



Summer employment programmes

Toolkit technical report

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This report is produced in collaboration with staff from the Campbell Collaboration Secretariat. It is a derivative product, which summarises information from Campbell systematic reviews, and other reviews, to support evidence-informed decision making’.

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Summary

This technical report reviews the evidence on the effect of summer employment programmes on young people's violence and offending outcomes. It is based on the systematic review by Muir et al. (2024). This review considers summer employment programmes alongside summer education programmes as the two summer programme types have various commonalities and may seek to achieve similar outcomes. This technical report focusses only on elements of the review pertaining to summer employment programmes.

Muir et al. (2024; p. 24) describe summer employment programmes as 'an out-of-school-time programme that takes place during the summer months in whole or in part and includes a fixed-term job placement', with the summer months defined as the period in which the long school holiday takes place between academic years or after the final academic year before moving into economic activity.

Summer employment programmes provide paid work placements or subsidised jobs typically in entry-level roles mostly in the voluntary, community, and public sectors, with some summer employment programmes also providing placements in the private sector. They usually include components of pre-work training and employability skills, coaching and mentoring.

Summer employment programmes divert or distract those who have been involved in or are at risk of offending away from harmful or unproductive activities. Through providing alternative uses for the time over summer that otherwise would be unallocated, the assumption is that this reduces the risk of that time being used for criminal or anti-social activity. Longer run effects may occur through personal development and gaining work experience (Muir et al., 2024).

Of the 68 studies included in the review, 19 evaluated 6 different summer employment programmes. All of these summer employment programmes took place in the USA. There were none which took place in the UK/ Ireland.

Overall, summer employment programmes find a mix of small to moderate desirable and undesirable effects on the prevalence of criminal justice outcomes. Summer employment programmes appear to have a desirable impact on the likelihood of an individual having a criminal justice outcome for any crime type post-programme, and on the number of criminal

justice outcomes for any crime type during and post programme. Summer employment programmes also appear to have a desirable impact on the number of criminal justice outcomes for violent, drug or property crime post programme, although they appear to have an undesirable effect on the number likelihood of having a criminal justice outcome for violent, drug or property crime post programme. The evidence security is low for all outcomes, primarily because they are based on only two or three studies.

The review's thematic synthesis identified several mechanisms as potentially leading from engagement in a summer employment programme to outcomes. These included: diversion during the summer from places and peers that may increase risk of violence; skill acquisition; positive relationships with peers; personalised and positive relationships with staff; the location of the summer employment programme, including accessibility and creating familiar environments; providing purposeful and meaningful work, potentially facilitated through the provision of financial and/ or non-financial incentives, which makes participants more likely to see the importance of education in achieving their life goals, leading to raised aspirations (Muir et al., 2024).

Design strengths of some summer employment programmes reviewed include: use of employer orientation materials and supervisor handbooks; careful consideration of programme staff roles; a wide range of job opportunities; and building a network of engaged employers. Design weaknesses of some summer employment programmes reviewed include: uncertainty over funding and budget agreements; variation in delivery and quality of training between providers; challenges in recruitment of employers; and caseload size and management. Implementation strengths of some summer employment programmes reviewed include: effective job matching; supportive relationships with supervisors; pre-work training; and mitigating attrition (e.g. striving to increase take up of the intervention among the treatment group). Implementation weaknesses of some summer employment programmes reviewed include: insufficient monitors for the number of participants; and challenges around employer availability.

Whilst the quality of evidence on the impacts of summer employment programmes is relatively strong compared to that of summer education programmes, with a large number of the studies evaluating this programme type being based on randomised control trials and using outcomes measured in administrative datasets, the quality of evidence pertaining to wider employment outcomes such as job readiness as well as socio-emotional, health and some education outcomes is at times weak. A greater quantity of evidence is also required

regarding the impact of summer employment programmes on: violence and offending, health and socio-emotional outcomes, as the limited evidence available indicates that summer employment programmes may have some significant impacts on these outcomes; and across all outcome domains over the longer term, particularly for attainment measured through test scores, to better understand the persistence of any identified impacts. Evidence of the outcomes achieved by summer employment programmes in the UK context is also required.

Objective and approach

This technical report reviews the evidence on the effect of summer employment programmes on young people's violence and offending outcomes.

This technical report is based on the systematic review by Muir et al. (2024). This is a published systematic review and meta-analysis of the effect of summer employment programmes on a range of outcomes, including those related to violent and offending behaviour, of disadvantaged or young people at risk of involvement in violence and offending. This review considers summer employment programmes alongside summer education programmes as the two summer programme types have various commonalities and may seek to achieve similar outcomes. This technical report focusses only on elements of the review pertaining to summer employment programmes. A separate report presents the results with respect to summer education programmes.

The following inclusion and exclusion criteria were used to inform selection of systematic reviews.

Inclusion criteria

To be included in this report, a systematic review must include evaluations of the effects of summer employment programmes on violence or offending outcomes, or outcomes across other domains that are related to or predictors of violence or offending outcomes (e.g., school attendance rates, disciplinary incidents or suspensions in school). The summer employment programmes should be targeted at disadvantaged/ at-risk young people. The included primary evaluations of effects should evaluate the summer employment programmes using experimental or quasi-experimental methods, employing a treatment and control/ comparison group. Lastly, the review should seek to source evidence from UK-based summer employment programmes.

Exclusion criteria

Reviews were excluded if they did not meet the inclusion criteria i.e., they did not include evaluations of the effects of summer employment programmes targeted at disadvantaged/ at-risk young people that used experimental/ quasi-experimental methods and employed a treatment and control/ comparison group, and excluded interventions occurring in the UK. For example, the review of summer programmes by McCombs et al. (2019) is not included because it does not focus on those interventions targeted at disadvantaged/ at-risk young people and it excludes any evidence on interventions occurring outside the USA.

Outcomes

Muir et al. (2024) reported the effects of summer employment programmes on violence or offending outcomes, including: whether an individual had a criminal justice outcome (including arrests, arraignments, convictions or incarcerations) for any type of crime or offence or for violence-, drug-, or property-related crimes or offences; and the number of criminal justice outcomes (including arrests, arraignments, convictions or incarcerations) an individual has for any type of crime or offence or for violence-, drug-, or property-related crimes or offences. These outcomes are measured using official records such as police records of arrests. Muir et al. (2024) performed meta-analyses across each of these violence and offending outcomes for outcomes post-programme. The exception is the number of criminal justice outcomes an individual has for any type of crime or offence where this is performed for outcomes both during and post-programme.

Muir et al. (2024) also report the effects from one study of a summer employment programme on self-reported measures of engagement in violence or offending behaviour, including whether an individual reported buying or selling illegal drugs, using marijuana, attacking or threatening someone with a weapon other than a gun, or damaging or destroying someone's property, although there was insufficient information to construct a synthesisable effect size. As such, these are not considered within this technical report.

Additionally, Muir et al. (2024) reported the effects of summer employment programmes on outcomes across domains other than violence or offending that are related to or predictors of violence or offending outcomes, including: secondary education attendance rates; chronic absence rates; and the likelihood of having a negative behavioural outcome in school (including suspensions, disciplinary incidents, behavioural referrals and removals).

Muir et al. (2024) does not perform meta-analysis for chronic absence rates as insufficient studies evaluate these outcomes to meet their criteria for performing meta-analysis. As such, these are not considered within this technical report. They do however perform meta-analysis across multiple studies of summer employment programmes for secondary education attendance rates and the likelihood of having a negative behavioural outcome in school.

Additional meta-analyses of studies included in the Muir et al (2024) review was undertaken by Hugh Sharma-Waddington, under an associate contract with the YEF, to support understanding of the during programme effects and violence-specific outcomes post-programme (see Annex 1 for results of this analysis and Annex 3 for the relevant forest plots). During programme effects were deemed the most appropriate outcome for the impact rating, in line with the primary mechanism for reducing violence in the theory of change.

Description of interventions

Muir et al. (2024; p. 24) describe summer employment programmes as ‘an out-of-school-time programme that takes place during the summer months in whole or in part and includes a fixed-term job placement’, with the summer months defined as the period in which the long school holiday takes place between academic years or after the final academic year before moving into economic activity.

Intervention components

Summer employment programmes provide paid work placements or subsidised jobs to participants. These offer participants a chance to earn income, usually close to the minimum wage set by the respective state or city for their work, while gaining valuable work experience and developing key skills for entry to employment. In these programmes, participants typically work an agreed number of hours, usually around 25 hours a week. Wraparound support can be offered such as pre-work training and employability skills support.

Alongside the work placement, most programmes require participants to take part in work-related training. This can be pre-employment training, before the start of job placements, for example, throughout the school year or in the spring months, or alongside the job placement. Training tends to cover employability and work skills, including workplace safety, soft skills (such as dependability, communication, collaboration, and initiative), job search

strategies, financial capability, completing online applications, drafting resumes, interview techniques, career exploration, post-secondary education options, and workplace etiquette.

In addition to general pre-placement training some programmes, such as STEP-UP, collaborate with the employers involved to provide training specific to the company, career exposure events, and industry-recognised industry accreditations. Summer employment programmes also often offer a mix of coaching, mentoring, and support services, guiding young people throughout their work placement.

Targeted or Universal

Muir et al. (2024) set as an inclusion criterion that the summer employment programmes should target disadvantaged/ young people at risk of involvement in violence or offending, although they do not set specific criteria on what form these disadvantaged/ at-risk characteristics should take. As such, a wide range of young people are targeted by the interventions included in the review.

Summer employment programmes tend to prioritise individuals from specific age groups and communities, often those facing high rates of poverty, unemployment, urban violence, or being at risk of not transitioning to higher education or meaningful work. Geographic targeting is common, where programmes concentrate their efforts on neighbourhoods with significant socioeconomic disadvantages including high levels of poverty and unemployment as well as high levels of violence, with a particular focus on neighbourhoods with high rates of crime and high-violence schools.

Some summer employment programmes target students with lower attainment, or at risk of not transitioning to higher education or meaningful work. Most programmes have a high proportion of minority ethnic participants, particularly African American and Hispanic participants – in many programmes, these groups make up over half of participants, although this is often a result of self-selection and the overlap between ethnicity and the forms of disadvantage used as eligibility criteria, rather than an explicit element of targeting.

Summer employment programmes are voluntary and may be subject to self-selection effects.

Implementation setting and personnel

Participants most often are predominantly offered entry-level roles with local non-profit and community-based organisations, although some government agencies and for-profit

businesses are involved, where they perform the job placement. Settings in which participants gain work experience include summer camps, day care centres, community-based organisations, law firms, hospitals, museums, and schools, among others.

Some programmes assign participants a job mentor or programme coordinator, acting as a coach, who supports young people to become successful employees and overcome barriers to employment. Young people receive job mentoring and general coaching from these staff at their work placement sites, and mentors and coaches help track their performance, including workshop and job attendance, punctuality, work progress, progression planning (where relevant), and progress towards achieving the summer employment programme requirements.

Duration and Scale

Summer employment programmes tend to last between six and seven weeks, typically the duration of the summer break in the US where all these interventions included the review were delivered. Participants usually spend around 25 hours a week on a work placement, alongside a training component, such as pre-work training or employability skills. One summer employment programme, Urban Alliance, has a year-round training component, which requires participants to attend employability workshops from late September to July, plus three to six weeks of pre-work training before the work placement in the summer break.

Theory of change/presumed causal mechanisms

Summer employment programmes divert or distract those who have been involved in or are at risk of offending away from harmful or unproductive activities. Through providing alternative uses for the time over summer that otherwise would be unallocated, the assumption is that this reduces the risk of that time being used for criminal or anti-social activity (Muir et al., 2024).

There is also recognition that the selected target group is not engaging with services as usual as effectively as other groups, or not be engaging at all. Therefore, the assumption is that an alternative approach is required to foster more positive engagement or re-engagement in services as usual. By offering alternative and extra provision, summer employment programmes should avoid interference with the standard curriculum and to build additional support to improve outcomes in 'service as usual'. Summer employment programmes also provide participants the opportunity to form better relationships, including those formed

with employees in the employing organisation. This offers the chance to re-set engagement with adults, which can then set the tone for the next stage of service as usual.

Muir et al. (2024) also highlight that summer employment programmes may employ a range of mechanisms leading to the achievement of a range of outcomes across domains including socio-emotional, education and employment related. Various components of summer employment programmes, including the employers' expectation of performance from the young person, pre-work training and the aforementioned development of relationships with employees in the employing organisation, may lead to soft skill development including self-esteem, confidence, maturity, emotion control, communication, and responsibility and time management, which may reduce instances of violent or offending behaviour which may arise as a result of deficiencies in these. Additionally, improvements across all of these domains will improve the young person's future economic opportunities by increasing the individuals' skills and desirability in the labour market, setting expectations about their future quality of life, and making young people less likely to offend as the opportunity costs of the punishment are increased. In this way, outcomes across socio-economic, education and employment domains can be seen as intermediaries in the path to better violence and offending outcomes.

The mechanisms highlighted above are all positive i.e., may lead to the achievement of better outcomes. However, quality of, and safeguarding in, the job placement are also a key consideration to ensure young people do not see negative consequences, such as from encountering poor social behaviour among permanent or standard employees, which may lead to violence and offending outcomes.

Evidence base

Descriptive overview

Of the 68 studies included in Muir et al. (2024), 19 evaluated six different summer employment programmes. All six of these summer employment programmes took place in the USA (Boston Summer Youth Employment programme; New York City Summer Youth Employment Programme; One Summer Chicago; STEP-UP; Urban Alliance; Youth Violence Prevention Funder Learning Collaborative summer employment programme). Of the 19 studies evaluating summer employment programmes, 14 of these were eligible for meta-analysis, although one of these provided insufficient information to produce synthesisable effect sizes (the one study of the Youth Violence Prevention Funder Learning Collaborative

summer employment programme). As such, this study is not considered within this discussion of impact.

Considering the main analyses of interest to this technical report performed by Muir et al. (2024), six studies across three interventions contribute to the meta-analyses on whether an individual had a criminal justice outcome (including arrests, arraignments, convictions or incarcerations) for any type of crime or offence or for violence-, drug-, or property-related crimes or offences, and on the number of criminal justice outcomes an individual has for any type of crime or offence or violence-, drug-, or property-related crimes or offences. Muir et al. (2024) performed meta-analyses across these outcomes post-programme. Additional meta-analyses were undertaken by Sharma-Waddington to pool violence outcomes during the programme months (see Annex 1).

The three interventions covered (Boston Summer Youth Employment programme; New York City Summer Youth Employment Programme; One Summer Chicago) all target socio-economically disadvantaged areas. One Summer Chicago is also explicitly targeted at areas with a high proportion of individuals experienced or at-risk of engagement with the criminal justice system. Participants across each of the programmes are approximately 14-21 years old. Several thousand participants are included in the analyses of each of the studies, varying depending on which subsets of the large total participant pool the study focusses on.

Muir et al. (2024) also perform meta-analyses on outcomes of secondary interest to this technical report across domains other than violence or offending. These outcomes are related to or predictors of violence or offending outcomes, including: secondary education attendance rates; and the likelihood of having a negative behavioural outcome in school (including suspensions, disciplinary incidents, behavioural referrals and removals).

In addition to seven studies evaluating the three interventions that are included in the main analyses, two studies evaluating two additional summer employment programmes (STEP-UP and Urban Alliance) are included in these analyses. STEP-UP is targeted at individuals that are socio-economically disadvantaged, experience of the criminal justice system, have English as a second language, or have other specific characteristics of disadvantage (including being pregnant or a parent, homeless or highly mobile, in care, or having special educational needs). Participants are aged 14-21 years old. The full analysis sample from the study of this intervention contains 836 individuals. Urban Alliance is targeted at socio-economically disadvantaged areas. Participants are aged 17-18 years old. 1,062 individuals participated in the evaluation of this programme.

Assessment of the strength of evidence

The review is by Muir et al. (2024) rated Yes on seven items, and partly yes on one item, of the modified AMSTAR tool used for the assessment (see Annex 4) and is rated as moderate quality. The inclusion criteria capture all elements of the PICOS. A comprehensive search was used of five databases plus websites and handsearching journals. Studies were double screened. Coding was done by one researcher, and checked by a second. The authors give a descriptive overview of included studies and use separate risk of bias tools for quantitative and qualitative studies. Heterogeneity analysis was planned but could not be conducted because of the small number of included studies for each crime outcome. There is a statement of conflict of interest and sources of funding. In addition, the protocol was published online in Campbell Systematic Reviews (Muir et al., 2023).

Impact

Based on the meta-analyses performed by Muir et al. (2024), the findings suggest that summer employment programmes have a mix of small to moderate desirable and undesirable effects on the prevalence of criminal justice outcomes.

Summer employment programmes appear to have a desirable impact on the likelihood of an individual having a criminal justice outcome for any crime type post-programme, and on the number of criminal justice outcomes for any crime type during and post programme.

Summer employment programmes also appear to have a desirable impact on the number of criminal justice outcomes for violent, drug or property crime post programme, although they appear to have an undesirable effect on the number likelihood of having a criminal justice outcomes for violent, drug or property crime post programme. However, none of the weighted mean effect sizes produced by Muir et al. (2024) across these outcomes are statistically significant. These mean effect sizes are summarised in Table 1 for violence and crime outcomes, and Table 2 for drug and property crime outcomes.

The evidence ratings are low (2 out of 5) for all of these outcomes, because whilst the review was rated moderate quality and the heterogeneity measure is low for each, they are only based on only two studies.

Table 1 – Post-programme mean effect size for violence and crime outcomes

Outcome (n)	ES (d, OR)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Number of violence-related criminal justice outcomes post-programme (17 months to 3 years) (n=2).	d= 0.06	0.12, 0.01	0.03	8.7%	0	Low	2
Likelihood of violence-related criminal justice outcome post-programme (17 months to 5 years) (n=2)	OR = 0.97 d= 0.02	0.93, 1.02	0.22	2.5% (increase)	0.0	No effect	2
Number of criminal justice outcomes post-programme (n=3)	d= 0.02	-0.05, 0.02	0.37	2.7%	23.6	No effect	2
Likelihood of criminal justice outcome post-programme (n=2)	OR = 0.95 d= 0.03	0.86, 1.05	0.30	3.9%	0.0	Low	2

Note: ES = the weighted mean effect size; OR = odds ratio, d = Cohen’s d, n = number of summer employment programmes evaluated to estimate ES; CI = 95% confidence intervals for the mean ES; p = the statistical significance of the mean ES. See Annex 2 for relative risk reduction calculations.

Table 2 – Post-programme mean effect sizes for drug-related and property-related outcomes

Outcome (n)	ES (OR or d)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Likelihood of drug-related criminal justice outcome post-programme (n=2)	OR = 0.85 d= 0.09	0.41, 1.75	0.66	12.2% (increase)	66.0	Harmful	1
Number of drug-related criminal justice outcomes post-programme (n=2)	d = 0.00	-0.06, 0.06	0.98	0%	55.2	No effect	2
Likelihood of property-related criminal justice outcome post-programme (n=2)	OR = 0.92 d= 0.05	0.71, 1.19	0.50	6.6% (increase)	45.0	Harmful	2
Number of property-related criminal justice outcomes post-programme (n=2)	d = 0.02	-0.10, 0.05	0.55	-2.7%	64.9	No effect	1

Note: ES = the weighted mean effect size; OR = odds ratio, d = Cohen's d, n = number of summer employment programmes evaluated to estimate ES; CI = 95% confidence intervals for the mean ES; p = the statistical significance of the mean ES. See Annex 2 for relative risk reduction calculations.

The evidence rating is low (2 out of 5) for outcomes showing the likelihood of property-related CJ outcomes and the number of drug-related CJ outcomes, because they are based on only two studies. The evidence rating is dropped further for the likelihood of drug-related CJ outcomes and the number of property-related CJ outcomes, because both reported heterogeneity over 60%.

The assumed prevalences of criminal justice outcomes for any crime is that used in all other technical reports. We also recalculated using the actual value in the control group for all crime (5%) as reported by Muir et al. (2024), and half that for specific offences. Whilst these values are lower they do not make that much difference to the percentage change in crime: 4.8% reduction in any crime (c.f. 3.8%), 2.9% increase in violent crime (c.f. 2.2%), 16.5% increase in drug crime (c.f. 12.2%) and 8.8% increase in property crime (c.f. 6.6%).

Further analysis was undertaken on violence outcomes and during programme effects to inform the headline impact rating for this Toolkit strand and is contained in Annex 1.

Moderators and mediators

Whilst Muir et al. (2024) performed a number of moderator analyses through sub-group analysis and meta-regressions, due to the small number of studies of summer employment programmes evaluating the outcomes of interest to this technical report, for these outcomes these analyses are unable to provide any meaningful findings.

Secondary impact measures

The individual studies evaluating outcomes across other domains that are related to or predictors of violence or offending outcomes reported on by Muir et al. (2024) find a small desirable impact on secondary education attendance rates but a small undesirable impact on the likelihood of having a negative behavioural outcome in school. The estimated effect sizes for both outcomes are not statistically significant. These mean effect sizes are summarised in Table 4. The evidence rating of each outcome is 2 because of the small number of included studies.

Summer employment programmes have a negative although insignificant average effect size (log odds ratio = -0.15, 95% confidence interval = -0.35, 0.05), suggesting that participation

in a summer employment programme does not have a significant impact on the overall likelihood of entering employment.

Table 4 – Mean effect sizes for secondary outcomes

Outcome (n)	ES (SMD and OR)	CI (ES)	P	I ² (%)	Evidence rating
Secondary education attendance rate (n=4)	SMD = 0.02	-0.03, 0.07	0.45	70.0	2
Likelihood of having a negative behavioural outcome in school (n=4)	OR = 1.05	0.55, 1.57	0.83	88.2	2
Likelihood of attending higher education (n=3)	SMD = 0.15	-0.09, 0.38	0.00	76.6	2
Likelihood of entering employment (n=4)	SMD = -0.105	-0.04, 0.205,	0.16	78.9	2

Note: ES = the weighted mean effect size; n = the number of different summer employment programmes evaluated to estimates ES; CI = 95% confidence intervals for the mean ES; p = the statistical significance of the mean ES; OR = odds ratio; OR < 1 represents a desirable intervention effect for likelihood of having a negative behavioural outcome in school; SMD = standardised mean difference; SMD > 0 represents a desirable intervention effect for secondary education attendance rates. See Annex 2 for relative risk reduction calculations.

Moderators and mediators

Muir et al. (2024) performed a number of moderator analyses through sub-group analysis and meta-regressions. For the two secondary impact measures, the studies evaluating One Summer Chicago find a statistically significantly less desirable impact than the studies evaluating other interventions, although this finding is in part driven by particularly large desirable impacts estimated by the studies of summer education programmes that also feature in these analyses. Due to the small number of studies of summer employment programmes evaluating these outcomes, caution is required when interpreting any findings from the moderator analyses.

Implementation and Cost analysis

Implementation

Muir et al. (2024) report on implementation evidence from the summer employment programmes included in the review. This covers all summer employment programmes

included in the review, not just those that evaluate the outcomes of interest to this technical report.

Successfully implemented summer employment programmes exhibit effective job matching, supportive relationships, pre-work training, and mitigating attrition.

In terms of job matching, insight from studies of One Summer Chicago highlights that matching young people to jobs that align with their interests and career goals enhances their overall experience of the summer employment programme, as they are more likely to be engaged and motivated in their work and work environment, and more likely to perform well (Lansing, 2018).

The quality of the summer work experience and the support provided by supervisors in the workplace are also important, as highlighted in the Youth Violence Prevention Programme. Positive relationships between supervisors and programme participants contributed to a valuable learning experience, a sense of contribution, and the development of soft skills. Supportive supervisors played a significant role, with the majority of participants in the programme evaluation study reporting that the programme supervisors had provided various types of help ranging from positive assistance, including exploring new avenues for the future, to supporting the young person to avoid negative behaviours by staying off the street (Sum, 2015).

Similarly, in the Urban Alliance programme coordinators played a key role in providing support and guidance to students outside of their placement, particularly for those requiring additional assistance or support. Successful relationships with programme coordinators and mentors were suggested as leading to improved job performance among participants and overall better programme outcomes (Theodos, 2014). The STEP-UP programme also highlighted that the quality of the summer employment programmes is closely related to the availability of job supervisors. In the Discover track, 128 people supervised interns, of which 29 worked with a single intern and 99 had multiple interns. There were 385 Achieve supervisors, of which 298 worked with a single intern and 87 had multiple interns. Approximately 93 per cent of Achieve supervisors and 95 percent of Discover supervisors attended an orientation before the summer programme began (Reich, 2018).

Some summer employment programmes also exhibit some implementation challenges. An important element of the New York City Summer Youth Employment Programme included delivery was the use of 'monitors', provider staff members that visited each work site weekly

to check with young people and supervisors, to ensure participants' regular participation, safety, and well-being. However, there were not sufficient monitors for the number of participants, especially at work sites employing a large number of participants. In the implementation study, young people reported having limited interactions with their monitors, and those mostly concerning timesheet collection, with some not having seen their monitors regularly at all (Valentine, 2017).

The review also highlighted that one programme, Urban Alliance, experienced challenges with employer availability at the planned commencement time, resulting in some young people starting their work placements later than anticipated, with an impact on young people's overall experience and limiting participants' engagement in meaningful work (Theodos, 2014). Urban Alliance also faced significant attrition at various stages of the programme, including between the application and the start of pre-work training, which happened during the school year, and throughout the work placement. The reasons for attrition were not fully observed or predictable, but factors such as changes in training classes timetables, extracurricular activities which clashed with the training, and family issues were highlighted as likely influencing attrition. Urban Alliance programme coordinators also reported that some participants needed a lot of support and guidance from their mentors and, if matched successfully, they performed well in their jobs. However, participants who were matched with mentors that were unsupportive or too busy with other work, were at higher risk of disengagement (Theodos 2017).

Cost

Muir et al. (2024) report on cost per participant figures for delivering summer employment programmes. They highlight the variation in sources for the cost data across the studies included in the review, and the effect that the definition of a participant can play in determining the average cost figures, which in combination with the variation in the features of summer employment programmes, affects the generalisability of any cost analysis across summer employment programmes. Table 3 reports the average cost per participant figures across the studies that report this covered by Muir et al. (2024).

Based on the information provided in Table 3, the average cost of summer employment programmes per participant is £4,250, and of this, the average salary to the young person is around £2,000.

Table 3 – Cost per participant of delivering a summer employment programme

Intervention	Source	Cost per person	Breakdown	Notes
Boston Summer Youth Employment Programme (U.S.)	Modestino (2019)	£2,001	70% participant wages, 30% administration	-
New York City Summer Youth Employment Programme (U.S.)	Gelber (2016), Schwartz (2021), Kessler (2022)	£1,428	74% participant wages, 26% administrative costs	Breakdown based on hours participants generally work from Schwartz (2021) and average of hourly minimum wage from 2006 and 2007 from Gelber (2016)
One Summer Chicago (U.S.)	Davis (2020)	£3,099	34% participant wages, 66% administrative costs	Includes only net wages paid to participants that wouldn't have received had they been in employment outside the summer employment programme.
Urban Alliance (U.S.)	Theodos (2014)	£5,087 based on the number that attended some pre-work training, £9,157 based on those that completed the programme	46% participant wages and awards, 54% rent, staff wages and administrative costs	-
UK Youth	2025-2027	Average cost per young person - £5,300	54% participant wages, 46% staff costs and administrative costs	Indicative programme design costs, these are subject to change

Success factors

Muir et al. (2024) explore potential causal processes that may lead from engagement in a summer employment programme to outcomes across all of the domains they consider, i.e., not just those relevant to this technical report. They base this on studies of summer employment programmes that achieve a significant impact across any of the outcomes they consider. Additionally, this analysis that they perform, whilst aiming to identify factors that successfully lead to outcomes, cannot directly attribute causality. As such, this section of the review is at best based on correlational evidence.

Mechanisms identified as potentially leading from engagement in a summer employment programme to outcomes are: skill acquisition; positive relationships with peers; personalised and positive relationships with staff; effective use of location of the programme; improving prospects and aspirations; financial and non-financial incentives; and repeat participation.

In summer employment programmes, a focus on skills acquisition and employability attribute development, alongside the job-specific technical skills that the job placement provides, aims at instilling transferable skills for the labour market, which should aid entry to employment and employment-related outcomes. In these programmes the main skills and attributes of focus are communication, problem-solving, work-readiness, social and life skills (Gelber, 2016; Leos-Urbel, 2014; Sum, 2015; Theodos, 2014; Valentine, 2017). Modestino (2019) finds a significant impact of summer programme participation on self-reported measures of job readiness, however there is no clear evidence of summer employment leading to positive labour market outcomes (although these may appear over the longer term while the evaluations included in this review typically only consider relatively short term outcomes) – if anything there is evidence of a negative impact on the likelihood of entering employment.

The opportunities summer employment programmes provide for young people to develop social and emotional skills, such as processing social information, managing thoughts and emotions, and setting and achieving goals, alongside participating in group discussions with co-workers and meeting new people who can support their growth (Heller, 2014), are also soft skills necessary to facilitate the achievement of wider education, socio-emotional and violence and offending outcomes. In one programme, the Youth Violence Prevention Programme, specifically targeting young people with a history of or at risk of offending, there is a strategy of engaging participants in group talks and team problem-solving activities to foster communication, social skills, and critical thinking – Sum (2015) finds some evidence of participation in the programme reducing engagement in violent, offending and/ or anti-social behaviour. Modestino (2019), Heller (2014), Davis (2020) also estimate beneficial impacts on the likelihood of experiencing criminal justice outcomes from participation in the summer programme; Modestino (2019) finds a positive impact on the likelihood of progressing to higher education, suggesting a diversionary effect through increased soft skills increasing the ability of summer employment participants to apply and progress to higher education.

Interactions with peers provides valuable learning opportunities in summer employment programmes, as highlighted by the Urban Alliance programme where, during a pre-work training, an episode of confusion and frustration among teammates led to a spontaneous lesson on the importance of patience and helpfulness (Theodos 2014) with Theodos (2017) estimating positive impacts on soft skill comfort from participation in the programme.

In summer employment programmes, the positive relationships staff, including programme staff and workplace supervisors, build with participants also play a vital role in supporting positive outcomes, such as improved well-being. There is evidence of participants in summer employment programmes reporting improved social skills, such as asking staff for help and support. Furthermore, as detailed in the background section on how the intervention might work, adult relationships are also formed with employees in the employing organisation which, along with the employers' expectation of performance from the young person, builds responsibility, maturity and self-esteem. Modestino (2019) findings positive impacts from programme participation on socio-emotional engagement.

Location is also an important mechanism to the outcomes from summer employment programmes: locating young people in an organisation for the job placement builds familiarity and confidence in this new setting as well as increases expectations for conduct in this adult environment, with Modestino (2019) finding positive impacts of summer programme participation on job readiness.

A further notable finding pertains to summer employment programmes' effect on education. When participants find purpose and meaning in their work, potentially further facilitated through the provision of financial and/ or non-financial incentives, they are more likely to see the importance of education in achieving their life goals (Leos-Urbel, 2014; Modestino, 2019). As detailed in the background section on how the intervention might work, Modestino (2019) identifies a mechanism through building aspiration, self-belief, emotion control and a longer-term work ambition. The summer job encourages young people to improve their engagement with education as a precursor to achieving newly found higher quality employment goals. The post-participation survey results from One Summer Chicago reveal that 70 per cent of participants recognised the importance of education in achieving their life goals. This suggests that the programme successfully instils the significance of gaining qualifications to building the career you want. By emphasising the connection between education and future aspirations, these programmes motivate participants to actively pursue further academic success. As previously mentioned, Modestino (2019), who evaluates the similar Boston Summer Youth Employment Programme, finds a positive impact of participation on the likelihood of progressing to higher education.

The financial incentives provided by summer employment programmes, as suggested in the background section on how the intervention might work, may also help to alleviate financial

constraints on future education, increasing investment in human capital – Modestino (2019) finds positive impacts of summer programme participation on the likelihood of progression to higher education.

Long-term participation in a summer employment programme is also associated with larger positive impacts on academic performance and test taking. The effects tend to be more significant for second and third-time participants, suggesting that the benefits may accumulate over multiple years – self-selection may however play a role here, as motivated students who are more likely to achieve better outcomes are more likely to apply for additional years of participation (Schwartz, 2021). It should be noted here though that ascribing any causality to this mechanism is especially problematic. Whilst there may be a dosage effect whereby participating in the summer employment programme multiple times provides greater benefits, this likely will be partly or largely a result of self-selection whereby, for instance, those who benefit the most from participation selecting to re-apply and repeatedly participate in the programme.

Evidence from UK

None of the summer employment programmes evaluated by studies included in Muir et al. (2024) occurred in the UK. This is a clear deficiency in the evidence base and for drawing policy relevant conclusions for the UK context.

What do we need to know? What don't we know?

Where individual summer employment programmes are estimated to achieve beneficial impacts on violence and offending outcomes, they are often substantial. However, the variation in findings across studies, measurement points, and the specific criminal justice outcomes evaluated affects the confidence we can have in drawing any clearly generalisable conclusions from the relatively limited evidence base (Muir et al., 2024). Further evidence is required on the effectiveness of different summer employment programmes to the three main programmes in the US that have been heavily evaluated (New York City Summer Employment Programme; Boston Summer Employment Programmes; One Summer Chicago) and in different contexts including the UK setting.

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Annex 1: Further analysis of violence studies and during programme effects

Hugh Sharma-Waddington

Two studies measured violence-related criminal justice outcomes during the summer employment programme, finding a large effect on average. This includes one study that measured impact on convictions for violent offences that took place during the summer months of the programme (Kessler, 2022), and one study that measured the number of arrests for violent crimes in the twelve months during with the summer programme took place (David and Heller, 2020). The pooled effects of these two studies show on average, a high impact on reducing violence during the programme, showing a reduction of 36.4% (d=0.29, CI=0.20-0.78). This finding is given a very low evidence security rating because it is based on only two studies and there is a high level of heterogeneity reported (see Table 1). This variation may be caused by differences in measurements of convictions (a binary measure of whether a conviction was recorded or not) and the number of arrests recorded during the period, or by other differences in programme delivery or measurements.

Table 1 – During programme mean effect sizes for violence and crime outcomes

Outcome (n)	ES (d)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Violence-related arrests and convictions during programme* (n=2)	d= 0.29	0.78, -0.20	0.43	36.4%	91%	High	1
Combined crime types - arrests and convictions during programme (n=2)	d= 0.13	0.20, -0.05	0.03	16.6%	0%	Moderate	2

Note: ES = the weighted mean effect size; OR = odds ratio, d = Cohen's d, n = number of summer employment programmes evaluated to estimate ES; CI = 95% confidence intervals for the mean ES; p = the statistical significance of the mean ES; * = headline impact rating. See Annex 2 for relative risk reduction calculations. See Annex 5 for impact rating thresholds.

The second 'during programme' outcome combines crime types, and includes one study that measures likelihood of arrests and convictions during the summer months of the programme (Kessler, 2022), and one study that measures number of arrests in the twelve months in which the programme took place (Davis, 2020, Heller 2020). The pooled effects of these two studies show on average, a moderate impact on reducing crime during the programme, showing a reduction of 16.6% (d=0.13, CI=0.20-0.05). This finding is given a low

evidence security rating because it is based on only two studies, but it is not penalised any further because no heterogeneity is reported (see Table 1).

Annex 2: Relative reduction calculations

This annex explains the calculations used to produce the relative reductions reported.

The headline impact rating – violence-related criminal justice outcomes during the summer employment programme.

The calculation requires the odds ratio, which is taken from the Muir et al (2024) review, the numbers of children in treatment and control (though the result is not sensitive to either the total number used or the proportion in treatment and control groups), and the prevalence of crime in the comparison group.

The percentage reduction in violence and crime is calculated by deriving a 2x2. We assume 200 young people, evenly divided between treatment and comparison groups. That means there are 100 young people in the control group and 100 young people in the treatment group. For prevalence we use the following assumptions: 17% for violent offending, 33% for violent reoffending, 25% for general offending (any other crime type, or a combined crime measure) and 50% for general reoffending.

The odds ratio for violence-related CJ outcomes during summer employment programmes is 1.69. Using the table below, and the assumption that 17% of the population will commit a violent offence, we can estimate the value of X. The odds ratio is estimated as: $A*B / C*D$, where A is the number of young people that have a violent offending outcome post-programme in the control group, B is the number of young people that don't have a violent offending outcome in the control group, C is the number of young people that have a violent offending outcome in the treatment group, and D is the number of young people that don't have a violent offending outcome post-programme in the treatment group. Therefore, the value of X is 10.8.

	Have violence-related CJ outcome post-programme	Do not have violence-related CJ outcome post-programme	Total
Control	17	83	100
Treatment	X	100 – X	100

Therefore, the relative reduction in violence is $((17.0 - 10.8) / 17.0) * 100 = 36.4\%$.

If we adjust our assumption that 17.0% of persons in the control condition had a CJ outcome post-programme, the relative reduction in the treatment group is not greatly affected. For example, if we assume that 10% have a violence-related criminal justice outcome post-programme for any crime type, the 2x2 table would be as follows:

	Have violence-related CJ outcome post-programme	Do not have violence-related CJ outcome post-programme	Total
Control	10	90	100
Treatment	X	100 – X	100

The value of X would be 6.2, and the reduction is therefore 38.3% (i.e., $((10-6.2) / 10) * 100$).

Other reported outcomes

Number of violence-related criminal justice outcomes post the summer employment programme

The odds ratio for number of violence-related CJ outcomes post-programme is 1.12. In line with YEF technical report guidelines, this OR is inverted to 0.97 to demonstrate a negative undesirable outcome, i.e. a harm for programme participants. Using the table below, and the assumption that 17% of the population will commit a violent offence, we can estimate the value of X. The odds ratio is estimated as: $A*B / C*D$, where A is the number of young people that have a violent offending outcome post-programme in the control group, B is the number of young people that don't have a violent offending outcome in the control group, C is the number of young people that have a violent offending outcome in the treatment group, and D is the number of young people that don't have a violent offending outcome post-programme in the treatment group. Therefore, the value of X is 15.5.

	Have violent offending post-programme	Do not have violent offending post-programme	Total
Control	17	83	100
Treatment	X	100 – X	100

Therefore, the relative reduction in violence is $((17.0-15.5) / 17.0) * 100 = 8.7\%$.

If we adjust our assumption that 17.0% of persons in the control condition had a violent offending outcome post-programme, the relative reduction in the treatment group is not greatly affected. For example, if we assume that 5% have a criminal justice outcome post-programme for any crime type, the 2x2 table would be as follows:

	Have CJS outcome post-programme for any crime type	Do not have CJS outcome post-programme for any crime type	Total
Control	5	95	100
Treatment	X	100 – X	100

The value of X would be 4.5, and the relative reduction is 9.8% (i.e., $((5.0 - 4.5) / 5) * 100$). Similarly, if we assume that 10% of the control group have a criminal justice outcome post-programme for any crime type, the value of X is 9.1 and the increase is 9.4%.

Likelihood of violence-related criminal justice outcomes post the summer employment programme

The odds ratio for likelihood of violence-related CJ outcomes post-programme is 1.03. In line with YEF technical report guidelines, this OR is inverted to 0.97 to demonstrate a negative undesirable outcome, i.e. a harm for programme participants. Using the table below, and the assumption that 17% of the population will commit a violent offence, we can estimate the value of X. The odds ratio is estimated as: $A*B / C*D$, where A is the number of young people that have a violent offending outcome post-programme in the control group, B is the number of young people that don't have a violent offending outcome in the control group, C is the number of young people that have a violent offending outcome in the treatment group, and D is the number of young people that don't have a violent offending outcome post-programme in the treatment group. Therefore, the value of X is 25.6.

	Have violent offending post-programme	Do not have violent offending post-programme	Total
Control	17	83	100
Treatment	X	100 – X	100

Therefore, the relative reduction in violence is $((17.4 - 17.0) / 17.0) * 100 = 2.5\%$, showing a small increase in violence-related CJ outcomes.

If we adjust our assumption that 17.0% of persons in the control condition had a violent offending outcome post-programme, the relative reduction in the treatment group is not greatly affected. For example, if we assume that 5% have a criminal justice outcome post-programme for any crime type, the 2x2 table would be as follows:

	Have CJS outcome post-programme for any crime type	Do not have CJS outcome post-programme for any crime type	Total
Control	5	95	100
Treatment	X	100 - X	100

The value of X would be 5.1, and the increase is therefore 2.8% (i.e., $((5.1 - 5.0) / 5) * 100$). Similarly, if we assume that 10% of the control group have a criminal justice outcome post-programme for any crime type, the value of X is 10.3 and the increase is 2.7%.

Secondary school-related outcomes

In order to convert the dichotomous outcome (likelihood of having a negative behavioural outcome in school) to a percentage reduction, we first assumed that there were equal numbers ($n = 100$) in the experimental and control conditions. We then assumed 11.2% of persons in the control condition had a negative behavioural outcome i.e., the average prevalence of the outcome amongst the control/ comparison groups across the studies underlying each of the effect size estimates used to construct the weighted mean effect size. With these assumptions, the OR of 1.05 translated to 11.7% of experimental persons having a negative behavioural outcome, which is a 4.4% relative increase.

For the one continuous outcome (secondary education attendance rate), in order to convert the SMD into a meaningful percentage change, for each study evaluating the outcome we first multiply the SMD by the standard deviation of the outcome used by Muir et al. (2024) to construct the individual study's effect size. We then add this to the control group mean also used to construct the individual study's effect size to get an adjusted treatment group mean. We then calculate the percentage change in the outcome for each study, averaging these across studies evaluating the same intervention and then averaging across all interventions to estimate an average percentage change in the prevalence of the outcome.

Following this approach, an SMD of 0.02 translates to a 0.9% increase in secondary education attendance rate.

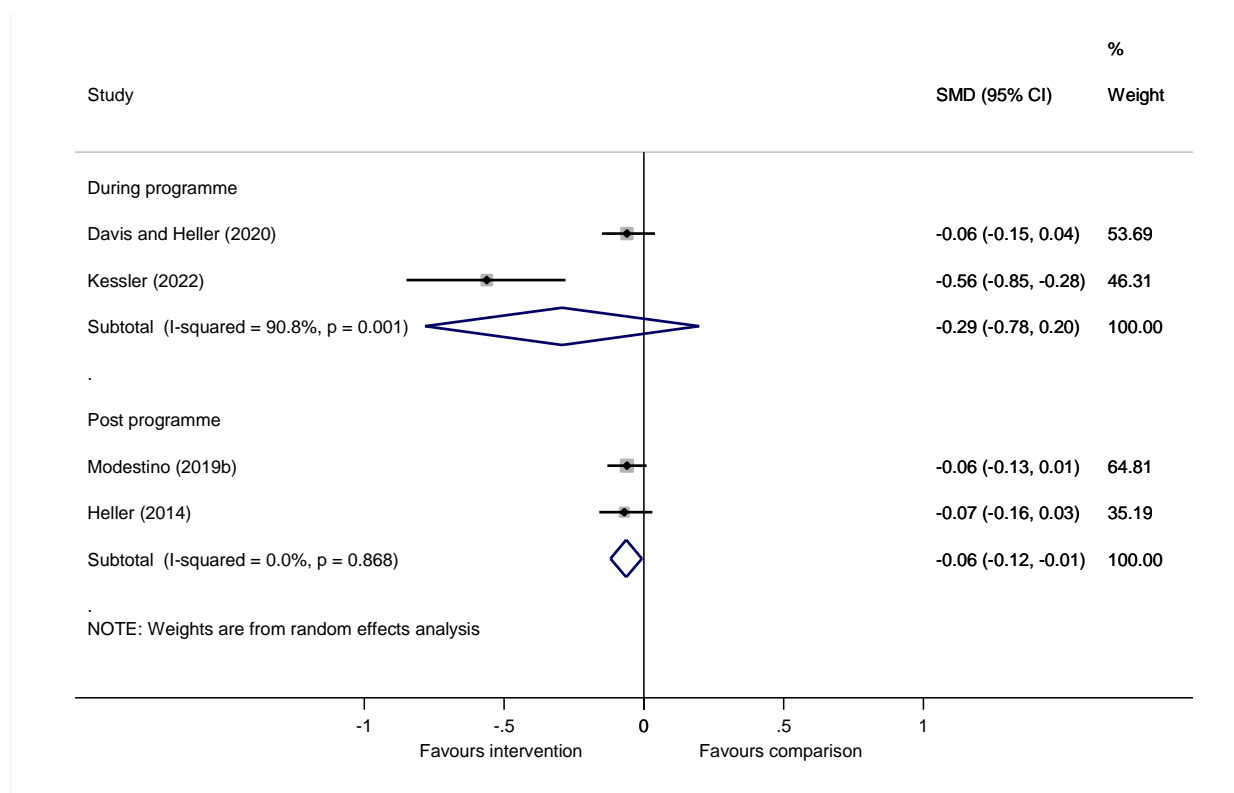
Naturally, the assumed prevalence of negative behavioural outcomes in school amongst persons in the control condition is plausible as this is sourced from the studies evaluating these outcomes reported on by Muir et al. (2024). However, prevalence of these outcomes may vary greatly (and does across studies), for example depending on the time, place, sample and definition of negative behavioural outcomes in school. Nevertheless, these numbers are not greatly affected by different assumptions about the prevalence of negative behavioural outcomes in school. The 4.4% increase in the likelihood of having a negative behavioural outcome in school would become 4.9% if we assumed a 1% prevalence of having a negative behavioural outcome in school amongst the control condition, or 4.0% if we assumed a 20% prevalence of having a negative behavioural outcome in school amongst the control condition.

Annex 3: Forest plots for outcomes

Violence-related outcomes

Outcome (n)	ES (d)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Violence-related arrests and convictions during programme* (n=2)	d= 0.29	0.78, -0.20	0.43	36.4%	91%	High	1
Number of violence-related criminal justice outcomes post-programme (17 months to 3 years) (n=2).	d= 0.06	0.12, 0.01	0.03	8.7%	0	Low	2

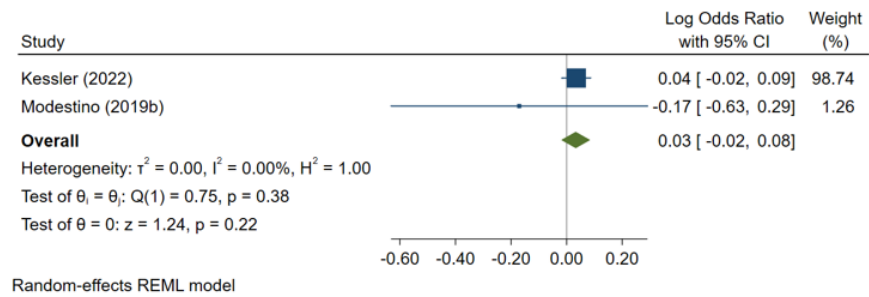
Meta-analysis and forest plot produced by Hugh Sharma Waddington for this technical report, to build on the findings in Muir et al (2024) regarding ‘during programme’ impacts on violence, and post-programme impact on violence:



Outcome (n)	ES (d, OR)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Likelihood of violence-related criminal justice outcome post-programme (17 months to 5 years) (n=2)	OR = 0.97 d= 0.02	0.93, 1.02	0.22	2.5% (increase)	0.0	No effect	2

From Muir et al (2024):

Figure 25: Impact of summer employment programme participation on likelihood of having a violent crime arrest/arraignment/conviction post-programme

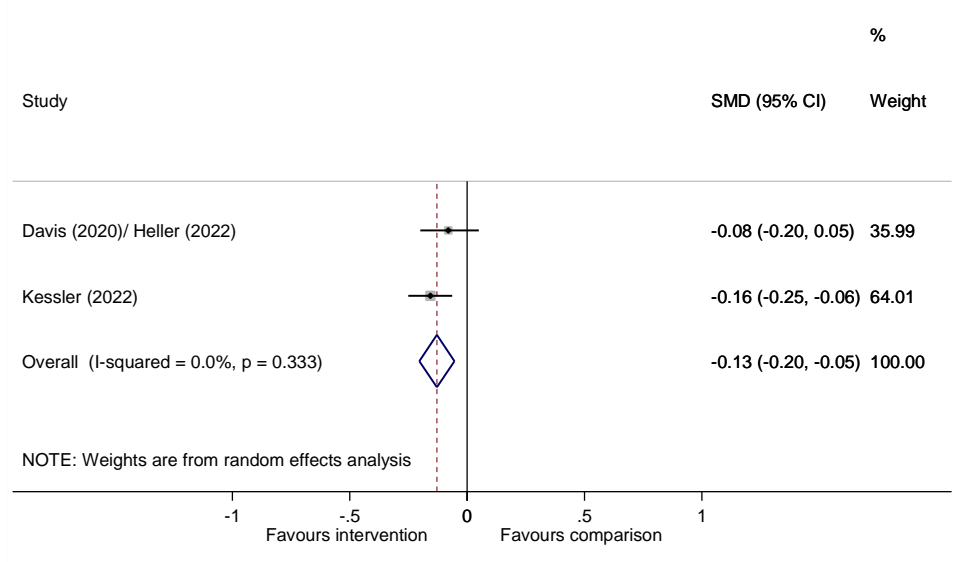


(Log Odds Ratio 0.03 = Cohen's d = 0.02)

Crime outcomes

Outcome (n)	ES (d, OR)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Combined crime types - arrests and convictions during programme (n=2)	d= 0.13	0.20, -0.05	0.03	16.6%	0%	Moderate	2

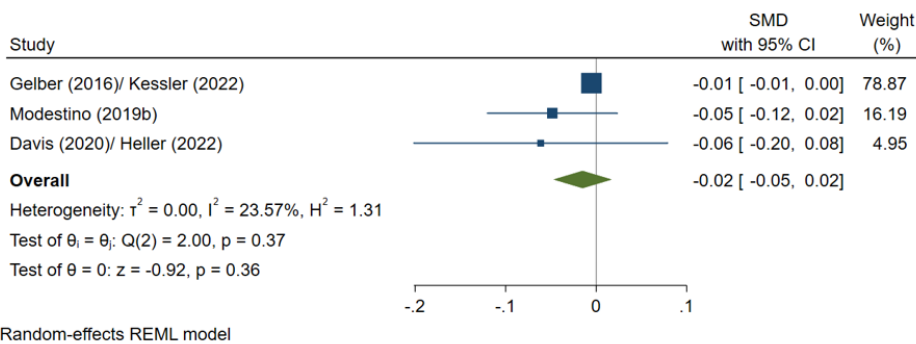
Meta-analysis and forest plot produced by Hugh Sharma Waddington for this technical report, to build on the findings in Muir et al (2024) regarding 'during programme' impacts on crime.



Outcome (n)	ES (d, OR)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Number of criminal justice outcomes post-programme (n=3)	d= 0.02	-0.05, 0.02	0.37	2.7%	23.6	No effect	2

From Muir et al (2024):

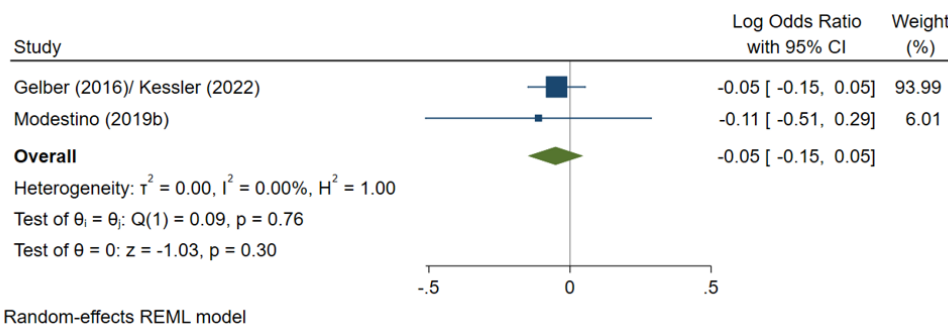
Figure 24: Impact of summer employment programme participation on number of arrests/arraigments/convictions/incarcerations post-programme



Outcome (n)	ES (d, OR)	CI (ES)	P	% relative reduction	I ² (%)	Impact rating	Evidence security rating
Likelihood of criminal justice outcome post-programme (n=2)	OR = 0.95 d= 0.03	0.86, 1.05	0.30	3.9%	0.0	Low	2

From Muir et al (2024):

Figure 22: Impact of summer employment programme participation on likelihood of having an arrest/arraigment/conviction/incarceration post-programme



Log Odds Ratio 0.05 = Cohen's d = 0.03

Annex 4: AMSTAR Rating of included review

1.	Did the research questions and inclusion criteria for the review include the components of the PICOS?	Yes (Table 1)
2.	Did the review authors use a comprehensive literature search strategy? At least two bibliographic databases should be searched (partial yes) plus at least one of website searches or snowballing (yes).	Yes. Five databases plus websites and hand search journals (appendix 1)..
3.	Did the review authors perform study selection in duplicate?	Yes
4.	Did the review authors perform data extraction in duplicate?	Partially (checked by second reviewer)
5.	Did the review authors describe the included studies in adequate detail?	Yes. Descriptive overview of studies by topic and Table 11
6.	Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?	Yes.
7.	Did the review authors provide a satisfactory explanation for discussion of, any heterogeneity observed in the results of the review?	Planned but not possible to carry out because of small number of included studies.
8.	Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?	Yes.

Annex 5: Impact ratings thresholds

The YEF Toolkit methodology and guidance are under review, planning to publish updated guidance in March 2025. This includes amending the 'no effect' threshold from $>1\%$ RRR, to an SMD of $-0.02 \leq d < 0.02$. This new approach has been applied to the findings of the systematic review of summer employment programmes. Updates to existing Toolkit strands will take place during 2025. If you have any questions about this, please contact Laura.Knight@youthendowmentfund.org.uk.

Conversion of Cohen's d to YEF impact rating

Cohen's d from meta-analysis	YEF impact rating
$d < -0.02$	Harmful
$-0.02 \leq d < 0.02$	No effects
$0.02 \leq d < 0.10$	Small effects
$0.10 \leq d < 0.25$	Moderate effects
$d \geq 0.25$	High effects



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