of different and often fundamental changes to the delivery of criminal justice. This has involved the introduction of new technologies and working processes for all the main criminal justice agencies, as well as substantial culture change for its practitioners. It has not been delivered in a steady state, with changes being made throughout the pilot's life in order to test new approaches and try to improve on performance (removal of consent, trial of extended hours, removal of some bail cases, etc.). Given this atmosphere of constant change, and the cost of technology, it is perhaps not surprising that the pilot has not managed to deliver cost savings.

The economic model reinforces the message that a roll-out based on the pilot's performance and parameters is likely to cost more money than it saves. A break-even scenario may be achieved, but this is still likely to be a challenge. The following factors are likely to be the most significant in improving the economic case for roll-out.

- Higher case volumes are required from feeder police stations. The pilot average of 14% of cases going to Virtual Courts was much lower than anticipated. The reasons for this are not entirely clear, but it is most likely due to a lack of suitable hearing slots and variances in applying the suitability criteria at police stations. That individual pilot stations have achieved substantially more than the average throughput suggests local factors are an element.
- Bail cases add very little to the economic argument for roll-out of the pilot (with the exception of Failure to Appear savings). Custody cases generate the savings through reduced transportation and overnight cell costs. Removing bail cases altogether would free up slots for more custody cases, although the system would need to maintain a high utilisation of hearing slots. The removal of bail cases would have the added benefit of addressing some practitioners' concerns that using Virtual Courts for bail cases is unnecessary and a waste of the resource.
- Increasing the throughput of hearings at court may make a substantial difference to the economic calculation. Four cases per hour is not regarded as an efficient use of a court's time. Any increase in throughput is likely to require a move away from fixed slots entirely, and this may have consequences for other parts of the process (for example at police stations and with defence advocates). What impact this might have is not clear, but the pilot has been trialling a more flexible system since July 2010. Again, providing more slots or space for hearings only improves the economic argument if there is sufficient demand to utilise the court's time.

The Virtual Court technology is an expensive infrastructure to set up and maintain, so a reduction in these costs would bring financial benefits. The video link is essential to Virtual Court delivery and could not be removed. It may also have other uses beyond Virtual Courts and provide opportunities to save money in other areas of the criminal justice system. The Scheduling Tool has been successful and is not a large element of the cost. The Collaboration Space may offer savings. The added value of the Collaboration Space is in the secure transfer of case files between agencies, and this might be effected through other means, such as secure fax (which happens when the Collaboration Space is not available) or secure email (which has been used in North Kent). However, any new system would have to be robust, reliable and capable of providing an audit trail, especially if higher Virtual Court case numbers were expected.

Time from charge to first hearing

The pilot has been successful in significantly reducing the average time from charge to first hearing. The real benefits to timeliness occur when charge and hearing take place on the same day, a situation that is relatively rare in non-Virtual Court cases, but accounted for the majority of cases in the pilot. It is therefore likely that substantial timeliness impacts could be effected through a roll-out of the pilot.

Impact on judicial processes and outcomes

The impact of the pilot on judicial processes and outcomes is complex. The evidence points to a series of factors that may be regarded as giving cause for concern, but the frequency with which they occur is very difficult to judge.

Annex A Pilot details

Sites

The Virtual Court pilot took place in parts of London and Kent between May 2009 and May 2010. Two magistrates' courts participated (Camberwell Green and Medway), as well as 16 police stations (15 in London and one in Kent). The pilot was rolled out over a four-month period. Table A1 lists the participating police stations and the month that they joined the pilot.

Month (2009)	Pilot sites beginning that month
Мау	Charing Cross
June	Bexleyheath
	Croydon
	North Kent
	Plumstead
	Walworth
July	Peckham
	Lewisham
	Paddington Green
	Belgravia
August	Kennington
	Streatham
	Brixton
	Sutton
	Bromley

Table A.1Pilot rollout to police stations, 2010

Consent

From the beginning of the pilot in May 2009 to December 2009, defendants had to give their consent before appearing in a Virtual Court. Custody Sergeants offered defendants the option of appearing in a Virtual Court at the point of charge, and subject to certain other suitability criteria which are outlined in the next section.

From 14 December 2009, consent was removed as an element of the pilot, following the passing of additional legislation to permit this in November 2009.

Suitability criteria

Before a Virtual Court hearing was offered to a defendant, a Custody Sergeant had to determine whether the case was suitable to be dealt with via the video link. There was a presumption that defendants were suitable unless they met one of the following criteria.

• At least one defendant was aged under 18. .

- The case involved more than two defendants.
- The defendant required immediate medical attention.
- The defendant was identified as vulnerable and requiring an appropriate adult. Such defendants were to be considered unsuitable if they had not received face-to-face legal advice. Where legal advice was given, they should have only been considered suitable if their legal representative was in agreement.
- The defendant required an interpreter and it was not possible for an interpreter to be found to attend in sufficient time.
- Information in the case file was classified above RESTRICTED.
- The case papers requiring upload to the Collaboration Space for the first hearing consisted of more than approximately 50 pages.
- Items of evidence essential for Advanced Information could not be produced digitally/ electronically in time for the hearing (e.g. video clips).
- There was a substantial risk of the defendant becoming violent before, during or after the Virtual Court hearing.

These criteria were agreed by the National Virtual Courts Project Board in October 2009, and reflected the removal of consent as a suitability criteria.

Annex B Methodology

Sampling strategy

Comparator area

The evaluation has been based, as far as possible, on a comparison between a 'treatment' sample (i.e. the area covered by the Virtual Court pilot in London) and a comparator area. Due to the organisation of the pilot, a truly randomised control trial was not possible. The operational roll-out and delivery of the pilot did not involve the establishment of a control area.

The comparator area used in this evaluation covers the whole of the MPS jurisdiction of Greater London, with the exception of those sites affected by the pilot. This included those sites directly participating in the pilot, and also the home courts of participating police stations (where there might have been impacts resulting from them 'losing' cases to the Virtual Court). These are listed in Table B1.

Pilot police station	'Home' magistrates court
Brixton	Camberwell Green
Kennington	(VC pilot court, so not excluded)
Streatham	
Peckham	Tower Bridge
Walworth	(a satellite court of Camberwell Green)
Lewisham	Greenwich
Plumstead	
Bromley	Bromley
Croydon	Croydon
South Norwood	
Sutton	Sutton (a satellite court of Croydon)
Charing Cross	City of Westminster
Paddington Green	
Belgravia	
Bexleyheath	Bexley

Table B.1Police stations and magistrates courts excluded from the
comparator area

Seven magistrates' courts were affected by the pilot in London. The comparator area covered the remaining 25 courts. There were 140 police stations in London, of which some 90% were located in the comparator area.

The decision on using the rest of London as a comparator area was taken following discussions with MOJ and criminal justice agencies to determine the practicalities of delivering the most rigorous approach.

- Direct matching of Virtual Court and non-Virtual Court hearings was not considered viable given the many different variables involved, including defendant, plea, hearing, outcome and sentence characteristics, and the limitations of the datasets available.
- Matching similar Virtual Court and non-Virtual Court police stations was not considered viable for similar reasons (the 'uniqueness' of individual police stations and their environments) following consultations with MPS. Concerns were also raised that geographically close comparator sites risked the introduction of spill-over or boundary effects.
- Using such a large comparator as London would help to minimise any statistical distortions related to the characteristics of individual areas, police stations, custody suites and courts.

While this design was intended to eliminate distortions between the pilot and comparator areas, it is inevitable that differences will exist. For example, the ethnic make-up of the pilot population, located as it is in central and south-east London, will be different to the comparator area. The tables on the following pages provide comparisons of ethnicity, age, gender and offence type across the comparator and pilot areas as a means of comparison. Data on offence types have been provided for the ten most common offences in Virtual Courts.

Defendant and offence characteristics

The following tables provide a breakdown of defendants by ethnicity, age and gender, and offence types. For each, five figures are provided:

- the comparator area (London excluding the pilot area);
- Virtual Court cases only;
- cases in the Virtual Court area which went through a traditional court;
- all cases in the pilot area (Virtual and traditional);
- all cases in London (pilot area and non-pilot area).

	-	Virtu	al Court pilot	area	
		Non-		All cases	
	Comparator	Virtual	Virtual	in pilot	Whole of
Ethnicity	area	Court	Court	area	London
Asian - Any Other Asian Background	4.0%	2.2%	2.2%	2.2%	3.4%
Asian - Bangladeshi	2.9%	1.1%	0.9%	1.1%	2.3%
Asian - Indian	4.6%	1.5%	1.1%	1.4%	3.5%
Asian - Pakistani	2.6%	1.0%	0.5%	1.0%	2.1%
Black - African	9.2%	10.4%	11.3%	10.5%	9.7%
Black - Any Other Black Background	4.8%	7.7%	5.1%	7.4%	5.7%
Black - Caribbean	8.9%	11.4%	11.8%	11.5%	9.8%
Mixed - Any Other Mixed Background	1.7%	2.1%	2.0%	2.1%	1.9%
Mixed - White And Asian	0.4%	0.2%	0.3%	0.2%	0.3%
Mixed - White And Black African	0.7%	0.6%	0.5%	0.5%	0.6%
Mixed - White And Black Caribbean	2.1%	2.4%	1.5%	2.3%	2.2%
Not Stated	4.3%	3.5%	3.5%	3.5%	4.0%
Other - Any Other Ethnic Group	2.9%	3.4%	2.7%	3.3%	3.0%
Other - Chinese	0.5%	1.2%	1.1%	1.2%	0.7%
White - Any Other White Background	15.1%	12.4%	9.2%	12.0%	14.0%
White - British	32.7%	37.3%	44.4%	38.3%	34.6%
White - Irish	2.6%	1.5%	1.8%	1.6%	2.2%

Table B.2 Ethnicity of defendants (Source: ATOS, NSPIS)

Table B.3 Gender of defendants (Source: ATOS, NSPIS)

		Virtua	al Court pilot	area	
		Non-		All cases	
	Comparator	Virtual	Virtual	in pilot	Whole of
Gender	area	Court	Court	area	London
Female	12.1%	15.3%	13.0%	15.0%	13.1%
Male	87.9%	84.7%	87.0%	85.0%	86.9%

Table B.4 Age of defendants (Source: ATOS, NSPIS)

		Virtua	al Court pilot	area	
		Non-		All cases	
	Comparator	Virtual	Virtual	in pilot	Whole of
Age	area	Court	Court	area	London
18-24	31.6%	30.1%	27.7%	29.8%	30.9%
25-34	33.7%	32.6%	32.8%	32.6%	33.4%
35-44	21.2%	22.3%	24.3%	22.6%	21.7%
45-54	10.3%	11.7%	11.2%	11.6%	10.7%
55-64	2.5%	2.7%	3.0%	2.7%	2.6%
65+	0.7%	0.7%	1.0%	0.7%	0.7%

Table B.5 Offence characteristics (Source: ATOS, NSPIS)

					Virtual Cour	t pilot area				
	Compara	ttor area	Non-Virtu	ual Court	Virtual	Court	All cases ir	n pilot area	Whole of	London
Offence	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Theft from shop – shoplifting	8.6%	-	8.5%	-	10.8%	↽	8.8%	-	8.7%	-
Section 39 - assault by beating (battery)	4.7%	ຊ	4.8%	4	7.3%	5	5.1%	4	5.2%	4
Common assault	3.6%	9	3.6%	9	6.5%	ო	3.9%	9	3.7%	9
Drive motor vehicle when alcohol level above limit	5.5%	4	4.6%	5	6.4%	4	4.8%	5	4.9%	ນ
Possess a controlled drug of Class B - cannabis / cannabis resin	5.7%	2	5.0%	ю	5.9%	£	5.1%	က	5.5%	ю
Use a motor vehicle without third party insurance	5.6%	ю	5.1%	7	5.6%	9	5.2%	2	5.5%	2
Drive a motor vehicle otherwise than in accordance with a licence	2.9%	7	2.6%	2	3.1%	2	2.6%	7	2.8%	7
Criminal damage to property valued under £5000	1.9%	7	1.9%	11	2.7%	ω	2.0%	1	1.9%	5
Use threatening words / behaviour to cause harassment alarm or distress	2.5%	ω	2.3%	ω	2.5%	Ø	2.3%	ω	2.4%	ω
Drunk and disorderly in a public place	1.1%	22	1.5%	16	2.4%	10	1.6%	15	1.4%	15
Total	42.1%		39.9%		53.2%		41.4%		42.0%	

Pilot baseline

Some data collected by the pilot, and of interest to the evaluation, were not available for the comparator area. In particular, a detailed breakdown of legal representation rates was not available from traditional criminal justice information sources. Where these data were not available, the pilot baseline was used as a means for comparison.

Data collection period

The evaluation has not used statistical data from the pilot that dates from before January 2010. In 2009, the pilot was subject to rules governing the consent of defendants to appear in Virtual Courts (see Annex A). For the following reasons, data from the consent phase were not judged sufficiently reliable for use in the evaluation.

- Consent resulted in very low case volumes, which had an impact on the efficiency and manner with which the Virtual Court process was being delivered.
- Consent caused sample selection bias. It was judged as being extremely difficult in these circumstances to be able to control statistically for the unobserved characteristics of Virtual Court defendants that might explain their decision to participate in the pilot.

The evaluation therefore focused on collecting data for the period January to April 2010. This was judged likely to provide the most robust data from the pilot, and could be captured in sufficient time to meet reporting deadlines. Data for the comparator area were collected for the same period.

While this four-month period was judged by the evaluation team to be the best timeframe for collecting data, it had methodological limitations which should be noted when considering the report's findings.

- This was a relatively short timeframe for data collection given the number of cases that went through the pilot during this period. At 1,592 cases, this made statistically significant judgements difficult when analysing at a detailed level (for example, for different types of offences, some of which numbered in single digits)
- The pilot did not operate in a 'steady state' form during this period and the following changes have not been controlled for in the data.
 - Extended hours were not introduced until 25 January.
 - A trial of early morning extended hours operated from 25 January and ended on 8
 February due to lack of take-up (custody cases tended to be charged towards the end of the day, leaving insufficient time to prepare a case for early the next day).
 - Cases bailed to the following day were removed from the pilot from 8 February as they filled slots that could otherwise have been used for custody cases.

Sources of quantitative data

Table B6 provides a list of the main sources of statistical information that have been used in the analysis for this evaluation.

Source	Explanation	Data provided
ATOS	Information input into the Virtual Court	Time from charge to first hearing
	Collaboration Space (pilot data only)	Custody suite
		Bail/custody decision
		Legal representation status
		Hearing outcome
NSPIS	MPS charge and hearing information	Time from charge to first hearing
	for all cases in the London area (pilot	Defendant equalities information (age,
	and comparator)	gender, ethnicity)
		Hearing outcome
CPS	CPS records on hearings	Number of hearings
PNC	Police National Computer records	Sentencing outcome

Table B.6Data sources

Qualitative fieldwork

TableB7 provides an overview of the qualitative fieldwork undertaken with criminal justice practitioners involved in the pilot. The majority of the qualitative evidence for the evaluation came from semi-structured interviews with criminal justice practitioners and observations at Camberwell Green. The topic guides for the interviews were informed by the relevant criminal justice agencies, who were invited to comment on the draft guides.

Table B.7 Fieldwork with pilot courtroom practitioners

Agency/practitioner	Approach	Numbers interviewed
Metropolitan Police	Interviews in police stations	All 16 pilot stations visited
	Observations at police stations	15 Custody Officers
		22 DDOs
		23 Police admin staff
		14 Management staff
HM Courts Service	Interviews with Listings Office and	2 Listings staff
	Legal Advisors	2 Legal Advisors
Crown Prosecution	Interviews by phone and in person	4 CPS staff
Service	at court	
Probation Service	Interview in person at court	1 Probation Service officer
Defence Solicitors	Interviews	4 interviews with defence solicitors
	Observation/shadowing at court	2 observations at Camberwell Green
	A meeting	1 meeting involving 8 solicitors
District Judges	Interviews in person at court	4 District Judges
Magistrates	Interviews in person at court	6 magistrates interviewed at court
	Email questionnaire	14 magistrates responded to the
		email questionnaire

Other fieldwork activity

Other fieldwork included the following activities:

- Interviews and observations took place at a non-Virtual Court (Highbury Corner) in order to provide a comparison with operations in the pilot area. This involved interviews with Listings staff, court management, and a day observing hearings.
- Interviews with victims whose cases had been through the Virtual Courts process.
- Members of the evaluation team attended various pilot project management meetings throughout the pilot, both to provide feedback on performance and to gather evidence of the pilot's progress.
- Ongoing discussions and consultations with researchers and data custodians within the criminal justice agencies in order to share information and examine methodological approaches.

Consideration was given to interviewing defendants about their views of Virtual Courts. However, it was judged impractical because of the difficulties of accessing and engaging individuals post-hearing, and the likelihood that the outcome of a defendant's case would prejudice their responses.

Annex C Economic model

A full Cost Benefit Analysis (CBA) of the Virtual Court pilot, and its possible roll-out in London was conducted in accordance with HM Treasury Green Book guidance.⁹ Results are given in Net Present Value format.¹⁰ Data sources are described below. This annex sets out the input variables used in the model, and the assumptions and methodology used to produce the model's results.

All 'per case' figures in the report refer to the change in costs or savings for the average case relative to the baseline case (the 'traditional' process), rather than the total. This is the appropriate approach when comparing alternative forms of provision of a process. The 'benefits' part of the CBA in the main report is split into cashable and non-cashable savings.¹¹

Some elements of this model are based on point-estimates of particular costs and other input variables, or on assumptions around future roll-out. For these reasons the results of the model are estimates only.

The pilot

The economics of the pilot are calculated by splitting the costs and benefits into five categories. The totals for each of these categories are aggregated to provide the total cost of the pilot for the four month period the evaluation focuses on.

Direct savings from changes in business processes

This estimates all changes to business processes as a result of Virtual Courts. These are detailed below and are sourced from baseline and pilot data. Most are derived from costs of labour, except the following.

- Reduction in police cell costs: based on the average cost per prisoner of 'Operation Safeguard' charged by the police to the Prisons Service, where prisons used police cells to deal with overcrowding. This represents the opportunity cost of a police cell overnight.¹²
- Prisoner transport costs: this is the cost of a single prisoner journey under ten miles under existing contracts. This saving occurs wherever a journey is prevented by the

⁹ http://www.hm-treasury.gov.uk/data_greenbook_index.htm

¹⁰ The Net Present Value is the sum of the total costs and benefits over a specified period. Periods further into the future are accorded less weighting (at a rate of 3.5% per annum). Please consult the Green Book for a fuller explanation.

^{11 &#}x27;Cashable' savings refers to the extent to which costs can be removed from ongoing activities or future costs which have been firmly committed to. For example, making an employee redundant incurs a cashable cost of the initial redundancy payment, then cashable savings over subsequent periods where their salary is no longer paid. Whilst all savings are potentially cashable, fixed and semi-variable costs do not change over a certain number of units.

¹² This is the opportunity cost as it is the best available alternative usage for the resource in financial terms. It can also be interpreted as the maximum possible unit cost of the cell overnight, on the assumption that the Police Service charged at least the marginal cost of accommodating prison overspill.

case being heard in a virtual rather than traditional court [see Chapter 3, Physical infrastructure, for a fuller explanation]. This saving is reduced in the roll-out model; see below for a full explanation.

- Reduction in remand costs: 7% of Failure to Appears (FTA) are given a custodial sentence for failing to surrender to bail at a magistrates' court. The Average Custodial Sentence Length for an FTA is 0.7 months (from MoJ data derived from management information systems).
- Labour costs are based on actual labour costs per hour, and amounts of time spent are taken from interviews, time sheets and Metropolitan Police Service (MPS) data collection (self-reported returns). Most of these are from the project itself, rather than pre-existing information.

Table C2 describes what proportions of cases each benefit/cost applies to. During extended hours the benefits of police cell costs increase (as all custodial cases heard in this period would otherwise have been kept overnight).

These costs produce a 'benefit per case' for the 'average' custody case and bail case in both normal and extended hours. The overall 'benefit per case' is found by multiplying the benefits for each type of case by the proportions of these case types in the pilot. A very similar methodology is applied in the roll-out model (see the Roll-Out section below).

Technology

This covers the costs paid for delivery of technological hardware, software and services necessary for the Virtual Court pilot. The costs are based on actual amounts paid for these goods and services, along with internal costs of managing technology requirements.¹³ The cost per case is calculated by dividing total technological running costs over the period by the number of cases. As technology costs are fixed in the pilot, increasing volumes decreases the cost per case.

The pilot model does not include the start-up costs, as spreading this over just a four- month period would present an unrealistically negative view of the technological cost. For the rollout modelling, start-up costs are included, and several other adjustments are made to pilot figures to present a more realistic picture of a roll-out (full details of the methodology are provided in the Roll-Out section below).

Legal Aid

Legal Aid costs are estimated by modelling a baseline scenario of the cost of Virtual Court cases had they gone through the standard process compared to estimates of their actual cost. This detailed the proportions of cases falling into different cost categories in the pilot

¹³ It is not possible to further disaggregate technology costs as some of them are commercial and in confidence.

and non-Virtual Court scenarios. Key input variables include:

- representation rates (53.6% in the pilot, 72.5% estimated for the baseline);
- fees (£200-£240 in the pilot for the first hearing depending on if the case was in normal working hours or in extended hours, compared to a duty solicitor or Representation Order in the baseline);
- type of solicitor Court Duty Solicitor or own solicitor;
- cases resolved at first hearing (34% in the pilot, 40% in the baseline);
- the estimated average representation order fee (£580, based on LSC figures).

Defendants going through the pilot did not require means testing for Legal Aid for the first hearing. This, combined with the fee structure and fewer cases being resolved at first hearing compared to the baseline estimate, pushes up the cost per case. This is largely counterbalanced in the model by the fall in representation rates. The model is not considered to be highly accurate, but provides a good estimate in the absence of a better counterfactual.¹⁴

Extended hours

This estimates the cost of keeping the court open during extended hours, and the cost of labour to criminal justice system agencies. Defence Solicitors' extra fees during extended hours are captured in the Legal Aid model and so are not included here.

Some costs were non-financial during the pilot as employees worked voluntarily for no extra wages, but are included in the calculations as they reflect the opportunity cost of leisure to the employees. In the roll-out model it is assumed all of these costs are financial, as it is unlikely such a position would be possible in the long term.

The cost of extended hours are a consequence of running a court for more hours, and would be incurred regardless of whether the court was a virtual one or not. They are included here because the baseline is a normal court operating normal hours, and extended hour costs represent an additional cost when comparing to this baseline. In the roll-out model, all are assumed to incur additional costs (see the Roll-Out section for details).

¹⁴ As very few invoices for Legal Aid work in the pilot have so far been received by the Legal Services Commission, it has not been possible to use actual cost data.

		Cost per hour	
Staff Member	Agency	(including overtime)	Additional cost?
Lawyers	CPS	£70	Yes
Probation	Probation	£35	Yes
Legal Advisor	HMCS	£34	Yes
Team Leader	HMCS	£28	No
Admin Officer (3)	HMCS	£22	No
Building security (3)	HMCS	£36	No

Table C.1 Staff costs for extended hours (sources: various agencies)

For approximately one month, a prison reception was kept open late to receive defendants remanded into custody following their first hearing. The cost of this was estimated at £18,000.¹⁵ This was not included in the roll-out model below, as it was trialled for one month only.

'Downstream' benefits/disbenefits¹⁶

Extra hearings

Pilot data indicated that Virtual Courts' cases have an average of 0.1 extra hearings per case than the comparator group, a statistically significant increase. This is multiplied by the number of cases to give an estimate of the total number of extra hearings created. For the pilot over the four-month period, this is approximately an additional 160 hearings. This is multiplied by an MoJ estimate of the average cost of a hearing to HMCS, Police, CPS of court time and hearing attendance to give the overall cost of the extra hearings.

Sentencing outcomes

Pilot data indicated that Virtual Court cases produce approximately three percentage points of extra custodial sentences (7% of all sentences in the comparator group, 10% of all sentences in the Virtual Courts group), and three percentage points of fewer community sentences than the comparator group (from 17% to 14% of all sentences).¹⁷ Both changes were statistically significant.

The increase in prison costs is found by the additional volume of custodial sentences multiplied by the average cost of a prison sentence of 1.6 months. This is the Average Custodial Sentence Length for a sentence of less than three months.¹⁸

¹⁵ Figure provided by National Offender Management Services (NOMS).

¹⁶ If the downstream' results are due to some unobservable difference in the characteristics of cases going through Virtual Courts or in how they are treated and the control group, in some way which cannot be attributed to Virtual Courts, then these costs should be excluded. They are kept in here, as there is no clear evidence of this, however they are tested in the sensitivity analysis below.

¹⁷ This is an approximate point-estimate, based on the 'sentencing outcomes' section of the report.

¹⁸ As no data are available on sentence lengths of those in the pilot, it is assumed that defendants on the margin who 'switch' to a custodial sentence in Virtual Courts receive the average custodial sentence for those sentenced to under three months in the magistrates' courts.

The decrease in community sentence costs is found by the reduction in volume of community sentences multiplied by the estimated average cost of a community sentence. In the 'best case' roll-out scenario the alteration in sentencing outcomes (which overall is negative) is excluded. See the Roll-Out section below for details.

Guilty plea rates

Pilot data indicated that Virtual Court cases have a three percentage points increase in guilty plea rates at first hearing (from 72% to 75%) compared to the comparator group. The increase is statistically significant. The impact of this on court hearings would be captured within the 'extra hearings' section.

Under current sentencing guidelines an early guilty plea allows a judge or magistrate to reduce the sentence by up to a third, whereas if the defendant had pleaded at the next major available stage (when a trial date is set), they would receive up to a quarter off their sentence. Assuming that the additional 3% now pleading guilty at the first hearing would otherwise have pleaded guilty at the next major available stage, this implies a reduction of up to a twelfth in the punitive aspects of the sentences of this 3%.

Using MoJ estimates of the costs of sentencing outcomes, and assuming an average sentence length of four months¹⁹ for those with a custodial sentence, this produces an overall saving of approximately £8 per case. As the data and assumptions used to reach this figure are not robust, this should be considered a rough estimate. It does not have a very large impact on the overall costs and savings figures. It is included because a rough estimate of the impact of this is preferred to nothing.

¹⁹ The overall average custodial sentence length at magistrates' courts.

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Table C.2 Costs and benefits per case

Reduction in CPS courier usage	CPS	ដ្	Electronic file transfer removes need to courier papers from CPS offices to Court which incurs a cost; applies to all cases.	CPS internal estimates of their costs, taken from Activity Based Costing exercise undertaken by the CPS in 2007.	Yes
FTA processes	CPS	£5	Reduced CPS costs from dealing with FTAs. Applies to 4% of bail cases (this is the percentage point reduction in FTAs)	CPS internal estimates of their costs, from Activity Based Costing exercise undertaken in 2007. As it applies to just 4% of bail cases it does not have a large impact (and none in the "alternative" scenario which excludes bail cases).	<u>о</u>
Probation Case File Data Gathering - PSRs	Probation	58	Electronic file transfer means reduced missing papers. Probation Services estimate this happens to 14% of all cases.	Based on saving of 20 minutes time finding lost case papers per non-same day Pre-Sentence Reports. Estimate of applicable cases based on London Probation estimates. Applies to only 14% of cases and so does not have a large impact.	°N N
Probation Case File Data Gathering - Start ups	Probation	£10	Electronic file transfer means reduced missing papers. Probation services estimate this applies to 15% of cases.	Based on estimated saving of 25 minutes per community order or unpaid work start-up for 10% of cases with missing MG16. Electronic case file transfer removes this lost time. Estimate of percentage of papers previous lost based on London Probation estimates.	Р 2
Probation Case File Data Gathering - Breaches	Probation	£23	Electronic file transfer means reduced missing papers on breaches. Probation Services estimate this applies to 7.5% of cases.	Based on estimated saving of 1 hour per breach chasing up case file papers. Estimate of percentage of papers previous lost based on London Probation estimates. Estimated cost of labour per hour provided by London Probation.	Р Р
Reduction in HMCS FTA processes	HMCS	£4	Reduced HMCS costs from dealing with fewer FTAs. Applies to 4% of bail cases (this is the percentage point reduction in FTAs).	Camberwell Green estimate of 16 minutes of back office time to deal with FTA case. As it applies to just 4% of bail cases it does not have a large impact (and none in the "alternative" scenario which excludes bail cases).	9 2
a Disbenefits are ma b Whilst all benefits	irked as negativare are cashable ov	ve, and roun /er a certain	ded to the nearest £1. scope of activity, for the pilot and roll-out	scenarios it is not likely those benefits/disbenefits marked 'No' would b	e cashable.

For example, it is unlikely that the reduction in Police FTA costs over the pilot is sufficient to allow the removal of a police officer (or a reduction in their working hours) which would incur a cashable saving.

Note: In addition to the extra work described in Table C2, Probation Services estimate that the Virtual Courts pilot in London has required the following resources:

- one probation officer;
- two Probation Service officers;
- one administrator.

It has not been possible to quantify how much of this resource would have been required had the cases gone through the traditional court process. However, Probation Services have indicated that these staff are under-utilised compared to the amount of output that would be expected of them normally. It is unclear whether this is due to pilot specific considerations (for example, the low volume of cases) or more systematic reasons. Probation Services also noted that the collaboration space was quite resource-intensive to them.

Whilst it has not been possible to include these factors in the economic model they should be borne in mind as a likely further additional cost of Virtual Courts.

London Roll-Out

The report details two scenarios for rolling out Virtual Courts across London. These two scenarios are generated by altering several key parameters in the model, such as processing only custody cases. Details of how the London roll-out model works are provided below. As this is an extrapolation of pilot data and other sources, it is necessarily based on further assumptions and input variables. The detail and justification for these are provided below. As with all economic models, the results of the model are sensitive to changes in the underlying variables and assumptions and should be treated as estimates.

Volumes

The size of scale-up is determined by varying the minimum number of charges a police station is estimated to have for inclusion in the model (this is 1,500 per annum in the report).²⁰ This provides both the number of police stations and the total eligible volume (equivalently, it provides the minimum number of police stations for a given volume of cases). The total volume of cases going through these police sites is multiplied by either 14.1% (the average proportion of all charges going through Virtual Courts in the pilot) or 25.7% (the best performing police station's proportion of all charges going through Virtual Courts. When bail cases are excluded, the total volume of cases is reduced by the proportion of cases in the police stations which are granted bail prior to the first hearing.²¹ The case mix between bail

²⁰ Charging data is based on MPS 'NSPIS' data on actual charges January-April 2010, which are then annualised with no adjustment made for seasonality. It is hence best seen as an estimate rather than an accurate figure, though comparing with earlier year data suggest no large adjustment would be necessary.

²¹ The proportional split is approximately 65% bail, 35% custody, depending on which police stations are included. This is based on the January-April 2010 NPSIS data described in the above footnote.

and custody (where both are included) is also determined by the pre-existing case mix at the police stations in the roll-out.²²

The number of courtrooms needed is determined by assuming 250 sitting days, 5.5 or 7.5 hours a day (dependent on this if extended hours are operating), four hearings an hour and 80% utilisation,²³ to give the maximum number of cases a courtroom can hear per annum. These are standard estimates of the sitting hours and days of a normal court, and the utilisation rate is a commonly used (though not official) target of most magistrates' courts.

Benefits/disbenefits from business changes

This works identically to the pilot cost-benefit analysis already referred to. The average costs of a bail and custody case, as used in the pilot, are multiplied by the volume of each type of case.

In both scenarios shown, it is assumed that 50% of the transport saving is realised. This is because current contractual arrangements imply a 'bulk discount' in numbers of prisoner journeys made. The volumes of journeys avoided estimated in roll-out scenarios very approximately suggest that removing the Virtual Courts journeys would shift the total number of journeys into a different pricing band 50% of the time. This shift in pricing band raises the price of all remaining journeys in that period to the extent that it approximately equals the saving made from reducing the total volume of journeys. Hence for roll-out scenarios it is assumed that only half of the current unit cost of prisoner transport journeys are saved.

It is possible that future contract designs may remove this saving, however this is not included in the main roll-out scenarios in the main body of the report (though it is highlighted as a possibility in the text).

Technology costs²⁴

Technology costs are estimated by using detailed pilot technology cost information to estimate the cost of roll-out to individual sites. For the vast majority of technology costs it is clear which costs are fixed (over any number of cases), and which are semi-fixed (for example, increasing when a new police station is added, or an extra courtroom required).²⁵

Scheduling Tool costs.

- Set-up cost is number of sites (court and police station), multiplied by 1.5 (the average number of users per site), multiplied by the cost of a user licence.
- The run cost is a fixed cost and hence does not vary by size.

²² Ibid.

²³ Utilisation here means the proportion of its sitting hours in which the court is hearing cases.

²⁴ Some of the detailed cost breakdown is omitted here, due to commercially sensitive data being needed to display them.

²⁵ MoJ Information & Communications Technology (ICT) provided guidance on which costs would be entirely fixed, which would be variable by police station and which would be variable by courtroom.

Collaboration Space

- Elements of the original set-up cost are scaled up by number of sites. Most of the original set-up cost was the design of the software. Now this is complete, it is mostly hardware costs and training that are scaled up (by number of sites).
- The run cost is fixed and hence does not vary by size.

Video link

- Set-up costs have been scaled up.
 - Some ;'One-off' set-up costs are fixed costs and do not vary by the extent of the roll-out.
 - Some video-link set-up costs are for courtrooms.
 - Some video-link set-up costs are for police stations and hence are variable by the number of police sites in the roll-out.
- Run costs an identical process has been applied as for video link set-up costs, identifying over what unit the costs were variable.

Other

- Set-up costs are fixed (a project manager).
- Run costs are assumed to be zero.

In both scenarios, economies of scale at 25% are assumed (in both set-up and run costs). In addition, technology costs are assumed to decline at 10% per annum, for example due to technological improvements or innovations. It is also assumed in this scenario that some costless alternative to the Collaboration Space is identified. These are not fact based, and are assumptions simply reflecting the fact that economies of scale often exist in large-scale projects, and that technology costs have historically declined over time.

Legal Aid

Legal Aid costs are scaled up by multiplying the cost per case by the new volume of cases. The representation rate is set equal to the baseline in the 'best case' scenario, which raises the cost per case.

Extended hour costs

This uses the total cost for March and April of the pilot period (since these are most similar to the hours proposed in this model) and annualises them. As all the costs of extended hours are due to those operating with or in the courtroom, this is scaled up proportionately by the number of courtrooms. It is assumed that all of these are financial costs, since employees are likely to be unwilling to work extra hours for free in the long term.

Extended hours are included in the roll-out model because, with the assumptions made around efficiency levels, there is some benefit in utilising them.

'Downstream' benefits/disbenefits Extra hearings

The impact of Virtual Courts on the average number of hearings is assumed to remain (in the absence of anything to indicate the opposite of this), and the average cost per case of this is multiplied by the volume of cases.

Sentencing outcomes

The average costs per case from the pilot of changes in sentencing outcomes are multiplied by the new volumes. In the 'best case' scenario the differential sentencing outcomes in Virtual Courts are assumed to be the result of factors not attributable to the Virtual Courts process itself. They are hence excluded from the costs of roll-out in the 'best case' scenario.

Guilty plea rates

The average savings per case from the change in Early Guilty Pleas is multiplied by the new volume of cases.

Court closures

In the scenarios presented in the report, no benefits are included from the closing of courts as a result of Virtual Courts. This is because the volumes of cases estimated to occur in the roll-out result in a relatively small number of cases being removed from several courts across London. These volumes would not be significant enough to close an entire court. This would only be possible if a cluster of police stations with high volumes, feeding one court, were to adopt Virtual Courts.

In the 'best case' scenario, savings are included from a reduction in courtroom defendant escorts. This would rely on a courtroom being closed and the removal of the defendant escorts who would otherwise have staffed it. This saving is included because it is more feasible to reduce defendant escort staff by reducing courtrooms in use, than closing an entire courthouse.

Sensitivity analysis

Sensitivity testing has been performed on inputs and assumptions which are expected to have a large impact on results, or are particularly uncertain.

These tests have been performed on the London roll-out model estimates rather than the pilot. This is because the roll-out model necessarily relies more on such assumptions than the pilot. All figures below are ten-year Net Present Value and are rounded to the nearest $\pounds100,000$.

Downstream impacts

The main downstream impacts are:

- changes in sentencing outcomes;
- Guilty Plea rates;
- Average numbers of hearings.

Scenario	Main Case	Alternative Case
Main	£-12.1m	£0.4m
Remove the change in sentencing outcomes	£-8.8m	£1.9m
Remove the change in average number of hearings per case.	£-10.5m	£1.3m
Both of the above	£-7.2m	£2.8m

The roll-out models in the main report assume the differential sentencing outcomes observed in Virtual Courts compared to the Comparator group remain. As this result could be due to other unobserved factors (as the main report highlights), this assumption is removed here. This also removes the sentencing impact assumed to follow from the change in early guilty pleas.

The roll-out models in the main report assume the increase in the average number of hearings per case observed in Virtual Courts compared to the Comparator group remains. As this result could be due to other unobserved factors, this assumption is removed here.

Removing the downstream sentencing and hearing impacts have a positive effect on the NPV. However, they do not alter the overall narrative, i.e. that substantial changes to the model are required for Virtual Courts to conceivably be a worthwhile investment.

Input unit costs

Using Table 3.2 in the main paper, the inputs most likely to have a substantial impact on the ten- year NPV (due to the size of the unit cost and the proportion of cases it applies to) are:

- PECS transport savings;
- Police cell costs;
- Savings from reduced FTAs;
- DDO labour costs.

The impact of varying these is tested here.

Scenario	Main Case	Alternative Case
Main	£-12.1m	£0.4m
Reduce PECS transport savings (set to 0)	£-12.7m	£-0.7m
Police cell cost (reduction of 20%)	£-13.2m	£-1.4m
Reduced saving from FTAs (to 0)	£-14.5m	N/A
Reduced DDO labour costs (by 50%)	£-10.8m	£1.2m
All of the above	£-14.9m	£-1.7m

The PECS saving is only tested downwards as it is highly unlikely the saving would be increased through a revision in contracts. This has a moderate negative impact on both scenarios.

As explained in Table 3.2 in the main paper, the unit cost for police cell costs are not likely to be an underestimate. Therefore the authors also vary this downwards only, which has a moderate negative impact on both scenarios.

FTAs are estimated to fall from 5% to 1%. As it is unlikely they would fall significantly further, this is varied downwards only. This has an impact of around £2.4m (negative) on the Main Case. As the Alternative Case excludes bail cases, this change has no impact here.

DDO time is a significant resource implication of Virtual Courts. The current best estimate is 85 minutes of their time per case. It is possible that in roll-out increased familiarity and improvements in processes may reduce this, hence the authors tested halving the labour time currently necessary. This has a moderately positive impact on the result in each scenario, though when all of these changes are combined the overall impact is negative in both scenarios.

Technology costs

Both main roll-out scenarios presented in the text assume a 25% reduction in costs relative to the pilot, as well as a 10% reduction per annum in technology costs.

These assumptions are tested here.

		Alternative
Scenario	Main Case	Case
Main	£-12.1m	£0.4m
Set Economies of Scale to 0%	£-15.1m	£-1.3m
Set Economies of Scale to 50%	£-9.1m	£2.1m
Set decrease in tech cost over time to 0%	£-14.4m	£-0.9m
Set decrease in tech cost over time to 20% per annum	£-10.5m	£1.3m
Set economies of scale to 0% and decrease in tech cost over time to 0%	£-18.2m	£-3.1m
p.a.		
Set economies of scale to 50% and decrease in tech cost over time to 20%	£-8m	£2.7m
p.a.		

As expected, decreasing the expected reductions in costs has a negative impact on the NPV, whereas increasing the expected reductions has a positive impact. The changes are quite large, particularly in the Main Case.

Legal Aid

Representation rates in the pilot were below those occurring in a traditional court. Increasing representation rates (assuming this has no downstream impacts) has the following implications for the ten year NPV:

Scenario	Main Case	Alternative Case
Main (representation 53.5%)	£-12.1m	£0.4m
New (representation 72.5%)	£-13.7m	£-0.6m
New (representation 72.5%, guilty plea and	£-10.4m	£1.4m
sentencing outcomes revert to normal court levels)		

Increasing the representation rate to 'normal' levels increases the cost of Legal Aid and hence makes each NPV worse. In the Alternative Case it shifts the NPV from slightly positive to slightly negative.

If it is assumed that an improvement in representation rates causes sentencing outcomes to equal those of the comparator group, then the shift has a moderately positive effect.

The sensitivity testing above shows that individual variables and assumptions can have moderate impacts on the overall NPV figure. However, they rarely, if at all, fundamentally alter the overall picture of either scenario.

Ministry of Justice Research Series 21/10 Virtual Court pilot Outcome evaluation

The report presents the findings of the Virtual Court pilot.

The Virtual Court (VC) was piloted between May 2009 and May 2010 in one magistrates' court and fifteen police stations in London and one magistrates' court and a police station in North Kent. In the Virtual Court qualifying defendants did not have to physically attend the first hearing in the magistrates' court, but remained in the police station with a video link to the court.

The intention was to reduce costs by reducing the time between the charge and the first hearing in the piloted magistrates courts and police stations.

The pilot assessment considered the cost effectiveness, speed and justice outcomes of the pilot sites compared to the traditional courts over the period from January to April 2010, as well as the implications of rolling out the scheme nationally.

The findings indicate that the pilot was successful in reducing the average time from charge to first hearing, failure to appear rates and prisoner transportation and police cell costs. However, these savings were exceeded by costs of the pilot, particularly those associated with the technology used.

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