



# **An assessment of the value for money provided by Coracle**

## **About Crest Advisory**

We are crime and justice specialists - equal parts research, strategy and communication. From police forces to public inquiries, from tech companies to devolved authorities, we believe all these organisations (and more) have their own part to play in building a safer, more secure society. As the UK's only consultancy with this focus, we are as much of a blend as the crime and justice sector itself.

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## Executive Summary

Crest Advisory was commissioned to evaluate the value for money provided by the deployment in UK prisons of the Coracle Virtual Learning Environment (Osprey-VLE) - an accessible digital platform that provides users with a wide range of educational and vocational materials, self-study and development tools, and other content. Using a robust quasi-experimental evaluation approach, aligned to HM Treasury's Magenta Book guidance for evaluation, and monetisation approaches outlined in HM Treasury's Green Book, **we estimate that the Coracle system currently provides an annual monetisable benefit of £35,566,985 (equivalent to £16 returned for every £1 spent)** based on the deployment to 96 prisons.

This is based on statistical analysis of publicly available data related to educational attainment, in-prison harm, and post-release employment. Our analysis used generalised synthetic control methods and staggered difference-in-difference analysis and found that the deployment of the Coracle system was associated with a **statistically significant increase in employment at both 6 weeks and 6 months post-release from custody**. Directional, but not statistically significant positive effects were detected for completion and progression of accredited educational courses, assaults within prison, and self-harm incidents. Whilst this assessment identified a broad range of outcomes that the Coracle system could be delivering, gaps in publicly available data mean that the impact and value for money evaluation have been narrow in scope. Many of the results demonstrate a strong trend towards greater impact over time and where there is a lack of statistical significance this does not mean a lack of impact - more granular data might provide a more persuasive argument and stronger evidence base as to the value of the Coracle system in prisons and the positive outcomes it is achieving.

Potential beneficial outcomes were identified through a rapid evidence review of the academic and grey literature. In 2016, an independent review of prison education conducted by Dame Sally Coates stated that education in prison is 'one of the pillars of effective rehabilitation' and called for education to be at the heart of the prison system. It leads to reduced reoffending, improved well-being of prisoners during their sentences, and supports prisoners to gain employment once they are released. The review noted that 'recognition of the importance of education in prisons appears to have been lost' and emphasised the need for a more holistic approach to education that did not rely on classrooms and workshops alone, particularly specifying the need for change to be driven through improved digital systems. The Covid-19 pandemic had a major impact on the UK prison system, reducing the ability of prisoners to receive visitors, engage in educational or purposeful activities, or receive support from outside organisations. A 2022-23 report by the House of Commons Education Committee stated that the pandemic 'had brought into stark focus the need for prisoners to be able to work individually and in their cells' and it highlighted the need to consider education in a broader context than just employability and reoffending - recognising the potential impact on mental health and wellbeing for prisoners both before and after their release back into society.

# Introduction

## Overview and scope

Crest Advisory has been commissioned by Coracle to evidence the value for money provided by their Osprey-VLE platform within the prison sector. The purpose of this report is to explore the extent to which Coracle represents value for money within the prison sector and to assess its contribution to achieving positive outcomes for prisoners, prison staff, and the wider public. The primary focus of the Coracle system is on improving access to prison education and rehabilitation outcomes. However a broad range of positive benefits have been examined, including reducing violence and self-harm within prisons, post-custody employment, prisoner and prison staff wellbeing, prison releases, and prison ratings. This document presents a rapid evidence review and analysis of publicly available data to assess the impact of Coracle. The analysis is based on management information from Coracle on the number of devices deployed within prisons, the dates at which each prison was onboarded with Coracle, with outcome measurement based solely on publicly available data. The report also aims to help Coracle understand what can currently be evidenced and where gaps exist due to data limitations.

The rapid evidence review outlines the existing literature related to the outcomes that the Coracle system could achieve and how those outcomes lead to monetisable and non-monetisable benefits. The purpose of the review is to provide the theoretical underpinning for identifying and quantifying impacts. A logic model has been developed to show how the inputs and activities associated with both Coracle and other educational systems lead to specific outcomes and benefits for prisoners, prisons, and wider society. This model is used as a framework for demonstrating pathways to impact, highlighting why different approaches to educational support (i.e. in-cell vs class-based delivery) might lead to different outcomes. This evidence review has focused on a range of literature, including academic papers and grey literature, with a focus on more recent publications and UK government policy papers. A search was conducted using academic search engines, including JStor and Google Scholar, with relevant papers being assessed for quality and relevance before being selected for inclusion in this review.

The evidence of impact is, where possible, based on robust quasi-experimental design evaluation approaches as outlined in HM Treasury's Magenta Book (2024). These focus on robust quantification of outcomes and credible approaches to attributing any changes in outcomes to the deployment of the Coracle system. Where sufficient data does not exist to quantify the impact of the system, a theory-based approach - that uses the existing literature to demonstrate credibility and that logical chain through inputs, activities, outcomes, and benefits is sound - can be used to assess impact and appraise the potential financial value. Both these approaches allow for a Value for Money (VfM) assessment to be completed, aligned to HM Treasury Green Book (2022) guidance to ensure the VfM findings are credible and robust.

## Evidence review

### Current state of prison education

Education and vocational training are widely recognised as foundational to meaningful rehabilitation in prison settings, enabling personal development, skill-building and long-term reintegration to society. The United Nations highlights these programs as critical components of prison-based rehabilitation, reinforcing their value in supporting transformation and reducing reoffending<sup>1</sup>. However, despite strong international recognition, education and vocational training remains underfunded, overstretched and inconsistently implemented in England and Wales. Initiatives like Coracle provide a useful alternative and blended option to in-person education programmes which can help develop the provision of education in prisons. Educational and vocational training in prison - when supported by digital technologies such as Coracle - can be considered a form of digital rehabilitation. This approach enhanced efforts to rehabilitate offenders and transition them to productive and fulfilling lives in the community<sup>2</sup>.

However, despite growing recognition of its benefits, prison education remains unevenly implemented and underfunded in many parts of the world, including the United Kingdom. In 2016, The Coates Review found that recognition of the importance of education in prisons appeared to have been lost and called for education to be at the heart of the prison system:

*My vision for learning to be at the heart of the regime requires a whole-organisation approach to education and to workforce development. Professional development for all staff - including Governors and their Senior Leadership Team, teachers, prison officers, instructors and peer mentors - will be a crucial part of reform and rapid change<sup>3</sup>.*

In 2021, five years after The Coates Review, little improvement was found to have been made in the quality of prison education<sup>4</sup>. As of August 2024, 82% of prison and young offender institutions were judged as “requiring improvement” or “inadequate” for overall effectiveness of education, skills and work provision<sup>5</sup>.

A recent study by the Institute for Government and The Chartered Institute of Public Finance and Accountancy reported that the current prison system in England and Wales is in crisis. There are several contributing factors resulting in the current challenges to successfully delivering education to prisoners. For instance, the overcrowded conditions and the low level of staff due to inexperience, sickness or retention, limit the prisons ability to participate in rehabilitative programs,

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<sup>1</sup> United Nations Office on Drugs and Crime. (2018). [Roadmap for the development of prison-based rehabilitation programmes](#).

<sup>2</sup> United Nations Interregional Crime and Justice Research Institute. (2024). [Digital rehabilitation in prisons](#).

<sup>3</sup> Ministry of Justice. (2016). [Unlocking Potential: A review of education in prison](#).

<sup>4</sup> HM Government. (2021). [Launching our prison education review](#).

<sup>5</sup> Ofsted (2024). [Main findings: further education and skills inspections and outcomes as at 31 August 2024](#).

including learning plans.<sup>6</sup> As the MoJ transitions from the Prison Education Framework (PEF) to the new Prison Education Service (PES) from October 2025, education funding is set to reduce by around 12% from approximately £125 million annual under PEF to around £110 million annually under PES.<sup>7</sup> The absence of significant investment in the prison estate, in buildings, classrooms, equipment and technology, makes it difficult for prisoners to get the skills and qualifications they need to find employment post-release.

The Independent Sentencing Review (2025) proposed a new model for incentivising progression from custody to community supervision, which would include earlier release for prisoners who complied with an earned progression scheme that included engaging in “purposeful activity and attend any required work, education, treatments and/or training obligations where these are available.”<sup>8</sup> However, the Ministry of Justice has already rejected the recommendation and stakeholders such as the Prisoner’s Education Trust have highlighted the key issue with such a proposal:

*“This last phrase – “where these are available” – is a necessary caveat in the current circumstances. We know that prison education departments do not have the capacity to significantly increase provision and it would be unfair and counterproductive to offer early release for accessing education and then not make it universally available.”*

*Jon Collins, Chief Executive at Prisoner’s Education Trust<sup>9</sup>*

Evidence submitted to the Education Select Committee in 2022 found that physical classrooms and other educational facilities were too often in an unacceptable state, citing “a lack of adequate heating, rotting walls and doors, [and] mould”<sup>10</sup>. Furthermore, the layout of some prisons, where educational departments are accessible from only one wing, make it difficult to allow education to be available for all prisoners. This is especially true for those prisons with more restricted regimes that were generally in place post-COVID which, with staff shortages, made it more difficult to move prisoners around the prison<sup>11</sup>.

Alongside the difficulties associated with traditional in-person learning, remote learning provision has been challenging due to issues regarding technology in prisons. The Ministry of Justice (MoJ) Prisons Strategy White Paper (2021) found that too many prisons were without basic digital infrastructure, such as Wi-Fi connectivity and modern data systems<sup>12</sup>. A key aim of the White Paper

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<sup>6</sup> Institute for Government and The Chartered Institute of Public Finance and Accountancy. (2023). [Performance tracker.Public services as the UK approaches a general election.](#)

<sup>7</sup> Find a Tender (“Prison Education Service Core Education Lot”) [Find a Tender Search](#). Lot 10 has not been awarded but the maximum contract value has been used to calculate the overall annual value

<sup>8</sup> Independent Review of Sentencing (2025). [Final Report and Proposals for Reform](#)

<sup>9</sup> Jon Collins (2025). [The Sentencing Review: More to do on earned release?](#)

<sup>10</sup> House of Commons Educational Committee (2022). [Written evidence submitted by Milan Grubnic, Ruth Carver, Tracey Bishop, Adrian Bryant and Shakti Karavadra.](#)

<sup>11</sup> House of Commons Educational Committee (2022). [Written evidence submitted by Milan Grubnic, Ruth Carver, Tracey Bishop, Adrian Bryant and Shakti Karavadra.](#) .

<sup>12</sup> Ministry of Justice (2021). [Prisons Strategy White Paper](#)

was to “scale up our use of digital, data and technology... empowering prisoners to take personal responsibility during their time in custody including through safe and secure in-cell technology”. Research by the Centre for Social Justice suggests that only 18 out of 117 prisons in England and Wales possess in-cell cabling. Additionally, some prison staff are unable to access the internet, such as video conferencing services.

The latest Ministry of Justice prison education statistics (up to March 2023) show that the number of prisoners engaging in accredited education programmes remains historically low. In 2010, 19,528 prisoners started accredited programmes in custody and this number has steadily decreased ever since. In the 12 months up to March 2020 - just before the Covid pandemic caused significant changes to prison operations - only 5,726 prisoners started accredited programmes. Although the 4,820 prisoners starting an accredited programme in custody in the 12 months to March 2023 represents a year on year increase as prisons continue to recover from Covid, the long term trend remains one of significant decline.<sup>13</sup> Over the past few years, the provision of in-cell technology has helped drive progress towards the aim of rolling out prison education more widely. By 2022, Coracle had provided 50 prisons in England and Wales with learning devices to improve education among prisoners.<sup>14</sup> In 2022, Francesca Cooney, Head of Policy at the Prisoners’ Education Trust, stated that such access to digital technology would “revolutionise prison education” and the Education Select Committee recognised that through controlled and secure access to proper online education, prisoners are better equipped for the real-world, possess the digital skills they need for employment and life skills, and that this can reduce their likelihood of reoffending<sup>15</sup>. In England, Coracle’s Chromebooks are the main device used for in-cell learning. Evidence from a feasibility study exploring the benefits and challenges of providing a digital higher education offer in prisons suggests that the introduction of Chromebooks into the prison system has several advantages. For example, inmates capable of using the technology will have transferable skills once reintegrated to society given that many employers use this technology in their sectors.<sup>16</sup>

In August 2025, the MoJ awarded new contracts for education service provision as part of the new Prison Education Services (PES), which is replacing the Prison Education Framework (PEF) from October 2025 and is due to run until 2029 or 2032. The published contract values under PES come to £110 million annually; substantially less than the approximate £125 million annual value of the PEF contracts. This is despite an Education Committee report stating that, “Prison Education is in a perilous state due to a continual decline in funding.” and noting that, “without significant investment, prisoners will not be able to get the skills and qualifications that they need to find employment and turn their lives around”.<sup>17</sup> Commenting on the PES contracts, Jon Collins, the

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<sup>13</sup> Ministry of Justice. (2024). [Prison Education and Accredited Programme Statistics 2022 - 2023](#)

<sup>14</sup> Coracle. (2022). [Response to Government report into prisoner education.](#)

<sup>15</sup> House of Commons Educational Committee. (2022). [Not just another brick in the wall: why prisoners need an education to climb the ladder of opportunity.](#)

<sup>16</sup> O’Grady, A and Hamilton, P. (2024) [The development of accredited digital higher education distance learning opportunities for prisoner.](#)

<sup>17</sup> House of Commons Educational Committee. (2022). [Not just another brick in the wall: why prisoners need an education to climb the ladder of opportunity.](#)

Chief Executive of the Prisoner's Education Trust, highlighted that funding is not the only barrier facing prisons that are trying to provide good quality education to prisoners, but is one of the most significant.<sup>18</sup> He noted with concern that prisons he had spoken to were planning to cut their education budgets at a time when there is broad recognition that more funding is necessary to deliver high quality, varied education that will support prisoners to get employment after custody.

## Impacts of prison education

### *Personal impact of prison education*

The personal benefits of prison education have been well-documented in the academic literature, particularly in relation to the development of self-identity, resilience, and post-release aspirations. These outcomes are directly aligned with Coracle's approach to delivering education through digital, individualised learning pathways.

A recent study into the use of distance learning in prisons to facilitate access to Open University (OU) courses found that those who engaged in study were able to develop a more positive self-identity and had strong, realistic aspirations for a crime-free life outside of prison. In particular, the ability to successfully overcome the challenges associated with distance learning while in prison reinforced resilience among students. Furthermore, those students who expressed an interest in completing an OU course but were not able to access one had fewer aspirations or protective factors<sup>19</sup>.

Additionally, a 2014 study on participants in prison-based higher distance learning (PHDL) found that those who engaged in this learning were able to develop a 'student identity' that further increased their self-confidence, and provided them with aspirations to fulfill other goals they had once they were released<sup>20</sup>. Another study in 2017 found that participating in education, and higher education in particular, was able to help moderate the 'self-stigma' that is often felt by those in prison, thereby improving self-esteem and removing barriers to re-entry to society<sup>21</sup>. As a key facilitator of higher education, and Open University courses specifically, these findings demonstrate the potential personal development benefits that Coracle provides students, as well as the benefits of distance learning in prisons more generally.

### *Mental health and emotional wellbeing*

Prisoners' access to education also has an impact on their mental health and emotional wellbeing. A report by The Centre for Social Justice reported that the Covid-19 pandemic and the absence of

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<sup>18</sup> Collins, Jon (2025) New prison education contracts - more of the same?

<sup>19</sup> Earle, R., et al. (2020). [The Open University and Prison Education in the UK - The First 50 Years.](#)

<sup>20</sup> Pike, A. (2014). [Prison-based transformative learning and its role in life after release.](#)

<sup>21</sup> Evans, D; Pelletier, E; and Szkola, J. (2017). [Education in prison and the self-stigma: empowerment continuum](#)

activities and connections with families had an impact on their mental wellbeing.<sup>22</sup> Further research suggests that the impact of prisoners' education and wellbeing is complex and impacts different aspects of the prisoner's life including their sense of identity, self-esteem and social integration.<sup>23</sup> A study in the United States in 2009 demonstrated that all respondents who received post-secondary education in a correctional facility reported a boost in their self-esteem.<sup>24</sup> Nevertheless, research evaluating the impact of education - particularly digital education - on prisoners' wellbeing is still lacking given the focus on the other indicators like qualifications earned.

The type of education prisoners receive also has a personal impact. Collaborative learning - processes that involve the interaction among inmates through group classes or peer-to-peer tutoring - has been linked to helping prisoners build teamwork skills, empathy and encouraging social bonds between inmates.<sup>25</sup> However, prisons and service providers face challenges when implementing a collaborative approach. For example, group setting can pose risks of conflict or collusion due to power imbalances between prisoners, making collaborative work difficult and affecting the development of prisoners.<sup>26</sup>

On the other hand, solo or in-cell learning allows inmates to progress based on their own abilities and schedules. An evaluation of in-cell learning in prisons found that in-cell learning increased confidence to engage in more learning, it gave skills to find employment, improved behaviour and their self-esteem.<sup>27</sup> Additionally, it is easier for prison staff to implement and supervise, especially when there is not enough human resources available. Finally, it provides inmates with another opportunity to use their time and reduce their frustration when confined in the cells.<sup>28</sup> The Centre for Social Justice recommended that the roll-out of online digital programmes and in-cell digital technology could increase the change of collaborative prison learning activities.<sup>29</sup>

### *Economic and societal impacts*

In addition to the benefits to individuals provided by greater access to education in prison facilitated by Coracle, there are also a number of economic and societal benefits that have been clearly evidenced in the literature. Specifically, education in prisons can benefit society by building safer communities and reducing the financial and social costs of re-offending, which are estimated at £18 billion a year<sup>30</sup>. For example, a 2014 quasi-experimental study found that obtaining a post-secondary degree in prison had a significant impact on a number of outcomes for prisoners

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<sup>22</sup>The Centre for Social Policy. (2021). [Digital technology in prisons. Unlocking relationships, learning and skills in UK prisons](#)

<sup>23</sup>Condirston, E. (2023). [‘I didn’t realise how empty I had been ‘til learning filled me up’: A cross-contextual exploration of the relationship between wellbeing and prison education](#)

<sup>24</sup> Winterfield, L; et al.(2009). [The effects of post-secondary correctional education.](#)

<sup>25</sup>Doing what really matters. (2024). [Benefits of learning communities to support students in prison with higher-level education.](#)

<sup>26</sup> National Institute for Justice. (2017). [Correctional Officer Safety and Wellness Literature Synthesis](#)

<sup>27</sup> People Plus and University of Bristol. (n.d). [Impact evaluation of in-cell learning within prisons.](#)

<sup>28</sup> People Plus and University of Bristol. (n.d). [Impact evaluation of in-cell learning within prisons.](#)

<sup>29</sup>The Centre for Social Policy. (2021). [Digital technology in prisons. Unlocking relationships, learning and skills in UK prisons](#)

<sup>30</sup> HM Government. (2023). [New Prison Education Service to cut crime](#) [Press release].

post-release, including a greater number of hours worked, reduced rates of recidivism, and higher wages<sup>31</sup>. Additionally, a 2023 meta-analysis found that prison education reduces recidivism and increases post-release employment and wages. This study compared four types of prison education: adult basic education, secondary, vocational and college. It found that vocational education offered the highest return per dollar spent, while college education had the highest positive impact per student participating<sup>32</sup>. These findings suggest that prison education in general may improve offender outcomes in wages and employment, which can have associated benefits to human capital and workforce development, with these benefits being particularly pronounced with higher education in prisons.

A separate study showed that college education has the greatest effect in reducing recidivism, with a 28% decrease in the probability of reoffending. This significant impact may be attributed to the longer duration of college courses, which allows students more time to participate actively and complete the program compared to other, shorter types of interventions. Vocational education ranks next in effectiveness (9.4% decrease in the probability of recidivism), followed by secondary education (7.3%) and Adult Basic Education (ABE) (6.3%).<sup>33</sup>

There is evidence around the economic benefits of distance learning specifically. A Ministry of Justice analysis of the employment and benefits outcomes of prisoners who received a distance learning grant from the Prisoners' Education Trust found a number of benefits when compared to a control group who did not receive a grant. The treatment group, when compared with the control group, had a greater and statistically significant proportion of participants who were employed both 1 and 12 months after release (18% and 27% respectively), as well as a greater average number of days in employment (88 days) and a lower average number of days spent receiving out-of-work benefits during the 12 months after release (125 days). This suggests the potential for not only workforce and labour market benefits, but also reduced spending on benefits for those offenders who had engaged with distance learning while in prison.

### *Impact on effective offender management*

From an operational and behavioural standpoint, data from RAND suggests that participating in prison education can reduce reoffending by up to 43%, based on a meta-analysis of 30 years of research.<sup>34</sup> Evidence also suggests that in addition to benefits to prisoners post-release, prison education can positively impact prison conditions through a reduction in misconduct among inmates. This is particularly pronounced when inmates engaged in secondary or post-secondary education. A pre- and post-release study of prison inmates in Ohio compared rates of misconduct during incarceration and prison returns post-release among groups of prisoners who had engaged

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<sup>31</sup> Duwe, G; and Clark, V. (2014). [The effects of prison-based educational programming on recidivism and employment](#)

<sup>32</sup> Stickle, B and Sprick Schuster, S. (2023). [Are schools in prison worth it? The effects and economic returns of prison education](#)

<sup>33</sup> Stickle, B and Sprick Schuster, S. (2023). [Are education programs in prison worth it? A meta-analysis of the highest-quality academic research](#)

<sup>34</sup> RAND. (2013). [Evaluating the effectiveness of correctional education](#)

in different types of educational programmes. It found that inmates who earned GEDs (high school diplomas) or college classes were less likely to engage in misconduct, and rates of prison return after three years was lower for all inmates who completed any educational courses than those who did not.<sup>35</sup> Additionally, a 2009 study of self-reported data from over 1,000 prison inmates in the US found that those inmates engaging in college-level educational programs received fewer 'tickets' for misconduct than other inmates, including those engaging in other types of study. In addition to benefiting prisoner wellbeing, reduced misconduct also reduces the incidents that prison officers need to respond to. This has potential corresponding wellbeing and productivity benefits.

The evidence suggests, therefore, that there is a link between reduced instances of misconduct and education being delivered in prisons. As a facilitator of these types of courses, it is possible to draw a link between engagement with Coracle technology and decreased incidences of misconduct in prisons.

### Challenges to providing prison education

Although the benefits of education in prison have been well evidenced, facilitating learning in custodial settings is associated with a unique set of challenges. These challenges can be categorised as systemic barriers - such as institutional constraints and limited access to technology - and individual barriers - learners' self confidence and digital literacy.

#### *Systemic barriers*

The range of educational sessions offered in prisons are often limited due to safety, security and institutional constraints both within the prison and external education providers.<sup>36</sup> These constraints might include difficulties with staffing prison sessions, issues with prisoner behaviour in in-person lessons, and security concerns around providing prisoners with access to technology or certain materials that might be deemed inappropriate or sensitive. However, many of these barriers to either in-person or digital prison education can be addressed through in-cell solutions such as Coracle's platform. For example, providing individualised learning can offer more choice on courses to prisoners without facing the same issues regarding staffing levels required to deliver lessons in-person. Furthermore, Coracle's system is designed with security in mind, with the use of 'sessions' rather than giving prisoners individual logins and passwords.

Physical operational challenges also exist with in-person delivery of education - some of which can be significantly reduced or removed through in-cell delivery mechanisms. For instance, a limited number of prison staff available to facilitate educational sessions or support logistical processes. These still exist for in-cell delivery - such as the delivery and secure distribution of laptops - but are greatly reduced compared to in-person delivery constraints. This directly affects the return on investment, as fewer prisons are able to implement the intervention effectively due to staff shortages and logistical bottlenecks.

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<sup>35</sup> Pompoco et al. (2017). [Reducing inmate misconduct and prison returns within facility education programs](#)

<sup>36</sup> United Nations Interregional Crime and Justice Research Institute. (2024). [Digital rehabilitation in prisons.](#)

### *Individual barriers*

A key challenge in the provision of prison education is incentivisation. Many prisoners have been found to have limited or negative experiences of education and, therefore, a limited belief in the potential of learning<sup>37</sup>. There is also variability across prisons in whether prisoners are paid for partaking in education; in prisons that do pay prisoners for choosing education, the pay offered is often paid at a lower rate than unskilled prison work. Aside from matching the pay for engaging in education, incentivisation can be approached differently. For example, the Prison Reform Trust has noted the impact that the presentation of certificates can have on a prisoner's motivation to re-engage with education, while Novus identified that the "single most motivating factor" for some prisoners to engage with education was the incentive of earned early release or Release on Temporary License (ROTL)<sup>3839</sup>. These issues apply both to digital and non-digital educational solutions, however any educational platform should seek to support prisoners develop those beliefs in the potential of learning and transform their views of education. Coracle is able to support this by providing prisoners with recognition of their achievements through certification and formal course awards. It also provides courses that relate to wellbeing and self-esteem that can aid prisoners in a more productive approach to learning.

Another major challenge is the generally low level of digital literacy among prisoners. As reported in different sources, many prisoners have had little to no access to digital technologies - particularly those who have been incarcerated for long periods of time or come from marginalised communities. This low level of literacy presents a critical barrier to engage with digital learning platforms.<sup>40</sup> Aligned to this, the self-directed nature of many digital learning solutions can be difficult for some prisons with limited experience or who struggle with special learning needs or disabilities.

Finally, often, education progress in custody is disrupted when prisoners are relocated but also when they are released. For digital providers like Coracle, this presents an opportunity and a challenge: ensuring that educational experiences begun in prison can seamlessly transition into community-based learning, whether through continued platform access, partnerships with post-release education providers, or links to vocational and digital upskilling opportunities.

### The logic model

Based on the current evidence, a logic model has been created to demonstrate the inputs, activities, outcomes, and benefits associated with the use of in-cell or group-based educational

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<sup>37</sup> Ofsted (2020). [The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills](#).

<sup>38</sup> House of Commons Educational Committee (2021). [Oral evidence: Prison Education, HC 86](#).

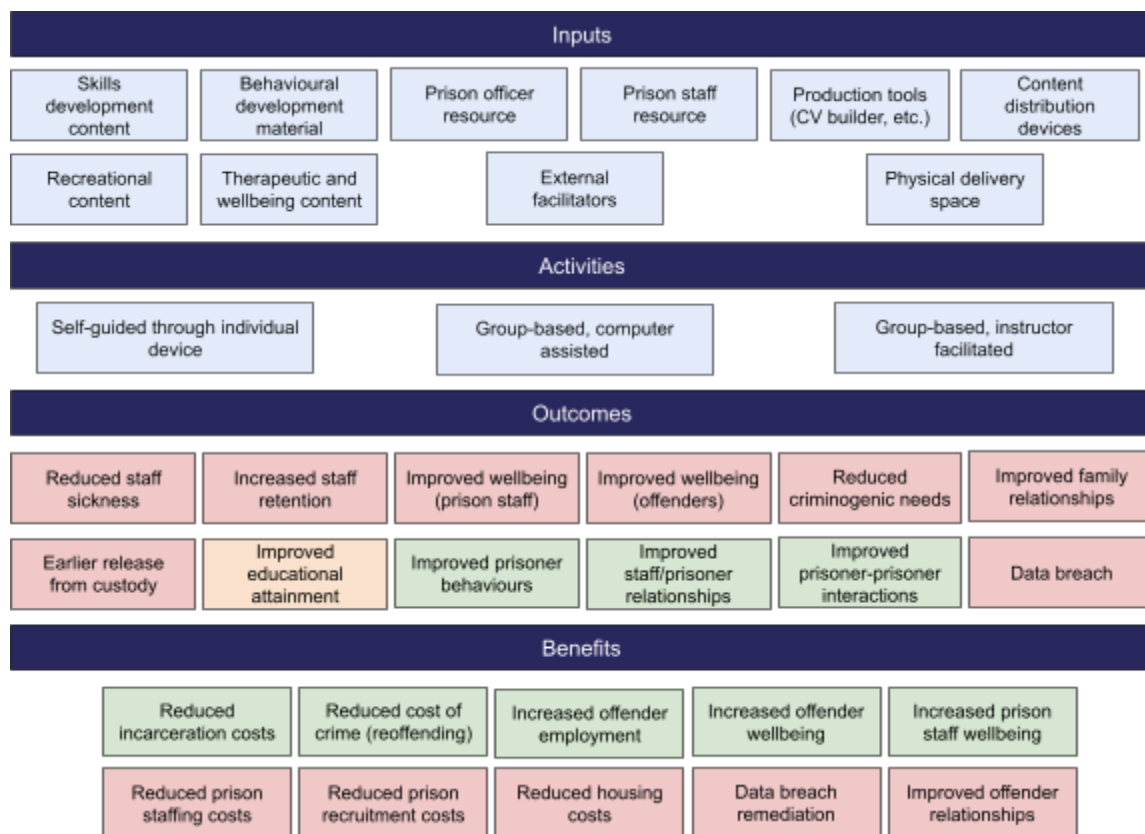
<sup>39</sup> House of Commons Educational Committee (2022). [Written evidence submitted by LTE Group \(trading as Novus\)](#).

<sup>40</sup> Stickl, B and Sprick Schuster, S (2023). [Are education programs in prison worth it? A meta-analysis of the highest-quality academic research](#)

and other activities. The logic model, and specifically the outcomes and benefits, underpin the following impact analysis of the Coracle system and a Value for Money analysis.

- The **inputs** are the resources that are required in order to deliver Coracle. This includes the content on the Coracle system, as well as the other resources (i.e. people, physical space) that are needed to deliver content.
- The **activities** are what is being done with the **inputs** to deliver Coracle. This includes the ways in which the system is accessed, which can be self-guided through an individual device or group-based using a device or through facilitation from an instructor.
- The **outcomes** are specific changes in knowledge, behaviour, skills or attitudes that result from the use of Coracle. These changes can be expected to be delivered in the short-term, medium-term, or long-term.
- The **benefits** are the positive effects that are experienced by individuals, communities or systems as a result of these **outcomes**.

Outcomes and benefits highlighted in green show areas where data for measuring impact and approaches to monetising benefits have been clearly identified and used in the analysis. The amber highlighted outcome represents an area where direct measurement is weak but a potential proxy has been used. Outcomes and benefits highlighted in red represent are not included in the analysis, predominantly due to gaps in data or monetisation approaches.



## Evaluation design

### Methods

In order to explore the impact of Coracle, two analytical approaches were used that align with HM Treasury guidance on quantitative impact evaluation: generalised synthetic control methods and difference-in-difference analysis.

**Generalised Synthetic Control Method (GSC):** This approach uses historical data to create a “synthetic clone” of a group that receives an intervention - in our case, prisons receiving Coracle devices. The synthetic clone is created through a weighted combination of control units - in our case, prisons that do not receive Coracle devices so that the historic trend in the outcome variable of interest is the same in the treatment and the synthetic control group. The approach also allows for additional factors to be accounted for through the use of covariates - such as prison population, the number of devices available, and the type of prison. The aim of applying a synthetic control method is to estimate what the outcome for the treated group would have been if they had not received the treatment (i.e. they had not been onboarded to Coracle). This enables a comparison between the observed outcomes and the estimated counterfactual without intervention, allowing for a degree of causal inference about the effect of the treatment under particular circumstances.

The ability to make causal claims about the effect of the treatment depends on being able to account for any significant confounding factors that may better explain an increase or reduction in an outcome, rather than the introduction and use of Coracle. Accounting for all possible confounding factors is rarely possible, hence it represents a key limitation of synthetic control methods. However, the risk of these factors impacting the results can be assessed during analysis by checking pre-treatment fit (i.e. that before the introduction of Coracle into a prison, the control group and the group that will be treated are similar in respect to an outcome, such as number of assaults) and adding relevant covariates into the model in order to help isolate the impact of Coracle<sup>41</sup>. The ability to accurately assess these risks are dependent on having robust and suitable data, both in terms of the actual outcome data and any covariate data that is being used.

Setting up synthetic control methods requires defining units, time periods and treatment assignment. In this context, the units of analysis are prisons or, where data was not available by prison establishment, at a prison or probation service establishment region. In the model, these units are broadly assigned into either control units or treated units. A control unit is a prison that does not use Coracle, which acts as the comparison group to estimate the counterfactual (i.e. what would have happened to prisons/regions that use Coracle if they did not use it). This includes prisons which have never used Coracle, but it also includes data from prisons before they introduced Coracle. The separation of a prison into control and treated units is straightforward because each prison has an onboarding date for when they introduced Coracle. In this case, the

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<sup>41</sup> A covariate is any variable that may help explain differences in an outcome, which is not the main variable under consideration.

control units are composed of data recorded before the onboarding date and the treated units of data recorded after the onboarding date.

An additional stage of the analysis which provides confidence in the model is the use of cross-validation. This process effectively removes random bits of data before the model is created and then checks how well the model estimates the data that have been removed.

For each outcome evaluated using the GSC method, we report the Estimated Average Treatment Effect on the Treated (ATT) and, where appropriate, the Cumulative Average Treatment Effect on the Treated (CATT). The ATT is a measure of the average, estimated impact of Coracle on a particular outcome per prison, per month. The CATT is a measure of the total impact of Coracle on a particular outcome per prison, over an extended period (e.g. 12 months)<sup>42</sup>. Both measures are provided in the unit of the outcome being tested, which makes them easier to interpret. For example, if the outcome was assaults in prison, a positive ATT means that, in that particular month, the use of Coracle was associated with an increase of x assaults. Under the same terms, a negative ATT means the use of Coracle was associated with a reduction in x assaults. The same interpretation applies to the CATT, albeit the specific meaning of the CATT is different to the ATT for the reasons outlined above.

The appendix includes a chart showing the time at which each prison was onboarded with Coracle and the prisons that make up the control cohort. Several prisons were excluded from the analysis because they did not have necessary data for the analysis or were opened or closed during the period of interest.

**Staggered difference in difference (DiD) approach:** For outcome data at the regional level, utilising synthetic control methods becomes difficult. By the end of December 2024, all regions had at least one prison which was onboarded with Coracle. Because of this, these methods cannot create the “synthetic clone” against which the actual trend shown in the regions which were treated can be compared. For these outcomes, a staggered difference-in-difference (DiD) was used. Both SCMs and DiDs are designed to answer what would have happened to a treated unit in the absence of treatment (i.e. Coracle onboarding), but a DiD compares treated units (regions) to control units that were not yet treated (i.e. regions before a prison within it was onboarded) but does not create any weighted average of control units to match the treated units like an SCM.

A staggered DiD conducts a series of standard DiD analyses and aggregates the results across groups and time resulting in a similar output to the synthetic control method (A synthetic control method is a more robust version of DiD). As with the synthetic control method, the DiD method produces an ATT which allows for simpler interpretation of the results.

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<sup>42</sup> These two measures are calculated differently. The ATT provides an average treatment effect across all post-treatment periods (c. 42 months). The CATT provides the sum of the treatment effects over a specified period post-treatment (i.e. 12 months).

Both modelling approaches also estimate the probability that the result reached is due to chance or represents an actual ‘real world’ effect. This probability value is called a p-value - this is the likelihood of observing an effect as extreme as (or more extreme than) the one observed, under the assumption that the treatment had no effect (i.e. that Coracle has no impact). A small p-value tells us that there is strong evidence that the observed treatment effect is unlikely to be due solely to random chance (e.g. a p-value under 0.05 suggests less than a 5% chance that the result is due to random chance). It does not prove that the treatment caused the effect, just how unlikely we would be to get the result we do if it didn’t. It also does not measure how important or large the treatment effect is - smaller p-values provide stronger evidence against the null hypothesis (i.e. that Coracle has no impact) but they do not provide insight into how substantial that effect is<sup>43</sup>.

### Scope of analysis

Based on a review of publicly available data, we evaluated the impact of Coracle deployment on the following outcomes:

- Harm within prisons (prisoner-on-prisoner, assaults on officers, self-harm incidents, separated by severity)
- Employment post custody
- Educational attainment during custody

Following the first pilot of Coracle at HMPs Whitemoor, Grendon and Warren Hill in 2017, take up of Coracle was initially focused on the Long Term High Security estate. When the Covid-19 pandemic struck, HMPPS suspended spending on multiple programmes and Coracle secured funding from Innovate-UK under the response to global disruption scheme. This funding enabled Coracle to work for 6 months across 15 prisons. Further Innovate-UK funding, under the Sustainable Innovation Fund, enabled expansion of the project to 35 prisons.

Data on the number of devices utilised by each prison was only available from 2023 onwards. Analysis was conducted to identify the most appropriate time period to use so that a robust control group could be defined. Models were constructed starting at the beginning of 2018 and 2019 and a comparison was made between the Mean Squared Prediction Error (MSPE) which is a measure of the difference between the known values and the estimated values in a model. On this basis, the analysis was conducted on data from January 2019 to December 2024 as this had the lowest MSPE estimates. The prison population for each prison was included as a time-varying covariate in the model (i.e. for each prison, this changes over time).

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<sup>43</sup> To provide an example, assume that two identical studies are looking at the impact of Coracle on the reduction in prison assaults. On average, per prison, Study A finds that the treatment effect of Coracle is associated with a reduction of 1 assault per month ( $p = 0.001$ ). Study B finds that the treatment effect of Coracle is associated with a reduction of 15 assaults per month ( $p = 0.04$ ). Study A has stronger statistical evidence against the null hypothesis, while the statistical evidence against the null hypothesis is weaker in Study B but the effect has a larger real-world impact.

## Data

The following data sources were used to evaluate the impact of Coracle against outcomes in the logic model. With the exception of Coracle management information, all other data are publicly available. This means that the analysis conducted has had to be selected based on data quality, granularity, and consistency. This does not detract from the value of the analysis presented, but simply highlights that better quality data would allow for more accurate estimates of the impact Coracle has on achieving positive outcomes.

### *Coracle internal allocations and management information*

Coracle provided internal data and management information relating to:

- The prisons Coracle currently operate in
- The dates on which they began operating in each prison
- The number of devices per prison, each month from January 2023 to April 2025
- The average allocation of devices per prison, calculated annually between 2023 and 2025
- The number of on-site visits conducted per prison, calculated annually between 2023 and 2025

### *MoJ and HMPPS data*

#### *Safety in custody data*

HMPPS publish data on a quarterly basis about self-harm incidents and assaults occurring in prison custody. These data are presented monthly and are split by each prison establishment. Monthly data from January 2019 to December 2024 were used to inform our analysis. These data cover:

- All assaults
  - Prisoner-on-prisoner assaults
  - Assaults on staff
- All serious assaults
  - Serious prisoner-on-prisoner assaults
  - Serious assaults on staff
- Self-harm incidents
- Self-harm incidents which required hospital treatment

#### *Educational attainment in custody*

The Ministry of Justice publish data on Prison Education and Accreditation Programme Statistics and these data are presented as annual numbers split by prison. These data do not cover the educational courses provided by Coracle, and so are not expected to be directly correlated with Coracle deployment. However, the evidence base and logic model suggest that the use of the Coracle system improves offender behaviour and self-regulation as well as supports broader learning and achievement beyond the Coracle system. As such we investigate any association between the deployment of Coracle and these alternative educational outcomes. The data cover:

- Offender behaviour programmes
  - Completions
  - Milestones
- Sexual Offending Treatment programmes
  - Completions
  - Milestones
- Substance misuse programmes
  - Completions

Post-release employment data

HMPPS publish annual data relating to the employment outcomes of those currently supervised under probation. These data are presented quarterly and split by probation service establishment regions. Data collected from April 2020 to March 2024 was used to perform the analysis. These data cover:

- Employment at 6 months post-release from custody
- Employment at 6 weeks post-release from custody

Prison population data

HMPPS publish monthly data on the current population of prisons. These data are presented monthly and split by each prison establishment. Data collected from January 2019 to December 2024 was used to inform the analysis as a covariate.

*Summary of data used*

<b>Outcome</b>	<b>Time period</b>	<b>Temporal granularity</b>	<b>Unit granularity</b>	<b>Modelling approach</b>
Prison educational programmes (Offender behaviour)	2016 - 2024	Annual	Prison	GSC
Prison educational programmes (Sexual Offending)	2016 - 2024	Annual	Prison	GSC
Prison educational programmes (Substance misuse)	2016 - 2024	Annual	Prison	GSC
Employment post custody	April 2020 - March 2024	Quarterly	Probation region	Staggered DiD
Harm (prisoner on prisoner)	January 2019 - December 2024	Monthly	Prison	GSC
Harm (prisoner on staff)	January 2019 - December 2024	Monthly	Prison	GSC
Self-harm	January 2019 - December 2024	Monthly	Prison	GSC

## Results

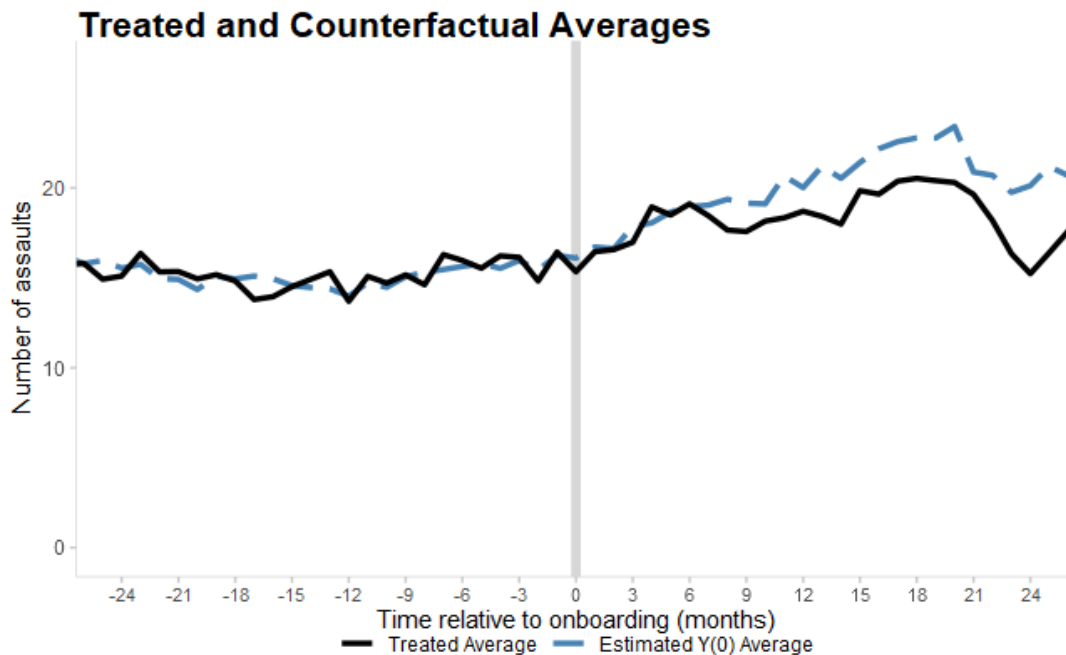
### Harm within prisons

#### *Assaults*

Our analysis showed that, on average, onboarding a prison with Coracle was associated with an estimated impact of -1.59 assaults per prison per month. In other words, a reduction of 1.59 assaults per prison per month ( $p = 0.23$ ).

In Chart 1 below, the black line shows the aggregated trend in assaults before and after Coracle was deployed (the grey line). The dashed blue line represents the synthetic control that this is compared against. This also shows that on average, there are approximately 15-17 assaults per month in each prison in the period before Coracle was deployed, meaning that a reduction of 1.59 assaults per month would be approximately a 10% reduction. The chart shows alignment between the two groups before onboarding with a similar trend immediately after Coracle is deployed but a clear divergence after around six months.

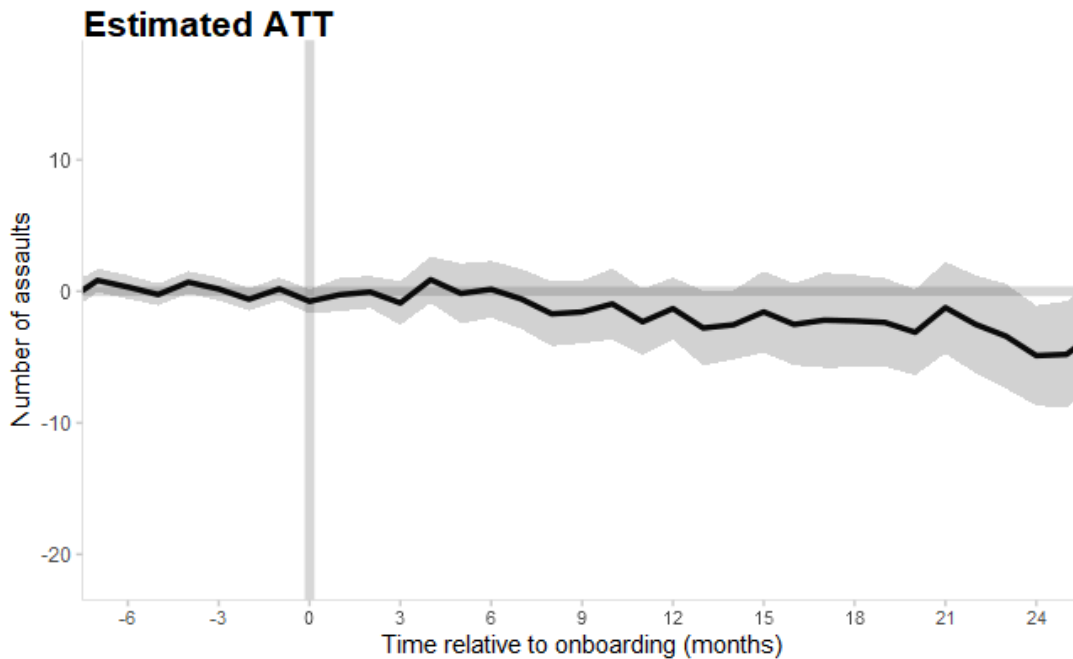
**Chart 1: Treatment and control trends relative to onboarding  
Assaults, per prison, per month**



The estimated Average Treatment Effect on the Treated (ATT) is a clearer way of visualising the difference between the two groups and is shown in Chart 2 below along with the 95% confidence interval for each time period. In the first six months after onboarding Coracle, no impact is evident, but the difference between the treatment and control estimates increases over time which may

indicate the time required for Coracle devices to be allocated to prisoners and for the benefits of their use to become evident.

**Chart 2: Estimated Average Treatment Effect on the Treated (ATT) - Assaults, per prison, per month**



This finding was supported by a consistent, steady reduction in the cumulative ATT. As shown in Table 1, the estimated impact of deploying Coracle is a reduction of 9.27 assaults per prison over the first 12 months of deployment and a reduction of 37.28 assaults per prison over 24 months - which would represent a substantial long-term benefit from the deployment of Coracle.

**Table 1: Cumulative ATT (CATT) - Assaults, per prison, per month**

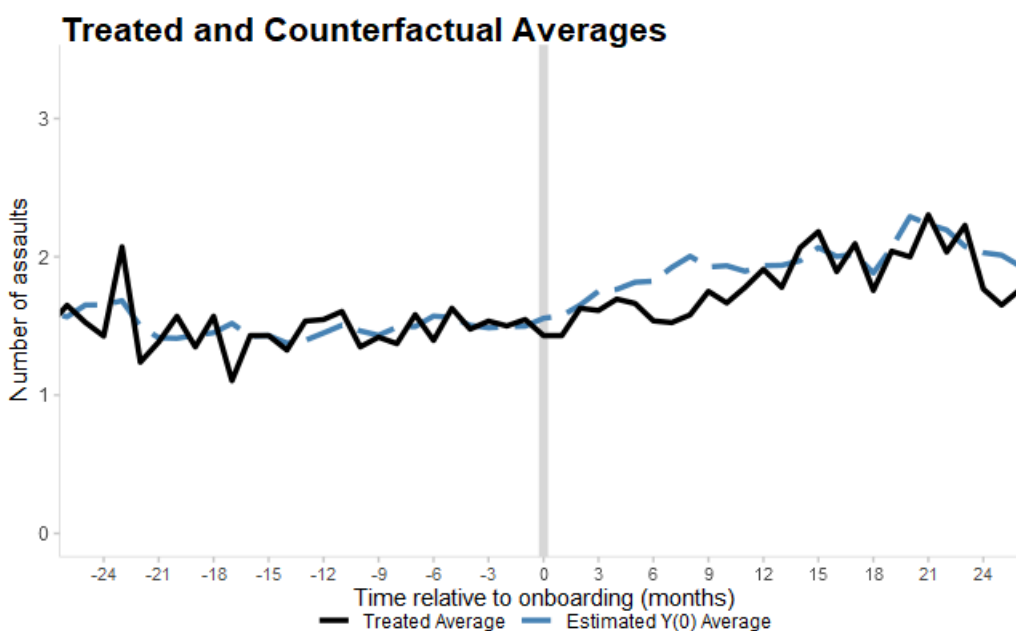
Month	CATT	Lower CI	Upper CI	P-value
6	-1.11	-7.31	10.84	0.79
12	-9.27	-23.57	20.38	0.77
18	-22.60	-45.58	30.40	0.58
24	-37.28	-68.09	38.49	0.47

Using the average impact of 1.59 assaults avoided per month per prison, this would suggest that the use of Coracle across 96 prisons has led to an estimated avoidance of 1831.68 assaults over a 12 month period.

### Serious assaults

Looking at serious assaults, we see a similar pattern as for non-serious assaults, though Chart 3, which again shows the treatment and counterfactual averages does demonstrate the volatility of the data. Actual treatment figures do vary month to month, particularly before the intervention point, though the counterfactual trend is much more stable. Careful attention should be paid to the overall volumes though - the number of serious assaults per prison per month averages to around 1 or 2.

**Chart 3: Treatment and control trends relative to onboarding  
Serious assaults, per prison, per month**



Our analysis showed that, on average, the estimated impact was -0.15 serious assaults (i.e. a reduction) per prison per month ( $p = 0.36$ ). The direction of the trend is positive and aligns with the pattern seen for non-serious assaults - a reduction of approximately 10%. Over 12 months, the model estimates 2.34 serious assaults avoided per prison which would translate into 224.64 serious assaults avoided per year across the 96 prisons that have deployed Coracle.

### Self-harm incidents

Our initial analysis of self-harm incidents found an estimated impact of 0.13 self-harm incidents (i.e. an increase) per prison per month ( $p = 0.98$ ), and the confidence interval is extremely wide - ranging from -12.63 to +12.89, suggesting there are additional factors impacting the result.

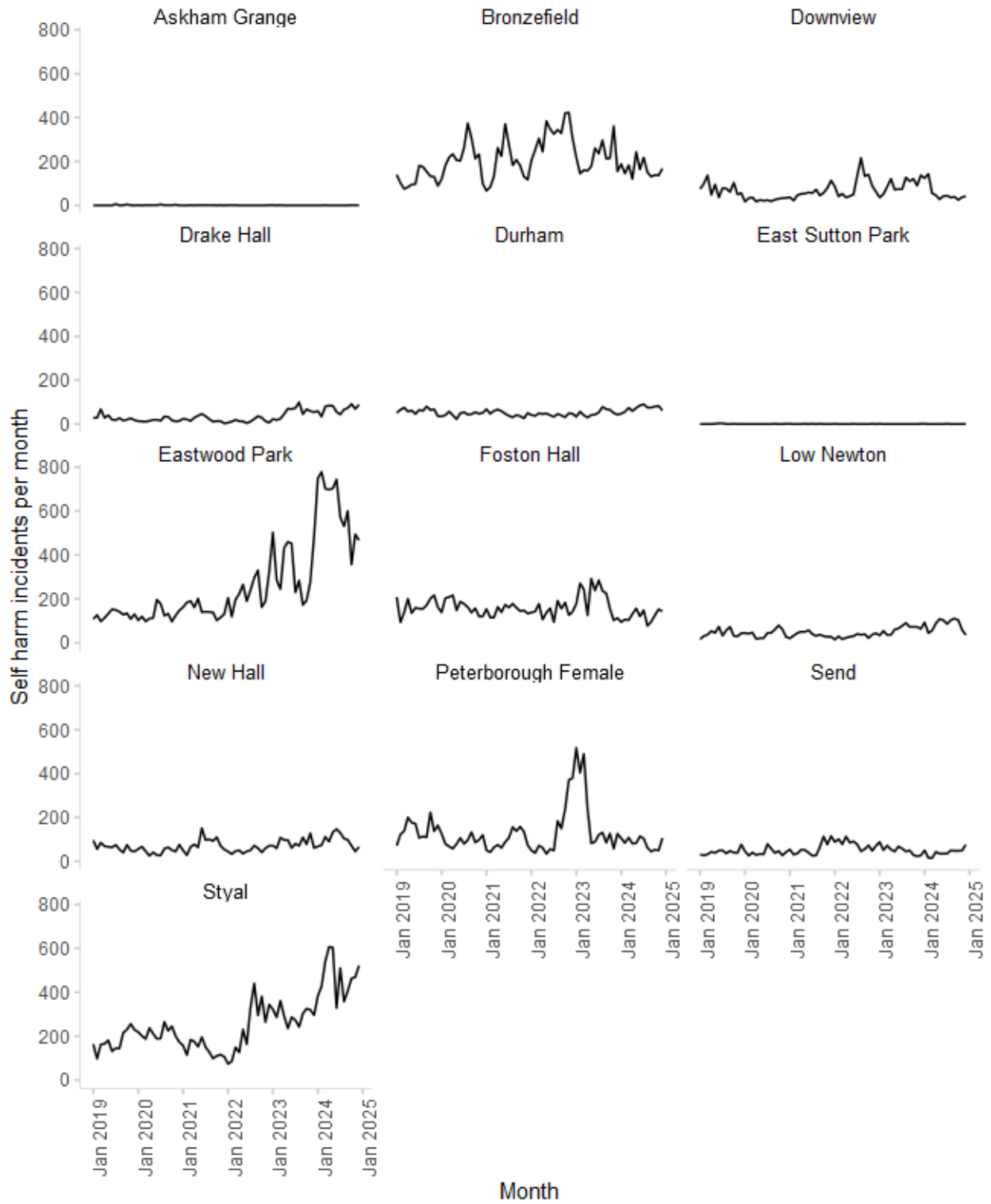
To understand this effect further, we reviewed the self harm figures by prison and noted a significant disparity between men's and women's prisons. For the 2024 year, female prisons

averaged 169.75 self-harm incidents per month compared to 47.75 self-harm incidents per month in male prisons. Only one male prison (Parc) experienced more than 200 recorded self harm incidents in any month, this was not the case for female prisons. There was also significant variation amongst female prisons as evident in Chart 4 below which shows the number of incidents per month. In 2024, Eastwood Park experienced almost 800 incidents a month for several months. In late 2022 and early 2023, Peterborough Female prison recorded approximately 500 incidents per month for several months despite historically peaking at around 200 incidents with most months being substantially lower than this.

The substantial difference between male and female prison trends of self harm led us to investigate separate models for male prisons. The substantial variation, relatively small number of female prisons, and the small number of potential control prisons for a female prisons model made a model specifically for female prisons unviable.

The model for self harm in male prisons was more robust and provided an estimated ATT of -1.79 ( $\rho = 0.43$ ) self-harm incidents per prison per month and provides a much more credible estimate of the likely impact of onboarding the Coracle system and if this were to be realised across the 87 male prisons where Coracle has been deployed this would equate to a reduction of 1868.76 self-harm incidents per year.

**Chart 4: Self harm incidents, per female prison, per month**



### Educational attainment during custody

Publicly available educational attainment data are only available for accredited programmes, currently delivered under the PEF contracts but due to transition to the PES contracts from October 2025. These are not directly provided by or associated with Coracle, however the broader outcomes that were identified through the rapid evidence review and the logic model suggest that the use of Coracle could support prisoners to achieve better outcomes across all educational attainment, including these accredited programmes.

As data are only available on an annual basis, a large number of prisons could not be included within the modelling as they did not have sufficient pre-deployment data to create the synthetic control. In total, the model incorporated 33 of the 96 prisons that have deployed Coracle. Similarly, due to the constraint of only having annual data, prison population could not be included as a covariate in the model as there was a lack of pre-treatment time periods with which to create a robust control with covariates and so caution should be taken in interpreting these results. The table below provides the estimated impact for these outcomes.

**Table 3: ATT - Educational attainment, per prison, per year**

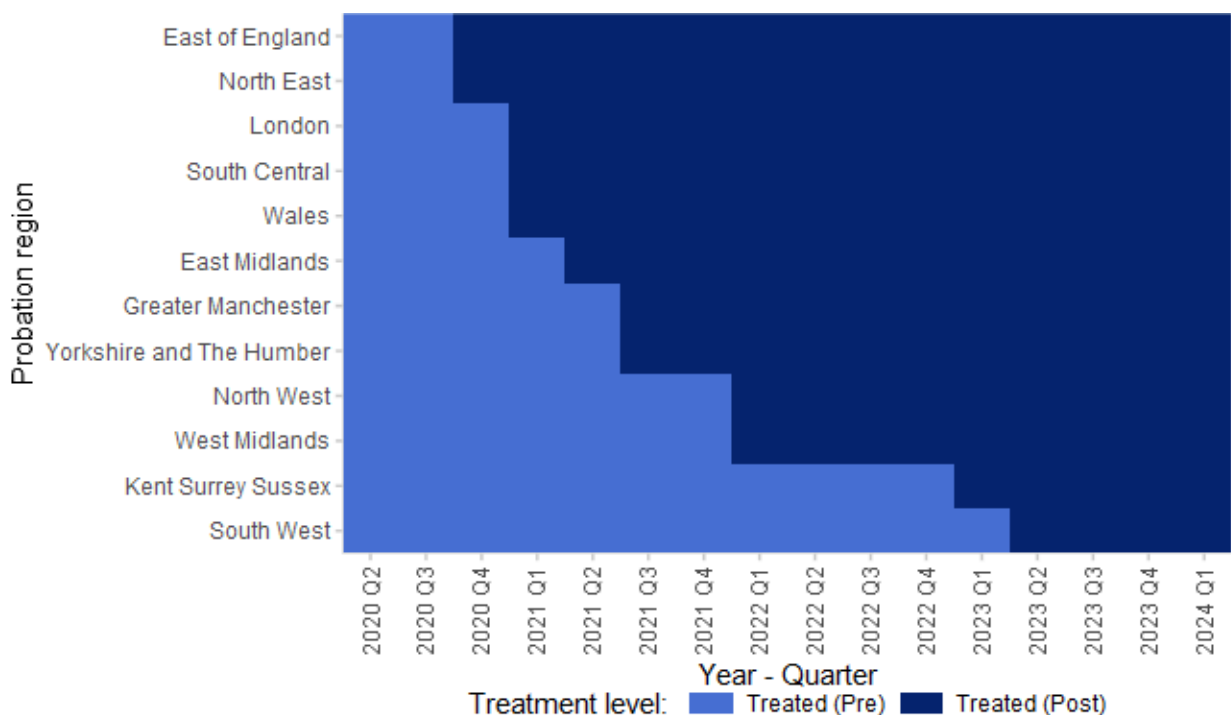
<b>Outcome</b>	<b>ATT</b>	<b>Lower CI</b>	<b>Upper CI</b>	<b>P-value</b>
Offender behaviour - completions	-5.57	-15.59	4.44	0.28
Offender behaviour - milestones	-0.78	-9.44	7.88	0.86
Sexual offending treatment - completions	-0.59	-3.19	2.01	0.66
Sexual offending treatment - milestones	1.25	-1.11	3.61	0.30
Substance misuse treatment - completions	0.46	-0.83	1.75	0.49

The Department for Education has monetised the benefits of education through identifying the increased earning potential through future employment. We directly measure employment post-custody in the next section and so to avoid double-counting the benefit, the direct impact on education is not monetised in our value for money assessment that follows.

### Employment post-custody

An alternative analytical approach was required to estimate the impact of Coracle deployment on employment post-custody due to the fact that employment data are only available at the probation regional level and on a quarterly basis and that by the second quarter of 2023, Coracle had been deployed in at least one prison in each region - meaning that no control area could be created. The chart below shows when Coracle was first deployed in each region.

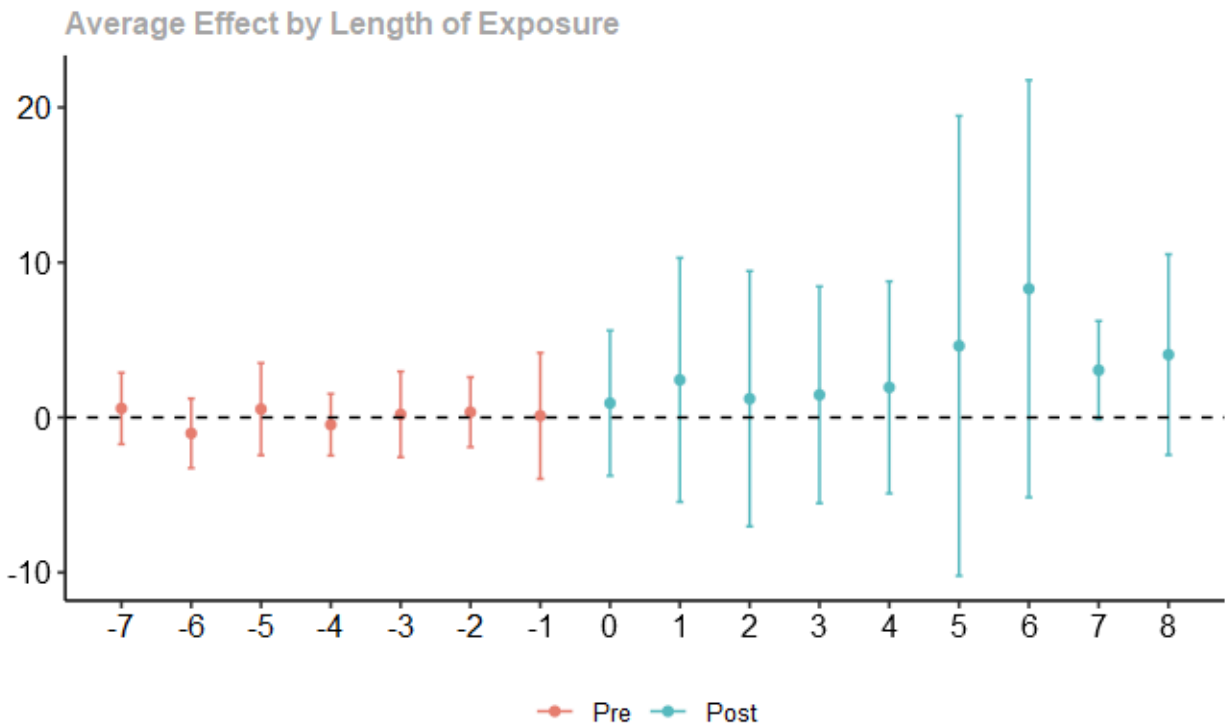
**Chart 5: Deployment of Coracle to Probation regions, by quarter**



A staggered difference-in-difference analysis was conducted using the percentage of prisoners employed at 6-weeks and 6-months post-custody as the outcome variable of interest. Our analysis showed that, on average, onboarding a *probation region* with Coracle was associated with an estimated impact on the percentage of people employed at six weeks post-custody of 2.05 per region per quarter. In other words, a **statistically significant** ( $P < 0.05$ ) increase in employment of 2.05% per region per quarter **attributable to the deployment of Coracle**.

A similar finding was made when looking at employment at 6-months post-custody with our analysis estimating an impact of 3.11 per region per quarter. In other words, an increase in employment of 3.11% per region per quarter. **This finding is also statistically significant** ( $p < 0.05$ ) which means the observed impact can be attributed with some confidence to the deployment of Coracle. Chart 6 below shows the estimated impact on employment for offenders 6-months post-release from custody by region. The points represent the quarterly estimate of the effect and the lines represent the per-quarter confidence intervals.

**Chart 6: Estimated impact of Coracle deployment on employment 6 months post-custody, by region by quarter**



Based on 9000 cases in scope for the quarter January to March 2024 (i.e. the last data point in the analysis) this equates to  $9000 * 3.11\% * 4 = 1119.6$  additional offenders per year in employment 6 months post release.

Further to this, Ministry of Justice analysis<sup>44</sup> shows that individuals in employment six weeks after release from custody are nearly half as likely to have a proven reoffence (20.2% reoffend, on average 3.41 times) compared to those who remain unemployed (36.5% reoffended, on average 5.39 times). Although reoffending data by prison is not available, this information is used in the value for money section to identify the monetary benefit of reduced reoffending both in terms of the avoidance of additional offences and the avoidance of additional custodial time.

<sup>44</sup> [Proven reoffending statistics. Ministry of Justice](#), published 31st July 2025

## Value for money assessment

### Methods

In order to identify the unit costs relevant to our analysis, we adopted a bottom-up costing approach using Government sources and publicly available data from evaluations and other costing exercises. These figures were then adjusted for inflation and multiplied by the benefit identified through the modelling processes outlined in the previous section. In line with Green Book guidance, optimism bias corrections have been applied to avoid over-claiming the value of the benefits:

- A 40% reduction in the value of the benefit was applied where the findings were not statistically significant.
- A 10% reduction was applied to statistically significant findings as the methods used cannot claim to fully account for all variables that could be impacting the outcomes.
- A 25% reduction was applied where the benefit has been identified through an indirect relation rather than direct measurement.

How these costs have been arrived at is outlined below, before the monetised benefits are described and the Benefit-Cost Ratio calculated.

### *Harm within prisons*

#### Assaults and serious assaults

The Ministry of Justice define an assault in their safety statistics as “unwanted physical contact between two or more individuals, excluding lawful use of force by staff or anything of a purely verbal or threatening nature”<sup>45</sup>. A serious assault is defined as “those which involve... a sexual assault; results in detention in outside hospital as an in-patient; requires medical treatment for concussion or internal injuries; incurs any of the following injuries: a fracture, scald or burn, stabbing, crushing, extensive or multiple bruising, black eye, broken nose, lost or broken tooth, cuts requiring suturing, bites, temporary or permanent blindness.

In order to differentiate between assaults and serious assaults for the purpose of calculating unit costs, Home Office research on the economic and social costs of crime were used. In this research, costs are provided for a range of offence types, including violence with injury and violence without injury. Due to the nature of serious assaults, costs for a violence with injury were used. For assaults, they do not match the severity of a violence with injury, but are also defined as more serious than a violence without injury (i.e. verbal assault). Because of this, the midpoint between the cost of violence with injury and violence without injury was used.

In terms of calculating these costs, this research considers the cost of a crime under the following categories:

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<sup>45</sup> Ministry of Justice (2023). [Guide to Safety in Custody Statistics](#).

- Defensive expenditure
- Insurance administration
- Value of property stolen/damaged
- Physical and emotional harm
- Lost output
- Health services
- Victim services
- Police costs
- Other CJS costs

In a prison context, only some of these categories were considered relevant. Table 5 outlines the categories used to estimate the cost of an assault and serious assault in prison.

**Table 5: Breakdown of cost of crime categories by assault type**

Category	Assault	Serious Assault
Defensive expenditure	N/A	N/A
Insurance administration	N/A	N/A
Value of property stolen/damaged	N/A	N/A
Physical and emotional harm	<b>Included (£5,525)</b> In a prison and non-prison context, there is physical and emotional harm arising from an assault.	<b>Included (£8,240)</b> In a prison and non-prison context, there is physical and emotional harm arising from an assault.
Lost output	N/A	<b>Included (£2,060)</b> Assuming that prisoners partake in purposeful activity and work inside a prison, a serious assault may mean a reduction in pay if they cannot work for whatever reason.
Health services	N/A	<b>Included (£920)</b> A serious assault results in some type of physical injury, hence the need for treatment.
Victim services	N/A	N/A
Police costs	<b>Included (£970)</b> This category is used as a	<b>Included (£1,130)</b> This category is used as a proxy

	proxy as each assault will require a response and investigation from prison staff.	as each assault will require a response and investigation from prison staff.
Other CJS costs	N/A	N/A
Total	<b>£6,495: Base cost</b> <b>£8,207: Adjusted for inflation</b>	<b>£12,350: Base cost</b> <b>£15,607: Adjusted for inflation</b>

*Self-harm incidents*

A 2017 study estimated the general hospital costs in England for medical and psychiatric care of patients who self-harm<sup>46</sup>. Their analysis includes costs related to emergency department visits, treatments received in the emergency department and hospital wards, and stays in critical care units. The types of injuries considered include self-poisoning alone, self-injury alone, and cases involving both. Since this analysis does not specifically focus on the prison population, the unit costs may be missing costs that are specific to incidents which occur in this context. Both are adjusted for inflation.

- **Self-harm incidents:** This is based on the cost of self-harm incidents where the individual was not admitted to the hospital.

*Other outcomes*

The remaining unit costs for all other outcomes are taken largely from the Greater Manchester Combined Authority (GMCA) Unit Cost Database (2022), which cover the following indicators:

- **Employment (measured as the proportion (%) of individuals employed six months post-release):** For this outcome, the economic cost of a Jobseeker’s Allowance (JSA) claimant entering employment (per claimant per year) was used. JSA is the primary benefit for individuals who are unemployed and actively seeking work, and the unit cost reflects the economic benefit/saving when a claimant transitions into employment.
- **Reoffending:** For this outcome, two costs have been used. These are 1) the average cost of a prison place per year to estimate the cost avoided through reducing the number of people who reoffend; 2) the average cost per incident of crime to estimate the cost avoided through the reduced number of offences.

Estimated total benefit value

The table below outlines the unit costs, estimated impact per outcome, and overall estimated annual saving that is accrued due to the use of the Coracle System. In total, the estimated benefit of deploying the Coracle system across 96 prisons in England and Wales, is £35,556,985 per annum. The majority of this benefit is generated through the statistically significant impact on increasing employment for prisoners post-release from custody.

<sup>46</sup> Tsiachistas et al. (2017).

**Based on an annual contract value of £2,250,000, this represents a Benefit-Cost Ratio of 15.8 - or £16 saved for every £1 spent and demonstrate a significant direct return on investment by deploying Coracle within prisons<sup>47</sup>.**

**Table 6: Estimated value of outcomes**

Outcome	Unit benefit (2024/25)	Estimated annual impact based on deployment of Coracle at 96 prisons	Optimism bias correction	Estimated annual saving
<b>Harm within prisons</b> <i>All assaults (prisoner-on-prisoner, assaults on staff)</i>	£8,207	1,831.68 assaults avoided	40%	£9,020,328
<b>Harm within prisons</b> <i>Serious assaults (prisoner-on-prisoner, assaults on staff)</i>	£15,607	224.64 serious assaults avoided	40%	£2,103,524
<b>Harm within prisons</b> <i>Self-harm incidents</i>	£334	1868.76 self-harm incidents avoided (*Based on male prisons only)	40%	£374,622
<b>Employment</b> <i>Cost saving of a single individual finding paid work and no longer claiming Jobseeker's Allowance (JSA)</i>	£38,950	1119.6 additional people in employment 6-months post release. Based on the 6-week and 6-month post-release employment statistics we estimate the average person found employment 6-months sooner than would have been the case otherwise.	10%	£19,623,799
<b>Reoffending</b> <i>Cost saving of a single individual avoiding custody based on annual prison cost</i>	£59,595	91.2 people avoid reoffending based on differential reoffence rates between those in employment and those not	25%	£4,078,139
<b>Reoffending</b> <i>Cost saving of an offence avoided</i>	£2,705	180.7 offences avoided based on the differential reoffence rates between those in employment and those not and the number of offences committed	25%	£366,571
<b>Total value of benefits</b>				<b>£35,556,985</b>

<sup>47</sup> This annual figure is based on two contracts awarded to Coracle over the past four years. The first contract, covering the whole four years, had a value of £5,000,000. The second, which is in addition to the first covering the past two years, had a value of £2,000,000. Dividing those total values by the number of years that each covered and adding them together provides an annual contract value of £2,250,000.

## Conclusion

Our analysis shows that the deployment of Coracle represents a substantial return on investment. Even so, we believe this represents a relatively conservative estimate of the value for money for several reasons:

- The evidence review identified several other outcomes that it was not possible to measure which could significantly add to the value for money calculation. In particular, improving wellbeing of prisoners and prison staff is an area with little data available, but the value of improved wellbeing can be substantial in itself and have significant implications for enabling other positive outcomes to be achieved.
- We have taken a conservative approach to which benefits are included even within the outcomes we can measure. For example, the value used to monetise increased employment only accounts for increased tax revenue and the avoidance of JSA. It does not incorporate other factors such as housing costs, costs related to looking for work and supporting people to return to work (including additional training), or healthcare costs associated with increased illness rates for people who are unemployed.
- Substantial optimism bias corrections have been used to avoid over claiming the benefits being achieved. Better quality data (either more granular or, ideally, at the offender-level) would allow for more sophisticated analysis and greater precision in measuring the scale of impact.

At present, there is a wealth of evidence that prison education can lead to a wide range of benefits for those in custody as well as wider society. Our analysis has shown, through robust methods aligned to HM Treasury Magenta Book and Green Book guidance, that the deployment of Coracle is delivering significant added value for money on top of other educational programmes already in place across the prison estate.

## Appendix

The chart below shows when each prison was onboarded with Coracle as well as the prisons which have not onboarded with Coracle and form potential control units. Some prisons in England and Wales have been excluded from the analysis because of missing data or if they opened or closed at critical points during the period and thus would bias the results.

