

# An assessment of the value of Working Chance's recruitment services for women

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## Executive Summary

Former female offenders face wide-ranging barriers to employment. They are more likely than average to have limited education or skills and sole-caring responsibilities, and there is evidence that employers would not consider employing an ex-offender, regardless of the offence or sentence received.

Working Chance is a recruitment charity that works with female ex-offenders to try and address these barriers to employment. The organisation has two main strands to what it does. Firstly, it works with ex-offenders to improve their employability, for example by providing training in writing CVs and how to disclose a conviction at interview. It also works with employers on their recruitment practices and has well established relationships with some employers including Virgin Trains, Pret A Manger, and Transport for London, who have all offered placements to a number of candidates over time. Since its inception in 2009, Working Chance has helped an estimated 215 women into work a year. It helps about 400 women a year through signposting to support services, in-work support, and workshops in prisons.

### Scope of this study

Working Chance aims to build inclusion and social mobility for women ex-offenders (and their children) by moving them into the world of work, reducing reoffending and helping them break the cycle of deprivation and social isolation. This study looks to quantify these benefits to assess the value for money of Working Chance's services.

Our study focuses primarily on those who contact Working Chance while still in prison and ex-offenders who contact Working Chance after leaving prison. Working Chance also works with women aged between 18 and 25 who have been in care but do not necessarily have a conviction - the benefits to these women have not been quantified in this study.

The analysis also only looks at the direct benefits from finding employment, such as increased wages and NHS savings, and those benefits related to reoffending covered by the Home Office's *Social and Economic Costs of Crime* publications. Further, the analysis does not quantify any benefits to women who engage with Working Chance from an improved well-being perspective and does not quantify any benefits to the children of those women who find work and stop reoffending. These benefits are potentially large and long-lasting and should be borne in mind when interpreting the quantitative analysis.

### Key findings – impact for economy and society

It has not been possible to reach a definitive conclusion on the impact of Working Chance interventions for the economy and society. While there are clear benefits in improving employment outcomes and reducing re-offending rates there is some uncertainty whether these exceed the operating costs of Working Chance once the fact that some women might have achieved similar outcomes without the support of Working Chance is taken into account (this is referred to as the 'deadweight').

We have been unable to estimate deadweight reliably because it has not been possible to identify a suitable comparator group. In many attributes Working Chance candidates are similar to the wider ex-offender population in that they have been drug users (although Working Chance will not accept current drug users) or they may have mental health problems, or they are mothers. However, we consider it is not appropriate to use outcomes for the wider ex-offender population to estimate the deadweight.

Ultimately, deadweight will be higher if what matters is that candidates volunteer for support, and so are comparatively self-motivated, or that they are comparatively well educated, and so have better prospects in the labour market anyway. Alternatively, deadweight will be lower if it is employer recruitment practices which have the more significant effect on employment outcomes. It is noteworthy that ex-offenders need to disclose a criminal record to potential employers, and Working Chance works with candidates on how to do this in a constructive and transparent manner.

While the available evidence base indicates that both effects matter it does not provide insight on their relative importance. This means that it is not possible to say, definitively, what the employment and reoffending outcomes for the same women would have been, had they not been helped by Working Chance.

Similarly, while there is evidence that Working Chance participants find better paid work than other ex-offenders this cannot be attributed statistically to the efforts of Working Chance. Therefore, the analysis provides a range for “deadweight loss”, based on the available literature for other labour market interventions.

Our analysis of Working Chance recruitment services shows that:

- For each woman that participates with Working Chance, the potential attributable economic benefit is likely to be between £1,900 and £6,500 per year. There are also additional fiscal transfer savings of £600 to £1,800 per person per year, which represent an additional saving to the Government.
- We estimate that Working Chance helps to place into work approximately 215 offenders per year. Therefore, the total potential attributable economic benefit is estimated to be between £0.4 million and £1.4 million per year (reflecting the range of deadweight assumptions).
- The total average annual operating cost for Working Chance to deliver charitable services is £0.8 million per year, suggesting that for every £1 spent by Working Chance there are benefits to society of between £0.50 and £1.70.

However, it is important to reiterate that this does not include the wider benefits which the charity's work may help to deliver such as physical and/or mental wellbeing and inter-generational improvements. It is also important to note that this analysis assumes that the benefits of securing employment for an individual will last for 12 months. It is plausible that the benefits extend beyond this period, and therefore this analysis may understate the impact. However, Working Chance only track individuals for a period after placement, and it is not known how many are sustained in their jobs beyond this initial period. The duration of benefits longer than a 12-month period is included as part of the sensitivity analysis.

A number of the assumptions in the modelling are very uncertain, and sensitivity analysis of plausible alternatives suggests that the benefits could be higher.

### Key findings – impact for families

A “typical” Working Chance participant who finds work may be £8,300 a year better off in work than out-of-work (taking into account the loss of out-of-work benefits). The actual gains will depend on personal circumstances, including housing costs, and earnings, and this analysis assumes that Universal Credit is sufficiently generous to meet childcare costs.

Indeed, the norm is that Working Chance participants have dependent children. It is probable that there will be intergenerational benefits to their children from their mothers finding employment, which it has not been possible to quantify:

- The impact on children of parental involvement in the criminal justice system, especially prison, can be traumatic: they are twice as likely as their peers to have poor mental health, and are more at risk of poverty, poor health, and insecure housing and finances; and
- Children who grew up in workless families were more than twice as likely to fail at all stages of their education, and parental income has causal effects on a wide range of children's outcomes including measures of health and education. Improved child educational attainment is associated with higher earnings.

# 1 Introduction

Working Chance commissioned Pro Bono Economics to carry out an economic assessment of its work to support female ex-offenders. Our study is based on data provided by Working Chance on the employment and re-offending outcomes for people it typically helped on an annual basis between 2012-16. Our analysis assesses the extent to which these outcomes can be reliably attributed to support provided by Working Chance, and compares the associated estimated economic and social benefits to the charities' costs.

## 1.1 Context

Working Chance is a recruitment charity that works with female ex-offenders to try and address these barriers to employment. The organisation has two main strands to what it does. Firstly, it works with ex-offenders to improve their employability, for example by providing training in writing CVs and how to disclose a conviction at interview. It also works with employers on their recruitment practices and has well established relationships with some employers including Virgin Trains, Pret A Manger, and Transport for London, who have all offered placements to a number of candidates over time. Since its inception in 2009, Working Chance has helped an estimated 215 women into work a year. It helps about 400 women a year through signposting to support services, in-work support, and workshops in prisons.

Working Chance is continuously keeping its business model under review and adapting where necessary. There was a shift toward moving candidates more quickly into placements around 2012, an extension of the type of candidates Working Chance accepts to include care leavers in 2015, and the adoption of an external counselling service. Alongside this, the charity has also worked to integrate its support and recruitment services, and developed the range of its services, such as offering mentoring support.

Working Chance also monitors a series of internal performance indicators, and has commissioned a series of qualitative evaluations of its service delivery, and two reports from the Ministry of Justice (MOJ) Datalab to provide an assessment of the impact of the charity in reducing re-offending rates<sup>1</sup>.

The MOJ analyses have proved inconclusive, in part because of the small number of observations of Working Chance participants that could be matched to Ministry of Justice re-offending datasets of the ex-offender population. This meant it was not possible to produce statistically robust estimates of how the Working Chance population compares to similar women in the wider population of ex-offenders, and so consequently produce robust estimates of the possible impact of Working Chance services in reducing re-offending rates.

## 1.2 Scope of the report

This report is intended to supplement these previous analyses by firstly providing contextual material on the characteristics of the women supported by Working Chance. This is compared to the wider offender population, which supports consideration of the Working Chance business model. The report also produces a cost-benefit analysis of the effectiveness of Working Chance in reducing re-offending and improving employment outcomes. This is the first time such an

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See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/328807/working-chance-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/328807/working-chance-report.pdf) and [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/499116/working-chance-2-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499116/working-chance-2-report.pdf)



analysis has been conducted for employment outcomes, which are central to the success of Working Chance as an organisation. Finally, the report provides a wider assessment of the benefits to the children of ex-offenders from their mother finding work, and so the contribution of Working Chance in helping women into work.

The structure of the report is:

- available data and cost-benefit methodology (Chapter 3);
- the similarities and differences of the characteristics of Working Chance candidates with the female offender population (Chapter 4);
- a cost-benefit analysis of Working Chance's activity (Chapter 5);
- and a set of recommendations, including policy recommendations (Chapter 6).

Alongside the main report there are technical annexes, which provide further detail on how the project team have used the available evidence to develop assumptions within the cost-benefit analysis.

## 2 Background

### 2.1 Barriers to employment for female ex-offenders

Former offenders, both male and female, face a number of barriers to employment. Some of these are individual factors affecting ex-offenders' ability to get a job, such as the fact that a high proportion of offenders' experience mental health issues, face issues with substance abuse or have low education and skills. The majority of female ex-offenders also have caring responsibilities for children, which they would need to balance with a job.

Primarily ex-offenders face a barrier to finding a job because of employer recruitment practices. There is a legal requirement to declare unspent (and sometimes) spent convictions if asked by employers. A YouGov survey<sup>2</sup>, for example, found that around half of employers would not consider employing an ex-offender, regardless of the offence or sentence received, citing concerns with ex-offenders' reliability, that they may damage the public image of the business, and that they may upset their new colleagues. This is the key barrier that Working Chance is aiming to overcome.

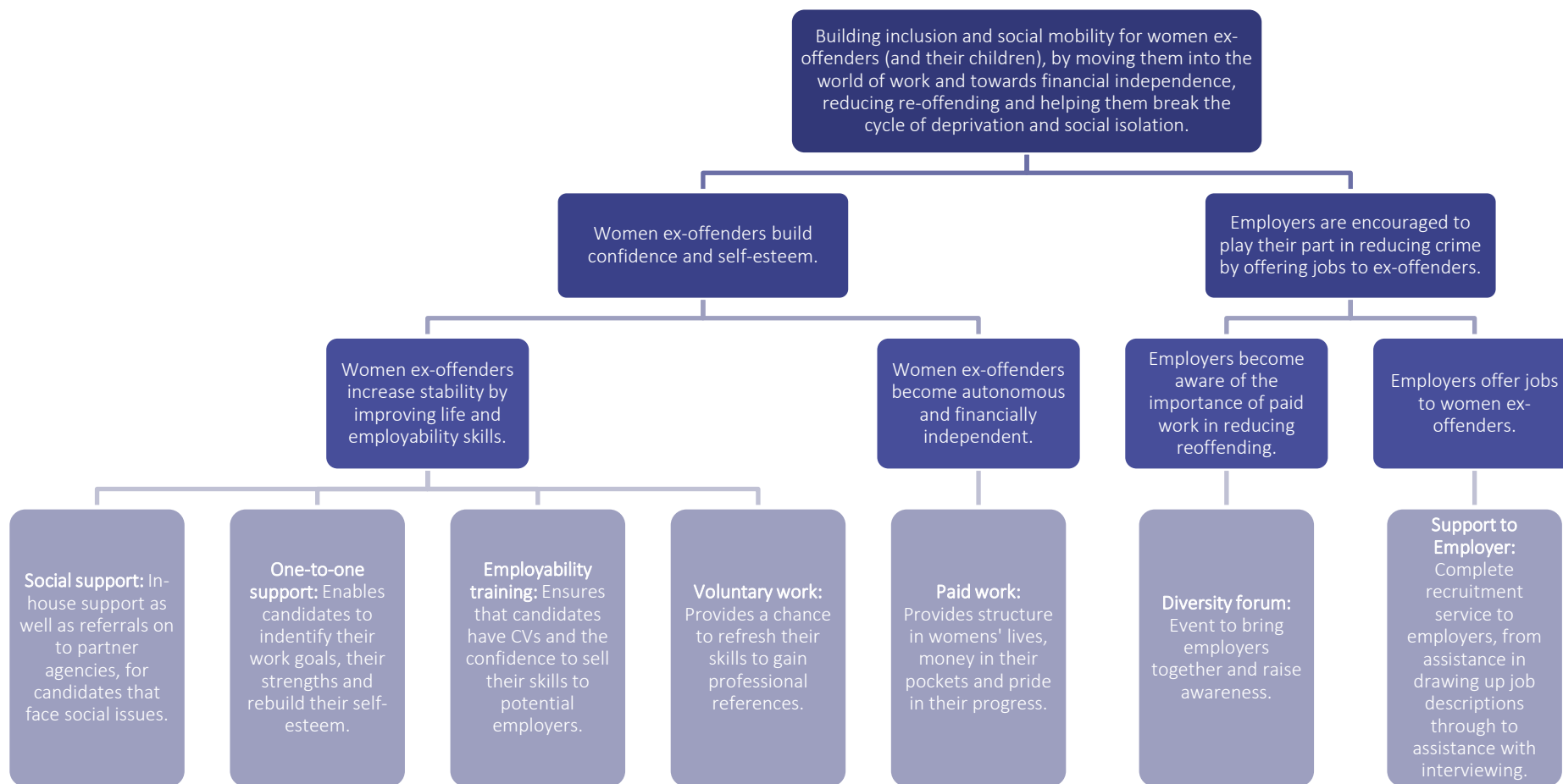
### 2.2 Background to Working Chance

Working Chance, a recruitment charity founded in 2009, works with female ex-offenders to address barriers to employment. The organisation has two main strands to what it does, aiming to work with ex-offenders to improve their employability; and to work with employers on their recruitment practices. They also fight in-work poverty through placing women in good jobs and supporting career progression. This is described in their Theory of Change (see Figure 1).

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<sup>2</sup> [https://d25d2506sfb94s.cloudfront.net/cumulus\\_uploads/document/42yrwvixdo/YG-Archive-160126-DWPwaves.pdf](https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/42yrwvixdo/YG-Archive-160126-DWPwaves.pdf)

Figure 1. Working Chance theory of change



The **first strand** of the charity's activity is to work with the female ex-offenders directly; to build their confidence and self-esteem, and consequently their employability and skills.

A key part of the training is to enable ex-offenders to be able to meet their legal requirement to disclose their conviction to potential employers. Participation on the programme is voluntary, and Working Chance accepts all ex-offenders, regardless of offence type, as long as they are not drug users at the time of referral (although they may be taking methadone).

Working Chance has its main office in London and two satellite offices in Manchester and HMP Downview. It also accepts referrals from, and delivers training, to women in prison who are reaching the end of their sentence. It does this at HMP Drake Hall, HMP Styal, HMP Bronzefield East, HMP Downview, HMP East Sutton Park, and, prior to its closure in 2016, HMP Holloway.

The charity organises both voluntary and paid placements for its candidates but mainly paid work. Recruitment consultants continue to work with candidates for up to 12 months after a placement has been found, with the intention of supporting long-term sustainability of its candidates, and career progression to prevent in-work poverty.

By the end of 2016 Working Chance had accepted 1,475 referrals; 550 from offenders who were still in prison at the time of referral; 875 who had already left prison when they registered with the charity; and 50 who were recent care leavers<sup>3</sup>. As the number of young care leavers participating is small they have not been considered further in this analysis.

Around half of women who register with Working Chance after leaving prison are self-referrals, although it appears to be a relatively small proportion who make contact through the website. Around a sixth of registrations are through referrals from probation services, and there is a similar, if slightly smaller, proportion from a charity which seeks to prevent violence to ex-offenders. Other referrals are from a range of organisations such as local authority councils, universities, and Jobcentre Plus<sup>4</sup>. Working Chance works with other charities who tackle drug addiction to provide a pathway to work for women facing addiction.

Working Chance provides a holistic service to candidates, and as part of its registration considers a range of barriers that a woman might face in finding work. It signposts many women to other services, some of which are delivered in-house. The organisation has complete records for 875 referrals for support issues between 2012 and 2016<sup>5</sup>. The majority of these (around a third each) were for accommodation issues or finance issues, while one in six were in relation to mental health issues and one in ten were for additional employment-related support, such as education or training (see Table 1). Working Chance provides up to 26 weeks of counselling and CBT therapy through partnerships with two specialist organisations.

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<sup>3</sup> A child in care is the responsibility of a local authority. This might be through adoption, fostering, residential care, or children who return home. Residential care might be a secure children's home, a secure training centre, or a young offender institute.

<sup>4</sup> This analysis is based on management information from Working Chance for contacts made in the thirteen months from August 2016. It is not known how complete or accurate this information is.

<sup>5</sup> The management information records another 70 referrals, although this information is incomplete on reasons. It is not clear where an individual might receive more than one referral.

**Table 1 Working Chance signposting of support services, 2012 to 2016**

Type of referral	Number	Proportion
Finance, benefits and debt	285	33%
Accommodation and support	270	31%
Mental and physical health	135	16%
Employment, training and education	85	10%
Children and families	40	5%
Domestic violence	25	3%
Other	40	4%
<b>Total</b>	<b>875</b>	<b>100%</b>
Notes:		
[1] Numbers rounded to nearest 5, and may not sum due to rounding		

Since its inception in 2009, Working Chance has helped an estimated 215 women into work per year. It helps about 400 women a year through signposting to support services, in-work support, and workshops in prisons. Working Chance reports in its 2014/15 Annual Report that a KPMG study has shown that candidates who receive more support in overcoming social and financial barriers to resettlement are more successful in finding and sustaining employment.

Indeed, Working Chance monitors the use of support services by its candidate. For example, in its 2014/15 report it notes that:

- 246 support issues were opened, a 60% increase from 2013/14
- 324 support issues were active during the year, a 32% increase from 2013/14
- 195 individual candidates received support, with an average of 1.7 support issues each

These benefits will only be partially captured in the analysis of this report to the extent that they contribute to reduced re-offending or finding a job.

The **second strand** of Working Chance's work is to work with employers to overcome the stigma to hiring ex-offenders and educate them to change their hiring practices, to create social value. It helps to place women with employers in two ways. First, individually through the efforts of Working Chance staff working as recruitment consultants, and secondly, through recruitment events organised by Working Chance with employers. The charity has well established relationships with some employers, including Virgin Trains, Pret A Manger, and Transport for London, who have all offered placements to a number of candidates over time.

Evidence of these relationships can be found in the Working Chance database. The database shows that each employer, on average, recruits four Working Chance candidates, and this has been consistent across the time period analysed (2012 to 2016). Furthermore, over a third of employers that Working Chance engage with and that offer paid work have recruited more than one Working Chance candidate.<sup>6</sup> Therefore, some employers have recruited significantly above the average of four Working Chance candidates.

<sup>6</sup> 62 of 166 recruiters which offered paid employment over 2013-16 took on more than one Working Chance candidate

### 3 Overview of available data and cost-benefit methodology

The data sources used in this report are wide-ranging but focus on trying to allow a comparison between the outcomes for female ex-offenders who use Working Chance services, and what those outcomes would have been for these offenders had they not used Working Chance. The data looks to draw out the similarities and differences between the characteristics of women using Working Chance and the wider female ex-offender population, and any differences in outcomes relating to re-offending and finding work. This permits an assessment of the contribution of Working Chance in terms of what it does, and in the approach adopted to the development of the cost-benefit model. Annex A describes the data and data sources in more detail.

#### 3.1 Working Chance data

Working Chance has a database on their current and previous candidates. For each candidate, this database records general characteristics such as age, ethnicity and number of children, as well as more specific information such as the type and number of crimes each candidate has committed.

This database tracks the flow of its candidates, whether these are women who are about to leave prison, or who have already left. Working Chance remains in contact with each candidate after a candidate gains employment, and so the Working Chance database also records outcomes for each candidate, including:

- Whether the candidate gained a placement with an employer, and whether this was paid or voluntary;
- The salary received by the candidate (if in paid employment); and
- Whether the candidate reoffended.

However, Working Chance's information on the characteristics of its candidates is gathered from a questionnaire filled in by each candidate, and is therefore incomplete in some respects and reliant on the candidate to provide reliable information. Unless otherwise stated Working Chance data in this report is for 2012-16. Over this period, information on the age of candidates is available for 97% of candidates, information on educational attainment is available for 94% of candidates, and information on the number of children is available for 75% of candidates.

Moreover, Working Chance's information on outcomes also suffers from some material omissions. Notably, it is not straightforward to maintain contact with women, and in the twelve months after contact re-offending information is missing for 46% of candidates. Further, even though Working Chance is active in maintaining contact with the women it places into employment re-offending information is missing for 37% of these candidates. It may be that some women are not willing to admit to re-offending, and it is also possible that re-offending is higher amongst non-respondents than respondents.

Information on the salary of candidates is also incomplete. Where data is available the project team have converted the data into an estimated annual salary, and where data has not been recorded the project team has estimated an annual salary based on working full-time at the minimum wage. Imputed annual salaries average just below £13,000 compared with £17,000 where there is salary data.

### 3.2 Ex-offender data

The MOJ do not produce one overarching dataset providing information on the characteristics of female offenders, and both reoffending and employment outcomes broken down by these characteristics. The data described below cover different cohorts of prisoners and ex-offenders (and different time periods) depending on the sources being considered. This makes it difficult to draw any direct comparisons with the characteristics of the Working Chance cohort of women. The data is also a combination of administrative statistics and survey data.

The MOJ produce several quarterly statistical publications, from which it is possible to analyse characteristics relating to the age, ethnicity, index offence<sup>7</sup> and sentence length of women in prison at a point in time (the stock); characteristics relating to the nationality, index offence and sentence length of women coming into and leaving prison over a period of time (the flow); and the reoffending rates of female offenders in a one-year follow-up period. In addition, the MOJ have also produced one-off publications looking at (a) the employment outcomes of ex-offenders; (b) substance misuse and mental health amongst prisoners; and (c) prisoners' childhood and family backgrounds. This is explained more in Annex A.

### 3.3 Developing a comparison group

An understanding of the characteristics of the offender population, and the women Working Chance supports provides a lens on what Working Chance does. It is also essential for the development of the cost-benefit methodology. Quantifying the impact of Working Chance's intervention on the lives of female prisoners and ex-offenders, over and above what would have happened without Working Chance's involvement, requires comparing the outcomes from the Working Chance candidates to a "comparison group".

A first-best approach would use a control group including female prisoners and ex-offenders who have similar characteristics to the Working Chance candidates. Comparing the outcomes of women who, for example, have a similar demographic profile or have achieved similar levels of educational qualification would control for the effects that these characteristics might have on employment and reoffending. This means that any measurable difference in outcomes between the two groups can be attributed solely to Working Chance's intervention.

However, this first-best approach is not possible, as there is no comparable data for such a control group. Consequently, the project team has concluded that it is not feasible to produce a robust cost-benefit analysis using a matched comparison group, as is best practice, as it has not been able to identify such a group. Instead, the project team have used judgement based on the available data to inform the assumptions used to estimate the characteristics and outcomes of the control group – these assumptions are outlined in the next chapter and more detail can be found in Annex A and Annex B.

The analysis of Annex A indicates that Working Chance participants are relatively less difficult to help than the broader offender population. They are not active drug users, as many prisoners are, the available evidence indicates that mental health problems across the cohort are less severe than for the wider ex-offender population, and they tend to be better educated. However, this is not to say that Working Chance participants do not face their own significant problems. Many have been drug users. There is evidence that Working Chance participants face disadvantage in the labour market because many do suffer from mental health problems, have housing or other financial difficulties, or have caring responsibilities.

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<sup>7</sup> This is the most serious offence for which the prisoner is convicted

Additionally, the analysis of Annex B indicates that there is evidence that employer hiring practices put ex-offenders at a disadvantage because of their status. That is, in this respect, Working Chance participants are similar to the wider ex-offender population. In simple terms, the label of being an ex-offender is the greatest barrier they need to overcome in securing employment.

### 3.4 Developing a cost-benefit evaluation

Chapter 4 provides an overview of the results of the cost-benefit evaluation, and Annex D provides more detail on the calculations. Table 2 provides a summary of the stages of development of the results from potential benefits to potential attributable benefits, which excludes deadweight or the outcomes which would have happened anyway without intervention, to net benefits, which also takes into account the resources used to achieve the benefits namely Working Chance running costs.

**Table 2 Stages in the development of a cost-benefit evaluation**

Language	Explanation
Potential benefits	These are the total benefits to the economy and society from the provision of Working Chance services. Economic benefits are financial, and might be reported for the whole economy, or part of it such as the government for fiscal transfers. Societal benefits include other non-financial benefits, and for which typically there is no estimated monetary value.
Potential attributable benefits	These are the total benefits after deadweight loss. Deadweight is the outcomes that would have been achieved anyway, in this case jobs found or reduced re-offending, without the provision of Working Chance services
Net benefits	These are the total benefits after deadweight loss and the running costs of Working Chance. Positive net attributable benefits indicates that there is an overall economic benefit from the support. An alternative formulation is a benefit-cost ratio greater than one if the attributable benefits exceed running costs.

In terms of “deadweight”, some candidates may have found employment without using Working Chance and, therefore, the benefits from finding work for these candidates need to be discounted from the analysis. An assessment of deadweight is required for both employment and reoffending outcomes. This consideration of the ‘additional’ impact of an intervention is a requirement of economic impact assessments.

In the absence of sufficient data to estimate the deadweight effect directly, a literature review has been conducted to inform judgements, and the factors which might influence judgements. Two meta-evaluations, that is evaluations which bring together other evaluation evidence have been found for employment outcomes (see Table 3). Unfortunately, as meta-evaluations are a summary of a number of studies it has not been possible to find evidence which relates directly to what Working Chance does, and the circumstances of ex-offenders.



**Table 3 Evidence on deadweight for employment schemes**

Source	Findings
Department of Business, Innovation and Skills occasional paper (2009) <sup>8</sup>	This considered specifically the impact of the spending of the nine English Regional Development Authorities across the range of support funded and looked at over 280 evaluations. For people and skills provision at a regional level it estimates deadweight at 40%.
Card et. al (2010) <sup>9</sup>	This meta-evaluation looked at 97 studies of active labour market policies across the developed world. It concludes that job search assistance yielded relatively favourable programme impacts, whereas public sector employment programmes are less effective. Training programmes are associated with positive medium-term impacts. By the broad nature of the support available Working Chance provision has all of these characteristics, which suggests that in a worse case it might have high deadweight, say 80%.

These sources do not specifically look at employment outcomes for the ex-offender population, and this evidence suggests that the actual value of deadweight might plausibly lie within a broad range. Therefore, the cost-benefit analysis includes a sensitivity analysis to show how varying the deadweight assumption for employment outcomes affects the results.

The argument for the lower assumption of 40% as the lead deadweight assumption on employment outcomes is that:

- Fundamentally, the women supported face particular disadvantage in the labour market both in terms of employer hiring practices, and because most having caring responsibilities for children which they need to balance;
- Consequently, whilst the characteristics of the Working Chance beneficiaries do not exactly match those of the wider ex-offender population, there are enough similarities (in terms of current and historical difficulties) to make comparisons in broad terms
- Working Chance has shifted the focus of its support to job search assistance, and has reduced significantly the average time to placement; and
- It does not incorporate any assumption that Working Chance activity might help women find better paid jobs, where there is some evidence to support this view.

The higher 80% deadweight assumption has been used as an alternative as:

- employment services are not always extremely effective in improving outcomes

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<sup>8</sup>

See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/191512/Research\\_to\\_improve\\_the\\_assessment\\_of\\_additionality.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/191512/Research_to_improve_the_assessment_of_additionality.pdf)

<sup>9</sup> See <http://davidcard.berkeley.edu/papers/card-kluve-weber-EJ.pdf>.

- participants on Working Chance provision are relatively well educated, and are currently drug free (although some are on methadone), and so through their comparative lack of disadvantage in the labour market, might well have found work in time anyway
- all participants on Working Chance provision are volunteers (although many have been referred), and so might have a predisposition or motivation to find work, which they might otherwise have found through some other recourse

The corresponding deadweight assumptions on re-offending are 45% as the lower estimate and 90% as the higher estimate. There is no evaluation evidence from other sources to support these judgements. The rationale for using a 45% deadweight assumption as the low estimate reflects that around half of Working Chance participants may have re-offended. The higher figure of 90% reflects that a higher proportion would not have reoffended in the absence of the support, with the fact that they have taken part in the programme as an indication that they were determined to improve their lives.

This assumption is less important to the overall cost-benefit findings than that for deadweight for employment outcomes.

### 3.5 Conclusions on data

There is a broad range of Working Chance and MOJ data which informs an assessment of the characteristics of the ex-offender population, and how the Working Chance population compares. This informs judgements of the support that Working Chance provides in helping ex-offenders into work. Data limitations mean that it is not possible to use statistical techniques to conduct a cost-benefit evaluation, and instead the project team has applied informed judgements, and tested the validity of findings through a sensitivity analysis.

## 4 Characteristics of female offenders and experiences in the labour market

As set out in Chapter 2, a comparison of key characteristics of Working Chance candidates with the wider female offender population is necessary to form the judgements used in the analysis in this report. It draws on the findings of Annex A on the characteristics of female offenders and the Working Chance cohort, and Annex B on employer practices in hiring ex-offenders. A summary of these findings is presented below.

### 4.1 Common characteristics and experiences

Both Working Chance candidates and the average female prisoner population share several common characteristics. For example, in both groups the median age is between 30 and 40. Additionally, in both groups most women have children, and on average have between one and two children.

It is also likely that the two groups share similar experiences of employer hiring practices. There is limited research on the employer attitudes to hiring ex-offenders, but the research that does exist suggests that all ex-offenders face significant barriers to employment from employer attitudes to hiring ex-offenders. In many respects, this is the key barrier that Working Chance seeks to address, particularly roles for women. In which case the comparative lack of disadvantage in the labour market of Working Chance participants in terms of their personal characteristics is nullified. Indeed, a YouGov survey commissioned by the Department for Work and Pensions (DWP) in 2016 found that 50% of employers would not consider employing an ex-offender, regardless of the offence or sentence received.<sup>10</sup> The same survey also found that only 12% of respondents thought there may be advantages to the organisation from recruiting ex-offenders, compared to 17% for homeless people, 33% for long-term unemployed, and 39% for lone parents. Working Chance is seeking to address these barriers in hiring practices in its work with employers.

### 4.2 Differences in characteristics and experiences

There are some important differences between the two groups which may affect outcomes of ex-offenders. In particular, Working Chance candidates are better educated than the average female prisoner population. For example, just under half of women reported having no qualifications in the average female population group, whilst less than 5% of Working Chance candidates have no recognisable qualifications. It is common for Working Chance candidates to have completed higher education or to have achieved NVQs.

In addition, there are other important differences between Working Chance candidates and the general female ex-offender population, which are less easy to measure. Firstly, participation with Working Chance is voluntary. It is likely that Working Chance candidates have a greater level of motivation to find work, and not re-offend, than the wider ex-offender population. In addition, Working Chance candidates cannot be current drug users at the time of registration (although many have historically been users). The evidence also suggests that while a number of Working Chance participants have mental health problems they typically have fewer/less severe problems than the broader ex-offender population. This may partly be due to their participation in counselling services which have helped them address their issues.

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<sup>10</sup> [https://d25d2506sfb94s.cloudfront.net/cumulus\\_uploads/document/42yrwvixdo/YG-Archive-160126-DWPwaves.pdf](https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/42yrwvixdo/YG-Archive-160126-DWPwaves.pdf)

### 4.3 Differences in outcomes

The difference between the two groups is most stark when looking at outcomes. A data share between the MOJ, Department for Work and Pensions (DWP) and Her Majesty's Revenue and Customs (HMRC) indicates that the proportion of female offenders released from custody in 2010 who found employment within the following year was 21%.<sup>11</sup> The MOJ, DWP, HMRC data share also looked at the earnings of those working age offenders released from custody and found that the median P14 gross income<sup>12</sup> for female offenders one year after release in 2003/04 was £5,900 (2012/13 prices), suggesting that these women are typically moving into part-time, low-paid work.<sup>13</sup>

Working Chance candidates, on the other hand, fare substantially better in the job market, where over half of candidates gain a placement, with the majority of these placements being paid work. Working Chance's data on the earnings of candidates in paid placements is less complete.<sup>14</sup> Nonetheless, for the placements where this data is recorded, women earned on average £17,000 on an annualised basis. This may mean that Working Chance is more likely to be finding women full-time work, or that Working Chance more systematically records earnings for women moving into full-time work.

Reported re-offending rates are much lower for Working Chance candidates than the ex-offender population as a whole. Unfortunately, the Working Chance data is incomplete, and is likely to be biased as it is most likely that offenders who re-offend would be the least likely to report this. As a result, it is not possible to draw sensible comparisons between the two populations (the MoJ data captures the actual reoffending rates of those individuals who move through the judicial system).

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<sup>11</sup> <https://www.gov.uk/government/statistics/experimental-statistics-from-the-2013-MOJ-dwp-hmrc-data-share>

<sup>12</sup> Employers need to provide P14 forms with gross employee income for all employees who received expenses or deductions over the course of a government financial year. Examples of deductions are income tax and national insurance contributions.

<sup>13</sup> Offenders are only included in the analysis if they had a P14 employment record in that tax year. The analysis therefore excludes offenders with no recorded P14 income. There may be some ex-offenders who found work with earnings sufficiently low not to have a P14 return.

<sup>14</sup> Working Chance records earnings data for 387 successful candidates between 2012-16, while for the remaining 250 paid placements we have conservatively assumed that candidates receive the minimum wage prevailing in the relevant year.

## 5 Economic and social cost-benefit evaluation

This analysis has estimated the net benefit from Working Chance interventions related to moving women into work and reducing reoffending, using the framework set out in Chapter 2. Annex C outlines the conceptual underpinnings of the various costs and benefits related to these two outcomes. The benefits related to reducing reoffending is equivalent to a reduction in crime and these can be quantified using the Home Office economic and social costs of crime. In this analysis the quantified benefits from women finding work come in the form of higher wages and improved likelihood of finding work.

However, there are also several additional benefits that have not been quantified in this analysis, related to improved wellbeing for women and potentially improved intergenerational outcomes for the children of the women Working Chance support.

Further, the Home Office framework may understate the costs of crime. It does not consider that only 9% of children whose mothers go to prison are looked after by their fathers<sup>15</sup>. There will be associated costs for local authorities of keeping a child in care – these are likely to be significant. Secondly, the figures are for the average cost of a crime, including those which are not reported to the police, or where the offender is not caught. This may understate the costs of re-offending if re-offenders are more likely to be caught, prosecuted, or face imprisonment.

The analysis looks at the total social/economic and fiscal benefits of Working Chance interventions separately. This is because, whilst some fiscal savings have direct economic effects, fiscal savings that derive from tax-benefit effects from women entering work are not associated directly with any additional economic activity, and so are recorded as transfers.

Annex D provides a full explanation of how the assumptions to inform the cost-benefit analysis were arrived at, and how the benefits were calculated. These results are for the two sets of deadweight assumptions explained at Chapter 2. This provides an indication of the range of possible benefits of the programme. Further, Annex D includes some sensitivity analysis of the assumptions of earnings in work, and period in work on finding a job. There is a summary in the next section.

### 5.1 Results

#### 5.1.1 Benefits to the economy and society

Table 4 shows the estimated potential economic and social benefit of Working Chance interventions in the following 12 months, broken down by improved reoffending and labour market outcomes. It shows that the total potential economic (net) benefit per person is around £11,000 per year. There are also potential fiscal transfer benefits of £3,000, associated with tax and benefit payments, which do not contribute to the overall benefit to society but are an additional saving to the Government. This is in addition to the fiscal benefits associated with economic activity, and so with economic effect, such as health service or criminal justice activity.

As noted earlier, there are approximately 215 offenders who successfully use Working Chance recruitment services each year (though 400 are helped through the wider services the charity provides), and so the total potential benefit to society is estimated to be around £2.4 million per year.

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<sup>15</sup> Source is Working Chance 2013-14 Annual Report

**Table 4 Estimated potential benefit per head**

	Fiscal (non-transfer)	Other Economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£580	£1,100	£1,300	£2,900	-
<i>Of which: Criminal Justice System</i>	£470	-	-	£470	-
<i>Of which: NHS</i>	£100	-	-	£100	-
<i>Of which: Other</i>	-	£1,100	£1,300	£2,400	-
Labour market participation	£250	£7,800	-	£8,100	£3,000
<i>Of which: NHS</i>	£250	-	-	£250	-
<i>Of which: Other</i>	-	£7,800	-	£7,800	£3,000
<b>Total</b>	<b>£820</b>	<b>£8,900</b>	<b>£1,300</b>	<b>£11,000</b>	<b>£3,000</b>
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

Table 5 provides the corresponding potential attributable benefits per head, once deadweight loss is accounted for using the low deadweight assumptions. It shows that the total potential attributable economic benefit per person is around £6,500 per year. There are also potential attributable fiscal transfer benefits of £1,800, which do not contribute to the overall benefit to society but are an additional saving to the Government.

Around 73% of the £6,500 potential attributable benefit per person is driven by benefits from women finding work – this is estimated to be £4,800 per year person. In comparison the potential attributable benefits from reduced reoffending are estimated to be £1,600 per person per year.

**Table 5 Estimated attributable benefit per head (40% deadweight for labour market effects and 45% deadweight for reoffending effects)**

	Fiscal (non-transfer)	Other Economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£320	£600	£710	£1,600	-
<i>Of which: Criminal Justice System</i>	£260	-	-	£260	-
<i>Of which: NHS</i>	£60	-	-	£60	-
<i>Of which: Other</i>	-	£600	£710	£1,300	-
Labour market participation	£150	£4,700	-	£4,800	£1,800
<i>Of which: NHS</i>	£150	-	-	£150	-
<i>Of which: Other</i>	-	£4,700	-	£4,700	£1,800
<b>Total</b>	<b>£460</b>	<b>£5,300</b>	<b>£710</b>	<b>£6,500</b>	<b>£1,800</b>
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

Table 5 also shows that economic benefits are the primary driver of the benefits from Working Chance. For improved employment outcomes, these stem from higher earnings for female ex-offenders and higher profits to employers. For reducing reoffending outcomes these are related

to reduced damage to property and lower insurance costs. There are also non-transfer fiscal benefits from improved health of women who find work, improved physical and mental health of potential victims of crime and from less offenders going through the Criminal Justice System. Finally, only the physical and emotional benefits to potential victims of crime have been quantified in terms of social costs.

Given that Working Chance places 215 offenders into employment each year the total potential attributable benefit to society under these assumptions is estimated to be around £1.4 million per year. The total operating cost for Working Chance is around £0.8 million per year, giving a net benefit to society of around £0.6 million for the outcomes that this report has been able to quantify. This equates to a benefit-cost ratio of 1.7, meaning that for every £1 spent by Working Chance there are benefits to society of £1.70. However, it is important to reiterate this does not include some of the wider benefits which cannot be quantified. It is also important to note that the operating costs of Working Chance also includes the other ancillary services such as counselling (for which the benefits are not quantified).

Table 6 provides the corresponding potential attributable benefits per head to Table 5, once deadweight loss is accounted for using the high deadweight assumptions. It shows that the total potential attributable economic benefit per person is around £1,900 per year. There are also potential attributable fiscal transfer benefits of £610, which do not contribute to the overall benefit to society but are an additional saving to the Government.

**Table 6 Estimated attributable benefit per head (80% deadweight for labour market effects and 90% deadweight for reoffending effects)**

	Fiscal (non-transfer)	Other Economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£60	£110	£130	£290	-
Of which: Criminal Justice System	£50	-	-	£50	-
Of which: NHS	£10	-	-	£10	-
Of which: Other	-	£110	£130	£240	-
Labour market participation	£50	£1,600	-	£1,600	£610
Of which: NHS	£50	-	-	£50	-
Of which: Other	-	£1,600	-	£1,600	£610
<b>Total</b>	<b>£110</b>	<b>£1,700</b>	<b>£130</b>	<b>£1,900</b>	<b>£610</b>
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

Given that Working Chance places 215 offenders into work each year the total potential attributable benefit to society under these assumptions is estimated to be around £0.4 million per year. As the total operating cost for Working Chance is around £0.8 million per year, giving a net benefit to society of zero for the outcomes that this report has been able to quantify. This equates to a benefit-cost ratio of 0.5, meaning that for every £1 spent by Working Chance there are benefits to society of £0.50. Again, this does not include a consideration of the wider benefits the charity may provide, and for which it incurs a cost.

Including the sensitivity analyses provided in Annex D suggests that the benefit-cost ratio could have a wider range, and may lie between 0.5 and 2.8.

### 5.1.2 Benefits to families

Much of this analysis has focused on the economic benefits that may be provided by Working Chance helping participants into employment or reducing re-offending. There is also a wider story of other benefits to families of the effects of Working Chance interventions.

On average a Working Chance participant who finds work may be £8,300 a year better off (considering tax and benefit effects – see section D.4.2 in Appendix D). The actual gains will depend on personal circumstances, including housing costs, and earnings, and this analysis assumes there are no childcare costs.

Annex C also sets out some of the other social benefits from finding work for women and their families, which it has not been possible to quantify in this analysis but are part of the benefits of not re-offending and finding work. This may mean that the economic and social cost-benefit analysis set out above underestimates the benefit-cost ratio of Working Chance. These benefits include:

- The impact on children of parental involvement in the criminal justice system, especially prison, can be traumatic: they are twice as likely as their peers to have poor mental health, and are more at risk of poverty, poor health, and insecure housing and finances; and
- Children who grew up in workless families were more than twice as likely to fail at all stages of their education, and parental income has causal effects on a wide range of children's outcomes including measures of health and education. Improved child educational attainment is associated with higher earnings.
- The additional benefits which may be provided through the other services which Working Chance provides. For example, the counselling service it uses may improve the mental and physical health of individuals. These wellbeing impacts could be substantial but are not reflected here. The charity may also facilitate improved wellbeing of individuals by helping them find employment and/or reducing reoffending.
- It is plausible that, through the additional services the charity provides, the incidence of re-offending may reduce as a consequence of the support provided. This analysis only includes the reduction in re-offending for the cohort that secure employment each year (approx. 215). However, the indirect impact of the wider support may be that re-offending reduces, even if that individual does not successfully obtain employment.



## 6 Findings and recommendations

Working Chance describes itself as a recruitment charity. It works with female ex-offenders to address barriers to employment. The organisation has two main strands to what it does: to work with female ex-offenders to improve their employability; and work with employers on their recruitment practices. The development of the analysis of this report has been hampered by the lack of evidence on the relative contribution of barriers to work of female ex-offenders and understanding of the intergenerational consequences of maternal offending. The conclusions and recommendations make some suggestions on what Working Chance might do to address these evidence gaps. The issues are of wider public relevance, and so developments in the evidence base should be of interest to a broader range of public bodies.

### 6.1 Economic and social benefit of Working Chance

Due to data limitations it has not been possible to conduct a cost-benefit analysis using a robust methodology which matches the characteristics of participants on Working Chance provision with non-participants. However, the analysis makes some assumptions, and provides a sensitivity analysis, around what would have happened in the absence of any policy intervention to provide a high-level assessment of the benefits of Working Chance. Under some, but not all, of these sensitivities the analysis finds that Working Chance covers its costs in economic terms in getting women into work and reducing re-offending. However, it is important to stress that the analysis only focuses on quantifiable benefits, and therefore underestimates the total benefits provided.

**Recommendation 1:** To improve the analysis, Working Chance should approach the MOJ Datalab to assess the likelihood of re-offending and improved employment outcomes for women who register with Working Chance. While Working Chance has engaged with the Datalab previously the numbers of women matched with Datalab records was small, and there would be some benefit in more carefully matching dates of starting with Working Chance with offence dates. Working Chance should also consider what scope there is for MOJ to identify offenders who are drug free, and have higher educational attainment, to allow a stronger like-for-like comparison.

### 6.2 Barriers to employment for ex-offenders

The limited available evidence suggests that ex-offenders face barriers in finding employment from the attitudes of employers in their hiring practices, although there is no research on what works in addressing these barriers. This is irrespective of their personal attributes. The quantitative analysis of this report points to the conclusion that Working Chance is effective in establishing relationships with employers and provides a stream of candidates to some employers with whom it has an established relationship.

**Recommendation 2:** Working Chance should consider ways to improve the evidence base on barriers to employer hiring practices of ex-offenders, and what works in addressing those barriers.

### 6.3 Children of female ex-offenders

Most female ex-offenders and Working Chance participants have children. The children of ex-offenders are a group where there may be significant long-term benefits in terms of improved health (both physical and mental), and educational attainment and earnings. This may be achieved through reducing maternal re-offending to reduce the likelihood of imprisonment and loss of contact with their children and improved maternal labour market outcomes. While, this is what Working Chance does evidence to quantify the magnitude of these benefits is limited.

**Recommendation 3:** Working Chance should consider ways to improve the evidence base on how Working Chance activity with maternal ex-offenders may improve the life chances of their children.

## Annex A. Characteristics of female offenders and the Working Chance cohort

### A.1 Overview

Section 2.4 of the main paper discusses the issues and difficulties of defining a control group against which to compare outcomes for Working Chance participants. This annex sets out in more detail the data available to the project team when defining a control group. It provides an overview of the female offender population, and how it compares both to the male offender population and the cohort of Working Chance participants. This annex reports what data is available, and whether it is for all offenders, or specifically prisoners, and covers factors which are likely to have a bearing on employment or re-offending outcomes.

Working Chance supports convicted women. A conviction may not necessarily mean a woman is given a prison sentence. It may mean:

- A suspended sentence;
- A fine or restitution;
- Community service;
- Deferred adjudication, or pre-trial diversion; or
- Probation.

A prior expectation might be that women with different types of conviction might have different outcomes in terms of finding a job and re-offending.

Some women working with Working Chance made contact with Working Chance while in prison, for others the type of sentence given is not known. The analysis for Working Chance participants is presented for all participants 2012-16, and by point of contact, which may be when in prison. For those women who contact Working Chance if not in prison the natural assumption to make would be that on average their offence type is less severe as not all will have been to prison.

The MOJ collects data on the characteristics of prisoners from a number of sources. The MOJ does not collect publish regular statistical reports on ex-offenders, and so there is no comparator data with the Working Chance population.

In terms of outcomes there are figures on employment rates for women who left custody in the previous year. This is broadly comparable with the flow of women who contacted Working Chance when in prison.

MOJ data on re-offending rates is in a one-year follow-up period after release from custody, receiving a non-custodial sentence at court, a caution or reprimand.

A key issue is that the available evidence suggests that drug use is common in the female prison population, and that female prisoners can have severe mental health problems. Working Chance participants cannot be drug users at the point of registration, and for this reason it is likely that outcomes for Working Chance participants cannot be compared with those for former prisoners because it is not a like-for-like comparison.

## A.2 General Characteristics

### A.2.1 Female prisoners

On 31 December 2017 the female prison population stood at 3,919, which was 5% of the total prison population (84,373).<sup>16,17</sup> The characteristics of women in prison in December 2017 are outlined below:

- **Age** – The median age of women in prison is 30-39 (the same as men), but women are more likely to be between 30 and 49 than men (59% of women are 30-49 compared to 48% of men), and less likely to be under 24 (11% compared to 18%) or over 60 (3% compared to 6%);
- **Ethnicity** – Over 8 in 10 women are white (82%), compared to 73% for men; and
- **Index offence** – Over a quarter of women (27%) had committed a violent offence, with theft offences (19%) and drug offences (14%) the next most common. The makeup of female prisoners by offence type differs to male prisoners, who are much more likely to be in prison for sexual offences (18% compared to 3% for women) and less likely to commit theft offences (13% compared to 19%).

Moreover, the Surveying Prisoner Crime Reduction (SPCR) survey found that a substantial proportion of women in prison had problematic upbringings and family responsibilities.<sup>18</sup> Some of the headline findings are:

- **Taken into care** – over 3 in 10 women stated that they had been taken into care (compared to 24% for men);<sup>19</sup>
- **Abuse** – over half of women stated having experienced physical, emotional or psychological abuse (compared to 27% for men). And of those who had experienced abuse 63% stated they had experienced sexual abuse;<sup>20</sup>
- **Substance abuse** – Female prisoners were more likely to report having used Class A drugs in the four weeks before custody than male prisoners (58% compared with 43%);<sup>21</sup>
- **Mental Health** – The rates of mental health problems reported in the survey are higher amongst women than men. About one-fifth (21%) of female SPCR prisoners reported having made a suicide attempt in the year before custody, three times the rate reported by male prisoners (7%), and almost half of female SPCR prisoners were assessed as suffering from anxiety and depression, compared with 23% of male prisoners;<sup>22</sup>

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<sup>16</sup> Offender Management statistics quarterly: July to September 2017

<sup>17</sup> This excludes those in Secure Children's Homes and Secure Training Centres. There were 278 people in these establishments, of which 32 were female.

<sup>18</sup> <https://www.gov.uk/government/collections/surveying-prisoner-crime-reduction-spcr>

<sup>19</sup> Prisoners' childhood and family backgrounds: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

<sup>20</sup> Prisoners' childhood and family backgrounds: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

<sup>21</sup> Gender differences in substance misuse and mental health amongst prisoners: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

<sup>22</sup> Gender differences in substance misuse and mental health amongst prisoners: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

- **Education** – just under half of women reported having no qualifications (similar to men);<sup>23</sup> and
- **Families** – over 6 in 10 women reported having dependent children, and of those with dependent children they had on average around 2 children each.<sup>24</sup>

#### A.2.2 Working Chance candidates

Working Chance candidates can be broadly split into three groups:

- **Prisoners** – women who make contact with Working Chance in prison;
- **Ex-offenders** – women who make contact with Working Chance after leaving prison; and
- **Care leavers** – women between 18 and 25 who have been in care.<sup>25</sup>

Historically, Working Chance has worked primarily with the first two of these groups, beginning to offer its services to care leavers only in 2015. This final group is therefore small, and is not considered further as part of this report. The first two groups can be compared with the female prison population, noting that while Working Chance makes reasonable efforts to accurately record data on the women it works with, this is incomplete in some respects.

Between 2012 and 2016, Working Chance worked with 1,074 prisoners and ex-offenders, whose characteristics are outlined below.<sup>26</sup>

- **Age** – both prisoner and ex-offender candidates were of a similar age, both averaged an age of 36 years old;
- **Ethnicity** – there were slightly greater differences in ethnicity between the two groups. 39% of prisoners identified themselves as white, 34% as black, 8% as Asian, and a further 9% as mixed race.<sup>27</sup> By contrast, only 29% of ex-offenders reported themselves to be white, while 44% were black, 8% Asian and 10% mixed race;<sup>28</sup>
- **Offending** – the majority of women from both groups had committed only one crime. Of the remaining women, 26% of prisoners, and 33% of ex-offenders, had committed more than one crime, while only a very small number were prolific offenders.<sup>29</sup> Working Chance collects data on index of offence, but this has not been used in this analysis

Working Chance collects further data that can be compared to the female prisoner population, including on:

- **Taken into care** – 32% of Working Chance candidates have been in care<sup>30</sup>. This excludes candidates who engage with Working Chance who are care leavers without a criminal record.

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<sup>23</sup> The pre-custody employment, training and education status of newly sentenced prisoners: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

<sup>24</sup> Prisoners' childhood and family backgrounds: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners

<sup>25</sup> Care leavers may also, on occasion, have been in prison.

<sup>26</sup> Based on management information from Working Chance. 9 candidates could not be allocated to either group, due to lack of personal information.

<sup>27</sup> 15% were of unknown ethnicity.

<sup>28</sup> 9% were of unknown ethnicity.

<sup>29</sup> This data was missing for 14% of women.

<sup>30</sup> Working Chance analysis of administrative records

- **Physical and/or mental abuse** – this has not been considered as part of this analysis;
- **Substance abuse** – while their history of substance abuse is not recorded by Working Chance, one condition of using its services is that women are drug-free. Working Chance reports that many of its candidates have been drug users, and some continue to receive methadone;
- **Education** – in sharp contrast to the general female prisoner population, less than 5% of Working Chance candidates have no recognisable qualifications. 20% of prisoners, and 24% of ex-offenders, had achieved GCSEs, while a further 11% (8%) had achieved A-Levels. 24% of prisoners, and 22% of ex-offenders, had achieved NVQs. Therefore, over half of the women in both groups had achieved a recognized level of secondary education. A number of women using Working Chance's services had also achieved university-level qualifications, including 13% of prisoners and 20% of ex-offenders.
- **Families** – both groups of candidates also typically had children, with 1.6 on average for prisoners and 1.7 for ex-offenders.

In addition, a key factor in influencing employment outcomes is training and experience. Working Chance candidates also report their level of experience in the work place. It should be noted that the overall quality of the available data is quite poor and the level of experience is unknown for around half of all women. Nonetheless, 15% of prisoners, and 23% of ex-offenders, were reported to have entry-level experience in the labour market. A further 21% (29%) were experienced, whilst 7% of prisoners (and 8% of ex-offenders) had professional or managerial experience.

## A.3 Employment outcomes

### A.3.1 Female prisoners

There is no regular published data source on the employment outcomes of female prisoners. However, the MOJ, Department for Work and Pensions (DWP) and Her Majesty's Revenue and Customs (HMRC) did set up a data share in 2013 and published some information on the proportion of women released from custody claiming benefits and in employment<sup>31</sup>. This data looks at 4.3 million offenders who committed a recordable offence between 2000 and 2013.

These data show that just over half (51%) of women were claiming out-of-work benefits two years prior to their prison sentence. This then rose to 54% one year and one month prior to sentence. One month after release, the proportion of women claiming out-of-work benefits is higher (61%) than prior to sentence, before falling to 56% two years after release from prison. This is higher than for men where around 40% of men were claiming out-of-work benefits one month before sentence, and 53% were claiming out-of-work benefits one month after release before falling to 41% two years after release.

The data also show that both women and men are similarly likely to be in P45 employment both before sentence and after release. Around 23% of women were in P45 employment two years prior to sentence, which fell to 19% one month prior to sentence. Following release, the proportion of women in employment is lower still, at 17%, but then rises back to 23% two years after release.

<sup>31</sup> <https://www.gov.uk/government/statistics/experimental-statistics-from-the-2013-MOJ-dwp-hmrc-data-share>

The MOJ, DWP, HMRC data share also looked at the earnings of those working age offenders released from custody in 2003/04 and tracked them over time<sup>32</sup>. It found that the annual median P14 gross income for female offenders one year after release was £5,900 (2012/13 prices), which rose steadily to £10,000 nine years after release. This compares unfavourably to male offenders, whose annual median P14 income was £9,200 one year after release, and £17,200 nine years after release.

### A.3.2 Working Chance candidates

Working Chance records employment outcomes for its candidates, both in terms of whether they are placed in employment, and the earnings from this employment. However, since this requires a degree of self-reporting, these data track whether a candidate remains in employment after three months more comprehensively than after twelve months. There may be other candidates who find work, but who are not tracked because Working Chance did not place them.

Between 2012 and 2016, the placement rate for prisoners was 48%, though on average there was a 200-day gap between registering with Working Chance and a first placement. These placements were for the most part paid<sup>33</sup> (39% of participants) rather than voluntary (8%). Similarly, for ex-offenders, the placement rate was somewhat higher at 54%, with a 215-day gap between registering with Working Chance and a first placement. Again, these placements were mostly paid<sup>34</sup> (44%) rather than unpaid (10%).

Working Chance's data on the earnings of candidates in paid placements is less complete.<sup>35</sup> Nonetheless, for the placements where this data is recorded, women earned on average £17,000 on an annualised basis.

## A.4 Reoffending

### A.4.1 Female prisoners

One of the aims of Working Chance is to discourage women from offending again. The MOJ *Proven Reoffending Quarterly* statistics publish data on those who commit an offence in a one-year follow-up period from when they received a caution, non-custodial conviction or were released from prison. The published data does not allow us to look at the reoffending rates of women released from custody i.e. female prisoners. Therefore, the figures presented below refer to any woman who received a caution, non-custodial conviction or was released from custody in the given time period. This is a broader set of women than those included in the employment outcomes statistics. There is evidence from the *Proven Reoffending* statistics that offenders who have been in custody (both male and female) have both the highest propensity to reoffend and commit the greatest number of re-offences, and so the figures presented below might underestimate the reoffending rate of women released from custody.

In general, women have had a lower reoffending rate than men over time, although there is no substantial difference in the number of reoffences committed per reoffender. Since 2005, the

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<sup>32</sup> Offenders are only included in the analysis if they had a P14 employment record in that tax year. The analysis therefore excludes offenders with no recorded P14 income.

<sup>33</sup> This is all candidates who found a paid placement. Some will have had an unpaid placement first.

<sup>34</sup> This is all candidates who found a paid placement.

<sup>35</sup> Working Chance records earnings data for 387 successful candidates between 2012-16, while for the remaining 250 paid placements we have conservatively assumed that candidates receive the minimum wage prevailing in the relevant year.

proven reoffending rate for women has fluctuated between 22% and 24%, compared to between 31% and 34% for men<sup>36</sup>.

For women who received a caution, non-custodial sentence or were released from custody between April 2015 and March 2016 the proven reoffending rate was 23.3%, and the women who reoffended committed approximately 3.83 proven reoffences. This can be broken down further by:

- **Age** – those over 50 are least likely to reoffend (13%) and commit the fewest proven reoffences per reoffender (3.13), followed by those aged 18 to 24 (20% and 3.33) and those aged 40 to 49 (21% and 3.68). Excluding juveniles, those aged 30 to 39 (28% and 4.32), the median age of female prisoners, have the highest proven reoffending rates and proven reoffences per reoffender.
- **Ethnicity** – those with a White (25%) or Black (23%) ethnic background had the highest proven reoffending rate, whilst those with an Asian ethnic background had a proven reoffending rate of 13%. Those with White and Black ethnicities also committed the highest number of proven reoffences per reoffender, 3.93 and 3.75 respectively.
- **Index offence** – those who committed a theft (41%) or public order (33%) offence had the highest proven reoffending rate, whilst those who committed a fraud (6%) or violent (14%) offence had the lowest.

#### A.4.2 Working Chance candidates

The reoffending data available for Working Chance indicates a much lower rate of reoffending than the general female ex-prisoner population. Between 2012 and 2016 Working Chance reports thirteen cases of reoffending from Working Chance candidates, out of a cohort of 1,074 women, which corresponds to a reoffending rate of less than 1%.

Candidates who have reoffended are split evenly between those who had a placement and those who did not; seven candidates of the thirteen which reoffended successfully had a placement whilst six had not. The Working Chance data is not as comprehensive as the data from the MoJ as it does not record the crime that was committed when the candidate reoffended.

Whilst the Working Chance database shows a significantly lower rate of reoffending, this result should be treated with caution due to the high missing rate of the variable. Of the 1,074 candidates in the cohort, the reoffending variable was missing in almost 50% of cases. This is also a self-reported figure, in comparison to the MoJ data which captures proven reoffending through the judicial system.

#### A.5 Conclusion

Working Chance's objective is to improve prospective outcomes for women in terms of reoffending and in the job market. As such, the value it adds is reducing the likelihood of reoffending, increasing the likelihood of being in employment and increasing the expected wage of its candidates. However, each of these outcomes are affected, at least in part, by the characteristics identified in this chapter. There are clear differences between the characteristics of Working Chance candidates and the general female prison population. In particular:

- Working Chance's candidates appear to more closely reflect the demographics of London (where it is primarily based) – while Working Chance candidates were of a similar age, had a

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<sup>36</sup> Proven reoffending statistics: January 2016 to March 2016



similar number of children to the general population of female prisoners, and were as likely to have been taken into care as a child, far fewer reported themselves to be white<sup>37</sup>;

- Working Chance candidates are not current drug users, and the available evidence suggests that they suffer from fewer mental health issues than the general female prison population; and
- Working Chance candidates appear to be much better educated.

In addition to the above, Working Chance candidates may be comparatively more motivated to improve their life circumstances because they are active in volunteering to find a job

Given these differences in population characteristics, it is perhaps not surprising that differences in reoffending and employment outcomes are observed. Care should be taken in comparing these differences in outcomes, though, since the available data is not complete nor is it compiled on the same basis.

- **Employment** – the paid placement rate for Working Chance candidates (around 40%) is a flow variable measured over the period 2012-16, whereas the employment rate reported by the MOJ for female ex-prisoners (around 20%) is measured over the period 2000-13, limiting their comparability.
- **Reoffending** – the reoffending rate for Working Chance candidates (at less than 1%) is lower than the rate reported by the MOJ for all women that have committed an offence (around 20%), which is also compiled over a different period. The Working Chance data on reoffending is hampered by a high number of missing records and the fact that it is self-reported. Assuming that women who reoffend are less likely to remain in contact with Working Chance, the reoffending rate recorded by Working Chance may therefore be a significant underestimate.

Nonetheless, an employment rate of around 20% amongst female ex-prisoners is extremely low for any group, and much lower than the placement rate achieved by Working Chance candidates. There is reason to believe that Working Chance candidates (as with all ex-offenders) face disadvantage in the labour market from employer hiring practices. Similarly, Working Chance candidates appear to reoffend at a lower rate than the general population.

It should also be noted that Working Chance candidates face other disadvantages in the labour market in terms of financial and housing difficulties, and caring responsibilities.

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<sup>37</sup> Candidates in Manchester are predominantly white

## Annex B. Employer practices in hiring ex-offenders

Former offenders, both male and female, face a number of barriers to employment. Some of these are individual factors related to the offender, such as the fact a high proportion of offenders' experience mental health issues, face issues with substance abuse or have low education and skills. However, there can also be a stigma attached to being an ex-offender. Ex-offenders are legally required to declare unspent, and sometimes spent convictions if the job requires a criminal record check, and if asked by an employer. There is limited research on the employer attitudes to hiring ex-offenders, but the research that does exist suggests that ex-offenders face barriers to employment from employer attitudes to hiring ex-offenders.

Indeed, a YouGov survey commissioned by the Department for Work and Pensions (DWP) in 2016 found that 50% of employers would not consider employing an ex-offender, regardless of the offence or sentence received<sup>38</sup>. The same survey also found that only 12% of respondents thought there may be advantages to the organisation from recruiting ex-offenders, compared to 17% for homeless people, 33% for long-term unemployed, and 39% for lone parents. This is backed up by a Chartered Institute of Personnel and Development (CIPD) survey, which looked at employer attitudes to the same groups of people with barriers to employment. It found that ex-offenders were the 'least likely' disadvantaged group to be employed (compared to those over 65, lone parents and long-term unemployed) and only 12% of employers had employed somebody with a criminal record in the previous three years, and one in five employers (19%) had deliberately excluded those with a criminal record when recruiting<sup>39</sup>.

The YouGov survey also looked at the factors of concern to employers from hiring ex-offenders, with the most commonly cited reasons being that they may be unreliable (45%); they may damage the public image of the business (40%); and they may upset their new colleagues (36%).

However, when employers who have hired ex-offenders are asked about their experience of working with ex-offenders the research tends to point towards a positive experience. A study by Working Links (2010) found that 85% of those who had employed ex-offenders found that ex-offenders worked as hard, if not harder than those with no convictions<sup>40</sup>. And a Joseph Rowntree report (2001), using Centre for Regional Economic and Social Research in-depth examination of employers, found that employers were three times more likely to have a positive experience than negative experience of knowingly employing ex-offenders<sup>41</sup>.

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<sup>38</sup> [https://d25d2506sfb94s.cloudfront.net/cumulus\\_uploads/document/42yrwvixdo/YG-Archive-160126-DWPwaves.pdf](https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/42yrwvixdo/YG-Archive-160126-DWPwaves.pdf)

<sup>39</sup> <http://www.prisonreformtrust.org.uk/Portals/0/Documents/Employmentbriefing180515.pdf>

<sup>40</sup> <http://www.prisonreformtrust.org.uk/Portals/0/Documents/Employmentbriefing180515.pdf>

<sup>41</sup> Fletcher et. Al (2001), *Recruiting and employing offenders*

## Annex C. Description of economic costs and benefits of Working Chance services

### C.1 Costs

To estimate the annual resource costs of Working Chance this report looks at average annual running costs of Working Chance. Analysis of expenditure on charitable activities taken from Working Chance's annual reports show that over the period 2013/14 to 2017/18 the average annual cost of providing services was £816,000. Therefore, this analysis has been based on the broad operating cost of £0.8 million.

Working Chance also provides free counselling services to ex-offenders, delivered by an external organisation, to help women with mental health issues who might benefit from this provision. C.2 Benefits

The benefits of Working Chance outlined in this report – reduced reoffending and improved employment outcomes – are not solely to those women who Working Chance has worked with. There are, indeed, direct benefits to these women and their families, from increased income due to an increased chance of finding work, and from improved wellbeing. However, there are also benefits to (a) individuals who no longer become a victim of crime, mainly from reduction in the emotional and physical costs associated with crime; (b) the wider economy, from a reduction in lost output from victims of crime missing work and from an increase in the labour supply from ex-offenders finding work; and (c) the Government, from a reduction in health expenditure (both related to less crime and higher employment), a reduction in criminal justice expenditure, from increased tax revenues of ex-offenders in work, and reduction in welfare payments to ex-offenders who would otherwise have been on benefits.

Using the data outlined in Chapter 3 and again in Annex A, it has been possible to quantify some of the benefits from reduced reoffending and improved employment outcomes. These benefits, and who they accrue to, are described below.

There are also benefits that it has not been possible to quantify and are subsequently outside the scope of this report. These include, but are not limited to, benefits such as the potential improved well-being of female ex-offenders, as this is subjective, and long-term intergenerational benefits to the children of female ex-offenders.

#### C.2.1 Benefits from reducing reoffending

The economic and social benefit from reducing reoffending is equivalent to the economic and social benefits from a reduction in crime. The Home Office (2000)<sup>42,43</sup> set out the costs associated with being a victim of crime for a number of different crime types, and, therefore, reducing reoffending will bring about benefits to potential victims of crime, employers and the government. These benefits are summarised overleaf.

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<http://webarchive.nationalarchives.gov.uk/20110218140137/http://rds.homeoffice.gov.uk/rds/pdfs/hors217.pdf>

<sup>43</sup> It is important to note that these figures have been updated in the 2<sup>nd</sup> edition of 'The economic and social costs of crime'. However, this was realised in July 2018 which was after the analysis in the study was undertaken. The unit costs for the cost of crime have been taken from the New Economy Unit analysis, which in itself is based on Home Office cost of crime figures (1<sup>st</sup> edition)

*Benefits to individuals who are no longer victims of crime*

- **Benefits from a reduction in costs in anticipation of crime:** Potential victims of crime may undertake precautionary measures to reduce the chance of becoming a victim of crime. Such action includes 'defensive expenditure', on things such as burglar alarms, fencing and security guards, and taking out insurance. A reduction in crime, therefore, may reduce the need to take as much precautionary action and is a benefit to the victim.
- **Emotional and physical benefits:** Victims of crime (particularly violent crime) may suffer physical injuries, or psychological trauma that may have short or long term effects on a victims' quality of life. Therefore, reducing crime, should provide benefits in the form of improved health/ quality of life.
- **Benefits from a reduction in stolen property or goods:** Victims of certain crime types, such as theft or burglary, would have had to replace their stolen items. A reduction in crime, therefore, presents a saving, equivalent to the value of the stolen property or goods, to the victim.

*Benefits to employers*

- **Benefits from a reduction in lost output:** Employees may need to take time off work to deal with the consequences of crime. This results in costs to employers who are paying wages, but receiving no productive input. Reducing crime should reduce the amount of time employees are absent from work, and consequently the costs to employers.

*Benefits to Government*

- **Benefits to health and victim services:** In crimes where assault or violence is involved then health costs will fall on the NHS and other health service providers, due to the opportunity cost of resources used to treat crime. Further, emotional costs of crime to the victim may manifest themselves in the need for support services, such as counselling. A reduction in crime, therefore, will reduce the opportunity costs and demand on these resources.
- **Benefits to the Criminal Justice System:** A reduction in crime will mean that there will fewer resources spent in dealing with the response to crimes. For example, the police will carry out fewer investigations, fewer cases will go through the courts and fewer people might end up in prison. Therefore, there are benefits to the Home Office and the Ministry of Justice from reducing crime.

The Home Office provide unit costs for each of these categories across different crime types. The estimates used are presented in Annex D. There may also be wellbeing benefits to the women and families of the women who participate in Working Chance's interventions, and subsequently reduce reoffending. These are not covered in the Home Office costs of crime and therefore are not quantified in this report but are described below.

### *Benefits to families of women who work with Working Chance*

Women being sent to prison will mean that children are separated from their mothers, potentially for the first time. The Prison Reform Trust<sup>44</sup> estimated that:

Women's imprisonment resulted in 17,240 children being separated from their mothers each year, and for eight out of ten children, it's the first time they have been separated from their mother for more than a day or so.

They also find that:

The impact on children of parental involvement in the criminal justice system, especially prison, can be traumatic: they are twice as likely as their peers to have poor mental health (Murray et al, 2009), and are more at risk of poverty, poor health, and insecure housing and finances (Smith et al, 2007).

Therefore, if Working Chance are able to reduce the number of women who reoffend, and, consequently, the number of women separated from their children each year then there will be long-term benefits from improved finances and mental health. These would be expected to accrue over a long time period and are important to consider when evaluating the total benefits of Working Chance.

### **C.2.2 Benefits from improved employment outcomes**

#### *Benefits to women who work with Working Chance*

The benefits from improved employment outcomes are expected to accrue mainly to the women and the families of the women who participate in Working Chance's interventions. This comes primarily in the form of earning a higher wage (which is a proxy for increased living standards and better quality of life), but there are also individual wellbeing benefits that come from being in work, although these have not been quantified in this report.

A What Works report<sup>45</sup> into unemployment, (re)employment and wellbeing states:

unemployment is one of the most important factors affecting individual wellbeing, with negative impacts going beyond the effects on income. When measuring life satisfaction on a 0-10 scale, the unemployed report about 0.5 points lower compared to those who are in employment. However, the effects are different for different groups in different contexts.

In addition, a systematic review by Waddell and Burton (2006)<sup>46</sup> concluded that there is a strong evidence base showing that work is generally good for physical and mental health and well-being.

#### *Benefits to families of women who work with Working Chance*

There will also be increased wellbeing effects to the spouses and children of these women. The same What Works report finds that wellbeing of spouses also decreases when their partner is unemployed, although this effect is smaller for male spouses.

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<sup>44</sup> [http://www.prisonreformtrust.org.uk/Portals/0/Documents/Women/why%20women\\_final.pdf](http://www.prisonreformtrust.org.uk/Portals/0/Documents/Women/why%20women_final.pdf)

<sup>45</sup> <https://whatworkswellbeing.files.wordpress.com/2017/02/unemployment-reemployment-wellbeing-briefing-march-2017-v3.pdf>

<sup>46</sup> <https://www.gov.uk/government/publications/is-work-good-for-your-health-and-well-being>

Perhaps more importantly are wellbeing benefits to children. As described above, reducing reoffending may offer benefits to those children who are no longer separated from their mothers who may have otherwise reoffended, but there are also benefits to children from these women finding employment. For example, the Institute for Social and Economic Research<sup>47</sup> show that children who grew up in workless families were almost twice as likely to fail at all stages of their education, and a systematic review by the Centre for Analysis of Social Exclusion (2017)<sup>48</sup> finds that parental income has causal effects on a wide range of children's outcomes (including measures of health and education).

Improved educational attainment is associated with higher earnings. A literature review<sup>49</sup> concludes that:

- Positive economic returns to formal education have been consistently found at the individual level;
- The effect of qualification attainment can be particularly strong when this leads to completion of a qualification and upgrading of a person's education level;
- Men who complete five or more O levels (or equivalent level 2 qualifications) receive an average return of around 19 per cent compared with individuals who complete no qualifications before leaving school at 16. The corresponding figure for women is 17.5 per cent; and
- The average estimate of the gross rate of return or earnings premium is around 10 per cent per additional year of education.

#### *Benefits to employers and the wider economy*

The value of a worker's output to an employer should at least reflect the costs of hiring that worker. These include each worker's salary and additional employer contributions to cover 'on-wage' costs such as National Insurance and pension contributions. Because the costs and benefits of hiring that worker are assumed to be equal there is no additional benefit to society.

However, where the full economic value of a worker is greater than these costs, there may be additional benefits to individual employers, reflected in the short-run through increased profits. At the macroeconomic level, if the women who find jobs after working with Working Chance can boost the productive potential of the economy there could be wider economic benefits from increased output per worker across the UK. It has not been possible to quantify this benefit within this report as the cohorts that Working Chance help are small, and so the associated benefits are expected to be small at an aggregated level.

#### *Benefits to Government*

There are benefits from people moving into employment to several government departments. These are summarised below:

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<sup>47</sup>[https://www.understandingsociety.ac.uk/sites/default/files/downloads/case-studies/52179\\_US\\_CS\\_Tackling\\_Worklessness\\_Lft\\_web.pdf](https://www.understandingsociety.ac.uk/sites/default/files/downloads/case-studies/52179_US_CS_Tackling_Worklessness_Lft_web.pdf)

<sup>48</sup><http://sticerd.lse.ac.uk/dps/case/cp/casepaper203.pdf>

<sup>49</sup>[Economic Returns to Education](#)

- **Health services:** The Department for Work and Pensions' (DWP) social cost benefit framework<sup>50</sup> finds that as people move from unemployment into employment they incur 33 per cent less in medical costs than employed people.
- **HM Treasury:** If women are earning a higher average salary then it is expected that they will pay more in direct and indirect taxes, thus contributing more to the exchequer. However, although this a benefit for the Treasury, it is not a wider economic benefit as it just a transfer between two agents in the economy.
- **DWP:** As a result of improvements in the employment outcomes of female ex-offenders there may also be a reduction on the number of in-work and out-of-work benefit claimants.

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<sup>50</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/214384/WP86.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214384/WP86.pdf)

## Annex D. Cost-benefit calculations of Working Chance interventions

### D.1 Overview of modelling

Chapter 4 summarises the main results. This annex provides a detailed explanation of the key assumptions, the methodology used, and the sensitivity analysis for the results of the cost-benefit analysis presented in Chapter 4. It has not been possible to quantify all benefits where they may be associated with non-market activity, such as improvements in emotional wellbeing. There is also considerable uncertainty around the assumptions used in this analysis, so a conservative approach has been used in making use of the available data.

Of the impacts that can be quantified, the data presented in Annex A from the Working Chance database and from various MOJ data sources allows a comparison of the differences in outcomes between the Working Chance and the general female ex-offender population. In addition, the New Economy Manchester Cost-Benefit Analysis Guidance for Public Service Transformation provides a number of unit costs used in this report.<sup>51</sup>

These data do not take into account what would have happened in the absence of any intervention, or deadweight. The main paper explains, and Annex A describes the available data, that it is not been possible to estimate this by a statistical method because:

- There is not comparable data on ex-offender characteristics to allow a like-for-like comparison of participants and non-participants;
- Not all the characteristics that are likely to impact on outcomes such as drug use and mental health are recorded;
- Working Chance participants have different characteristics from the wider ex-offender population. Further, participants on the programme are voluntary, and so more likely to be seeking better outcomes in their lives.

As a consequence, the project team has not been able to identify a robust comparison group against which to compare employment and re-offending outcomes. Instead it has applied deadweight assumptions to estimates of potential savings to derive net effects, explained in Chapter 2. The central scenario assumes a deadweight of 40% for employment outcomes and 45% for reoffending outcomes, and our alternative scenario considers a deadweight of 80% for employment outcomes and 90% for reoffending outcomes. This range reflects the considerable uncertainty around the deadweight estimates.

### D.3 Key assumptions for calculating the benefits from reduced reoffending

Benefits due to reduced reoffending could take two forms:

- Reduced rates of reoffending for a given crime in the Working Chance cohort; and
- Reduced severity of crime where the Working Chance cohort may reoffend, but with a more minor offence.

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<sup>51</sup> <http://www.neweconomymanchester.com/media/1443/2765-pu1617-cba-guidance-020414-1312-final.pdf>



Data on the specific reoffences committed by the Working Chance cohort is not robust, and therefore the second of these potential benefits is not estimated in this report. As such, we can only estimate the first effect, reduced rates of reoffending for a given crime.

In addition, the Working Chance data on whether or not a member of their cohort has reoffended is also incomplete and there is a risk of bias in the data as those who are not recorded may be more likely to have reoffended. This could mean that any detection of a lower reoffending rate in the Working Chance cohort might be due to undercounting, rather than actual reduced reoffending.

#### **D.3.1 Offences and reoffences committed by women offenders**

The MOJ holds reoffending data on women who received a caution, non-custodial sentence or were released from custody between April 2015 and March 2016 and committed a proven reoffence within a one-year follow up. These data are summarised in Table D.1. These data refer to the general population of all adult women offenders and does not specifically show the reoffending rate for women offenders released from custody, which is not publicly available.

Table 7 Proven offences and reoffences by women<sup>52</sup>

Offence type	Number of offenders (A)	Proportion of total offences (B)	Reoffending rate (C)	Number of reoffenders (D = A * C)	Reoffences per reoffender (E)	Number of reoffences (F = D * E)	Total reoffences per reoffender (G=SUM(F)/SUM(D))
Violence Against the Person	5,050	5.9%	13%	660	2.6	1,720	-
Sexual offences	90	0.1%	20%	20	0.0	50	-
Robbery	240	0.3%	24%	60	3.1	180	-
Theft	21,640	25%	42%	9,040	4.8	43,250	-
Criminal Damage and Arson	440	0.5%	17%	70	3.2	240	-
Drug offences	5,730	6.8%	19%	1080	3.0	3,190	-
Possession of Weapons	830	1.0%	25%	210	3.9	810	-
Public Order	1,600	1.9%	33%	530	5.1	2,670	-
Miscellaneous Crimes Against Society	3,580	4.2%	23%	810	4.0	3,270	-
Fraud	3,960	4.7%	6%	250	3.0	740	-
Summary Non-motoring	9,860	12%	7%	720	2.4	1,760	-
Summary Motoring	31,730	37%	18%	5,760	3.0	17,390	-
Other	160	0.2%	8%	10	0.0	30	-
<b>Total</b>	<b>84,890</b>	<b>100%</b>	<b>23%</b>	<b>19,220</b>	<b>-</b>	<b>75,310</b>	<b>3.9</b>
Notes:							
[1] Instances of reoffending per reoffender for sexual and 'other' offences (Variable E) are published as 'nil' due to small sample numbers, but there are recorded instances of proven reoffending that are carried forward in the calculations. Totals may not appear to sum due to rounding.							

<sup>52</sup> Proven reoffending statistics: January 2016 to March 2016, MOJ Management Information from the Police National Computer

The average reoffending rate in the general population of women offenders is about 23% (Variable C in Table 7 and the average number of reoffences per reoffender is about 3.9 (Variable G in Table D.1), which is higher than the historical average.

As discussed in Chapter 3 of this report, the rate of reoffending of the Working Chance cohort is estimated to be around 1%. This is unlikely to be the actual reoffending rate as reoffending is not known for almost half of participants; and, for those that do reoffend, they may not wish to admit to it. However, assuming a reoffending rate of 1% for the Working Chance cohort and that each reoffender commits 3.9 reoffences, this report estimates that each female offender in the Working Chance cohort commits 0.04 reoffences. It is important to remember that not every reoffender will commit the same crime as their original index offence.

### D.3.2 Costs of offences and reoffences

New Economy Manchester<sup>53</sup> publish Home Office figures on the costs of crime, shown in Table D.2. The figures come from 2003/04 and have been published by New Economy Manchester in 2010/11 prices. This analysis has uprated them from 2010/11 prices to 2016/17 prices using the GDP deflator<sup>54</sup>.

The costs are split into three categories:

- Fiscal costs, which cover costs to public services and is split between:
- NHS costs to treat injuries arising from offending; and
- Criminal Justice System costs from offenders going through the system.
- Other economic costs, which cover lost output, increased insurance and property loss to victims.
- Social costs, which cover the physical and emotional costs to victims.

In addition, the MOJ have produced estimates of the types of reoffences that female adult offenders tend to commit – note that these may not be the same types of offences as they committed initially. These estimates are also summarised in Table 8, which is arranged by the reoffence committed and not by the original offence.

As these figures are a cost per crime they are markedly less than the costs of crimes which are prosecuted through the criminal justice system. Not all crimes are resolved, for example.

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<sup>53</sup> <http://www.neweconomymanchester.com/media/1443/2765-pu1617-cba-guidance-020414-1312-final.pdf>

<sup>54</sup> The Home Office published updated figures in the second half of 2018 after this analysis had been completed.

Table 8 Estimated costs and incidence of crime, 2016/17 prices<sup>55</sup>

Reoffence type	Cost per offence				Total unit cost (L = H + I + J + K)	Number of proven reoffences (M)	Proportion of total reoffences (N = M / sum(M))
	NHS cost (H)	Criminal Justice System cost (I)	Other Economic cost (J)	Social cost (K)			
Violence against the person	£550	£2,500	£1,500	£6,200	£10,800	2,230	3.0%
Sexual offences	£710	£3,200	£5,300	£28,000	£37,500	160	0.2%
Robbery	£730	£3,300	£1,500	£4,200	£9,700	330	0.4%
Theft	£90	£390	£1,900	£670	£3,100	32,100	42.6%
Criminal damage and arson	£30	£140	£350	£650	£1,200	210	0.3%
Drug offences	£120	£550	£740	£1,800	£3,200	5,000	6.6%
Possession of weapons	£120	£550	£740	£1,800	£3,200	1,100	1.5%
Public order	£120	£550	£740	£1,800	£3,200	2,500	3.3%
Miscellaneous crimes against society	£120	£550	£740	£1,800	£3,200	6,100	8.0%
Fraud	£120	£550	£740	£1,800	£3,200	950	1.3%
Summary non-motoring	£120	£550	£740	£1,800	£3,200	14,100	18.8%
Summary motoring	£120	£550	£740	£1,800	£3,200	10,400	13.8%
Other	£120	£550	£740	£1,800	£3,200	150	0.2%
<b>Total</b>	-	-	-	-	-	<b>75,300</b>	<b>100%</b>
Notes:							
[1] Totals may not sum due to rounding. Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100.							

<sup>55</sup> Data relating to unit costs are from *New Economy Manchester*; and data relating to reoffending figures are from the MOJ *Proven Reoffending Quarterly statistics: January 2016 to March 2016*

The costs by offence type in the New Economy Manchester publication do not match the offence types in the MOJ data in all cases. As such, the offence types have been adjusted in the following way:

- Violence against the person uses the published costs for 'other wounding'. This may underestimate the costs of reoffending if reoffenders commit more violent crimes;
- Theft is the weighted average cost of several burglary, theft of/ from a vehicle and shoplifting categories; and
- Drug offences, possession, public order, miscellaneous, fraud and summary offences have no corollaries in the cost data, and so all use the average cost for all other offences.

The costs of offences are then weighted according to the proportion of each offence type in the reoffending data (see Table 8, variable M). This allows a weighted average cost per reoffence to be calculated, which is shown in Table 9.

**Table 9 Estimated average cost of crime, 2016/17 prices<sup>56</sup>**

	Average cost
Fiscal	£680 <sup>[1]</sup>
Other Economic	£1,300
Social	£1,500
Total	<b>£3,500</b>
Notes:	
[1] Fiscal costs are made up of £120 to the NHS and £560 to Criminal Justice System.	

Given that the average number of reoffences per ex-offender in the Working Chance cohort is around 0.04; and that the average cost of a reoffence is around £3,500, this gives an estimated average cost of reoffending for the Working Chance cohort of around £140 per person.

#### D.4 Key assumptions for calculating the benefits from additional labour market activity

Working Chance aim to help women prison-leavers to increase the amount of economic activity in two ways:

- By increasing the likelihood of the women finding work; and
- By helping them to find more productive work, which is assumed to be better paid.

Between 2012 and 2016, the placement rate for the Working Chance cohort into paid work has been around 42%, and the average wage of the Working Chance cohort in paid employment (where data is available) is around £17,000. However, there are several missing data entries for the average wage variable and it is not clear whether these missing data are random. As such, this analysis has assumed conservatively that where there is no data relating to the average wage of women in paid employment, the wage for these women is equal to the minimum wage (around £13,000 per year). This generates an average estimated salary for those in work (used in the central estimate) of around £15,500 per year.

However, the value of a worker's output is expected to be worth more than the costs of their wages, as they must also produce sufficient output to cover 'on-wage' costs, such as employer

<sup>56</sup> Data relating to unit costs are from *New Economy Manchester*; and data relating to reoffending figures are from the MOJ *Proven Reoffending Quarterly statistics: January 2016 to March 2016*

contributions to National Insurance and pensions.<sup>57</sup> These are estimated by EuroStat to average about 20% on top of wages in the UK. Therefore, average wages are increased by 20% to generate the 'full economic value' (FEV) of labour output<sup>58</sup>.

#### D.4.1 NHS savings

Working Chance will generate savings for the NHS where their intervention leads to female prison-leavers utilising fewer NHS resources. New Economy Manchester provides estimates of the average annual savings to the NHS from someone moving into work of around £585 per head.<sup>59</sup> This refers to the effects of people coming off benefits and into work, rather than people coming out of prison, so it is not a perfect estimate.

As mentioned earlier, the Working Chance cohort is assumed have a 42% chance of being in paid work, giving an average annual saving per head of around £250.

#### D.4.2 Impact on taxation and benefits

There are various tax-benefit effects when an individual finds work. For example, on entry into employment, individuals begin to contribute in terms of income tax and national insurance contributions and will receive lower benefit payments. These tax-benefit savings are assumed to be a transfer between the Government and the Working Chance cohort. Therefore, they are not included within the economic cost-benefit analysis results but are presented separately as part of the total fiscal benefits.

A number of assumptions have been used to understand these tax-benefit effects:

- Calculations are based on the 2016/17 tax-benefit system.
- Calculations assume individuals are claiming 'full service' Universal Credit.
- The modelling, in the absence of better data, assumes that a 'typical' Working Chance participant who finds work is representative of the whole population.
- For simplicity of analysis, it is assumed that a 'typical' participant in the Working Chance cohort is over 25, an owner occupier (i.e. no housing rent), and has no childcare costs or pension contributions.
- We also assume that individuals are either lone parents or have a partner with no earnings, and that they have two children.
- The personal allowance rate is set at £11,500. Additional income is taxed at a rate of 20%. All income bands fall below any higher tax rate threshold.
- National Insurance contribution is 12%.
- Out of work benefits (excluding any child benefits) are estimated at £9,900. Child Benefit is not included in the calculation as it is payable both in and out of work, and what matters for the cost-benefit analysis is the change in tax-benefit payments from finding work.

For the Working Chance cohort, an estimated salary of £15,500 results in a net income of around £19,500<sup>60</sup> (including £4,000 of in-work benefits), additional tax contributions of around £1,300

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<sup>57</sup> HMT Green Book

<sup>58</sup> The effect of this assumption is to improve benefit-cost ratios, but by no more than 0.3 points for any of the calculations in this report.

<sup>59</sup> New Economy publish figures in 2012/13 prices, which this analysis has uprated to 2015/16 using the Hospital and Community Health Services price index.

<sup>60</sup> Note, numbers are rounded, as such numbers may not add to totals presented

and a net reduction in benefit payments of around £6,000. Subject to the assumptions above, on average a Working Chance participant who finds work is £8,300 a year better off.

## D.5 Sensitivity analysis

The information set out in the previous sections allows the estimation of costs and benefits. The main results are reported in Chapter 4, including for the main sensitivity of deadweight assumption.

As well as the deadweight assumption there is a great deal of uncertainty with the results provided under some of the other assumptions. To understand how sensitive the results are this section covers changes to wages of the Working Chance cohort, and the time period for which benefits are analysed.

### D.5.1 Changes to assumed salary of Working Chance women

As discussed previously, the central estimate assumed an annual wage for the Working Chance women of around £15,500. However, this assumed that the annual wage for women where no data was recorded was equal to the minimum wage. If instead the assumed average annual wage was £17,000 (i.e. the average wage for women in the Working Chance cohort where data was available), then the overall potential attributable benefit would be £6,900 per person in the year following completion of the Working Chance programme as shown in Table 10). This would give a total net benefit (not including the fiscal transfer) of around £1.5 million; or a benefit-cost ratio of around 1.9.

**Table 10** Estimated attributable benefit per head (using higher wages and 40% deadweight for labour market effects and 45% deadweight for reoffending effects)

	Fiscal (non-transfer)	Other Economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£320	£600	£710	£1,600	-
Of which: Criminal Justice System	£260	-	-	£260	-
Of which: NHS	£60	-	-	£60	-
Of which: Other	-	£600	£710	£1,300	-
Labour market participation	£150	£5,100	-	£5,300	£2,100
Of which: NHS	£150	-	-	£150	-
Of which: Other	-	£5,100	-	£5,100	£2,100
<b>Total</b>	<b>£460</b>	<b>£5,700</b>	<b>£710</b>	<b>£6,900</b>	<b>£2,100</b>
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

If the higher deadweight assumptions (see above) are applied to these higher wage benefit estimates, then the total net benefit is estimated to be around £450,000 (a benefit-cost ratio of around 0.6), as shown in Table 11.

**Table 11** Estimated attributable benefit per head (using higher wages and 80% deadweight for labour market effects and 90% deadweight for reoffending effects)

	Fiscal (non-transfer)	Other Economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£60	£110	£130	£290	-
Of which: Criminal Justice System	£50	-	-	£50	-
Of which: NHS	£10	-	-	£10	-
Of which: Other	-	£110	£130	£240	-
Labour market participation	£50	£1,700	-	£1,800	£700
Of which: NHS	£50	-	-	£50	-
Of which: Other	-	£1,700	-	£1,700	£700
Total	£110	£1,800	£130	£2,100	£700
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

#### D.5.2 Changes to length of time benefits accrue

These estimates assume that the effects of Working Chance's interventions last for one year; if they are assumed to last longer, then this would increase the benefits of Working Chance's interventions, and there are no additional operating costs in the second year relating to the first year's cohort. If the benefits were assumed to last for 18 months, then this would increase the total potential attributable benefit by 1.48, once discounting of the second (partial) year at the societal rate of 3.5% is accounted for. Table 12 shows the potential attributable benefit of around £9,600 per person, or around £2.1 million in total. This represents a benefit-cost ratio of around 2.6.



**Table 12** Estimated attributable saving per head (programme effects of 18 months, using 40% deadweight for labour market effects and 45% deadweight for reoffending effects)

	Fiscal (non-transfer)	Other Economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£470	£880	£1,100	£2,400	-
<i>Of which: Criminal Justice System</i>	£380	-	-	£380	-
<i>Of which: NHS</i>	£80	-	-	£80	-
<i>Of which: Other</i>	-	£880	£1,100	£1,900	-
Labour market participation	£220	£6,900	-	£7,200	£2,700
<i>Of which: NHS</i>	£220	-	-	£220	-
<i>Of which: Other</i>	-	£6,900	-	£6,900	£2,700
<b>Total</b>	<b>£690</b>	<b>£7,800</b>	<b>£1,100</b>	<b>£9,600</b>	<b>£2,700</b>
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

If the higher deadweight assumptions (see above) are applied to this longer time period for estimating benefits, then the total potential attributable benefit is estimated to be around £600,000 (a benefit-cost ratio of around 0.8), as shown in Table 13.

**Table 13** Estimated attributable saving per head (programme effects of 18 months, using 80% deadweight for labour market effects and 90% deadweight for reoffending effects)

	Fiscal (non-transfer)	Other economic	Social	Total	Fiscal (transfer)
Reducing reoffending	£90	£160	£190	£440	-
<i>Of which: Criminal Justice System</i>	£70	-	-	£70	-
<i>Of which: NHS</i>	£20	-	-	£20	-
<i>Of which: Other</i>	-	£160	£190	£350	-
Labour market participation	£70	£2,300	-	£2,400	£900
<i>Of which: NHS</i>	£70	-	-	£70	-
<i>Of which: Other</i>	-	£2,300	-	£2,300	£900
<b>Total</b>	<b>£160</b>	<b>£2,500</b>	<b>£190</b>	<b>£2,800</b>	<b>£900</b>
Notes:					
[1] Rounding convention is to round numbers less than 1,000 to nearest £10, and larger numbers to nearest £100					
(2): Other effects from reduced re-offending are forgone physical and emotional costs of crime,					
(3): Other effects from labour market participation are from increased labour supply					

### D.5.3 Summary of benefit-cost ratio under different sensitivities

Table 14 summarises the estimated returns, that is benefit-cost ratios for the sensitivities modelled in this section. There is a broad range for the ratio, which is between around 0.5 and 2.8.

**Table 14 BCR for modelled sensitivities**

	Average wage is £15,500 per year		Average wage is £17,000 per year	
	12-month benefits	18-month benefits	12-month benefits	18-month benefits
Lower deadweight (40%/45%)	1.7	2.6	1.9	2.8
Higher deadweight (80%/90%)	0.5	0.8	0.6	0.8