

the economic case
for and against prison

update
november 2008



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1.0 introduction

This publication is an update to the report *The economic case for and against prison*. The aim of this research was to collect the evidence to outline the economic argument for and against prison sentences and the alternatives, thereby answering the question:

Are prison sentences a cost-beneficial way of reducing offending in those populations who are at risk of further offending?

This research was first undertaken in 2007 by Matrix Knowledge Group and commissioned by three charitable foundations, the Monument Trust, the LankellyChase Foundation and the Bromley Trust. The updated findings reported here are based on the inclusion of new research studies and new analysis.

The additional analysis has not changed the core finding of the original report, that alternative interventions can be better value for money than basic prison sentences. However, there are some changes to the findings for individual alternatives to a basic prison sentence. For instance, evidence for community service as an alternative to prison is now available where none was previously reported.

For those who have not read the original report, which contains a more detailed description of the context for the research, a simple overview of the method and detailed reporting of the original findings, it can be downloaded for free at:
<http://matrixknowledge.com/prison-economics/>.

An updated version of the full technical report provides a detailed description of the approach, and can be downloaded for free at:
<http://matrixknowledge.com/prison-economics/>.

2.0 overview of terms

This section explains some of the terms used throughout this report. Below is a summary of the interventions included in this update of findings.

Similar interventions have been clustered into groups based on the information available in each of the original research studies. The name for each group of interventions was chosen to be a commonly understood generic description, rather than a specific sentence name from one country or another. For example, the term “community supervision” is used in this report, rather than “community order”, or “probation”.

Prison:

For both adults and juveniles, prison sentences are defined as confinement to prison or the juvenile equivalent, such as a Young Offender Institution. Other residential settings, such as boot camps, are separate from the prison definition.

Enhanced prison:

This term is used to describe a prison sentence with an additional intervention.

Drug treatment:

The interventions included in this report address drug treatment rather than alcohol treatment.

The interventions included in this research do not reflect the full range of sentencing options available. Only those interventions where existing research met the selection criteria were included in the analysis. This report includes only the sub- set of interventions for which a statistically significantⁱⁱ net benefit, was observed. These are listed below.

Community-based interventions for adult offenders:

- Surveillance
- Surveillance with behavioural intervention
- Surveillance with drug treatment
- Residential drug treatment
- Community service
- Community supervision with behavioural intervention

Enhanced prison interventions for adult offenders:

- Prison with behavioural intervention
- Prison with drug treatment
- Prison with educational or vocational intervention

Community-based interventions for juvenile offenders:

- Boot camp

Enhanced prison interventions for juvenile offenders:

- Prison with behavioural intervention

Net benefit

This study provides evidence about the net benefit of different criminal justice interventions. Net benefit includes the effectiveness of the interventions in reducing re-offending, the monetary value of these reductions in re-offending, and the cost of the intervention. This value for money assessment is not about minimising costs; it is about identifying more efficient spending decisions to achieve desired outcomes.

As with the original findings, the benefits offered by each intervention were calculated in two different ways: from the perspective of the public sector; and from the perspective of society.

Public sector cost of crime:

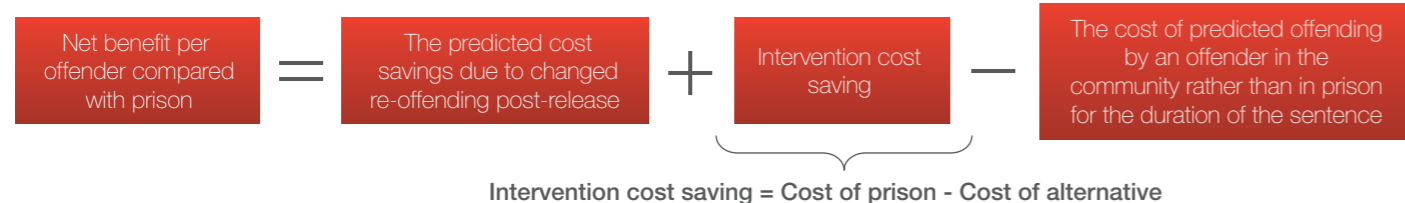
These are costs to the taxpayer and include the costs of responding to and investigating crime, of bringing to trial and punishing offenders and of treating injuries.

Social cost of crime (public sector and victim cost):

These costs include both the taxpayer costs and the tangible and intangible costs to the victims of crime. For example, they include the cost of property damaged or stolen, and the cost of pain and suffering.

Lifetime costs and offender lifetime:

The model estimates how much a change in offending is worth over an offender’s lifetime. Rather than take the costs for the first year or two of re-offending and assume the same pattern over the offender’s lifetime, costs have been calculated according to changes in patterns of offending over a lifetime. This is done by estimating the cost of re-offending over the first two years post-release from custody and using age-crime curves to extrapolate offending levels to the age of 50.



3.0 findings

Each intervention for which statistically significant conclusions on net benefit could be drawn is presented in the following format:

- The evidence base used (how many studies and participants)
- The estimated cost of the interventionⁱⁱⁱ
- The net benefit compared to prison based on savings to the taxpayer
- The net benefit compared to prison based on savings to society (savings to the taxpayer plus the savings from fewer victim costs^{iv})

Some interventions become more cost-effective when the victim costs are included. These are the interventions that reduce re-offending when compared with prison, and thus avoid the costs to victims associated with these offences. Some interventions become less cost-effective when the victim costs are included. These are the interventions that increase re-offending when compared with prison, and thus result in higher costs to victims associated with these offences.

3.1 adult community interventions

surveillance

Surveillance-oriented diversion from prison using either an Intensive Supervision Programme or Home Detention Curfew (HDC). The HDC scheme was introduced in 1999 across the whole of England and Wales. Most prisoners sentenced to at least three months but less than four years were eligible for release up to 60 days early on an electronically monitored curfew.

Evidence base

7 studies met the selection criteria. They included 848 individuals.

Cost of intervention

£5,947 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account the cost of the intervention) over an offender's post release lifetime.

Saving to the taxpayer	£33,500
Saving to society (Saving to the taxpayer plus the saving from fewer victim costs)	Net benefit estimate not statistically significant

surveillance with behavioural intervention

Surveillance through electronic monitoring combined with cognitive behavioural programmes. The cognitive programmes are designed for offender populations, and aim to modify thinking patterns to prevent repeat offending.

Evidence base

3 studies met the selection criteria. They included 217 individuals.

Cost of intervention

£7,022 per offender per year

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account the cost of the intervention) over an offender's post release lifetime.

Saving to the taxpayer	£22,000
Saving to society (Saving to the taxpayer plus the saving from fewer victim costs)	Net benefit estimate not statistically significant

3.1 adult community interventions

surveillance with drug treatment

Intensive supervision programme with drug treatment, or house arrest with electronic monitoring and drug treatment.

Evidence base

2 studies met the selection criteria. They included 161 individuals.

Cost of intervention

£8,604 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account the cost of the intervention) over an offender's post release lifetime.

Saving to the taxpayer	£41,500
Saving to society	£61,500

residential drug treatment

Programme designed to divert non-violent drug-addicted offenders into community-based facilities. Includes intensive and individual group counselling, using the dynamics of communal living, to teach positive personal and social values and behaviour. Residents are supervised 24 hours a day and are subject to in-treatment monitoring.

Evidence base

2 studies met the selection criteria. They included 786 individuals.

Cost of intervention

£5,299 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account the cost of the intervention) over an offender's post release lifetime.

Saving to the taxpayer	£88,500
Saving to society	£203,000

3.1 adult community interventions

community service

A variety of unpaid work for non profit organisations such as nursing homes, hospitals and schools and conservation work in forests and other areas.

Evidence base

3 studies met the selection criteria. They included 581 individuals.

Cost of intervention

£2,641 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account the cost of the intervention) over an offender's post release lifetime.

Saving to the taxpayer	£38,000
Saving to society	Net benefit estimate not statistically significant

community supervision with behavioural intervention

This intervention involves a cognitive behavioural treatment programme, delivered within the context of intensive community supervision via electronic monitoring.

Evidence base

3 interventions met the selection criteria. They included 49 individuals.

Cost of intervention

£3,716 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account the cost of the intervention) over an offender's post release lifetime.

Saving to the taxpayer	£42,000
Saving to society	Net benefit estimate not statistically significant

3.2 adult enhanced prison

prison with behavioural intervention

Prison combined with cognitive behavioural programmes designed to change thinking patterns and attitudes associated with offending.

Evidence base

2 studies met the selection criteria. They included 2,157 individuals.

Cost of intervention

£31,124 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account of the cost of the intervention) over an offender's post-release lifetime.

Saving to the taxpayer	Net benefit estimate not statistically significant
Saving to society	£23,500

prison with drug treatment

Most interventions were therapeutic programmes in prison. Others were case management approaches and programmes preparing for parole release.

Evidence base

13 studies met the selection criteria. They included 4,556 individuals.

Cost of intervention

£28,690 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account of the cost of the intervention) over an offender's post-release lifetime.

Saving to the taxpayer	£32,000
Saving to society	£116,500

prison with educational or vocational intervention

Programmes included basic education, prison-based vocational training, support with finding employment post-release, and prison industry employment and/or training.

Evidence base

6 studies met the selection criteria. They included 7,623 individuals.

Cost of intervention

£27,109 per offender per year.

Value for money compared to prison per offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account of the cost of the intervention) over an offender's post-release lifetime.

Saving to the taxpayer	£19,500
Saving to society	£67,000



3.3 juvenile enhanced prison

prison with behavioural intervention

Prison combined with cognitive behavioural programmes designed to change thinking patterns and attitudes associated with offending.

Evidence base

1 study met the selection criteria. It included 52 individuals.

Cost of intervention

£48,270 per young offender per year.

Value for money compared to prison per young offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account of the cost of the intervention) over an offender's post-release lifetime.

Saving to the taxpayer	Net benefit estimate not statistically significant
Saving to taxpayer plus the saving from fewer victim costs	£38,000

3.4 juvenile community interventions

boot camp

Boot camp is defined as a form of incarceration involving military drills, daily work assignments and a stringent daily schedule. There is an emphasis on strict discipline, physical work, and strenuous exercise.

Evidence base

1 study met the selection criteria. It included 621 individuals.

Cost of intervention

£28,792 per young offender per year.

Value for money compared to prison per young offender

The following figures show the estimated net benefit from using this intervention instead of prison. They are based on the reduced chance of re-offending (taking into account of the cost of the intervention) over an offender's post-release lifetime.

Saving to the taxpayer	£44,500
Saving to society	Net benefit estimate not statistically significant

Giving an offender one of the following adult community-based interventions instead of prison would produce savings to society:

- Residential drug treatment
- Surveillance with drug treatment

Investing in the following in-prison interventions on top of just prison would produce savings to society:

- General offender behaviour interventions for both adult and juvenile offenders)
- Educational and vocational interventions for adult offenders
- Drug treatment for adult offenders



4.0 policy implications

At present the UK prison population consists of 82,791 inmates, up from 81,533 inmates when the previous report was published^v. The annual running costs of prisons stands at £1,936 million^{vi} and a capacity-development programme is in place to allow for a further 10,000 inmates by 2012^{vii}.

The above context presents a significant dilemma for decision makers charged with finding the most effective ways to use taxpayers' money. This additional research has further demonstrated that some alternatives to prison provide savings to society, through the combined savings from the intervention costs and the savings to society from the resulting decrease in re-offending.

Using evidence from the selected studies, the following adult community-based interventions have been shown to provide savings to society when compared with prison:

- Residential drug treatment
- Surveillance with drug treatment

The following adult enhanced prison sentences have been shown to provide savings to society when compared with prison sentence alone:

- General offender behaviour interventions in prison
- Educational and vocational interventions in prison
- Drug treatment in prison

The following enhanced juvenile prison intervention was shown to provide savings to society compared with prison:

- Prison with behavioural intervention

The graph below provides an overview of the cost savings for all the interventions included in the report.

Some of these alternative interventions could more effectively meet one of the statutory purposes of prison – to reduce re-offending – while also reducing taxpayer costs and, in the case of community-based interventions, alleviating strain on prison capacity.

The interventions examined in this report predict that the cost savings per adult or juvenile offender receiving a community intervention rather than prison range from:

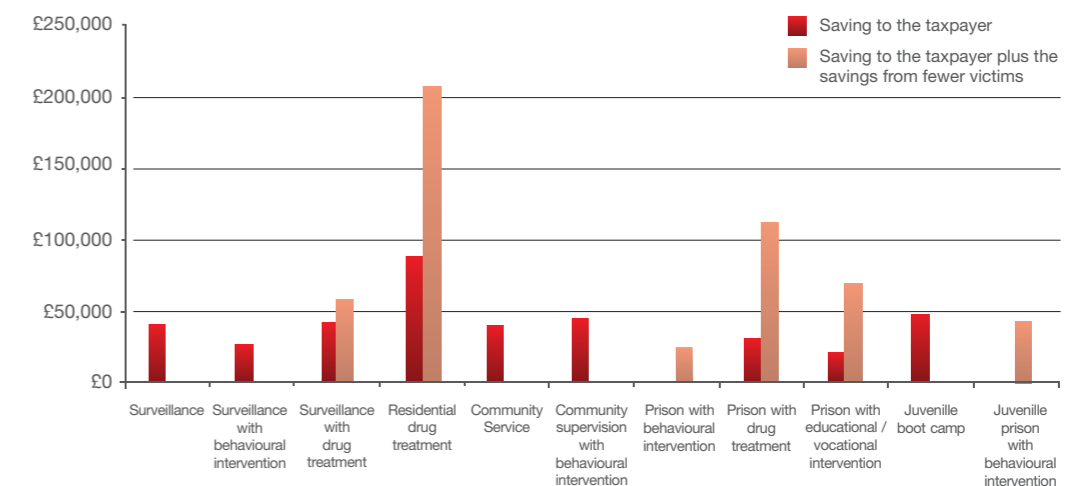
- £20,000 to £88,500 for savings to the taxpayer only
- £38,000 to £203,000 for savings to the taxpayer plus the savings from fewer victim costs.

Given the nature of offending and offenders, alternatives to prison are not always a viable option. In cases where prison sentences are required, this research shows that enhanced prison sentences (incorporating some form of training or treatment) are more effective in reducing re-offending than prison without additional interventions.

Even though enhanced prison interventions cost more than prison alone to deliver, they are better value for money. It is predicted that the cost savings per adult offender receiving an enhanced prison sentence are:

- £19,000 to £32,000 for savings to the taxpayer only.
- £23,000 to £116,500 for savings to the taxpayer and the savings from fewer victim costs.

This finding for enhanced prison suggests the need to maintain prison populations at a level where participation in prison-based interventions can be initiated and sustained.



5.0 endnotes

- i See the technical report for more details at:
<http://matrixknowledge.co.uk/prison-economics>
- ii Statistically significant means that the net benefit of the alternative intervention was statistically significantly different at the 95 per cent confidence level than a standard prison sentence. This means that the chance that the difference in net benefit identified occurred by chance is less than 1 in 20.
- iii Full details of how the interventions were costed can be found in the technical report at:
<http://matrixknowledge.co.uk/prison-economics>
- iv Value for money savings are reported as a mean value. Ninety- five per cent confidence interval values are reported in the Technical Appendix available at:
<http://matrixknowledge.co.uk/prison-economics>
- v HM Prison Service Bulletin – Week of June 6th 2008.
- vi HM Prison Service (2007) Annual Report and Accounts April 2006-March 2007 (this figure does not include costs for running the private estate).
- vii HM Prison Service Business (2007-8) & Corporate Plan (2007-8 to 2011-2012).

Matrix Knowledge Group

UK Office:

Epworth House, 25 City Road
London, EC1Y 1AA, UK

t: +44 (0)20 7684 5777

US Office:

155 Gibbs Street, Suite 527
Rockville, MD, 20850, USA

t: +1 301 543 8999

India office:

Mega-ace/Matrix Partnership
B 68 Mittal Tower, Nariman Point,
Mumbai 400 021

t: +91 22 2281 2298

e: enquiries@matrixknowledge.com
www.matrixknowledge.com

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