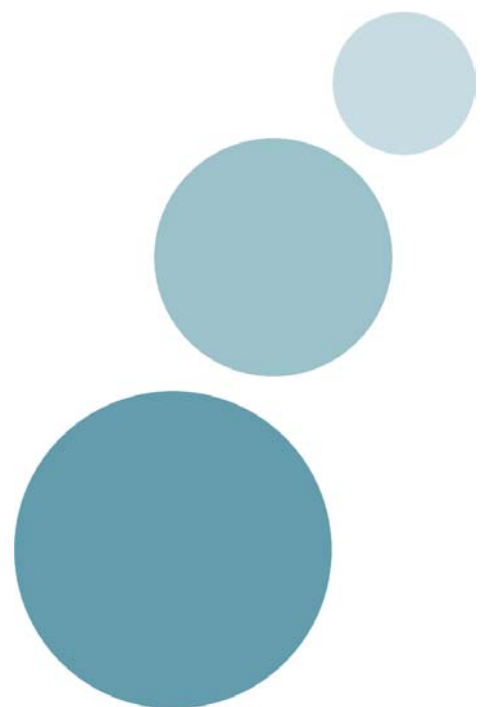




Barrow Cadbury Trust

Economic analysis of interventions for
young adult offenders



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1.0 Summary

This report summarises an economic analysis of alternative interventions for young adult offenders. It concludes that, for all offenders aged 18-24 sentenced in a Magistrate's court for a non-violent offence¹ in a given year:

- Diversion from community orders to pre-court RJ conferencing schemes (following a police triage service in which police officers make an immediate assessment of the need and likely benefit from a community intervention) is likely to produce a lifetime cost saving to society of almost £275 million (£7,050 per offender). The costs of RJ conferencing are likely to be paid back within the first year of implementation. During the course of two parliaments (10 years), implementation of such a scheme would be likely to lead to a total net benefit to society during this period of over £1 billion.
- Diversion from custody to community orders via changes in sentencing guidelines is likely to produce a lifetime cost saving to society of more than £12 million (£1,032 per offender). The costs of changing sentencing guidelines are likely to be paid back within three years of implementation. During the course of two parliaments (10 years), implementation of such a scheme would be likely to lead to a total net benefit to society during this period of almost £33 million.
- Diversion from trial under adult law to trial under juvenile law following maturity assessment is likely to produce a lifetime cost saving to society of almost £5 million (£420 per offender). The costs of maturity assessments are likely to be paid back within five years of implementation. During the course of two parliaments (10 years), implementation of such a scheme would be likely to lead to a total net benefit to society during this period of almost £473,000.

The unit costs and benefits included in this analysis refer to:

- **The cost of diversion.** That is, the cost of diverting young adult offenders away from the criminal justice system or into different paths through the criminal justice system.
- **The cost of the alternative sentences.** That is, the cost of community orders instead of custody, or RJ conferencing instead of community orders.
- **The economic impact of changes in re-offending both during and after sentence.** The economic impact of a crime includes the cost to the criminal justice system of responding to a crime, the healthcare costs of treating the victim of a crime, the victim's financial cost of a crime, and the pain and suffering experienced by the victim of a crime. It does not include the cost of the loss of income due to having a criminal record.

The net benefit of the alternative diversion schemes was calculated in two ways: the unit net benefit; and the total net benefit of delivering the intervention to all eligible offenders aged 18-24 sentenced in a Magistrate's court for a non-violent offence in a given year. The latter calculation required an estimate of the cohort eligible for each diversion scheme. These cohorts were defined as follows:

¹ Summary and indictable motoring offences are also excluded

- Diversion from community orders to pre-court RJ conferencing schemes – all 18 to 24 year old offenders sentenced to a community order by a Magistrate’s court for non-violent offences².
- Diversion from custody to community orders via changes in sentencing guidelines – all 18 to 24 year old offenders sentenced to immediate custody by a Magistrate’s court for non-violent offences³.
- Diversion from trial under adult law to trial under juvenile law following maturity assessment – all 18 to 24 year old offenders sentenced to immediate custody by a Magistrate’s court for non-violent offences⁴.

Furthermore, it would cost an estimated £13 million to £17 million for the police service to implement training to enable officers to work more effectively with young adult offenders. These costs include:

- Two additional training hours on conflict management when dealing with young adult offenders for all police constables (PCs) who are not new recruits⁵ and may include all sergeants.
- A voluntary mentoring scheme that would take place outside of police time⁶ and would enable new PCs to understand the challenges of working with young adult offenders. It has been assumed that all new PCs would be mentored as part this scheme with either existing PCs or sergeants acting as mentors.

This analysis provides evidence that is crucial to informing decisions and ensuring that public resources are used in the most effective way possible. Such evidence is already routinely applied in decisions on whether to provide drugs on the NHS, and it is important that similar high standards of evidence generation are also applied in criminal justice.

The analysis was commissioned by Barrow Cadbury to evidence-base some of the recommendations produced by the Transition to Adulthood (T2A) Alliance in their 2009 report, *A New Start: Young Adults in the Criminal Justice System*⁷. This report makes the case for a wholesale shift in the way the Government works with young adults in, and at risk of becoming involved with, the criminal justice system. This shift requires more than tinkering around the edges of the system. Instead, it asks for a cross-departmental, in-depth look at vulnerable young people aged 18 to 24 involved in the criminal justice system, and a commitment to finding effective ways of working with these young adults in trouble to help them move away from crime.

² Summary and indictable motoring offences are also excluded

³ *Ibid*

⁴ *Ibid*

⁵ It is assumed that new recruits would receive this additional training as part of the initial training programme, the cost of which would be absorbed into the initial training costs.

⁶ Kent Police detail their mentoring scheme policy online, which states that mentoring takes place in the personal time of officers. www.kent.police.uk/About%20Kent%20Police/policies//1134.html

⁷ *A New Start: Young Adults in the Criminal Justice System*. Transition to Adulthood Alliance (2009).

The report includes a number of policy recommendations. The economic analysis reported here supports the following recommendations, which are taken directly from the T2A report⁸:

- **Recommendation One:** We recommend that more effort is made to divert young adults involved in minor crime away from the criminal justice system and into paths that will address the root causes of their behaviour. We believe the police should be able to take a triage approach i.e. make an immediate assessment of need, and assess the likely benefit from a community intervention. They should have a range of options to ensure young people are diverted into the right help.
- **Recommendation Two:** We recommend increased investment in the training of police officers in conflict management, and in particular how to assess and respond to the specific needs and challenges of the young adult age group.
- **Recommendation Four:** We recommend that new methods are introduced to ensure that the distinctive characteristics of young adults are taken into account when they are sentenced by the courts. “Youthfulness”, as defined by the Sentencing Advisory Panel, should be seen as a potential mitigating factor in sentencing young adults between the ages of 18 and 24.
- **Recommendation Seven:** We recommend the Government make it a priority to reduce the UK prison population, starting immediately with the reduction of the number of vulnerable young adults in custody serving short sentences for non-violent crimes. We recommend further research into the most effective means to achieve this, including research into the benefits of altogether abolishing prison sentences of six months or less, and ensuring their direct replacement with community sentences.

In each instance, a specific example of an intervention relevant to the recommendation was identified to enable the analysis to be undertaken.

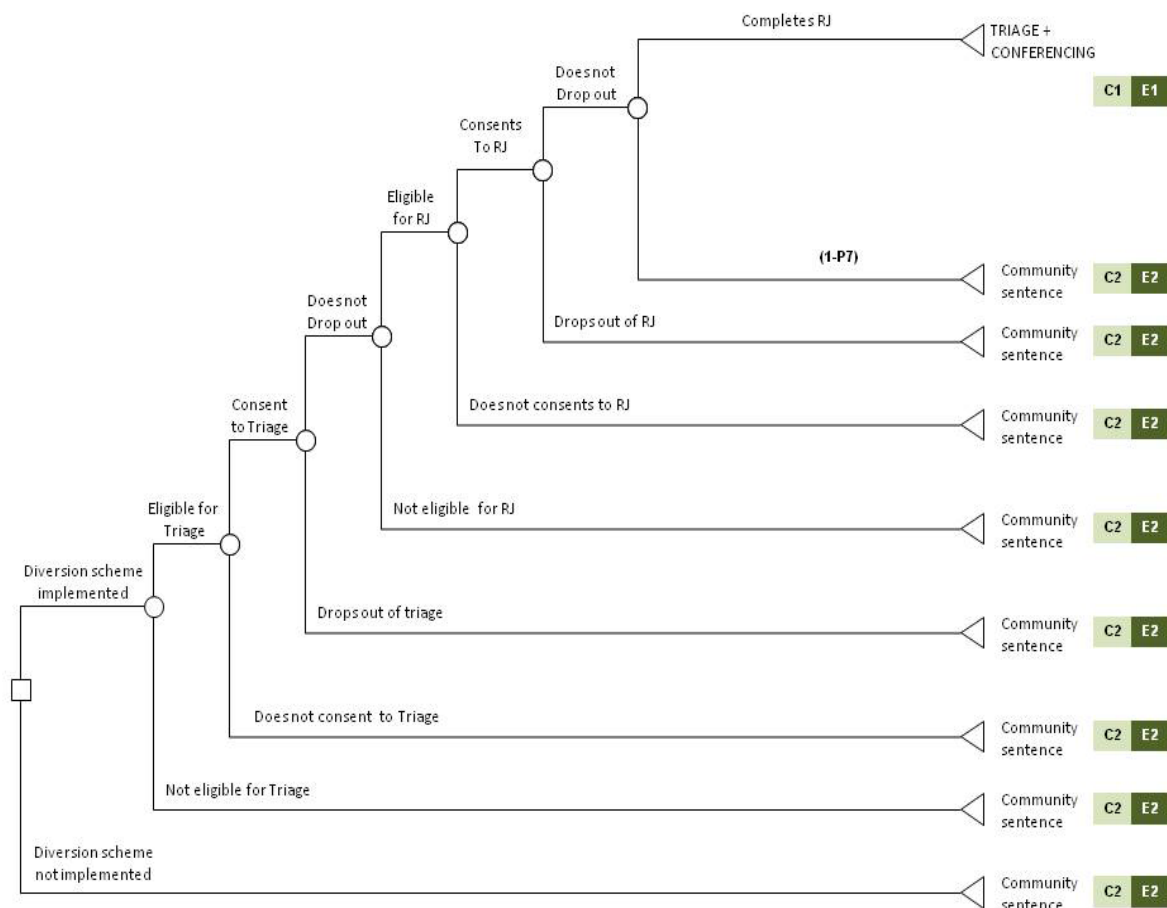
The remainder of this paper describes the results of the analysis in more detail, as well as the method employed to undertake the analysis.

⁸ *Ibid*

Method

Decision models were constructed to estimate the proportion of young adult offenders receiving different sentences as a result of diversion, the cost associated with this diversion, and the costs associated with different sentences. Figure 1 outlines the structure of the model used to estimate the net benefit of implementing a scheme to divert young adults from Magistrate’s community sentences to RJ conferencing following police triage.

Figure 1: Diversion of young adults to RJ conferencing following police triage from community sentences model

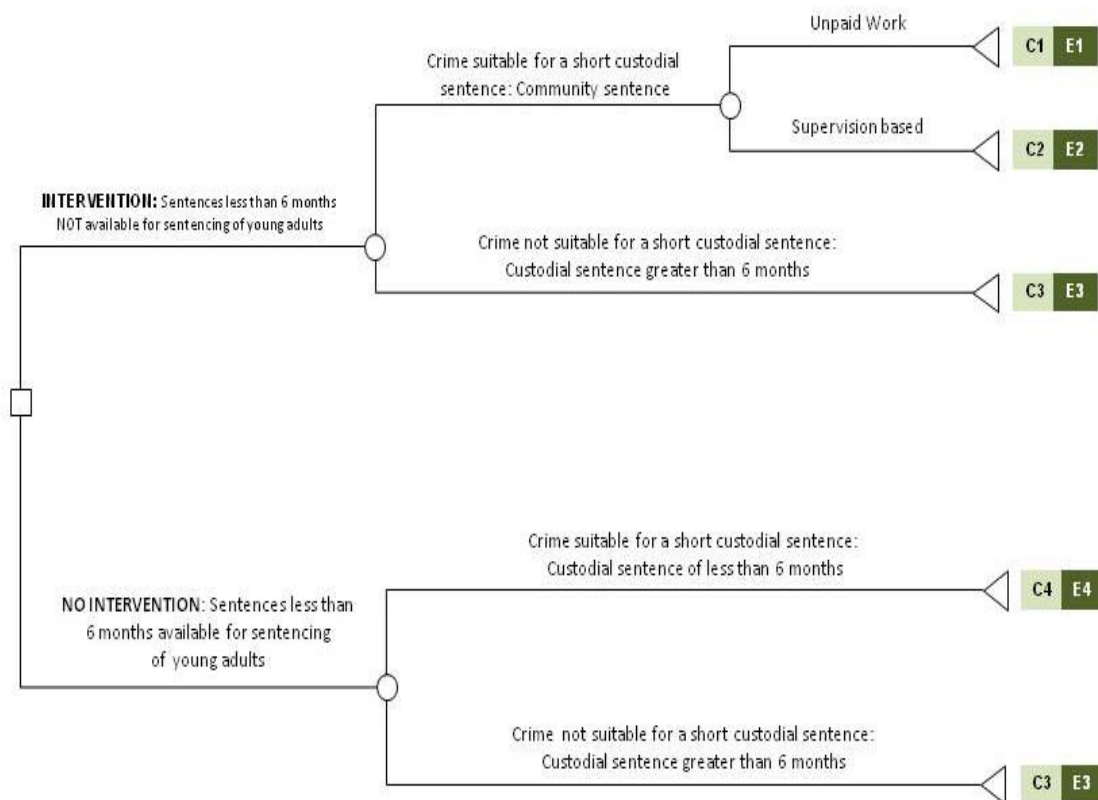


C1 E1 C1: cost and E1: effect associated with RJ conferencing and triage

C2 E2 C2: cost and E2: effect associated with Magistrate’s community sentences

Figure 2 outlines the structure of the model used to estimate the net benefit of implementing a scheme to divert young adults from short custodial sentences of 6 months or less to community sentences.

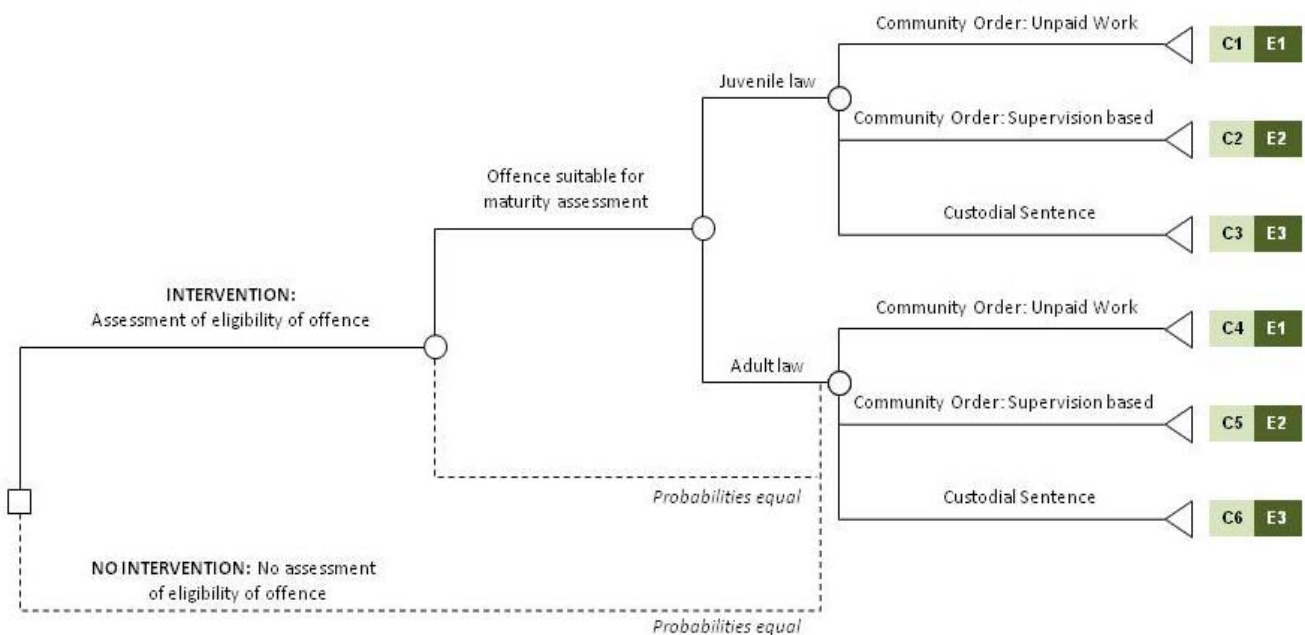
Figure 2: Diversion of young adults to community sentences from short custodial sentences of six months or less



- C1 E1** C1: cost and E1: effect associated community sentence with unpaid work requirement
- C2 E2** C2: cost and E2: effect associated with community sentence with supervision requirement
- C3 E3** C3: cost and E3: effect associated with a custodial sentence of six months or less
- C4 E4** C4: cost and E4: effect associated with a custodial sentence longer than six months

Figure 3 outlines the structure of the model used to estimate the net benefit of implementing a scheme to divert young adults from short custodial sentences of 6 months or less to community sentences.

Figure 3: Diversion of young adults to community sentences from short custodial sentences of six months or less following maturity assessment and trial under juvenile law where appropriate



- C1 E1** C1: cost and E1: effect associated community sentence with unpaid work requirement following maturity assessment and trial under juvenile law
- C2 E2** C2: cost and E2: effect associated with community sentence with supervision requirement following maturity assessment and trial under juvenile law
- C3 E3** C3: cost and E3: effect associated with a custodial sentence following maturity assessment and trial under juvenile law
- C4 E1** C4: cost and E1: effect associated community sentence with unpaid work requirement following maturity assessment and trial under adult law
- C5 E2** C5: cost and E2: effect associated with community sentence with supervision requirement following maturity assessment and trial under adult law
- C6 E3** C6: cost and E3: effect associated with a custodial sentence following maturity assessment and trial under adult law

This section describes the method employed to populate these models by estimating the following components of the cost benefit analysis (CBA):

- The probability and cost of diversion;
- The probability and incremental cost of alternative sentences; and
- The probability and cost of re-offending.

The probability and costs of diversion

RJ conferencing following police triage

Costs

Table 1: Cost of the RJ triage scheme following police triage

Component	Unit cost 2008/09 £	Source
Triage service	314.75	London Criminal Justice Board
Start-up costs per offender agreed to diversion intervention	208.42	Shapland <i>et al</i> , 2008.
Running costs per offender agreed to diversion intervention (delivery of RJ)	1,258.14	Shapland <i>et al</i> , 2008.
Cost of court (avoided) costs	756.12	Harries (1999)

Probability

Table 2: Probabilities associated with the RJ conferencing following police triage scheme (see Figure 1)

Probability	Value	Source
Probability that an offender aged 18-20 is eligible for early diversionary intervention (all community sentences from Magistrate's court) Note: Cohort = all crimes non-violent, non-motoring	0.72	LCJB Triage SOP ⁹
Probability of offender agreeing to participate in triage when offered	0.99	LCJB Evaluation of Triage ¹⁰
Probability of offender not attending initial triage meeting	0.10	LCJB Evaluation of Triage ¹¹

⁹ Triage SOP Rewrite Draft 1.9, London Criminal Justice Board (LCJB).

¹⁰ Evaluation of Triage. Final Report. (2009) London Criminal Justice Board (LCJB).

¹¹ *Ibid*

Probability	Value	Source
Probability of offender agreeing to conference and not dropping out	0.52	Shapland <i>et al</i> , 2004.
Probability of offender completing conference given agreed and not dropped out	0.5	Shapland <i>et al</i> , 2004.
Probability of a Community Order given to a young adult (aged 18-24) requires unpaid work only if no immediate custody option	0.536	Stanley (2007)
Probability of a Community Order given to a young adult (aged 18-24) requires supervision only if no immediate custody option	0.141	Stanley (2007)
Probability of a Community Order given to a young adult (aged 18-24) requires supervision and accredited program if no immediate custody option	0.232	Stanley (2007)
Probability of a Community Order given to a young adult (aged 18-24) requires supervision and unpaid work if no immediate custody option	0.092	Stanley (2007)

Changing sentencing guidelines

Costs

It is assumed that costs are negligible as there would be no additional set-up costs, only new guidelines and implementation of these, which, when spread over the cohort, gives an immaterial unit cost.

Probability

Table 3: Probabilities associated with changing sentencing guidelines (see Figure 2)

Probability	Value	Source
Probability of non-motoring and non-violent crime committed by a young adult (aged 18-20) sentenced in a Magistrate's court is suitable for a short custodial sentence	0.715	Stanley (2007)
Probability of a Community Order given to a young adult (aged 18-24) requires unpaid work only	0.536	Stanley (2007)
Probability of a Community Order given to a young adult (aged 18-24) requires supervision	0.464	Stanley (2007)
Probability of immediate custody given to a young adult (aged 18-24) if immediate custody option	0.23	2007 Sentencing Statistics ¹²

Maturity assessments

Costs¹³

Table 4: Cost of maturity assessment

Component	Unit cost 2008/09 £	Source
Cost of psychologist's report to assist court in decision-making (proportion of cases that require psychologist's report*unit cost)	58.75	<i>Private Practice as a Psychologist</i> , The British Psychological Society (1999) ¹⁴ Assume 50 per cent of cases require report.
Cost of welfare report: mandatory for juveniles	134.61	PC06/2009 Determining Pre-sentence report type. National Probation Service (2009) ¹⁵

¹² www.justice.gov.uk/publications/sentencingannual.htm

¹³ The cost of setting up the maturity system and administering guidelines to judges is assumed to be negligible per offender. It is assumed that the assessment would be adapted from the current arrangements in Germany and that the sentencing guidelines would be updated via the usual mechanism. The cost of the assessment is assumed to take place as part of court proceedings at no additional cost (Graham *et al*, 1990).

¹⁴ www.bps.org.uk/downloadfile.cfm?file_uuid=BB47920E-7E96-C67F-D50D-5DCD4C6C24C4&ext=pdf

¹⁵ <http://www.probation.homeoffice.gov.uk/files/pdf/PC06%202009.pdf>

Probabilities

Table 5: Probabilities associated with maturity assessment (see Figure 3)

Probability	Value	Source
Probability of offence being suitable for maturity assessment intervention (aged 18 to 20) all non-motoring and non-violent offences sentenced in a Magistrate's court	0.767	2007 Sentencing Statistics ¹⁶
Probability of being sentenced under adult law following maturity assessment	0.660	Statistisches Bundesamt, Wiesbaden 2009 ¹⁷
Probability of receiving a Community Order with unpaid work (aged 18-24) in a Magistrate's court	0.291	Stanley (2007)
Probability of receiving a Community Order with supervision and accredited programme requirement (aged 18-24) in a Magistrate's court	0.253	Stanley (2007)
Probability of receiving immediate custody sentence if sentenced under juvenile law (aged 18-20) in a Magistrate's court	0.073	2007 Sentencing Statistics ¹⁸
Probability of receiving immediate custody sentence if sentenced under adult law (aged 18-20) in a Magistrate's court	0.233	2007 Sentencing Statistics ¹⁹

Estimating the cost of sentences

A review of existing studies was undertaken to identify the economic cost of implementing different sentences. Details of the review are available in Marsh and Fox (2008). Data identified in the review was supplemented with data on the cost of implementing RJ conferencing following triage (Shapland *et al*, 2008 - pre-charge RJ conferencing scheme implemented in Northumbria).

Equation 1 summarises the analysis undertaken to estimate the cost savings of community sentences compared with custodial sentences:

$$InterventionCost_i = (CostT_i * LengthT_i) - (CostA_i * LengthA_i) \quad (1)$$

¹⁶ www.justice.gov.uk/publications/sentencingannual.htm

¹⁷ www.destatis.de/jetspeed/portal/search/results.psm1

¹⁸ www.justice.gov.uk/publications/sentencingannual.htm

¹⁹ *ibid*

Where $InterventionCost_i$ is the incremental cost of the new sentence i compared to the conventional sentence, $CostT_i$ is the annual cost of new sentence i (source: review of economic data), $LengthT_i$ is the average length of conventional sentence i (source: RDS NOMS, 2007), $CostA_i$ is the annual cost of the new sentence (source: review of economic data), and $LengthA_i$ is the average length of the conventional sentence (source: RDS NOMS, 2007).

The cost of changes in re-offending

Estimating the effect of sentences on re-offending

A Rapid Evidence Assessment (REA) of effectiveness studies was undertaken. This identified the change in re-offending resulting from moving an offender from a standard prison sentence to an alternative sentence. Detail on the search strategy, and inclusion criteria adopted by the REA are available in Marsh and Fox (2008). The studies included in the review had to employ an experimental research design that was scored three or above on the Maryland scale of methodological rigour (Sherman et al, 1997), with a group receiving a standard prison sentence and a group receiving an alternative sentence. Effect sizes were calculated as odds ratios using comprehensive meta-analysis. A random effects meta-analysis was undertaken to estimate an overall effect size from the data collected for each combination of sentencing options.

The effect size of the pre-charge RJ conferencing scheme on reoffending compared with any non-custodial sentence was sourced from Shapland et al (2008).²⁰

Estimating the monetary value of effects

An economic model was constructed to transform the data on change in short-term re-offending into a monetary estimate of the benefit of alternatives to sentences over the lifetime of offenders. All costs were calculated in 2008 prices. The analysis estimated change in offending both during and post-sentence. This section reports the method employed to estimate the change in offending *post* sentence. Further details of the analysis are available in Marsh and Fox (2008).

The change in the cost of crime if an offender is diverted to an alternative sentence was calculated as follows:

²⁰ Effects data was taken from Shapland *et al* (2008) for a number of reasons. Firstly, we could not identify a meta-analysis of effects studies that included only a pre-court diversion scheme on a relevant population. We chose the Shapland study as reoffending data was available for a pre-charge scheme, given to a young person cohort that was accused of non-serious crimes in the UK. We did not identify another study which reported reoffending rates for a diversion scheme at the correct entry point in the CJS, with a similar cohort, similar offence profile and UK-based.

$$ChangeCostPost_i = LifetimeCost_i * Effect_i \quad (2)$$

Where $ChangeCosPost_i$ is change in the costs of crime *post* sentence as a result of diverting an offender from a conventional sentence to new intervention i , $LifetimeCost_i$ is the cost of crime *post* release from the conventional sentence if those offenders diverted to intervention i had instead being given a new sentence (source: equation 3), and $Effect_i$ is the relative risk of re-offending with new intervention i compared with the conventional sentence (source: effectiveness review, above).

Equation 3 summarises the function used to calculate the baseline cost of re-offending:

$$LifetimeCost_i = \sum_{s=1}^S ChanceOffence_{is} * LifetimeCost_s \quad (3)$$

Where $LifetimeCost_i$ is the lifetime cost of crime committed *post* release from the conventional sentence of those who offenders who could be diverted to the new intervention i , $ChanceOffence_{is}$ is the proportion of offenders currently sentenced to intervention i who have been sentenced for committing offence s (source: RDS NOMS, 2007), and $LifetimeCost_s$ is the lifetime cost of crime *post* release if the offender had been sentenced to the conventional sentence for offence s (from equation 4)

The total cost of crime committed *post* release from a conventional sentence until the age of 50 years is given by equation 4:

$$LifetimeCost_s = \sum_{y=1}^{25} \frac{ValueCrime_s * NumberCrime_{sy}}{(1 + DR)^{y-1}} \quad (4)$$

Where $LifetimeCost_s$ is the cost of crime *post* release from the conventional sentence until the age of 50 years for offenders sentenced for offence s and released at the age of 25 years, $NumberCrime_{sy}$ is the number of crimes committed in year y by offenders released from the conventional sentence after being sentenced for offence s (from equation 5), $ValueCrime_s$ is the average value of a crime committed *post* release for offenders released after being sentenced for offence s (from equation 6), and DR is the discount rate. In line with Green Book guidance (H M Treasury, 2003), a discount rate of 3.5 per cent was employed in the analysis.

Equation 5 shows the function used to calculate this baseline level of re-offending *post* release from the conventional sentence:

$$NumberCrime_{sy} = ConvictChance_s * ConvictAve * OffConvict * CrimeRatio_y \quad (5)$$

Where $NumberCrime_{sy}$ is the number of crimes committed in year y by offender on a conventional sentence for offence type s , $ConvictChance_s$ is the chance that an offender on a conventional sentence for offence type s is convicted of any offence in the year following release (source: Cuncliffe and Sheperd, 2007), $ConvictAve$ is the average number of convictions in the first year *post* release per adult male offender convicted (source: RDS NOMS, 2007), $OffConvict$ is the number of offences committed per conviction, and $CrimeRatio_y$ is the ratio of the number of crimes committed in year y (where $y=1$ corresponds with the first year of release when the offender is 25 years old) and the number of crimes committed at the age of 25 years (source: Farrington et al, 2006).

Equation 6 summarises the function used to calculate the average value of a crime:

$$ValueCrime_s = \sum_{r=1}^R \sum_{o=1}^O OffenceDist_{os} * CostCrime_{or} \quad (6)$$

Where $ValueCrime_s$ is the average value of a crime committed *post* release from a conventional sentence by an offender sentences for offence s , $OffenceDist_{os}$ is the chance that a crime committed by an offender released from a conventional sentence for offence s will be a particular crime type o (source: RDS NOMS, 2007), and $CostCrime_{or}$ is the cost of resource type r associated with offence o (source: Dubourg et al, 2005).

The analysis was run from a societal perspective, where resource type r included defensive expenditure, insurance costs, criminal justice costs, NHS costs, property stolen and not recovered, property damaged, lost output and the physical and psychological suffering of the victim. Box 1 provides more detail on the content of the estimates of the cost of crime.

Box 1: The cost of crime

The Home Office (HO) estimates of the cost of crime (Dubourg et al, 2005) employed in this research comprise the following costs:

1. **Costs in anticipation of crime**, including: defensive expenditure, such as home security, and insurance administration. Estimates of defensive expenditure were derived from a number of data sources, including estimates in the British Crime Survey (BCS) on ownership of security products and their cost, and information from the British Security Industries Association on the market size of various security products and services. Estimate of insurance administration included the commission and expenses incurred by insurers, which were taken from the Association of British Insurers' *Insurance Statistics Yearbook 1988-1998*.
2. **Costs as a consequence of a crime**, including: costs to health and victim services; property lost and damaged; lost output; and the physical and psychological costs to the victim. A number of elements of the cost of the consequences of a crime were estimated based on responses to the BCS, including: the value of the property stolen, recovered, damaged, and destroyed, as well as lost output (time off work). Costs of victim services were based on an analysis of the HO grant for victim services. Costs of health services were based on estimates of the cost of health services as a result of road accidents produced by the then Department of the Environment, Transport and the Regions.

Perhaps the most methodologically challenging of the cost estimates is the physical and psychological cost of crime to the victim. The method employed comprised three steps (Dolan et al, 2005). First, the expected prevalence and duration of the physical and psychological effects of crimes were identified from the BCS and other sources. Second, these effects were converted into Quality Adjusted Life Years (QALYs) – a standardised measure of health. Finally, the QALYs lost were converted into monetary values based on work by Carthy et al. (1999).

3. **Costs of responding to a crime**, including police activity, court costs, probation and prison costs. Court costs associated with different crime types were taken from the HO's own estimates (Harris, 1999). Sentence costs were calculated from HO data on the types of disposal received for different offence types, the average length of these sentences, and the unit cost of sentences. Police costs per crime were estimated by attributing police budgets to crime types (using police activity data) and then dividing total budget per crime type by the total number of incidences of that crime type.

Estimating total cost savings

Estimates were produced for the number of offenders aged 18-24 years and receiving a sentence for a non-violent (i.e. excluding offence groups: robbery, sexual offences and violence against the person)²¹ in a Magistrate's court for whom the costs and benefits of alternative sentences would apply. This number was used to estimate the annual costs and benefits had these offenders been given these alternative sentences.

Between 2005 and 2007, there were 222,507 offenders (an average of 74,169 per annum) aged 18-20 sentenced in a Magistrate's court for a non-violent offence²². Of these, 15,076 were sentenced to immediate custody, an average of 5,025 per annum (Ministry of Justice, 2008).

For the RJ conferencing via police triage scheme, all offenders who had been sentenced in a Magistrate's court for non-violent offences²³ and received a community sentence could have been diverted into the scheme. Consequently, it has been estimated that 38,980 young adult offenders (aged 18-24 years) could have been diverted per annum.

For changes to sentencing guidelines and maturity assessments, only young adults that received an immediate custody sentence from a Magistrate's court for a non-violent offence²⁴ would be eligible. This is a relatively small cohort, estimated to include 11,857 18-24 year olds per annum.

²¹ Summary and Indictable motoring offences are also excluded

²² *Ibid*

²³ *Ibid*

²⁴ *Ibid*

2.0 Findings

All of the diversion schemes included in the analysis had a positive mean net benefit. That is, diverting an offender from a standard sentencing practice produced a net benefit to society. In each instance, this net benefit comprises the cost of diversion, the cost savings associated with not providing the standard sentence and the change in the cost of offending during and post-sentence.

Changes to sentencing guidelines and maturity assessments have a lower mean net benefit when compared with the RJ conferencing scheme. This is partly due to the increased cost of offending during a community sentence compared with a custodial sentence. The benefits associated with diverting young adult offenders into these schemes are, however, sufficient to offset the increased cost of offending during the sentence.

RJ conferencing following Police triage

Table 6 summarises the costs and benefits of diversion to RJ conferencing from community sentences. It demonstrates that if all offenders aged 18 to 24 that received a community sentence in one year had been diverted to a pre-court RJ conferencing scheme, the likely cost saving to society would be almost £275 million over the lifetime of those offenders (£7,040 per offender). During the course of two parliaments (10 years), implementation of such a scheme would be likely to lead to a total net benefit to society during this period of over £1 billion.

Cumulative net benefit per annual offender cohort	£275 million
Annual cohort size	38,980
Comparator	community sentence
Net benefit per offender	£7,040
Total RJ conferencing scheme costs per cohort offender	£725
Made up of:	
Triage costs per cohort offender	£205
Conferencing costs per cohort offender	£645
Avoided court costs per offender	£125
Sentence cost saving (RJ compared to Community Order)	£570
Cost saving associated with reoffending during and after comparator	£7,195
Break even	1 st year

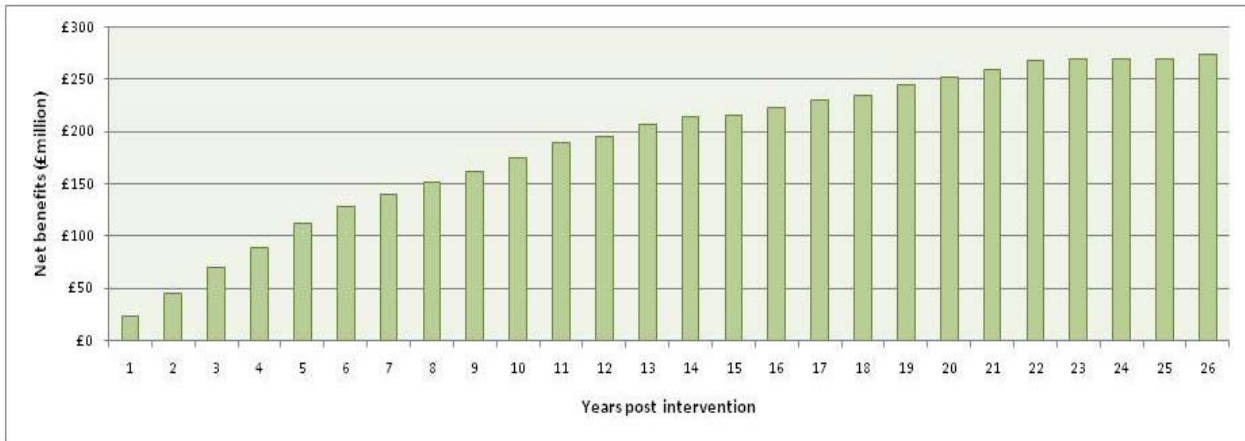
Note: Cumulative net benefit per annual offender cohort will be subject to rounding error

Figure 4 shows the annual cost savings associated with diversion to RJ conferencing from community sentences. It demonstrates that large annual cost savings are produced, including:

- A total net saving to society during the first year of operation due to avoided costs of Magistrate's court proceedings

- A total net societal saving of over £100 million within 5 years of implementing the scheme for each annual offender cohort

Figure 4: Discounted annual societal cost savings associated with diversion from community sentence to pre-charge RJ conferencing following Police triage (£, 2008)



Changing sentencing guidelines: Diversion of young adults from short custodial sentences of six months or less to community sentences

Table 7 summarises the costs and benefits of diverting from a custodial sentence to a community sentence those 18-24 offenders who would have received a custodial sentence of six months or less in a Magistrate’s court for a non-violent offence²⁵. It demonstrates a total net saving to society of more than £12 million over the lifetime of the offenders, or about £1,000 per offender. This translates into an estimated saving of £33 million over the course of two parliaments.

Table 7: Costs and benefits of changing sentencing guidelines

Cumulative net benefit per annual offender cohort	£12.25 million
Annual cohort size	11,863
Comparator	custodial sentence
Net benefit per offender	£1,030
Diversion costs per cohort offender	£0*
Sentencing cost savings per cohort offender	£5,990
Cost associated with reoffending during community sentence per cohort offender	£6,245
Cost saving associated with change in reoffending post sentence	£1,280
Break even	3 rd year

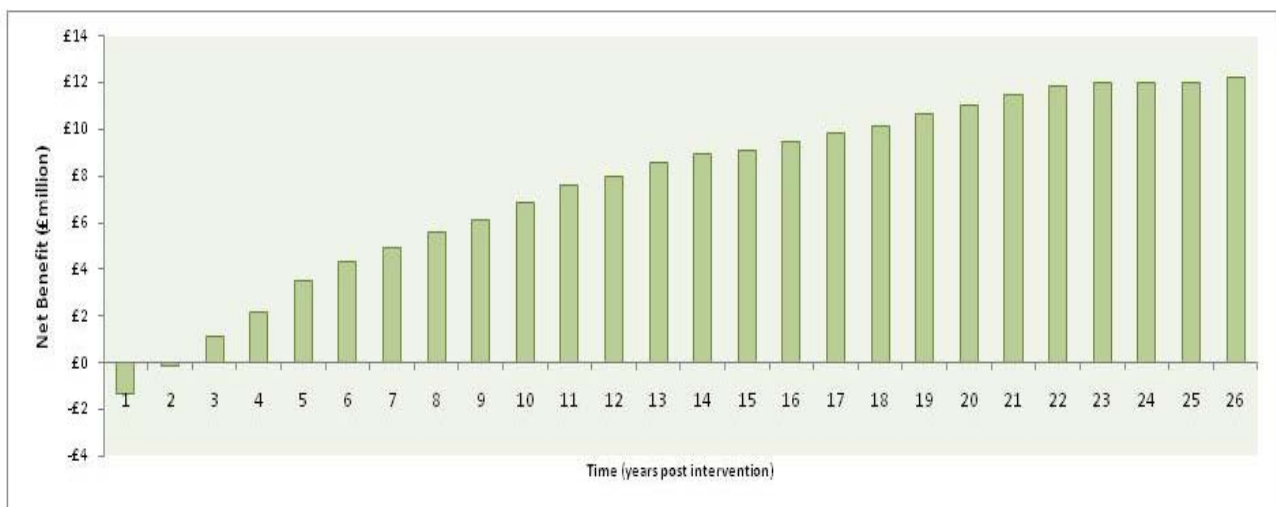
Note: Cumulative net benefit per annual offender cohort will be subject to rounding error

* Unit cost negligible

²⁵ Summary and indictable motoring offences are also excluded

Figure 5 shows the annual cost savings associated with diverting from a custodial sentence to a community sentence those offenders aged 18-24 who would have received a custodial sentence of six months or less in a Magistrate’s court for a non-violent offence²⁶. It demonstrates that a total net saving to society is achieved within three years of the diversion. This is partly due to the negligible costs associated with setting up this scheme as this would only require a change in sentencing guidelines.

Figure 5: Discounted annual societal cost savings associated with diversion from short custodial sentences to community sentences (£, 2008)



Maturity assessment: Diversion of young adults from custodial sentences in the adult criminal justice system to the juvenile system following maturity assessment

Table 8 summarises the costs and benefits associated with maturity assessment and diversion from the adult to the juvenile criminal justice system of offenders aged 18-24 that received a custodial sentence of six months or less in a Magistrate’s court for a non-violent offence²⁷. It demonstrates a total net saving to society of almost £5 million over the lifetime of the offenders (£420 per offender).

²⁶ *Ibid*

²⁷ Summary and Indictable motoring offences are also excluded

Table 8: Sentencing scheme results

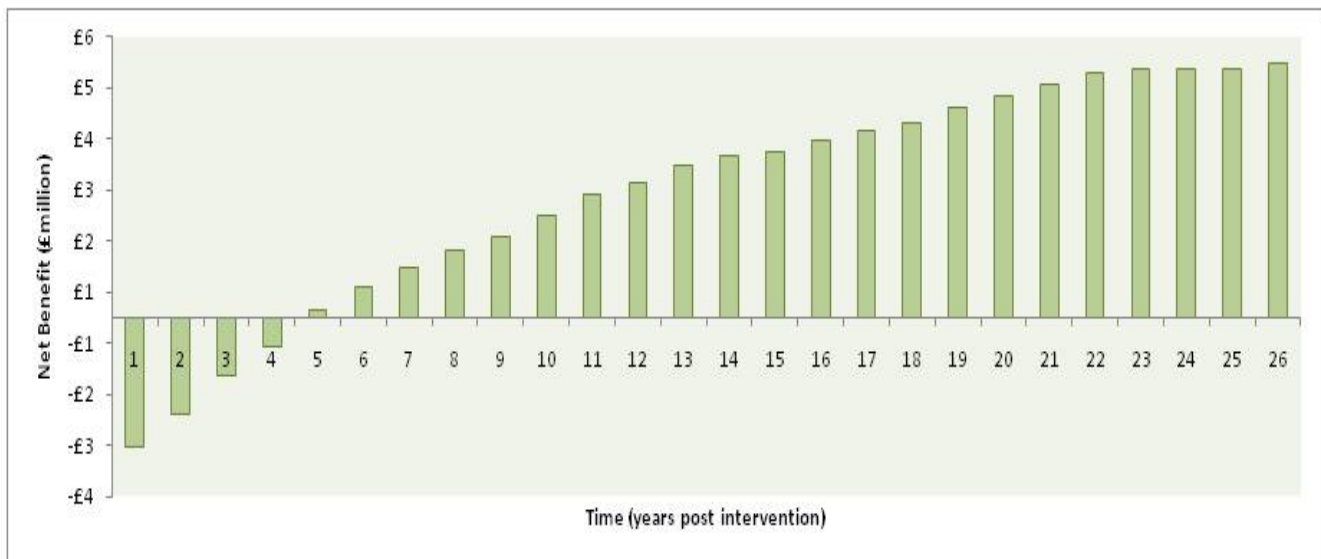
Cumulative net benefit per annual offender cohort	£5.0 million
Annual cohort size	11,863
Comparator	custodial sentence
Net benefit per offender	£420
Maturity Assessment scheme costs per cohort offender	£150 [#]
Sentencing cost savings per cohort offender	£3,320
Cost associated with reoffending during community sentence per cohort offender	£3,460
Cost saving associated with change in reoffending post sentence	£710
Break even	5 th year

Note: Cumulative net benefit per annual offender cohort will be subject to rounding error

Cautiously, this figure includes the cost of a welfare report for all offenders sentenced under juvenile law, in line with the requirements of a similar system in Germany. The unit cost of production of the report assumed to be the same as a PSR report.

Figure 6 shows the annual cost savings associated with maturity assessment and diversion from the adult to the juvenile criminal justice system of offenders aged 18-24 who received a custodial sentence of six months or less in a Magistrate’s court for a non-violent offence²⁸. It demonstrates that the diversion takes five years to break even (to generate a total net saving). This pay-back period is longer than those associated with the diversion schemes due to additional start-up costs.

Figure 6: Discounted annual societal cost savings associated with diversion from short custodial sentences to community sentences following maturity assessment and trial under juvenile law where appropriate (£, 2008)



²⁸ Summary and indictable motoring offences are also excluded

Police Training

It would cost an estimated £13 million to £17 million for the police service to implement training to enable officers to work more effectively with young adult offenders. These costs include:

- Two additional training hours on conflict management when dealing with young adult offenders for all police constables (PCs) who are not new recruits²⁹ and may include all sergeants.
- A voluntary mentoring scheme, which would take place outside of police time³⁰ and would enable new PCs to understand the challenges of working with young adult offenders. It has been assumed that all new PCs would be mentored as part of this scheme, with either existing PCs or sergeants acting as mentors.

No estimate of the benefit of police training was produced, as the authors were not aware of any evidence on the effect of additional police training on reoffending.

As police training strategies are produced locally on a force-by-force basis, there is the potential for the cost of training to vary dependent on:

- Type of training that is administered;
- Which police officers receive the training;
- How frequently training is refreshed;
- Differences in unit costs of training between forces; and
- Length of training course.

To address these uncertainties, a number of scenarios are presented for each cost estimate.

Additional conflict management training

The National Policing Improvement Agency (NPIA) lists three courses that cover conflict management. They are:

- Personal Safety: Basic Course (PSB)³¹
- Personal Safety: Advanced Course (PSA)³²
- Personal Safety: Advanced Refresher Course (PSAR)³³

These courses are mandatory, with the NPIA requiring that refresher courses are taken annually.³⁴ PSAR course duration, although specified as up to five days on the NPIA website, is

²⁹ It is assumed that new recruits would receive this additional training as part of the initial training programme, the cost of which would be absorbed into the initial training costs.

³⁰ Kent Police detail their mentoring scheme policy online, which states that mentoring takes place in the personal time of officers. www.kent.police.uk/About%20Kent%20Police/policies/11134.html

³¹ www.npia.police.uk/en/1052.htm

³² www.npia.police.uk/en/7585.htm

³³ www.npia.police.uk/en/7955.htm

³⁴ www.npia.police.uk/en/7955.htm

commonly between one and two and a half days. During this time, nine units are covered.³⁵ Assuming that an equal amount of time is devoted to each course unit, this equates to approximately one to two hours per unit. Based on this, it is assumed that additional conflict management training would take two hours.

Table 9 below presents the annual national additional cost of two hours of additional conflict management training. This estimate includes lost work time, and assumes that:

- The training is delivered as an additional section to the PSAR course for all existing police constables and sergeants.
- All new constables receive the training as part of their initial training.
- Costs associated with scoping the course are negligible given the existing material available.

Special constables are included in the calculation, though no lost work time is included for this group.

Table 9 : Annual additional national cost of two hours of additional conflict management training by recipient group

Recipient group	Additional national cost
Received by all Sgts and PCs, excluding new recruits	£15.9 million
Received by all PCs only, excluding new recruits	£12.5 million

Mentoring

The NPIA runs a one-day coaching and mentoring course (PTRLDP). This is listed as costing £239 per delegate.³⁶ Based on this, Table 10 outlines the estimated costs associated with implementation of a mentoring scheme. This assumes that:

- All new PCs would be mentored, but that Special Constables would not be part of the scheme;
- That the additional costs required to devise the content of the scheme would be negligible given the existence of similar training already; and
- That the mentoring takes place in an officer's personal time³⁷, the cost of which is not included in the analysis³⁸.

³⁵ www.npia.police.uk/en/7955.htm

³⁶ www.npia.police.uk/en/3536.htm

³⁷ Based on personal communication with staff at Kent Police.

³⁸ A public sector cost perspective has been adopted where the value of personal time is not accounted for in the analysis

Table 10: Annual costs associated with mentoring scheme for new PCs in officer's personal time

Mentoring Arrangements	Additional National Cost
Sergeants mentoring new PCs (approx. 3 mentees per mentor)	£820,000
PCs mentoring more new PCs (approx. 3 mentees per mentor)	£714,000

3.0 Discussion

The analysis presented in this paper suggests that the three diversion schemes that have been included in the analysis would all produce a net cost saving to society over the lifetime of the diverted offenders. That is, diverting offenders under any of the schemes included in the analysis would produce net savings to society; both in terms of public sector costs avoided and reduced victim costs.

It is important to note that only mean net benefit estimates are presented in this paper. The evidence suggests that none of the interventions or sentences to which young adult offenders are diverted produce re-offending rates that are statistically significantly different from the conventional sentences from which they are diverted. That is, none of the net benefit estimates included in this report are statistically significantly different from zero. The report has focused on the mean effects and net benefits as these represent the best knowledge available. There are, however, important uncertainties surrounding these estimates, and further research is required to establish the economic efficiency of diversionary interventions.

There are a number of important caveats to the above conclusion. First, despite efforts to focus the analysis on UK-based studies, much of the data on the relative effectiveness of sentencing options was taken from US-based studies. Furthermore, there is evidence that the effect data identified in the literature is subject to publication bias.

Second, despite undertaking a rapid evidence assessment to identify evidence on the relative effect of interventions and sentences, a number of the effect estimates used in the modelling are based on single studies. The fact that the estimates of net benefit are not statistically significant from zero is, in part, a consequence of the limited numbers of studies available in this policy area. The economic modelling of diversionary interventions would benefit from a greater number of effect studies in this field.

Third, it was necessary to make a number of simplifying assumptions when constructing the economic model. For instance, the model employs *post* release reconviction rates for average offenders to construct the baseline offending rate—the offending rate associated with standard sentencing practice. However, it is likely that the decision to employ sentencing options other than prison will apply to offenders with a lower than average likelihood of re-offending. The model also assumes a zero decay rate in the effect of the sentencing options. That is, it is assumed that any reduction in offending with, for instance, community sentences compared with standard prison identified in the short term by effectiveness studies will be maintained for the lifetime of the offender. This assumption will obviously overestimate the effect of the alternatives to standard prison sentences. The analysis suggests that the conclusions are not very sensitive to estimates of intervention effect, baseline re-offending rate and decay rate impact. This provides some reassurance regarding the validity of the conclusions despite the above caveats. However, it is important to acknowledge these caveats, and any further work in this area should seek to address them.

Fourth, the models assume that all community sentences have either an unpaid work requirement or a requirement(s) that includes supervision. Furthermore, the proportion of community orders that have each of the aforementioned requirements attached is assumed to be consistent with probation area data reported in Stanley 2007.³⁹ In reality there is a wide range of individual and multiple community sentence requirements.⁴⁰ One-way sensitivity analysis concluded that the outcome of the cost benefit analysis of the prison population scheme, which diverts young adults to community sentences from short custodial sentences of six months or less, and the maturity assessment scheme were sensitive to relatively small changes in the ratio of community order with unpaid work requirement with community orders with a sensitivity requirement.

Fifth, the estimates of the effect of interventions and sentences on re-offending are drawn from studies of offenders of a range of ages. It was necessary to assume that these estimates of effect are applicable to offenders aged 18-24 years.

Sixth, the sentencing statistics that are the basis of the models are available by aged groups 18-20 and 21+ in the young adult range (aged 18-24).⁴¹ The models use the statistics for those aged 18-20, scaled up to a cohort aged 18-24 using the ONS Mid-2008 population estimates.⁴² This assumes that the proportion of people sentenced and the profile of those sentences is the same in the 18-20 and 18-24 age groups.

⁴⁰ www.cjonline.gov.uk/offender/community_sentencing/

⁴¹ www.justice.gov.uk/publications/sentencingannual.htm

⁴² [Mid-2007 Quinary Estimates for 2009 wards \(experimental\)](#), Office for National Statistics (2009).

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