EVALUATION PROTOCOL

The Summer Jobs Programme – A randomised multi-site trial to evaluate an employment intervention aiming to enhance positive outcomes for young people at risk of violence

IFF Research

Principal investigators: Kelsey Beninger, Sashka Dimova

YOUTH ENDOWMENT FUND

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Evaluation protocol

Evaluating institution: IFF Research

Principal investigator(s): Kelsey Beninger, Sashka Dimova

YEF trial protocol for efficacy and effectiveness studies

Project title	**Summer Jobs Programme – a randomised multi-site trial to evaluate an employment intervention aiming to enhance positive outcomes for young people at risk of violence.**
Developer (Institution)	UK Youth
Evaluator (Institution)	IFF Research
Principal investigator(s)	Kelsey Beninger, Sashka Dimova
Protocol author(s)	Kelsey Beninger, Sashka Dimova, Catherine O'Driscoll
Trial design	Two-armed, muti-site randomised control trial, with randomisation at the individual young person level
Trial type	Internal Pilot and Efficacy Study
Evaluation setting	Community (England and Wales)

Target group	16- to 20-year-olds at risk of violence
Number of participants	3,000 young people: 1,200 in the Year 2 Internal Pilot (2025); 1,800 in the Year 3 Efficacy Study (2026) 18 Local Delivery Partners during Year 2 Internal Pilot (2025); 30 Local Delivery Partners during Year 3 Efficacy Study (2026)
Primary outcome and data source	The two co-primary outcomes, measured for young people in England and Wales through national administrative data, are: 1. Offending: From the Police National Computer, defined as any offence. 2. Employment, Education and Training (EET): From the Longitudinal Education Outcome (LEO) dataset, which combines employment and education records. A young person is classified as 'EET' if they are employed or in education/training (via post-16 education, apprenticeships, or training records) in the LEO.
Secondary outcome and data source	The four secondary outcomes, measured for young people in England and Wales through a self-report online questionnaire are: 1. Strength and Difficulties Questionnaire (SDQ)[1] total difficulties score, 12 to 16 weeks after randomisation 2. whether in Employment, Education or Training, 12 to 16 weeks after randomisation 3. New Philanthropy Capital (NPC) Journey to Employment (JET) Framework questionnaires[2] aspiration to work score, 12 to 16 weeks after randomisation 4. The New General Self-Efficacy Scale (NGSC),[3] total scale score, 12 to 16 weeks after randomisation

[1] For more information see Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(11), 1337-1345.
[2] Copps, J. and Plimmer, D. (2013). The Journey to Employment (JET) Framework: Outcomes and tools to measure what happens on young people's journey to employment. [Available online: https://npproduction.wpenginepowered.com/wpcontent/uploads/2018/07/JET-framework-FINAL-Jan-2015.pdf
[3] Chen, G., Gully, S. M., & Eden, D. (2001). *New General Self-Efficacy Scale (NGSE)* [Database record]. APA PsycTests. https://doi.org/10.1037/t08800-000

Protocol version history

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Study rationale and background

This internal pilot and efficacy trial aims to contribute to the limited evidence base on the impact of job placement programmes on youth offending in England and Wales.

The role of Summer Youth Employment Programmes (SYEPs) in reducing offending: SYEPs: SYEPs (examples include One Summer Plus Chicago[4], LA's Summer Youth Employment Programme[5], SuccessLink Boston[6], New York's WorkReady.[7] However, are increasingly seen as a means of addressing racial (and, more broadly, socio-economic) disparities in economic opportunity. [8] Employment placements in SYEPs are often fully subsidised. These schemes often rely on public funding and philanthropic donations to operate and thousands of young people in the US, typically aged between 14 and 24, participate in these schemes every year.

This efficacy trial aims to contribute to the limited evidence base on the impact of SYEPs on youth offending in the UK. This trial is designed as a multi-site trial to: (i) leverage the large networks of Local Delivery Partner organisations (LDPs) delivering support to at-risk cohorts of young people, providing sufficient sample sizes for the efficacy trial; and (ii) working with an Umbrella Organisation (UK Youth) to ensure a consistent model of delivery is being tested against business-as-usual across sites.

There have been several evaluations of SYEPs in the US, with the Chicago, Boston and New York programmes being the most studied. Robust evaluations of the programme through RCTs using routine data have been conducted in Chicago, Boston, New York and Philadelphia and show a general trend in reduction in crime and violence. The clearest results are for violent crime or offending, where the evaluation of both the Boston and the Chicago SYEPs programmes revealed significant crime-reducing effects of the programmes. An RCT of the Chicago One Summer Plus programme found a 43% reduction in violent crime over 16 months (for the intervention versus control) - 3.95 few violent-crime arrests per 100 youth, although no difference in property or drug arrests. In another analysis of Chicago One Summer Plus, the programme was found to reduce arrests for violent crimes in the first year after participation, although the effect faded in the second and third years.[9] An RCT of the Boston SYEP found violent-crime arraignments among the treatment group were 35 percent lower relative to the control group, with roughly –0.031 fewer arraignments per

[4] Bertrand, Marianne and Sara Heller. 2017. "One Summer Chicago PLUS: Scaling and "Unpacking" a Successful Program." AEA RCT Registry. July 31. https://doi.org/10.1257/rct.805-2.0

[5] Hire LA: Summer Youth Employment Program Evaluation Report: 2014 Richard W. MooreCristina RubinoAkanksha BediDaniel R. BlakeJ. Coveney Economics, Education 2015. city of Los Angeles Workforce Investment Board the Economic and Workforce Development Department

[6] https://successlink-boston.icims.com/jobs/intro

[7] https://www.pyninc.org/workready/

[8] https://www.brookings.edu/wp-content/uploads/2016/07/Summer-Jobs-Ross-7-12-16.pdf

[9] Davis, J. M. V., & Heller, S.B. (2020). Rethinking the benefits of youth employment programs: The heterogeneous effects of summer jobs. *The Review of Economics and Statistics*, *102*(4), 664–677. https://doi.org/10.1162/rest_a_00850.

youth during the 17 months after participation.[10] An evaluation of the New York SYEP found that participating in the programme was associated with a significant reduction in mortality rates and a non-significant reduction in dying from external causes.[11]

In terms of any crime outcomes, the three programmes evaluated (New York, Boston and Chicago,) all demonstrated small non-significant reductions in numbers of arrests in at least one of the years examined post programme. Neither the Boston nor Chicago programmes found any evidence of a reduction in drug arrests, although the Boston programme found a small reduction in arrests for property crimes.

The role of SYEPs in improving education, employment and training outcomes: These evaluations have also examined the impact on education, employment and training outcomes. Evidence is mixed; none of the evaluations found an impact on education outcomes except for progression to higher education, however, there was some evidence of an effect on progression to higher education from the Boston SYEP. The Boston SYEP found a negative impact on entry to employment and the Chicago SYEP found no effect on entry to employment.[12]

Since the evaluations of the SYEPs largely rely on management data, there are limited findings on the impact on other outcomes. However, the evaluation of the Boston programme had a broader set of outcomes and found a small, significant positive impact on an individual's sense of community (log odds ratio 0.26; 95%CI: 0.12-0.40) and level of depression (log odds ratio 0.43; 95%CI 0.31-0.56). There was also a significant impact on socio-emotional skills and engagement (standard mean difference: 0.32; 95CI 0.20-0.45),),[13] although no significant effect appears on socio-emotional skills and engagement in an evaluation of a programme in Washington DC and Baltimore.[14]

These findings, and those from qualitative data from the Boston and New York SYEPs, highlight at least some of the mechanisms through which these programmes may affect the observed changes in violent offending. SYEP programmes not only keep young people occupied, reducing the risk of engaging in crime during idle summer months, but they also help in other ways. These programmes can boost education and employment aspirations, build relationships, and set expectations for performance. Through these experiences,

[10] Modestino, A. S., & Paulsen, R. J. (2019a). Reducing inequality summer by summer, Microsoft Word - SYEP Report FINAL 12.27.17 charts fixed.docx

[11] Gelber, A., Isen, A. & Kessler, J.B. (2016). The effects of youth employment: Evidence from New York City lotteries. *The Quarterly Journal of Economics*, 131(1), 423-460. https://doi.org/10.1093/qje/qjv034.

[12] Modestino, A. S., & Paulsen, R. J. (2019a). Reducing inequality summer by summer: Lessons from an evaluation of the Boston Summer Youth Employment Program. Evaluation and Program Planning, 72, 40–53. https://doi.org/10.1016/j.evalprogplan.2018.09.006.

[13] Modestino, A. S. (2019b). How do summer youth employment programs improve criminal justice outcomes, and for whom? Journal of Policy Analysis and Management, 38(3), 600–628. https://doi.org/10.1002/pam.22138.

[14] Theodos, B., Pergamit, M.R., Hanson, D., Edelstein, S., Daniels, R., & Srini, T. (2017). Pathways after High School: Evaluation of the Urban Alliance High School Internship Program. Washington, DC: Urban Institute.

participants develop responsibility, maturity, self-esteem, and important soft skills, while also benefiting from the economic opportunities these programmes provide. These are summarised in a systematic review of the literature on summer education and employment programmes.[15] This evidence is synthesised to form an estimated overall impact on violence-related outcomes of 'high' according to the YEF Toolkit.[16]

Why do young people offend? Young people are disproportionality represented in the criminal justice system in England and Wales. In the year ending March 2024, the number of proven offences committed by children saw a year-on-year increase for the second consecutive year, rising by 4%. In the year ending March 2024, there were around 35,600 proven offences committed by children and young people which resulted in a caution or sentence at court.[17,18]

Young people's behaviour and likelihood of offending are influenced by various factors. Key risk factors include family issues[19] (such as parental supervision, conflict, or domestic abuse), education[20] (like poor performance or lack of engagement), peer relationships[21] (associating with anti-social peers, loneliness, bullying), mental health (attitudes toward authority and self-esteem), community influences[22] (gang activity, crime rates, housing quality, access to support), and prior legal involvement.[23]

Black children are overrepresented in the criminal justice system; Black children make up 4% of 10-17 year olds but 29% of children in custody.[24] They are more likely to be sentenced to custody for homicide, to be stopped and searched, and to be a homicide victim.[25] This context motivates this trial's focus on conducting subgroup analysis on young people from Black, Asian and minority ethnic backgrounds, and exploring race equity in the IPE.

Racial inequalities are also linked to broader social issues, such as lack of educational and employment opportunities. Across the UK- 1 in 8 – of young people are not in education,

[15] Muir, D., Orlando, C. & Newton, B. (2024) Impact of summer programmes on the outcomes of disadvantaged or 'at risk' young people: A systematic review, under review

[16] https://youthendowmentfund.org.uk/toolkit/summeremploymentprogrammes/

[17]

[18]https://www.gov.uk/government/statistics/youth-justice-statistics-2023-to-2024/youth-justice-statistics-2023-to-2024#proven-offences-by-children

[19]https://www.justiceinspectorates.gov.uk/hmiprobation/research/the-evidence-base-youth-offendingservices/specific-areas-of-delivery/family-relationships/

[20]https://youthendowmentfund.org.uk/reports/children-violence-and-vulnerability-2024/who-is-affected/#:~:text=Children%20struggling%20in%20education%20are%20also%20particularly%20vulnerable.,to%20engage%20in%20violent%20behaviour%20than%20their%20peers.

[21]https://www.justiceinspectorates.gov.uk/hmiprobation/research/the-evidence-base-youth-offending-services/specific-sub-groups/children-displaying-violent-behaviour/

[22]https://www.violencepreventionwales.co.uk/cms-assets/research/Mapping-and-horizon-scanning-review-of-youth-violence-prevention.pdf

[23] Youth Endowment Fund (2020) What works: Preventing children and young people from becoming involved in violence: https://youthendowmentfund.org.uk/wpcontent/uploads/2020/10/YEF_What_Works_Report_FINAL.pdf

[24]https://youthendowmentfund.org.uk/wp-content/uploads/2022/10/YEF-Children-violence-and-vulnerability-2022.pdf

[25]https://youthendowmentfund.org.uk/wp-content/uploads/2025/02/YEF_Racial_Disproportionality_FINAL.pdf

employment or training (NEET).[26] Youth Futures' analysis of the ONS Annual Population Survey shows that young people who are White British have a NEET rate of 10.9%. However, the NEET rate for young people from a Black Caribbean background is 2.3 times higher (25%), while the rate for young people from Pakistani backgrounds stands at 13.9%.[27] Absence, suspension, and exclusion from school increase the risk of crime and violence. Children from certain ethnic groups are more likely to face these.[28]

Office for National Statistics data reveals half of the increase in economic inactivity since 2021 is due to ill health, with mental health being one of the common health conditions driving this.[29]

Marginalised young people also experience significant systemic barriers when they seek employment, and intolerant attitudes from colleagues when they do find work. Young people from ethnic minority backgrounds face discrimination getting into jobs.[30] For example, people from ethnic minority backgrounds face hiring discrimination when applying for leadership positions.[31] Young people leaving social care, or who have learning disabilities, face the greatest hurdles to getting into work.[32] The odds of a young person with Special Education Needs and Disabilities becoming NEET are 1.9 times higher than for a young person without SEND.[33]

There remains variation between the services used by young people who are NEET and those who are in education, employment or training. 16 to 25-year-olds face significant barriers to entering the world of work and the most commonly cited perceived barrier is a lack of training, skills and work experience.[34]

Year 1 Feasibility Study (2024)

While there is evidence that SYEPs can have a small to moderate effect on violent crime amongst vulnerable young people, all research has been conducted in the US. There are known issues with programmes being transported into new countries and not demonstrating effectiveness when trialled in their new setting, and there are several

[26] www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/bulletins/youngpeoplenotineducationemploymentortrainingneet/may2024
[27] https://youthfuturesfoundation.org/wp-content/uploads/2024/08/Youth-Employment-2024-Outlook.pdf
[28] https://youthendowmentfund.org.uk/wp-content/uploads/2025/02/YEF_Racial_Disproportionality_FINAL.pdf
[29] https://www.ons.gov.uk/
[30] https://youthfuturesfoundation.org/discriminationandwork/#:~:text=With%20almost%20over%20a%20quarter%20of%20the%20UK%E2%80%99s,and%20why%20the%20need%20for%20action%20is%20critical.
[31] Adamovic, M., & Leibbrandt, A. (2023). Is there a glass ceiling for ethnic minorities to enter leadership positions? Evidence from a field experiment with over 12,000 job applications. *The Leadership Quarterly. Volume 34, Issue 2.*
[32] https://youthfuturesfoundation.org/wp-content/uploads/2024/06/Youth-Futures-Foundation_Annual-Review_2023.pdf
[33] https://www.resolutionfoundation.org/app/uploads/2024/02/Weve-only-just-begun.pdf
[34] https://youthfuturesfoundation.org/wp-content/uploads/2024/08/Youth-Employment-2024-Outlook.pdf

examples in the UK of the failed replication of programmes.[35,36,37] There are of course considerable differences between the US and the UK - including a much lower prevalence of violent crime - which could impact on the suitability and effectiveness of SYEPs in the UK.

A feasibility study will help understand whether a SYEP can be delivered in the UK, and if a full-scale impact evaluation was possible. It will mitigate the risk of expending resources on an extensive trial before the programme is ready, which would ultimately yield uninformative results.

Given this, in 2023/24 the Youth Endowment Fund (YEF) – with co-funding from the Department for Culture, Media, and Sport (DCMS) and Youth Futures Foundation (YFF) - commissioned UK Youth (UKY) to establish a SYEP in England, called Summer Jobs. YEF appointed the Ending Youth Violence Lab (EYVL) to work with UK Youth on the design and set-up of the programme and to conduct a **Year 1 Feasibility Study**.

Lessons from the Year 1 Feasibility Study (2024) informed Summer Jobs programme design changes for the Year 2 Internal Pilot Study (2025). The following changes to eligibility criteria were agreed during co-design, to ensure participants are those at risk of violence:

Year 1 Feasibility Study	**Year 2 Internal Pilot Study**
At risk of criminal exploitation Persistently absent from school	restrict the 'at risk of criminal exploitation' and 'Persistently absent from school' criteria to only be allowed in referrals from external organisations, and in exceptional cases, where none of the other criteria apply
One or more fixed term exclusion	change' to 'Multiple fixed-term exclusions' and 'Permanent exclusion'
Aged 16 – 24	change to 'aged 16 to 20 at time of registration'

[35] Robling, M., Bekkers, M-J., Bell, K., Butler, C. C., Cannings-John, R., Channon, S. et al. (2016). Effectiveness of a nurse-led intensive home-visitation programme for first-time teenage mothers (Building Blocks): a pragmatic randomised controlled trial. *Lancet, 387,* 146-155.
[36] Humayun, S., Herlitz, L. Chesnokov, M., Doolan, M., Landau, S. and Scott, S. (2017). Randomized controlled trial of Functional Family Therapy for offending and antisocial behavior in UK youth. *Journal of Child Psychology and Psychiatry 58*(9), 1023-1032.
[37] Fonagy, P., Butler, S., Cottrell, D., Scott, S., Pilling, S., Eisler, I. et al. (2018). Multisystemic therapy versus management as usual in the treatment of adolescent antisocial behaviour (START): a pragmatic, randomised controlled, superiority trial. *The Lancet Psychiatry, 5*(2), 119-133.

No quotas	add a quota of at least 50% of young people registered for the programme should come from external referrals from other agencies e.g. statutory agencies and other services, such as pupil referral units, youth justice services, social services, job centres and alternative provision units.
No exclusion criteria	add exclusion criteria 'Not currently studying towards a higher education degree'.

The following refinements to programme content and design were made, to ensure programme fidelity during the Internal Pilot Study (2025) and Efficacy Study (2026):

- Updating referral and registration information and template, to reflect the eligibility criteria changes described above.
- the location was expanded from England to include South Wales.
- Increase target number of employers to 200 and to diversify employment opportunities including the involvement of private sector companies since companies involved in Year 1 were mainly third sector organisations; through UKY bringing employer engagement and recruitment in-house in Year 2.
- To centralise and simplify the collection, storing and sharing of information with LDPs; through optimisation of UK Youth's CRM system.

YEF approved Summer Jobs to transition from feasibility to pilot, because of the programme's performance against progression criteria specified in the feasibility study protocol. In summary, based on the criteria that EYVL could report on at the time of transition decision, and since all these criteria were rated green, they recommend proceeding to a pilot trial. This is for the following reasons:

- The volume of referrals, registrations and number of employment placements were high suggesting a high demand for the programme from young people and those supporting them and sufficient interest from employers to ensure that a similar number of placements are available in Year 2.
- A high percentage of young people who were offered a placement accepted it, providing further indication for demand for the programme from young people and suggesting that the placements on offer to young people were sufficiently interesting for them to participate.
- For those matched to a placement, the retention data available suggested that retention of young people was high with over 80% of young people meeting the pre-set levels of attendance at both the pre-employment placement week (80%) and in their placement (60%).

- The early satisfaction data suggested that young people were satisfied with the programme, with over 95% reporting being satisfied or very satisfied with the programme.

Year 2 Internal Pilot Study (2025) and Year 3 Efficacy Study (2026)

Following the study, the Youth Endowment Fund (YEF) commissioned IFF Research in 2024 to conduct a Year 2 Internal Pilot Study (2025) and Year 3 Efficacy Study (2026) of the UKY's Summer Jobs programme.

The impact evaluation is designed as a multi-site trial, delivered across 18 Local Delivery Partners (LDPs) in Year 2 Internal Pilot Study (2025) and 30 LDPs in Year 3 Efficacy Study (2026), with 3,000 young people randomised into intervention after Right to Work checks[38] are complete (1,500 offered the opportunity to participate in Summer Jobs) and control (1,500 not offered the opportunity to participate in Summer Jobs and offered business-as-usual support).

Internal Pilot Study (2025)

To support the design of the Efficacy Study, an Internal Pilot Study will be implemented between March 2025 and September 2025, with a review point in December 2025 to assess lessons and inform the delivery of the full efficacy trial. The Internal Pilot Study will take place across 18 Local Delivery Partners with a target of 1,200 eligible young people recruited (600 in the intervention group and 600 in control). The Internal Pilot Study will allow each implementation step in the trial to be piloted, assessed through quantitative data and qualitative research, and revised for the Efficacy Study in 2026. The pilot will be an opportunity to assess the appropriateness and perceptions of the evaluation and the intervention for young people, youth workers at LDPs and referring external organisations, and employees at the employers providing job placements.

Implementation and process evaluation (IPE)

There will be an implementation and process evaluation for both the Internal Pilot Study (2025) and the Efficacy Study (2026). For both studies, evidence will be collected from: interviews with UKY delivery staff, LDP youth workers, staff from external referral organisations, employees from employers providing job placements, and young people both in the intervention and control groups. Monitoring and management information (MI) will also be collected, to answer the IPE research questions.

[38] No young people failed their right to work check during the feasibility stage. A few young people faced delays in their right to work check outcome because of issues getting the necessary information and paperwork together, but they still cleared before the job started.

Intervention

The Summer Jobs programme is a targeted 6-week youth employment programme (over the school holiday period) for vulnerable young people aged 16-20 in England and Wales who are at risk of violence. It is delivered by UKY and will run from July to September in 2025 and 2026. It was modelled on the 'Summer Youth Employment Schemes' (SYEPs), that have been successfully implemented in US large cities, including New York, Boston and Chicago. Summer Jobs aims to reduce offending and improve engagement in education and employment for the young people involved.

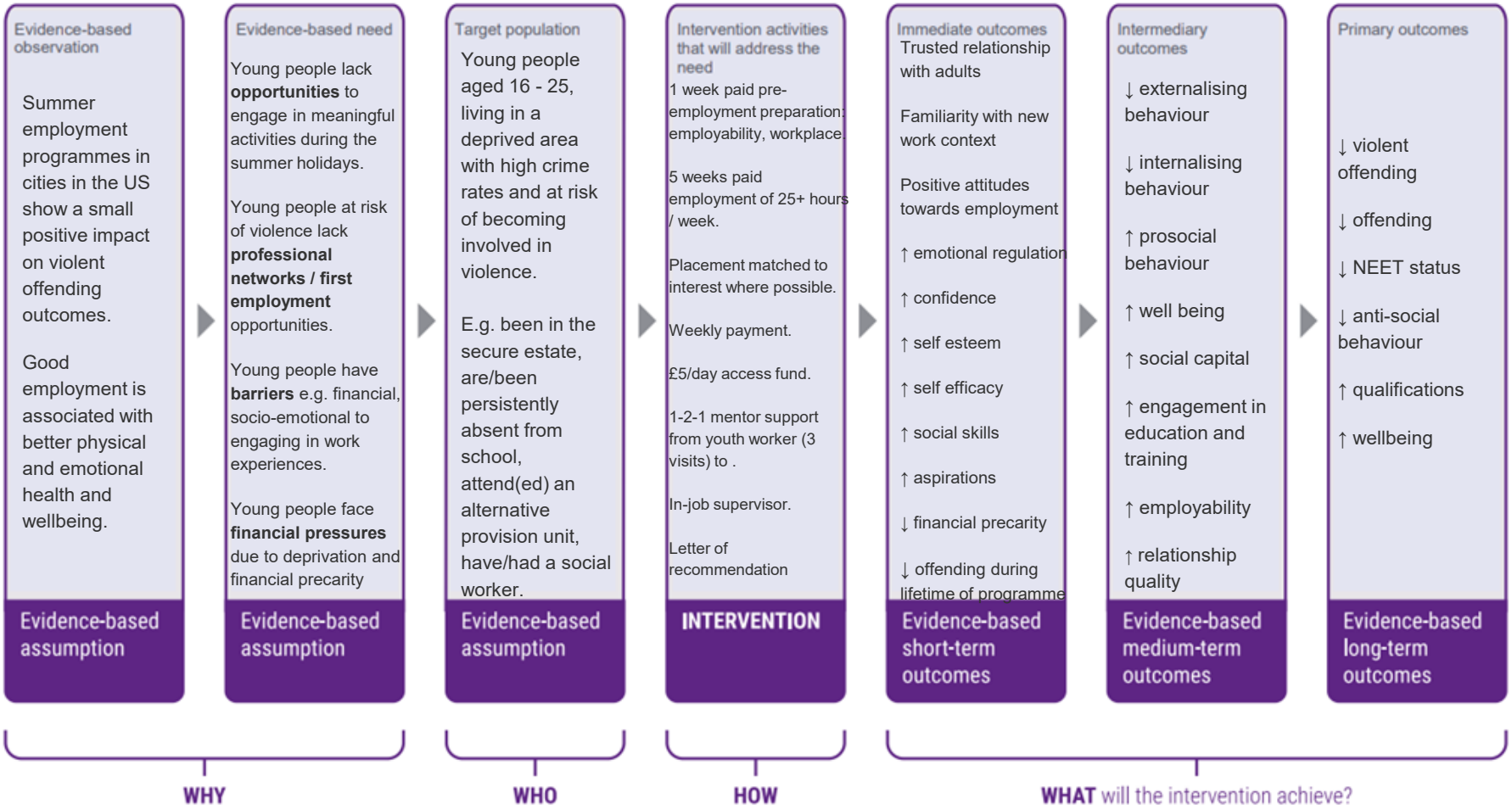
A summary of the programme using the TIDieR framework is included in the Appendix.

Theory of Change: The Summer Jobs programme theory of change (see figure below) was developed by the Feasibility Study evaluator, Ending Youth Violence Lab (EYVL), UK Youth and Inclusive Boards and drew on evidence from the US studies as well as the systematic reviews.

The theory suggests that young people living in deprived areas with high crime rates are at risk of becoming involved in violence. Providing these individuals with a paid pre-employment work readiness training week, five weeks of paid employment, practical support, a letter of recommendation, and an end-of-placement celebration event may help.

These supports are expected to lead to intermediate outcomes such as improved emotion regulation, self-esteem, socio-emotional skills, and better education and employment outcomes and aspirations. In turn, these improvements may reduce violent and non-violent offending behaviors, as well as enhance education, employment, and training (EET) status.

Figure 1 Theory of Change



For the Internal Pilot Study (2025) Summer Jobs will be delivered across 17 LDPs in England and one LDP in South Wales (18 LDPs total)– overseen by UKY. Specifically, Summer Jobs will operate in 2025 in London, the North East, Yorkshire and the Humber, Greater Manchester, West Midlands, and South Wales. The areas were chosen for their credible Local Delivery Partners (as assessed by UKY), and available employment placements. In the Year 2 Efficacy Study (2026) Summer Jobs will be delivered across 30 LDPs in England and South Wales.

LDPs are responsible for recruiting, registering and screening young people for eligibility, scheduling and leading a pre-employment training week, matching young people to employment placements, and providing ongoing support to young people throughout their placements via youth workers within LDPs. This support is via an initial one-to-one meeting to discuss future goals and to allocate them to a placement, and at least three one-to-one individual check-ins from the youth worker at the place of employment.

Young people must reach certain eligibility criteria to take part in the programme, but can be referred, self-refer or identified by youth workers through outreach work or as young people already known to them. See 'participants' section under 'Impact evaluation' for the full criteria.

LDPs are recruited by UKY through an Expression of Interest stage, including financial due diligence checks and Discovery visits from UKY. The Discovery visits aim to help UKY better understand how the LDP meets the criteria for delivering Summer Jobs, and includes meeting with the team that would be involved in delivery Summer Jobs, hearing about their delivery ethos and features, and observing their practice with young people. Once LDPs are confirmed to deliver Summer Jobs, UKY delivers three online training sessions to support their delivery.

The Year 2 Internal Pilot Study (2025) aims to recruit 1,200 eligible young people (600 randomised to each of the intervention and control groups; with 120 recruited from Wales and the remainder from England). The Year 3 Efficacy Study (2026) aims to recruit 1,800 eligible young people (900 randomised to each of the intervention and control groups). Placements are offered by an LDP youth worker to a young person based on location and their preference (where possible), following a one-to-one session between the youth worker and the young person once the young person has been offered the opportunity to take part in Summer Jobs.

Ahead of their employment placement, young people receive one paid week of general employment and work readiness training and preparation (covering a range of topics, from professional expectations in a workplace, to managing conflict), whose curriculum was designed by UK Youth in collaboration with key stakeholders. Young people will be given the option to provide any reasonable adjustments and considerations that they may require

during onboarding with their youth worker. This will be implemented by youth workers during prep week, used to ensure suitable placement matching occurs, and captured in an employment passport to be shared with employers with consent. The prep week is required to be delivered in-person through in-person workshops where possible to establish consistent delivery. This is discussed and planned with the youth worker who can then check in with them to ensure it has been completed. However, to ensure accessibility, and in-line with placements requirements, there is flexibility to deliver up to 50% of the prep week remotely. Time is set aside for self-directed learning and reflection activities, with each young person being assigned a youth worker who oversees their preparation. It also includes self-directed activities. For example, a young person can practice their route to work, get their work clothes sorted out, or could undertake any role-specific or employer-specific onboarding training. It can also be used to have an in-person first meetup with their employer if that hasn't happened in the structured sections.

Young people spend 5 weeks at their employment placement, working no more than 25 hours per week (5 hours a day, 5 days a week). During their placement, young people have an In-work Supervisor and may also have a named In-work Mentor. Young people receive £5/day to help remove barriers to their programme participation ('Access Fund') and are paid £12.21/hour (paid weekly via a payroll provider, who also conducts right-to-work checks).

In the Year 2 Internal Pilot Study (2025) around 200 employers will be recruited by UKY to offer 600 job placements and In-job Supervisors (and optionally, In-job Mentors) support the young people through their five-week placement. All employers attend one in-person employer training day before the programme begins, run by UKY.

Following their employment placement, in September young people receive a 'letter of recommendation' from their employer using a UKY template. Recommendation letters based on supervisor feedback are an important part of Summer Jobs because evidence suggests letters increase employment and earnings.[39] Young people are also invited to attend a celebration event to mark the end of the programme and completion of their placement.

Control group and business-as-usual conditions

In England, at a national level, there are no alternative schemes to Summer Jobs which offer vulnerable young people short-term paid employment. From discussions with youth workers in London and Greater Manchester, no paid schemes to support young people into

[39] Information Frictions and Skill Signaling in the Youth Labor Market∗ Sara B. Heller (University of Michigan & NBER)† Judd B. Kessler (University of Pennsylvania & NBER) June 24, 2022

employment operate locally in their areas. Instead, 'business as usual' conditions are 1) career exploration and insights (business insight days, career events, workplace visits, participation events), 2) unpaid work experience, including volunteering, 3) career development (one-to-one career coaching, CV reviews, mock interviews), and 4) signposting to job offers. In Wales, at a national level, the Jobs Growth Wales+[40] training and development programme supports young people aged 16-19 who are not in employment, education or training (NEET). It provides tailored support, training and opportunities for work experience (including work-related preparation, and coaching and mentoring support during the first six months of employment), including short-term paid employment. Otherwise, business as usual conditions in Wales are like those described above, operating locally in England.

There is a risk the 18 LDPs will handle business-as-usual for young people already known to them compared with young people referred by external organisations (such as Violence Reduction Units) differently. To mitigate this, the evaluation team will cover the importance of maintaining BAU and the specific aspects of their work that should remain unchanged throughout the study in evaluation guidance to LDPs and in the LDP training UKY deliver before Summer Jobs begins. To better understand business-as-usual, the follow-up survey to the control group will ask what they engaged with while Summer Jobs operated, and discuss this qualitatively in interviews with young people from the control group, in the IPE.

Summer Jobs racial diversity and inclusion

The Summer Jobs programme has been designed to be sensitive to, and appropriate for, different racial, ethnic, and other minoritised groups. Programme co-design with young people and Local Delivery Partners helped ensure that the programme, content, and resources are tailored towards the communities they serve. The exception to this is young people whose primary language is not English; due to funding availability, the programme is delivered in English only.

Processes and procedures are designed to be clear, consistent, fair and compliant with Equal Opportunities legislation and with UK Youth's Equal Opportunities Policy which it monitors and reviews regularly. Inclusive practices are central to the Summer Jobs recruitment process and participant wellbeing is promoted by being considerate of the vulnerabilities of the participants during recruitment, providing young people with welcoming information documentation written in Plain English and in a range of different media formats. During registration, all young people also complete an employment passport which details any additional information and reasonable adjustments which is later shared with their employer.

[40] https://workingwales.gov.wales/jobs-growth-wales-plus

LDP and employer recruitment and onboarding procedures aim to minimise likelihood of young people receiving less or more favourable treatment on the grounds of: race; colour; nationality; religion or belief; ethnic or national origin; gender; age; marital status; sexual orientation; or disability.

All Local Delivery Partners go through a due diligence process to ensure that they have the necessary knowledge and expertise to recruit and support a diverse cohort of young people fairly and effectively. Local Delivery Partners must also attend three training sessions, which include inclusive ways of working and safeguarding. Following the selection of Local Delivery Partners, UK Youth will regularly convene groups of Local Delivery Partners to ensure their insights and learning are being used to inform active delivery.

Similarly, employers must provide placements in line with the equitable practices that UK Youth promote. During recruitment, all employers will go through a due diligence process and must attend a full day training which covers micro-aggressions and safeguarding. Messaging, training and co-designed resources explicitly outline the employer's responsibility to be inclusive as well as suggestions on how to actively implement this – for example, adapting language, how to provide clear feedback, and utilising spoon theory.

In addition, recruitment of employers is targeted to ensure that a diverse pool of placements is provided to cater to the different interests and motivations of young people. Youth workers go through a placement mapping exercise with young people to offer them choice and the opportunity to work on something closely aligned with their interests.

Employers and youth workers are strongly encouraged and assisted to build relationships throughout the programme to strengthen their ability to respond to the needs of young people. On placement, young people must have an allocated workplace supervisor and require at least three check-ins from their youth worker.

Young people are encouraged to reflect on their programme experience and skills development throughout the programme. The paid preparation week and work experience workbooks include reflection sections. The three check-in sessions with the youth worker include prompts on reflections on skills development, and encouraging the young person to add the paid experience to their CV.

While on placement, all participants are paid the National Living Wage and are provided with a daily £5 Access Fund to support with overcoming barriers to work, such as travel costs and appropriate clothing. The Access Fund is a flexible resource that youth workers can use, in partnership with young people, to respond to their specific barriers. Furthermore, the programme is designed using a core and flex model to make it more accessible and responsive to the needs of specific young people; for example, the ability to flex hours to work around childcare or caring responsibilities.

All young people are paid through a payroll provider which has been procured by UK Youth. The provider recruitment process considers the provider's ability and experience in working with young people likely to be experiencing barriers into the labour market, and how they work flexibly to support their participation.

Support provided to LDPs

UKY, in its role to implement and deliver Summer Jobs, offer the following support to LDPs:

- Through the LDP recruitment process, UKY detail the programme purpose and roles/responsibilities and expectations of LDPs, including targets, deadlines and information LDPs need to collect and share with UKY.
- Through the due diligence checks, including in-person delivery setting visit, UKY observe whether/how the LDPs arrangements/ethos aligns with that required for Summer Jobs.
- For LDPs that are confirmed to deliver Summer Jobs, they also receive x3 online training sessions.

IFF Research, in its role to evaluate Summer Jobs, offer the following support to LDPs:

- Develop engagement materials that clearly and simply introduce the evaluation purpose, activities, value, and the roles/responsibilities of LDPs in evaluation activities. For example, tailored information leaflets, FAQs, collated slides used in the training sessions (see below).
- Attend portions of the x3 online training sessions UKY delivers (see above) to cover evaluation requirements. This includes information on racially equitable approaches and considerations, including support on adaptation of evaluation materials, language support, discussing the sensitivity of obtaining consent for using police data or asking about behavioural and demographic topics in the survey.
- Host and facilitate a weekly 30-minute diarised meeting with all LDPs, to provide timely answers to evaluation questions LDPs may have, during recruitment.
- Monitor and respond to a dedicated evaluation email inbox.

Support provided to employers

UKY, in its role to implement and deliver Summer Jobs, offer the following support to employers:

- Through the employer recruitment process, UKY detail the programme purpose and roles/responsibilities and expectations of employers, including targets, deadlines and information employers need to collect and share with UKY.
- Through the due diligence checks, UKY observe whether/how the employers arrangements/ethos aligns with that required for Summer Jobs.
- For employers that are confirmed to deliver Summer Jobs, they also receive x1 in-person training session.

IFF Research, in its role to evaluate Summer Jobs, offer the following support to employers:

- Develop engagement materials that clearly and simply introduce the evaluation purpose, activities, value, and the roles/responsibilities of employers in evaluation activities. For example, tailored information leaflets, FAQs, collated slides used in the training sessions (see below).
- Attend portions of the x1 training sessions UKY delivers (see above) to cover evaluation requirements.
- Monitor and respond to a dedicated evaluation email inbox.

Approach to conducting the evaluation sensitively to the diverse backgrounds of young people participating

The evaluation is designed with an understanding of the varied experiences, needs and perspectives of young people. Key features of this are summarised below:

Anticipating and considering young people's needs. For example, asking for their preferred named in the registration form, so we can use this in all evaluation communication. Also in the registration form, asking for their preferred mode of communication (phone, email, text), whether they prefer for surveys to be completed over telephone, if they would like to share any other information about them that the evaluation team should know about.

Avoiding retraumatisation. Reviewing all written materials with the view to identify and remove content that may be triggering, use trauma-sensitive language and avoid questions on topics that could be distressing. In both the survey and qualitative interviews, we are clear that young people can take breaks and return when they are ready. We signpost to support leaflets throughout the research process.

Adverse childhood experiences. In acknowledging that our young participants could have had a whole range of diverse and potentially difficult life experiences, we use researchers who are trained in working with vulnerable people. They are trained to manage expressions of distress or anger, silence, seeming lack of interest or engagement, or nervousness, and they understand the concept of energy and language matching, to help create rapport and comfort.

Culturally inclusive design. For example, ensuring the language used in engagement materials, surveys and interviews are age-appropriate and accessible to all participants.

Representation. UK Youth will engage diverse local delivery partners to ensure that young people from Black, Asian and Minority Ethnic groups, with care experience, with special education needs and disabilities take part. The evaluation will monitor the characteristics of young people and conduct descriptive analysis of outcomes by these characteristics.

Tailored communication. All evaluation engagement and data collection tools are informed by the principles of Easy Read, use simplified language, illustrate complex concept through accessible metaphors (e.g. for randomisation, for data linkage), incorporate visual aids and use trauma-sensitive language. For example, diagrams, images, and in the case of the information leaflet, use an animation with voice over to communicate the content of the text-based information leaflet. While evaluation materials are not being translated, IFF Research can accommodate interpreted telephone interviews for survey completion in most languages.

Co-design. All evaluation materials are co-designed, informed by young people, youth workers, the delivery partner – UK Youth, YEF's race equity advisor, and IFF's ethics advisors. This ensures materials are accessible, appropriate and responsive to these audiences concerns and ideas.

Flexible methods. The outcome surveys are offered online and by telephone, conducted by a trained telephone interviewer, thereby offering young people choice that caters to their different communication preference. Polls of intervention group young people during their paid placement are carried out by SMS (informed by the Year 1 Feasibility Study lessons), to capture experiences in real time. Qualitative research will also offer choice – one-to-one, accompanied by a trusted friend, group-based, and conducted remotely or in-person.

Feedback mechanisms. Offer regular opportunities to participants to provide feedback, allowing for adjustments where possible, and ensuring the evaluation remains relevant and responsive to their needs. For example, young people facing materials highlight contact details at the front, top of the documents; and the information leaflet includes further details about how to make different types of complaints; the survey ends with a link to the 'further support' leaflet, which includes lots of support resources.

Sensitivity to power dynamics. In recognition of the risk to coercion and power imbalances between young people and researchers, we include regular reassurances throughout the evaluation. For example, reminders that participation will not impact any support they access; police will not have access to their survey responses if they consent to data linkage; in qualitative research, reminder to young people we listen to understand, not to reply, and they do not have to share what they do not feel comfortable with; young people can withdraw from the study at any time. For example, including pictures and fun facts about the research team on the young person information leaflet; reiterating young people's choice and control throughout the research process (e.g. they can withdraw at any time, they can choose not to give a response in qualitative discussions etc); avoid patronising language and imagery in written materials. Reflexivity among researchers is also important for managing power dynamics. For example, the research directors will support the team to reflect on their own

identities and possible unconscious biases, and the project manager will ensure time is dedicated during fieldwork to share and note these.

Reciprocity. In acknowledgement of young people's investment of time and energy, young people will receive £15 Love2Shop voucher for completing the endline survey and £25 Love2Shop e-voucher for taking part in qualitative discussions; and a visually engaging, accessible infographic with the key study findings. Young people will be told when the published results from the impact evaluation will be available on the YEF and YFF websites.

Year 2 Internal Pilot Study (2025) evaluation progression criteria

The Year 2 Internal Pilot Study (2025) will be assessed against the following progression criteria, where the noted metric will be assessed against the following thresholds of Green = >75%, Amber = 50%-74%, and Red = < 50%, unless stated otherwise.

RAG criteria for the pilot are meant to be informative and will be assessed holistically. If Red or Amber is achieved, it provides an indication to the delivery and evaluation teams that elements of delivery may need to be updated for the Year 3 Efficacy Study (2026), based on learnings, rather than necessarily an indication that the Efficacy Study should not go ahead. If one criterion is green, one is yellow and one is red, the evaluation will consider the likely mitigations to move the red and yellow to green for Year 2, in discussion with UKY, and include that in our recommendation to YEF. YEF will decide about progression to efficacy based on the RAG criteria, informed by the evaluator's recommendation in the transition point decision document.

Table 1 below summarises the progression criteria that will be used to decide whether to progress to the full efficacy multi-site trial.

Table 1. Year 2 Internal Pilot Study (2025) evaluation progression criteria

	Criteria	**RAG ratings**		
		Green (Go)	Amber (Pause and think)	Red (pause and think or stop)
1	Referral and participation numbers. Metric: Percentage of young people referred to Summer	>75%	50-74%	<50%

	Jobs as a % of the 2,000 targets at internal pilot			
2	Referral and participation numbers. Metric: Percentage of young people consenting to participate in the evaluation, registered to Summer Jobs and randomised into the intervention and control group as a % of the 1,200 targets	>75%	50-74%	<50%
3	Randomisation fidelity. Metric: Percentage of young people assigned to the control group that appear in the intervention group or participate in the Summer Jobs	<10%	11-30%	>30%
4	Referral and participation numbers. Percentage of referrals from external agencies that are randomised as a % of the 570 target	>75%	50-74%	<50%
5	Summer Jobs delivery fidelity. Metric: % of Local Delivery Partners implementing Summer Jobs as intended, consistent with UKY's Shared Practice Model.[41]	>75%	50-74%	<50%
6	Attendance rates in preparation week.	>75%	50-74%	<50%

[41] This includes: 1-week paid preparation week, 5-week paid placement, minimum 3 one-to-one check-in appointments, celebration event and reference letter.

	Metric: % of young people randomised to the intervention group that participate in 80% of the preparation week, as a % of the total number of young people randomised to the intervention group.			
7	Attendance rates in five-week placement. Metric: % of young people that participate in 60% of the five-week placement, as a % of the total number of intervention group participants that agree to participate.	>75%	50-74%	<50%
8	Outcomes completion. Metric: % of young people completed the baseline and endline surveys – all young people, and by young people randomised into each of the intervention and control groups.	>80%	50-79%	<50%
9	Retention of LDPs. Metric: % of the 18 Year 2 LDPs who expressed interest in running the programme again in Year 3.	>75%	50-74%	<50%
10	Survey Data Quality - missing or infeasible data in baseline and endline surveys. Metric = % of questions in each of baseline and endline surveys that contain evidence of data quality issues.	<25%	26-50%	>50%
11	Progression of access to Police National Computer data.	YES	NA	No

	Metric: PNC data application progressing as planned; no major timeline delays to access.			
12	Progression of access to LEO data. Metric: LEO data application progressing as planned; no major timeline delays to access.	Yes	NA	No

Impact evaluation

The overall objective of the impact evaluation is to determine the effectiveness of Summer Jobs to aid young people at risk of offending to reduce offending rate or to obtain employment, education and training (EET). The impact of offending will be assessed for young people in England and Wales, while EET outcome will be assess for the English cohort only.

The impact evaluation aims to answer the following research questions:

1. What is the impact of Summer Job on
    a. offending from randomisation to 6 months post-randomisation? and;
    b. on employment, education and training status at 6 months post randomisation**? (co-primary outcome)**
2. What is the short-term impact of Summer Jobs at 12-16 weeks post randomisation on self-reported i) behavioural and emotional problems; ii) employment, education, training iii) aspirations to employment; and iv) self-efficacy? **(secondary outcomes)**
3. Does the impact of Summer Jobs vary according to individual characteristics (e.g. age, ethnicity)? **(sub-group analysis)**
4. What is the impact of Summer Job on i) offending at 12 post programme end and ii) employment, education and training from randomisation to 9 months post randomisation? **(long-term impact)**

Design overview

The Year 2 Internal Pilot Study (2025) will be designed and executed as a two-armed, multi-site trial with 18 Local Delivery Partners (LDPs), out of which 17 are working in England. Youth Cymru, a LDP in Wales, will be working across two locations. The total sample size for the Year 2 Internal Pilot Study (2025) will include 1,200 young people. Within each LDP, young people (50:50 ratio) will be individually randomised to either an intervention group or a control group.

The Year 3 Efficacy Study (2026) will use the same design as the Year 2 Internal Pilot Study (2025). It will run as two-armed, multi-site RCT involving young people recruited for Summer Jobs in 2025 and 2026. It is anticipated that in 2026, there will be 30 LDPs participating in the study. Each LDP will recruit 60 young people, with a total intended sample of 1,800 young people in Year 3. Young people will be randomly allocated to the intervention and control group (50:50) ratio following baseline data collection. The Efficacy

Study will include the pooled sample from the Year 2 Internal Pilot Study (2025) and the Year 3 Efficacy Study (2026) sample. Overall, there will be 3,000 young people included in the trial. While the Year 2 Internal Pilot Study and the Year 3 Efficacy Study will be pooled into a single cohort, we acknowledge that changes in the delivery may occur between the two phases. If there are significant difference across the Year 2 Internal Pilot and the Year 3 Efficacy Study, we will consider stratifying the analysis by phase (pilot vs efficacy) to assess whether the effectiveness of Summer Jobs differs between the Year 2 Internal Pilot Study and the Year 3 Efficacy Study.

There will be one intervention condition in the trial: young people that will be randomised to the intervention group will be offered Summer Jobs. The control group will receive 'business as usual' services from the LDPs or referring organisation.

The design of the Efficacy Study is outlined in the table below.

The two primary outcomes, are:

1. Offending: From the Police National Computer (PNC) managed by Ministry of Justice (MoJ) defined as any recorded offence in the PNC up to 6-month post randomisation.
2. Employment, Education and Training (EET): From the Longitudinal Education Outcome (LEO) dataset managed by Department of Education (DfE) at 6 months post randomisation, which combines employment and education records. A young person is classified as 'EET' if they are employed (via HMRC data) or in education/training (via post-16 education, apprenticeships, or training records in the LEO).

Both primary outcomes will be assessed at efficacy stage only. It is also important to note that the EET outcome will not be measured for young people in Wales because the national registers that will be used (i.e. LEO data) do not cover those individuals that are not educated in England. Offending will be measured for the English and Welsh cohort as both are covered in the PNC data.

Four secondary outcomes will capture behavioural, emotional, and relationship problems, self-reported EET status, employment aspirations, and self-efficacy aligning with the ToC outcomes (see Theory of Change). Surveys will be completed by all young people (in both England and Wales) included in the study before randomisation and 12–16 weeks after randomisation. The follow-up survey will be open for four weeks to maximize response rates.

Trial design, including number of arms		Two-arm, multi-site randomised controlled trial
Unit of randomisation		Individual young person
Stratification variables		Local Delivery Partners (LDPs) and Area
(if applicable)		
Co -primary outcome	Variable	1. Offending 2. Employment, Education and Training (EET)
	measure (instrument, scale, source)	1. Offences linked to criminal records, convictions and cautions at 6 months after randomisation (1 if young person has a recorded criminal offence,[42] 0 otherwise; the Police National Computer dataset) 2. Being in Employment, Education or Training at 6 months after randomisation (1 if young person classes as 'EET', 0 otherwise; classes as 'EET' if employed or in education and training using the Longitudinal Education Outcome dataset)
Secondary outcome(s)	variable(s)	1. Behavioural, emotional and relationship problems 2. Self-reported EET 3. Aspiration to employment 4. Self-efficacy
	measure(s) (instrument, scale, source)	1. Strength and Difficulties Questionnaire (SDQ)[43] total difficulties score, young-person self-report fielded in a survey 12 to 16 weeks after randomisation 2. Young person self-report on whether is in Employment, Education or Training fielded in a survey 12 to 16 weeks after randomisation 3. New Philanthropy Capital (NPC) Journey to Employment (JET) Framework questionnaires[44] aspiration to work score, young-person self-

[42] Being given a caution does not mean you are "non guilty". Therefore, we can use both cautions and convictions in our analysis, but we should not interpret the former as "non guilty" offences.

[43] For more information see Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(11), 1337-1345.

[44] Copps, J. and Plimmer, D. (2013). The Journey to Employment (JET) Framework: Outcomes and tools to measure what happens on young people's journey to employment. [Available online: https://npproduction.wpenginepowered.com/wpcontent/uploads/2018/07/JET-framework-FINAL-Jan-2015.pdf

		report fielded in a survey 12 to 16 weeks after randomisation 4. The New General Self-Efficacy Scale (NGSC),[45] total scale score, young-person self-report fielded in a survey 12 to 16 weeks after randomisation
Baseline for primary outcome	**variable**	1. Offending 2. Employment, Education and Training (EET)
	measure (instrument, scale, source)	1.Offences linked to criminal records (1 if young person has a criminal record,[46] 0 otherwise; DfE-PNC Datashare) prior to randomisation 2.Being in Employment, Education or Training (1 if young person classes as 'EET', 0 otherwise; classes as 'EET' if employed or in education and training using the Longitudinal Education Outcome dataset) in the four weeks prior to randomisation
Baseline for secondary outcome	**variable**	1. Behavioural, emotional and relationship problems 2. Self-reported EET 3. Aspiration to employment 4. Self-efficacy
	measure (instrument, scale, source)	1. Strength and Difficulties Questionnaire (SDQ)[47] total difficulties score, young-person self-report fielded in a survey prior to randomisation 2. Self-reported whether young person is in Employment, Education and Training, young person self-report fielded in a survey prior to randomisation 3. NPC Journey to Employment (JET) Framework questionnaires[48] aspiration to work score, young-person self-report fielded in a survey prior to randomisation

[45] Chen, G., Gully, S. M., & Eden, D. (2001). *New General Self-Efficacy Scale (NGSE)* [Database record]. APA PsycTests. https://doi.org/10.1037/t08800-000

[46] Being given a caution does not mean you are "non guilty". Therefore, we can use both cautions and convictions in our analysis, but we should not interpret the former as "non guilty" offences.

[47] For more information see Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(11), 1337-1345.

[48] Copps, J. and Plimmer, D. (2013). The Journey to Employment (JET) Framework: Outcomes and tools to measure what happens on young people's journey to employment. [Available online: https://npproduction.wpenginepowered.com/wpcontent/uploads/2018/07/JET-framework-FINAL-Jan-2015.pdf

4. The New General Self-Efficacy Scale (NGSC),[49] total scale score, young-person self-report fielded in a prior to randomisation

Randomisation

Eligible young people referred to Summer Jobs will complete a registration form and baseline survey as part of onboarding to the trial. After completing the baseline survey and right-to-work checks (conducted by the payroll provider), young people will be randomly assigned to the intervention or control group with equal probability.

An IFF researcher will conduct randomisation twice in a single timepoint after baseline data and right to work checks are complete for all trial participants. Randomisation is expected to take place on 10 June 2025 for participants in the Year 2 Internal Pilot Study. Results will be simultaneously shared via email with participants, LDPs, and referring organisations on 11 June 2025. Trial participants in the Year 3 Efficacy Study (2026) will be randomised in June 2026. The exact date to randomise participants in the Year 3 Efficacy study (2026) will be confirmed later.

The allocation process will use individual-level stratified randomisation, ensuring equal intervention and control group sizes within each LDP. This ensures that the intervention group have equal participants for each LDP, which is crucial to ensure LDPs have manageable workload to deliver Summer Jobs. Randomisation will be conducted at individual level to reduce bias and to ensure the intervention and control groups are comparable, differing only in their exposure to Summer Jobs. By randomly assigning participants to the intervention and control groups, each young person has an equal chance of being placed in either group, which helps ensure that both groups are comparable across a wide range of characteristics.

The IFF researcher conducting randomisation will receive pseudo-anonymised data with unique reference numbers managed by another team member. This will ensure the researcher undertaking randomisation is blinded. Full blinding will not be possible as the researcher undertaking randomisation will also be involved in overseeing baseline data collection. While full blinding is not possible, we will work to ensure that the researcher's involvement in baseline data collection is kept separate from their role in randomisation as

[49] Chen, G., Gully, S. M., & Eden, D. (2001). *New General Self-Efficacy Scale (NGSE)* [Database record]. APA PsycTests. https://doi.org/10.1037/t08800-000

much as possible. To further mitigate against unintentional bias, we will maintain a detailed trail of the randomisation process.

The following method will be used to randomise young people: all young people will be assigned a value through a random number generator in R. Young people will be sorted by the random number within each LDP, and the first half will be allocated to the intervention, and the second half will be allocated to the control group. Young people and LDPs will be informed on the allocation the next day at the same time.

LDP youth workers will contact those in the intervention group to set up the first one-to-one session between the young person and youth worker, while the control group will be signposted to business-as-usual support by the organisation that referred them i.e. either the LDP or external organisation.

In summary, the process for allocating young people to the intervention or control group involves the following steps:

1. **Referral**: Eligible young people are referred to the study.
2. **Programme Explanation**: Youth workers explain the programme details, including the requirement for consent.
3. **Registration**: At the point of registration, youth workers will explain to the young person what their participation in the programme and evaluation includes, before they provide consent. Youth workers will ensure that the young person understands that they need to consent to share personal information with the evaluator to enable data linkage to relevant administrative records for the purpose of evaluating the impact of the Summer Jobs intervention. In addition, they will explain that the consent will also cover the storage of their data in the Youth Endowment Fund (YEF) and Youth Futures Foundation (YFF) Data Archives for future research
4. **Consent Confirmation**: During the baseline survey, young people will confirm their understanding of the evaluation and will give their consent to provide data for the study and allow their data to be linked to administrative records (i.e. LEO and PNC). They will also consent to the storage of their data in the YEF and YFF Data Archives for future use in research.
5. **Baseline Survey**: Participants complete the baseline survey (available online and via telephone). This will be completed as part of registration i.e. at the same time the registration form is completed.
6. **Right to work checks:** completed by Payroll provider for young people who completed the baseline survey.

7. **Sample list for randomisation:** UKY shares list of young people with completed right to work checks with IFF Research, for randomisation.
8. **Randomisation**: Young people who meet eligibility criteria, provide consent, have the right to work, and complete the baseline survey are randomised into the intervention or control group by IFF Research.

Baseline equivalence will be evaluated based on the initial randomisation to determine if the groups are balanced at the start of the study. Randomisation should result in comparable groups. In the SAP, we will note we will test statistically on the variables to show that randomisation was operated successfully. The characteristics to be assessed include the number of young people in each LDP, age, gender, ethnicity, SEND status, and secondary outcome scores (such as SDQ score, EET status, aspirations to work, and self-efficacy) for each of the intervention and control group.

Participants

The target group for the Summer Jobs programme are young people who are at risk of violence. To be eligible for inclusion in the study, young people must meet all the following criteria:

1. Minimum age 16 (on 1st September 2025)
2. Maximum age 20 (on 1st September 2025)
3. Has the right to work in the UK or have provided proof of NI application plus a UK birth certificate as evidence that they are highly likely to be able to confirm RTW in the UK with the receipt of their NI number within 10-14 days following application
4. Able to take part in 25 hours of employment each week (with reasonable adjustments for young people with a disability and/or Special Educational Need)
5. Not currently employed for more than 15 hours per week
6. Available to participate in at least 5 of the 6 weeks of the programme
7. Must be able to attend the preparation week
8. Living in one of the areas that the programme is delivered in and not planning to move out of the area during the duration of the programme
9. Not living in the secure estate (at start of the programme)
10. Proficiency in spoken English
11. Not currently charged with an indictable offence
12. Arrested and released with no further action
13. Not studying towards a higher education degree[50]

[50] Young people on a gap year or enrolled in FE are eligible.

In addition, young people must meet at least one or more of the following criteria[51]:

1. Are or have been in contact with Youth Offending Teams. This includes referrals, cautions or engagement with YOT
2. Have left the secure estate when referred
3. Attend or have attended an alternative provision institution
4. Have had two or more fixed term exclusions
5. Have been permanently excluded
6. Are or have been in care
7. Have been the victim of violence [52]
8. Have, or have had, a social worker
9. Have a sibling or parent who have been involved in serious violence[53]
10. Are or have been persistently absent from school (less than 90% attendance)[54]
11. Have been identified as at risk of criminal exploitation[55]

Participant recruitment

The total number of young people recruited and randomised in Year 2 Internal Pilot Study (2025) will be 1,200, while the total number of young people randomised in Year 3 Efficacy study (2026) will be 1,800. The overall number of young people included in the Efficacy Study will be 3,000. There will be 18 LDPs in Year 2 Internal Pilot Study (2025) and 30 LDPs in Year 3 Efficacy Study (2026) delivering Summer Jobs. Each LDP in England will be responsible for identifying and referring 60 eligible young people to the Year 2 Internal Pilot Study (2025) and the Year 3 Efficacy Study. There will be 120 young people from Wales in Year 2 Internal Pilot study, and they will be recruited by Youth Cymru that will be working across two locations. It is not confirmed yet, but it is expected that there will be 180 young people from Wales in Year 3 Efficacy Study (2026) that will be recruited by 3 LDPs.

LDPs will use their existing networks, and external agencies (e.g., schools, social care, Youth Offending Teams, or Pupil Referral Units) to identify potentially eligible young people. Given high attrition in the feasibility study prior to placement being offered, LDPs will each refer up to 100 young people in each of the Year 2 Internal Pilot Study (2025) and Year 3 Efficacy Study (2026), to result in 60 eligible young people. Recruitment for the Year 2 Internal Pilot

[51] It covers young people that have experienced the circumstances at any point, not just recently.
[52] It is up to the youth workers/ young person discretion to establish this. Could also include young people witnessing serious violence.
[53] It is up to the youth workers/ young person discretion to establish this. Could also include a situation where a young person's close friends have been involved in violence.
[54] Only to be used by external referral agency
[55] Only to be used by external referral agencies and must provide a narrative summary (in under 50 words) of why the young person is identified as at risk, which will be reviewed by UK Youth. The UK Youth team make a judgement call based on the amount of evidence available.

study (2025) will run from March to May 2025, while recruitment for Year 3 Efficacy Study (2026) will take place between March and May 2026.

At least 50% of referrals must come from external agencies, with half of the external referrals coming from formal agencies like YOTs or PRUs, as these agencies effectively identify young people at risk of violence. This quota was set because the feasibility study established that young people already known to the LDP might be systematically different and possibly further from youth offending to their peers who meet the eligibility criteria and are referred by an external agency. We acknowledge the potential for group-level difference as a result.

LDPS are responsible for ensuring that only young people who are eligible for inclusion are registered in the study. To ensure this, only a youth worker can complete a registration form, with a young person, rather than a young person completing their own form. If a young person is not eligible, the person completing the online form will be taken to the end, shown a message explaining why that is, and will be unable to complete it. This will happen automatically should they select anything that makes them ineligible. UKY checks the criteria selected for eligibility in the registration forms and queries atypical responses with youth workers.

Delivery location

Summer Jobs will be delivered in London, North East, Yorkshire and the Humber, Greater Manchester, West Midlands, South Wales. The areas were chosen for their credible LDPs (as determined by UKY using their LDP recruitment and due diligence process described at the start of this protocol) and available employment placements, as well as to conduct this experiment on young people from several different regions in the country and not just one particular region, e.g., London, that might not be representative of the country as a whole.

Sample size

We present minimum detectable effects in percentage points, odds ratios and the associated Cohen's d effect size for offending and EET status.

Sample size estimations for offending are based on the total number of participants from the Year 2 Internal Pilot Study (2025) and Year 3 Efficacy Study (2026), which will be 3,000 young people across both years.

The analysis on the EET outcome will focus on impact for young people in England because data will be obtained via LEO covering only on young people educated in England. Therefore, the total pooled sample will be 2,700 young people in England across the Year 2

Internal Pilot Study (2025) and Year 3 Efficacy Study (2026), inclusive of intervention and control group.

Power calculations account for attrition and assume an equal number of young people in the intervention and control groups. It assumes attrition rates of 10% (i.e. baseline and follow-up data is available for 2,700 young people for offending and 2,430 young people for EET) and 20% (i.e. baseline and follow-up data is available for 2,400 young people for offending and 2,160 young people for EET). We consider that it is reasonable to assume that attrition will not exceed 20%, as we rely on administrative data when undertaking the co-primary analysis.

Given that there are two primary outcomes, we adjust the significance level to account for multiple comparisons using a Westfall-Young correction rather than the more conservative Bonferroni correction. However, since this correction involves resampling methods that are not straightforward to implement in standard power calculation tools (such as those available in R), we use an approximation of the Westfall-Young correction.

In addition, the power calculations assume two-tailed statistical significance testing and a power level (1 minus the type II error rate) of 0.80.

Power calculations are run in R, and the code is presented in Appendix 3.

Offending (co-primary outcome)

There is uncertainty about the proportion of young people in the control group who will have committed offence 6 months after randomisation considering the diversity in the target population. Figures from previous studies indicate that different risk factors lead to higher or lower risk of offending.[56] Therefore, we present power calculations for two different assumed incidence rates of offending. We assume that 30% to 40%[57] of young people in the control group will be offenders. This also aligns with evidence indicating that pupils who experienced some form of alternative provision (AP) in England in the last decade and who were linked to the Police National Computer (PNC), around 40% had some criminal record[58]. However, it is uncertain how representative this assumption is for our target population. To address this, we intend to use PNC data for the population involved in

[56] There are roughly around 58 individual-level, family and school level predictors of crime. Some risk factors associated with higher risk of offending include mental health problems, substance use, adverse childhood experience, parent maltreatment and neglect, attendance and attainment. For more information on the risks and protective factors of youth crime see Risk and protective factors of youth crime: An umbrella review of systematic reviews and meta-analyses - ScienceDirect

[57] This figure is grounded in the analysis of the DfE-MoJ dataset that suggests that, among pupils who have been in Alternative Provision in the last 10 years in England, 30% have some violent criminal record and 50% have some criminal record.

[58] Education, children's social care and offending

the Year 2 Pilot study to cross-check and validate our assumption regarding the baseline offending rate.

Co-primary outcome: Offending		**Incidence rate in control group in percentage points =30%**			**Incidence rate in control group in percentage points =40%**		
Attrition rate		**Base**	**Scenario A (10%)**	**Scenario B (20%)**	**Base**	**Scenario A (10%)**	**Scenario B (20%)**
Minimum Detectable Effect Size in percentage		5.2%	5.4%	5.8%	5.4%	5.7%	6.1%
Odd Ratio		0.791	0.781	0.77	0.801	0.791	0.78
Cohen's D Effect Size		-0.078	-0.082	-0.087	-0.078	-0.082	-0.085
Alpha		0.03					
Power		0.8					
One-sided or two-sided?		Two-sided					
Number of participants	**Intervention**	1,500	1,350	1,200	1,500	1,350	1,200
	Control	1,500	1,350	1,200	1,500	1,350	1,200
	Total	3,000	2,700	2,400	3,000	2,700	2,400

Based on the assumptions, we anticipate that the study will be able to detect a difference ranging from 5.2% (Base Scenario) and 6.1% (Scenario B) between the intervention and control group when offending is measured using data from the PNC. The estimated Cohen d

ranges between -0.078 and -0.085, suggesting that the efficacy multi-site trial will be well powered to detect small effect differences. This suggests that the multi-site trial will be well-powered, as evidence from the USA shows similar Summer Jobs programmes have reduced violence by 30% to 43%.%.[59,60]

Employment, Education and Training status (co-primary outcome)

It is well documented that young people who are at risk of being offenders are more likely to end up being NEET.[61] However, it is challenging to determine the exact figure for the proportion of 16–20-year-olds at high risk of offending who end up being NEET due to limited specific data. There is evidence suggesting that around 60% of young people who had spent time in AP were NEET at age 19, compared to just 12% of their mainstream peers.[62] Similar, a 2019 MoJ is suggesting that approximately 40% of young offenders 16 to 24 were NEET prior to offending. Considering the uncertainties, we present power calculations for three different incidence rates. We assume that 25%, 35% and 50 % of young people in the control group are NEET, which equates to 75%, 65% and 50% EET rates at 6 months post-randomisation.

Co-primary outcome: EET status	**Incidence rate in control group in percentage points =75%**			**Incidence rate in control group in percentage points =65%**		
Attrition rate	**Base**	**Scenario A (10%)**	**Scenario B (20%)**	**Base**	**Scenario A (10%)**	**Scenario B (20%)**
Minimum Detectable Effect Size in percentage	4.8%	5.1%	5.4%	5.4%	5.7%	6%
Odd Ratio	1.32	1.341	1.367	1.282	1.299	1.321
Cohen's D Effect Size[63]	0.082	0.086	0.092	0.082	0.086	0.092

[59] Heller, S. B. (2014). Summer jobs reduce violence among disadvantaged youth. Science, 346(6214), 1219–1223. https://doi.org/10.1126/science.1257809.
[60] Modestino, A. S. (2019b). How do summer youth employment programs improve criminal justice outcomes, and for whom? Journal of Policy Analysis and Management, 38(3), 600–628.
[61] Youth Justice Board, National Indicator 45: Education Training and Employment data YJB Corporate Brochure - Education (English)
[62] Integrated (2020). Fewer Exclusions. Better Alternative Provision. See Integrated Annual Report 2020
[63] To calculate Cohen's D from the odds ratio, we take the natural logarithm of the odds ratio and divide by 1.81.

Alpha		0.03					
Power		0.8					
One-sided or two-sided?		Two-sided					
Number of participants	**Intervention**	1,350	1,215	1,080	1,350	1,215	1,080
	Control	1,350	1,215	1,080	1,350	1,215	1,080
	Total	2,700	2,430	2,160	2,700	2,430	2,160

Co-primary outcome: EET status	**Incidence rate in control group in percentage points =50%**		
Attrition rate	**Base**	**Scenario A (10%)**	**Scenario B (20%)**
Minimum Detectable Effect Size in percentage	5.8%	6.1%	6.5%
Odd Ratio	1.262	1.278	1.297
Cohen's D Effect Size[64]	0.082	0.086	0.092
Alpha	0.03		

[64] To calculate Cohen's D from the odds ratio, we take the natural logarithm of the odds ratio and divide by 1.81.

Power		0.8		
One-sided or two-sided?		Two-sided		
Number of participants	**Intervention**	1,350	1,215	1,080
	Control	1,350	1,215	1,080
	Total	2,700	2,430	2,160

Assuming at least 80% of young people (pilot and efficacy study) are matched with LEO records, the multi-site trial can detect a small difference ranging between 4.8 to 6.5 percentage points between the intervention and control groups, depending on the control group's EET and attrition rates at 6 months post randomisation. The estimated Cohen's d ranges between 0.082 and 0.092, suggesting that the Year 3 Efficacy Study (2026) will be well powered to detect small effect differences. This difference is realistic based on similar contexts, such as DWP's Kickstart programme, where a net impact of 11 percentage points in competitive employment was observed.[65] However, evidence on the impact of Summer Jobs on employment and education outcomes is limited and mixed, with U.S. studies showing no increase in earnings, employment, or education.[66]

Outcome measures

Baseline measure

For the co-primary and secondary outcomes (discussed below), each outcome will be compared with the same measure as assessed prior to randomisation, which will serve as the baseline measure. Baseline data collection for the secondary outcomes will take place when the participants are recruited for the multi-site trial after obtaining their consent via

[65] See page 40 at Davis, J. M. V., & Heller, S.B. (2020). Rethinking the benefits of youth employment programs: The heterogeneous effects of summer jobs. *The Review of Economics and Statistics*, *102*(4), 664–677. https://doi.org/10.1162/rest_a_00850.
[66] Gelber, A., Isen, A. & Kessler, J.B. (2016). The effects of youth employment: Evidence from New York City lotteries. *The Quarterly Journal of Economics*, 131(1), 423-460. https://doi.org/10.1093/qje/qjv034.

participant survey (available online and via telephone, estimated to take around 20 minutes to complete). Baseline data survey will be administered after the registration form67 is completed as part of the registration process. To encourage participation, a £15 Love2Shop e-voucher will be offered to those completing the follow-up survey.

Baseline data on offending, and EET status will be obtained through individual data linkage with PNC and LEO data, and will only be obtained later in the Year 3 Efficacy Study (2026) when analysis of outcomes at 6 months post-randomisation is taking place. To enable data linkage with administrative data we will collect National Insurance numbers and addresses for participants in addition to demographic data.

Primary outcomes

There are two primary outcomes measuring the long-term impact of Summer Jobs (1) violent and non-violent offending at 6 months post-randomisation, and (2) employment, education and training (EET) status at 6 months post-randomisation with data taken from national administrative databases. The same offending outcome will be used to assess change at 12-month post programme end (see Longitudinal follow-up section). The same EET outcome will be used to assess change at 9 month post randomisation. It will not be feasible to undertake follow-up analysis on EET outcomes beyond the 9-month point. This is due to a significant time lag—typically around two years—between the collection of EET data and its availability through LEO. As a result, any analysis of EET status beyond the 9 month randomisation point would not be possible within the timeframe of this evaluation.

These outcomes were selected as they align with the longer-term outcomes specified in the ToC. While offending data will be available for all young people (i.e. the English and Welsh cohort), EET outcome data will focus on the English cohort because data will be obtained via LEO focusing only on young people educated in England.

Offending will be assessed at 6 months post-randomisation with data accessed via the Police National Computer (PNC) data. Offending will be a binary indicator (yes=1/no=0) indicating whether a young person has either a violent or a non-violent offence between randomisation and at 6 months post randomisation. Violent offences include violence against the person, sexual offences and robbery. Non-violent offences include theft, criminal damage and arson, burglary, drugs, possession of weapons, public order offences, miscellaneous crimes against society, fraud, summary motoring and summary non-motoring offences, and undefined offences (i.e., labelled as “undefined” in the PNC). We considered

[67] The form will collect demographic characteristics of the individual (e.g. sex at birth, date of birth, ethnicity, SEND status). It is discussed further in the *Impact Evaluation methods and data collection* section.

using violent offences only as the primary outcome, but our statistical power reduces if we restrict analysis to violent crimes only, so we decided against this.

For a young person in the Summer Jobs trial, we will observe the list of variables below for criminal offences occurred at any age:

- MoJUID
- PupilMatchingRefAnonymous
- CaseID
- OffenceID
- DisposalID
- Sex
- EthnicityCode
- OffenceStartAge
- CourtCode
- CourtName
- CourtCautionDate
- Cautiontype
- PNCDisposalCode
- HODisposalCode
- HOOffenceCode
- Offence_group
- OffenceStartDate
- ProcessForceCode
- DisposalAmount
- DisposalDuration
- DisposalDays
- IsPrimaryOffence
- DisposalRank
- AdjudicationCode

EET status measures whether a young person is in education, employment, or training at 6 months post randomisation through the combination of several key data points in the Longitudinal Education Outcome dataset. It will be a binary indicator (yes=1/no=0) taking the value of 1 if a young person is in employment or education or training. To assess whether young people are EET we will construct the measure using different variables from the LEO. We will mark young people as being EET if they appear in the relevant datasets. Employment will be tracked through records of employment and income (i.e. using a combination of the LEO Employment and LEO Earning dataset). We will use StartDate and

EndDate to identify employment spells and earning to confirm that employment was paid. To be classed as being in employment a young person will need to be in paid work for at least one hour in the last four weeks. This definition of an employed person is in line with the International Labour Organization (ILO) definition of employment, including those employed for just one hour per week. Education and training will be determined by enrolment data in the NPD and through records of apprenticeships, vocational education and other training related data available in the Individual Learner Record (ILR) database. To be considered in education or training a young person needs:

- to work or study towards a qualification;
- to have had job-related training or education in the last four weeks; or
- to be enrolled on an education course and are still attending.

Data linkage

To estimate the co-primary outcomes IFF will obtain data through data linkage. Dr Sandi and IFF Research will use the multi-site trial participants' National Insurance Number (NINo) to find young people in the datasets. Using NINo, it is expected that the matching rate will be high. If the NINo is not available or is not recorded accurately then data linkage will be attempted through the participant's given and family name, date of birth, sex at birth, and postcode if available.

Secondary outcomes

There will be four secondary outcomes, including young people's behavioural, emotional and relationship problems, self-reported EET status, aspirations for employment, and perceived self-efficacy. These outcome measures align with the immediate and intermediary outcomes in the ToC. Secondary outcome data will be obtained for all young people in the study (in England and Wales) in both Year 2 Internal Pilot Study (2025) and the Year 3 Efficacy Study (2026).

All secondary outcomes will be collected via an online self-completion survey. The baseline survey will be completed during registration, before randomisation, and the follow-up survey will be administered 12 weeks post-randomisation, remaining open for 4 weeks to maximise response rates. Follow-up surveys will be sent by email/text 12 weeks post-randomisation. Intervention participants can complete the survey with a support of youth worker at the celebration event. Both surveys can be completed by phone. To maximise response rate at the follow-up survey and to minimise differential response rate between the intervention and control group, a £15 Love2Shop e-voucher will be offered to all young people who complete the survey.

The four secondary outcomes are discussed below.

1. **Behavioural, emotional and relationship problems-** measured using the Strength and Difficulties Questionnaire (SDQ).[68] The SDQ aligns with the programme's ToC, which anticipates that the intervention may influence intermediate outcomes such as emotional regulation and behaviour. Behavioural difficulties measured by the SDQ—particularly externalising behaviours such as conduct problems and hyperactivity—are strongly associated with increased risk of later offending.[69, 70] The SDQ will be administered as part of the follow-up survey, conducted 12 weeks post-randomisation, immediately following the end of placements. While this timing may limit the ability to detect sustained change, logistical and financial constraints prevent the inclusion of a longer-term follow-up. Age-appropriate versions will be used for participants aged 11–17 and 18+, with analysis focusing on the mean total difficulties score (range 0–40), derived from the emotional symptoms, conduct problems, hyperactivity/inattention, and peer problems subscales. The SDQ has strong psychometric properties (i.e. good internal consistency ranging from 0.73 to 0.83, high test-retest reliability and strong construct validity) across multiple populations and setting. [71]
2. **EET status -** Alongside the primary outcome of EET status, we will measure EET using the young people survey. Self-reported EET status will be used to assess immediate change in EET status. The questions in the survey will be aligned with the definition of EET status outlined above. The outcome in the analysis will be a binary indicator (yes=1/no=0), taking the value of 1 indicating that a young person is either in employment, education or training.

3. **Aspirations in employment:** measured using the New Philanthropy Capital (NPC) Journey to Employment (JET) Framework questionnaires[72] because improved aspirations are expected to be an immediate outcome of Summer Jobs and leading to long-term impact on offending and engagement in education and employment. The JET questionnaire identifies seven groups of factors that contribute to successful job outcomes: (1) Personal circumstances; (2) Emotional capabilities; (3) Attitudes to work; (4) Employability skills; (5) Qualifications, education and training; (6)

[68] Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(11), 1337-1345.
[69] Murray, J., Farrington, D. P., & Eisner, M. P. (2010). Drawing conclusions about causes from systematic reviews of risk factors: The case of violent behavior. In R. Loeber & B. C. Welsh (Eds.), The Future of Criminology (pp. 277–302). Oxford University Press.
[70] Wilson, P., Bradshaw, P., Tipping, S., Henderson, M., Der, G., & Minnis, H., 2012. What predicts persistent early conduct problems? Evidence from the Growing Up in Scotland cohort. Journal of Epidemiology and Community Health, 67(1), pp.76–80. http://doi.org/10.1136/jech-2011-200856
[71] Goodman, R. (2001). *Psychometric properties of the Strengths and Difficulties Questionnaire (SDQ)*. Journal of the American Academy of Child & Adolescent Psychiatry, 40(11), 1337–1345. https://doi.org/10.1097/00004583-200111000-00015
[72] Copps, J., Kail, A., Plimmer, D., Ní Ógáin, E., & Harries, E. (2014). The journey to employment (JET) framework. *Inspiring Impact*.

Experience and involvement; and (7) Career management skills. However, the framework allows researchers to select only those measures relevant for their study. We will administer only the 'attitudes to work' subscale of the JET framework questionnaire rather than the full questionnaire because LDPs and young people felt that the survey used in the feasibility study was too long. It was decided that the 'attitudes to work' subscale is most relevant to the ToC. The subscale has 7 questions with each being rated between 1 and 4. The outcome in the secondary analysis will be the mean (7 to 28) calculated by following the score sub-scale. While the JET framework is widely used in practice and was designed to support outcomes tracking in youth employment programmes, it does not yet have published peer-reviewed psychometric validation.

4. **Self-efficacy –** measured using the New General Self-Efficacy Scale (NGSC),[73] because self-efficacy is expected to be an immediate outcome of Summer Jobs. High self-efficacy predicts academic success and future employment.[74] NGSC is an 8-item measure that assesses how much people believe they can achieve their goals, despite difficulties. The outcome in the analysis will be the mean score of the total score (from 8 to 40) with higher score indicating higher self-efficacy. The NGSE has demonstrated strong psychometric properties (i.e. high internal consistency and strong validity).[75]

Impact evaluation methods and data collection

As mentioned earlier, outcome measures will be compiled from two different sources:

- Administrative data from relevant administrative datasets. Data on offending will be accessed from the PNC data for both the Welsh and English cohorts. Data on employment, education and training will be accessed via the LEO dataset for the English cohort only. The same data will be used to assess long-term impact of Summer Jobs on offending and EET.
- A baseline and follow-up self-reported questionnaire on all four secondary outcomes, administered to both intervention and control group prior to randomisation and at follow up period i.e. 12 weeks post randomisation.

The impact evaluation will also use:

[73] Gilad Chen and team (2001), the New General Self-Efficacy Scale
[74] Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*, *67*(3), 1206-1222.
[75] Chen, G., Gully, S. M., & Eden, D. (2001). *Validation of a new general self-efficacy scale*. Organizational Research Methods, **4**(1), 62–83. https://doi.org/10.1177/109442810141004

- Management Information data collected by UKY which is described in detail below (see Management information (MI)). In the impact evaluation the MI will be used for the following reasons:
    - to monitor dropouts and attendance in the intervention group that will be used when undertaking the compliance analysis.
    - to keep track of recruitment rates and to check whether randomisation is being implemented correctly.
- Data from the follow–up survey with young people assigned to the control group detailing business as usual support (including whether they found paid employment via other routes, and if so, what routes) and whether they have accessed Summer Jobs.
- Data recorded in the registration form detailing young people's demographic characteristics (e.g. sext at birth, ethnicity, date of birth) to support exploratory sub-group analysis.
- Data recorded in the registration form detailing young people's characteristics (e.g. National Insurance number, address) to support data linkage with national administrative data.

To ensure inclusivity in data collection, the evaluation team will:

- use accessible language in all recruitment materials and surveys.
- ensure the communication about survey motivates participation.
- explain the benefits of randomisation, data linkage and archiving to young people.
- collect data at registration monitoring diversity in the evaluation (disability; special education needs, ethnicity).
- ensure young people are offered support to complete survey questionnaires. Youth workers can provide support and instruction to young people to complete the baseline survey. Young people in the intervention group will be offered the same support for the follow-up survey. Telephone interviewers are available to young people who prefer this.
- programme the online surveys to be readable on tablets, mobiles and computers.
- offer young people an opportunity to feedback about the evaluation design via open-text box at the end of the survey and through a dedicated evaluation email address.

Research methods	Data collection methods	Participants/ data sources (type, number)	Data analysis methods	Research questions addressed
Administrative records on offending and employment, education and training status	Accessed via PNC and LEO dataset	N= 3,000 (1,500 in intervention and 1,500 in control)	Primary outcome analysis Simple descriptive statistics (e.g. univariate statistics, frequencies, means and percentages) for both intervention and control groups. Long-term analysis	1,3,4
Young people quantitative questionnaire data (self-reported EET, SDQ, JET framework, NGSC)	Outcomes measure questionnaire at: Baseline (prior to randomisation) and follow-up (12 weeks post randomisation)	N= 3,000 (1,500 in intervention and 1,500 in control)	Secondary outcome analysis Simple descriptive statistics (e.g. univariate statistics, frequencies, means and percentages) for both intervention and control groups.	2
Young people questionnaire data (business as usual support)	Follow-up questionnaire	Young people in control group (N=1,500)	Compliance analysis; Contextualise impact findings	1,2
Quantitative monitoring data: participating volumes and drop-outs, and attendance: preparation week, each of 5 weeks' placement)	Collected by youth workers and exported and transferred securely	Information for all young people in the intervention group N=1,500	Missing data, compliance and subgroup analysis	1,2,3,4

Background information recorded in registration form	Collected by youth workers	Background information for all young people N=3,000 (1,500 in intervention and 1,500 in control)	To be used for exploratory analysis, and data linkage.	1,2

Data analysis

The outcome analysis will follow an intention-to-treat (ITT) approach [34], meaning all participants will be included in the groups they were randomly assigned to, regardless of whether they received the treatment, withdrew from Summer Jobs, or experienced deviations in programme implementation. This conservative approach captures the average effect of offering Summer Jobs compared to business as usual, regardless of participants' adherence to the assigned group.

The following descriptive statistics will be reported:

1. Baseline demographic characteristics on key variables (sex at birth, age, ethnicity, special education needs, referral source) will be described, using descriptive statistics (means, standard deviation, numbers, and percentages) for the overall sample, and for the intervention and control groups.
2. The balance between the intervention and control group at baseline, comparing the size of differences in effect sizes on demographic characteristics (sex at birth, age, ethnicity, special education needs) and on the primary and secondary outcomes.
3. The distribution of primary and secondary outcomes at follow-up will be presented for both the intervention and control groups.
4. Attrition rates will be reported for both the intervention and control across all primary and secondary outcomes.
5. Sample size at baseline and follow-up survey completion will be noted for both the intervention and control group.

Primary outcome analysis

To estimate the impact on the co-primary outcome (i.e. binary indicator on offending up to 6 months post-randomisation; and EET status at 9 months post randomisation) we will use a logistic regression model.

Data from the Year 2 Internal Pilot Study (2025) and Year 3 Efficacy Study (2026) and from all Local Delivery Partners will be pooled, and the model will include a fixed intercept for each LDP to account for stratification. By including LDPs as fixed effects, we ensure that any systematic differences between LDPs are adequately controlled for in the model. The full model is as follows:

$$Y_{ij} = \beta_0 + \beta_1 SJ_{ij} + \beta_2 B_i + \beta_3 LDP_j + \beta_4 Phase_i$$

- Y_{ij} is the outcome for young person i referred by LDP j
- SJ_{ij} is a binary indicator denoting whether a young person is assigned to the intervention or the control group
- B_i represents the baseline rate for offending and EET
- $Phase_i$ represents a binary indicator for trial phase (1 = Year 3 Efficacy Study, 0 = Year 2 Internal Pilot Study).
- LDP_j represents the fixed effect for each LDP reflecting that this is a multi-site trial

Given that there are two primary outcomes, appropriate adjustments will be made to the confidence intervals and p-values following the Westfall-Young correction. Both the p-values and statistical significance level will be reported. Odds and relative risk ratio for the primary outcome analysis will be reported.

Data for offending at 6-month post randomisation is anticipated to be available in March 2028, and analysis will be conducted by March 2029.

The analysis of EET outcomes is subject to the availability of data from the LEO dataset. It is important to note that the publication and availability of LEO data are subject to variability, both in terms of when the data are collected and when they become accessible for research purposes. As such, the timelines for accessing EET outcome data should be regarded as best estimates and may be subject to change.

Based on current guidance from DfE, we have been advised to allow for a lag of approximately two years following the academic year in which the data are generated before it becomes available for analysis.

Given this lag, we anticipate that data relating to EET outcomes at 6 and 9 months post-randomisation will become available by March 2029. Subject to data access timelines holding as expected, we plan to complete the analysis of these outcomes by June 2029.

Secondary outcome analysis

The modelling approach for the secondary binary outcome, self-reported EET, will follow the same method as the primary analysis, using a logistic regression model. For secondary

outcomes that are continuous variables, a linear mixed model will be applied, like the logistic model, but with a continuous outcome variable. For ordinal or multinomial secondary outcomes, a generalised linear model will be used, assuming the appropriate distribution for the data.

Secondary outcomes are considered exploratory and will not be adjusted for multiple testing.

Subgroup analysis

The study will not be powered for sub-groups analysis. However, exploratory analyses will be undertaken on the co-primary outcomes for several key subgroups, despite the study not being statistically powered for these analyses. These subgroup analyses are critical for providing insights into potential heterogeneity of treatment effects across different demographic groups, which may help us understand how the intervention may affect different populations differently.

We will undertake the following subgroup analysis:

- Sex at birth (two categories male vs female)
- Age (two categories based on age bands 16-18; and 18-20)
- Ethnicity (five categories i.e. White; Mixed or Multiple ethic group; Asian or Asian British; Black, Black British, Caribbean or African, Other) to understand any differences in the outcomes for the key demographic groups.
- Whether young person has special educational needs
- Type of referral (i.e. external agency/ internal LDP network) to assess difference in outcome by referral source
- English versus Welsh sample (relevant only for offending).

A sub-group analysis will be conducted to estimate the conditional average treatment effects (CATE) by using interaction terms for all co-primary outcomes. The analysis will be conducted using a single equation model, where the interaction indicator is interacted with the subgroup variable. This allows us to estimate how the interaction effect differs for each subgroup, capturing any potential heterogeneity in the treatment response. This means that dummy variables for the sub-groups will be interacted with the binary treatment variable.

Compliance analysis

The main framework of analysis for this multi-site trial is intention to treat, however, the effect for young people allocated to Summer Jobs and engaged with the placement will also be explored, based on compliance with the programme. The precise definition of

compliance and practical arrangements for measuring compliance will be determined in conversation with UKY and documented in the Statistical Analysis Plan.

Missing data

If there is less than 5% missingness overall (i.e., the primary analysis model includes at least 95% of randomised young people), a complete-case analysis will be carried out.

If there is more than 5% missingness overall, analysis will be undertaken to understand if the data appears to be missing completely at random (MCAR), or whether the weaker Missing at Random (MAR) assumption applies. The extent of missingness will be assessed, and then also explore the pattern of any identified missingness. To assess whether there are systematic differences between those who provide data and those who do not – and thus whether these factors should be included in analysis – missingness will be modelled through a logistic regression model at follow-up as a function of baseline covariates, including indicator denoting whether a young person is allocated to the intervention or control group. The analysis model for this approach will mirror the model given above but the outcome will be a binary variable identifying missingness (yes/no).

For less than 5% missingness overall (i.e., the primary analysis model includes at least 95% of randomised young people), we will carry out a complete-case analysis, and undertake an exploratory robustness analysis using a full-information maximum likelihood (FIML) approach (instead of multiple imputation (MI)), because FIML can be estimated in a single model and simulation studies[3] show that it can reduce bias as well as MI[76] .

Longitudinal follow-up

Long-term follow up analysis will be conducted for offending using the same outcome measures obtained via the PNC and using the same specification as the primary analysis at 6 months post randomisation. Offending will be measured at 12 months after the end of the programme. It is expected that data for offending will be available between October and December 2028, and it is anticipated that that the long-term analysis will be undertaken by March 2029. To ensure coherence in reporting and to align with the availability of data from LEO, this analysis will be published alongside the primary analysis of EET outcomes at 6 and 9 months post-randomisation. The EET data are expected to be available by March 2029, with analysis completed by June 2029.

[76] Multiple imputation is not necessarily the gold standard in missing data handling in RCTs, with other (simpler) methods providing similarly unbiased estimates: Sullivan, T. R., White, I. R., Salter, A. B., Ryan, P., & Lee, K. J. (2018). Should multiple imputation be the method of choice for handling missing data in randomized trials?. Statistical methods in medical research, 27(9), 2610-2626.

Both analyses—the long-term offending and the primary and long-term EET outcomes—will therefore be included in an addendum report drafted by June 2029 and published by November 2029.

In summary:

Summer Jobs administrative data access and analysis plan

		6m post-randomisation (offending) 6m post-randomisation (EET)			12m post-intervention end (offending) 9m post-randomisation (EET)		
Evaluation	**Intervention delivery**	**Application:**	**Access & analysis:**	**Report analysis included in**	**Application: 12m data**	**Access & analysis (latest): 12m data**	**Report analysis included in**
Internal Pilot Year 2 (2025).	Late July to Sept 2025	**PNC:** April 2025 **LEO:** N/A	**PNC:** March 2026 **LEO:** N/A	March 2028	**PNC:** Sept 2026 **LEO**: N/A	**PNC:** Sept 2027 **LEO:** N/A	PNC: March 2029 **LEO:** N/A
Efficacy Study Year 3 (2026).	Late July to Sept 2026	**PNC:** April 2026 **LEO:** June 2026	**PNC:** March 2028 **LEO:** March-June 2029[77]	**PNC:** March 2028 **LEO:** June 2029	**PNC:** Sept 2027 **LEO**: June 2026	**PNC:** Jan-March 2029 **LEO:** March-June 2029	**PNC:** June 2029 **LEO:** June 2029

[77] The publication and availability of LEO data are subject to variability, both in terms of when the data are collected and when they become accessible for research purposes. As such, the timelines for accessing EET outcome data should be regarded as best estimates and may be subject to change.

Implementation and process evaluation

Research questions

We will conduct an IPE during the Year 2 Internal Pilot Study (2025) and the Year 3 Efficacy Study (2026). The IPE will focus on the below research questions, using the pilot findings to improve the design of the efficacy study, and using the IPE findings from across the pilot and efficacy study to understand potential drivers and mediating factors behind the impact evaluation results.

Our approach to the IPE will be based on the Consolidated Framework for Implementation Research[78] and we will develop the outcomes for the implementation evaluation using the Proctor et al (2011) framework. [79]

Research questions

1. To what extent is the referral, registration and consent process, and randomisation process being implemented as intended? How acceptable are these procedures to young people, youth workers and external organisations referring young people to Summer Jobs?
2. To what extent are the one-week work readiness training, the five-week work placement and the letter of recommendation and celebration event at end of placement being implemented as intended and consistently with UKY's model, across LDPs?
3. What is the demographic profile of young people, in terms of age, sex, ethnicity, long term health condition and special education needs?
4. What is the level of engagement (including number of days attended) to the one-week work readiness training and the five-week work placement by young people? How do young people, youth workers and in-work supervisors perceive the intervention? What are the aspects contributing to positive and negative experiences, and how does this experience differ across groups of young people, youth workers and in-work supervisors?
5. What are the key barriers to young people participation and further engagement in the programme? This is to include individual, community and family factors.
6. To what extent are youth workers and employers supported to deliver Summer Jobs? What additional support do they require, and what are the modes and features of this support?

[78] Damschroder, L., Hall, C., Gillon, L., Reardon, C., Kelley, C., Sparks, J., & Lowery, J. (2015). The Consolidated Framework for Implementation Research (CFIR): progress to date, tools and resources, and plans for the future. In Implementation Science (Vol. 10, No. 1, pp. 1-1). BioMed Central.

[79] Proctor E, Silmere H, Raghavan R, Hovmand P, Aarons G, Bunger A, Griffey R, Hensley M. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. Adm Policy Ment Health. 2011 Mar;38(2):65-76. doi: 10.1007/s10488-010-0319-7. PMID: 20957426; PMCID: PMC3068522.

7. Are there any unintended consequences of the programme and the evaluation that were not picked up during design?
8. How robust are the monitoring and evaluation systems in place in the LDPs to accurately track participation, engagement, and costs?
9. How appropriate are the evaluation materials, such as the consent forms, information sheets, questionnaires, for different CYP and how can they be improved?

Research methods

To address our IPE research questions, we will conduct qualitative research with each of the key stakeholder groups involved in the programme, through case study and non-case study qualitative research. A case study approach helps the evaluation to uncover nuances, relationships and contextual factors (such as social, organisational, economic) that might be overlooked if solely using non-case study approaches. This is particularly useful given the programme is delivered across sites, and employment trends differ by areas.

We will work closely with UK Youth and LDPs to inform potential participants about the research and obtain informed consent. Analysis of programme implementation and delivery data, and SMS polls to young people during the programme, will complement the qualitative research.

Our primary method of data collection will be in-depth interviews. In-depth interviews are responsive and flexible and allow for detailed exploration of an individual's views and experiences.[80] They are well suited for exploring in detail participants Summer Job journey, and sensitive topics such as experiences of inclusion and support in the programme.

Focus groups will supplement the interviews by bringing participants together in a group setting to discuss their views of the programme and generate suggestions for improvement. Focus groups of young people will only include young people from across LDPs, so they do not know each other. With participants permission, all interview and focus group recordings will be audio recorded to ensure accuracy and facilitate subsequent analysis.

Topic guides will be used to guide the qualitative data collection. These will list the key topics, themes and prompts to be covered with each participant group, allowing researchers flexibility to cover all the relevant themes in a logical but more natural order (than a semi-structured interview); be responsive in question formulation, mirroring participants'

[80] Ritchie, Jane; Lewis, Jane: Qualitative research practice: a guide for social science students and researchers. London et al.: Sage 2003. 0-7619-7110-6

language where appropriate; and use probes and prompts effectively and comprehensively to capture the appropriate breadth and depth. A senior researcher will conduct the first discussion with each audience and refine the topic guides as needed before briefing other researchers to conduct fieldwork. A researcher will monitor the data management process, during fieldwork, to identify any topic coverage gaps, to ensure subsequent fieldwork fills the topic gaps.

The materials for the IPE will be directly informed by our Youth Advisory Group (YAG) and Race Equity Advisor, ensuring that their design considers key considerations around racial equity from the start. The pilot IPE will also provide an opportunity to collect key feedback on the appropriateness of materials across groups of CYP and to adapt the materials as needed, ahead of the efficacy stage.

See the table below for more detail.

Research methods	Data collection methods	Participants/ data sources (type, number)	Data analysis methods	Research questions addressed	Implementation/ logic model relevance
Interviews with case study youth workers	Online qualitative interview	N = 9 for the pilot N= 9 for efficacy trial	Thematic analysis	1,2,4,5,6, 7, 9	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/pathways
Interviews with case study LDP leads	Online qualitative interview	N = 9 for the pilot N= 9 for efficacy trial	Thematic analysis	1,2,4,6, 9	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/pathway
Interviews with in-job supervisors	Online qualitative interview	N = 18 for the pilot N= 18 for efficacy trial	Thematic analysis	1,2,4,5,6	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/path
Interviews with case study young people receiving Summer Jobs	In-person or online	N = 18 for the pilot N= 18 for efficacy trial	Thematic analysis	1,2,4,5,7, 9	fidelity/ acceptability and appropriateness of trial, and perceived impacts/pathways
Interviews with case study external referral organisations	Online interview	N = 6 for the pilot N= 6 for efficacy trial	Thematic analysis	1,2,4, 9	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/path
Focus groups with UKY Designated Regional Project Officers	Online focus group	N = 1 focus group for the pilot N= 1 focus group for the efficacy trial	Thematic analysis	1,2,4	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/path

Focus groups with non-case study in-job supervisors	Online focus group	N = 1 focus group for the pilot N= 1 focus group for the efficacy trial	Thematic analysis	1,2,4,5,6	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/path
Interview with young people in the control group	Online interview	N= 4 in the pilot N= 4 in the efficacy trial	Thematic analysis	1,4,7, 9	Business as usual Fidelity, acceptability
Focus group with UKY delivery team	Online focus group	N= 1 focus group in the pilot N= 1 focus group in the efficacy trial	Thematic analysis	1,2,4,5,7,8, 9	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/path
Focus group with UKY employer engagement delivery team	Online focus group	N= 1 focus group in the pilot N= 1 focus group in the efficacy trial	Thematic analysis	4, 6, 8	Quality/fidelity/ acceptability and appropriateness of trial, and perceived impacts/path
UKY management information	Data-sharing agreement with LDPs	Attendance: preparation week, each of 5 weeks' placement	Descriptive analysis	1,2,3,4,8	Quality, fidelity, acceptability
UKY management information	Data-sharing agreement with LDPs	Participating volumes and drop-out: referral, registration, preparation week, placement	Descriptive analysis		Quality, fidelity, acceptability

Case study research

Sampling and recruitment

The three LDP case studies will consist of in-depth research with young people, youth workers, LDP managers, referring organisations and in-job supervisors/mentors. We will sample case studies from the 18 participating LDPs, and aiming for one to be the Welsh LDP. We will use a combination of purposive and convenience sampling to select Local Delivery Partners. This will consider willingness and capability to engage with the evaluation, and diversity in characteristics that are likely to influence the fidelity and quality of delivery (e.g. size, geographical remit, experience with employment programmes and the target population). By capturing these variations, the case studies will build on the quantitative data on programme delivery to assess whether the programme can be delivered to a similar standard in different contexts.

Case study audience	Planned discussion topics
Young people	Overall experiences (satisfaction, likes/dislikes) Perceived short-term outcomes and contributing factors (including access/race equity) Recruitment, referral and registration experience (including access/race equity) Experiences of Summer Jobs: work readiness training, placement availability and experience, in-work supervisor, Access Fund Experience of optional features (E.g. in-work mentor, self-directed support) Lessons learned/suggestions e.g. what they wish was in place / changes they'd make
Youth workers	Summer Jobs awareness and understanding, including experiences of x3 online LDP training delivered by UKY Overall, whether worked and for what groups, key delivery successes/challenges Extent to which this addresses a gap in provision and/or what BAU would be for this group Perceived short-term outcomes Delivery experiences: referral, recruitment and registration; matching to placement approach (e.g. steps taken, and views on equitable), initial one-to-one and 3 support sessions; support to employers; support from UKY Lessons learned/suggestions
LDP managers	Summer Jobs awareness and understanding, including training/support experiences Implementation approach and experience

	Referral, recruitment, registration Delivery experiences Reflections on delivery and lessons learned on sustainability and scaling up.
Referring organisations	Summer Jobs awareness and understanding, including training/support experiences Recruitment, referral and registration process Experience of engaging with LDPs Lessons learned
In-job supervisors/mentors	Summer Jobs awareness and understanding, including training/support experiences Overall, whether worked and for what groups, key delivery successes/challenges Perceived outcomes Delivery experiences: one LDP delivered training; support from youth workers; support from UKY Lessons learned/suggestions

Young people will be identified to be invited to take part in qualitative research through two approaches:

1. by IFF Research, based on a sample identified in the baseline survey who consented to be recontacted to take part in qualitative research (the survey question will include mention of £25 Love to Shop voucher those who take part receive). This way we can ensure a diversity of characteristics and minimise any selection bias from LDPs. Where feasible to identify through a recruitment screener, we will invite some young people with a non-UK nationality, given the likelihood of cultural differences to employment aspirations and job expectations, and to inform our race equity focus.
2. by Youth Workers, who will mention the opportunity to take part in the research in their third one-to-one session with the young people. This way any young person who did not opt in through the first channel but who is keen to take part still has the opportunity to take part.

To secure a convenient time for participants, our in-house specialist recruiter will reach out to participants two weeks ahead of fieldwork. To mitigate cancellations, at this time they will also agree a back-up time and will send a reminder two days before the scheduled appointment.

Data collection

In each case study area, we will conduct face-to-face interviews during two-day site visits (and conduct outstanding interviews by telephone), at one time point, towards the end of the placement. For all audiences, this will be within a week or two of placements ending.

We want to explore experiences of being involved with Summer Jobs and assess perceptions of any impacts on young people. However, these concepts may be difficult for some young people to articulate, and we will therefore need to use more indirect ways of questioning. We will use visual exercises, such as card sorting activity where young people match different starts and ends of sentences, depending on how they feel, and projection techniques (e.g. 'if you were telling a friend about the readiness week, what would you tell them?' or 'if you were the teacher/project leader for a day, what would you do?'). Where discussions are conducted online (for example, young person unavailable in-person or prefers online), we will use an online collaboration tool, such as Canva.

Given the known relationship between offending and employment outcomes for young people from minioritised backgrounds, we will monitor the ethnicity of recruited young people, to ensure young people from Black and Asian background.

Young people will receive by email a £25 Love to Shop e-voucher within two weeks of taking part in a discussion; incentives are not planned for the professional audiences.

Non-case study research

We will supplement the case study research with online qualitative research with youth workers, supervisors and youth people, including both youth people engaged in Summer Jobs (not from the case studies) and those randomised to the control group. The group setting for youth workers, supervisors and young people engaged in Summer Jobs will give participants the opportunity to hear from others and in turn reflect on their experiences of the programme and the evaluation activities. Focus groups are conducive to solution forming and so will also provide a space to gather their suggestions for improvements. We will use a combination of group discussion and small group activities to keep participants engaged and stimulate discussion. Young people randomised to the control group will be interviewed one-to-one.

Data collection

Topic coverage for all but the young people randomised to the control group will be like planned coverage detailed in the case study data collection table, above.

Our planned topic coverage for the young people randomised to the control group is:

Non case study audience	Planned discussion topics
Young people randomised to the control group	Referral experiences: whether aware of Summer Jobs before, how they learned about it and first impressions, expectations, what worked well/less well about recruitment, referral and registration process, outcome of process and how that was communicated, ease/comfort of process Why there were interested in the programme/what they think they would have go out of it. Views on randomisation Whether took part in Summer Jobs Whether accessed any other (non-Summer Jobs) support since Summer Jobs referral – reasons and how it compares to Summer Jobs Suggestions for improvement
UKY delivery staff	Implementation and delivery experiences across programme delivery and in relation to all participating audiences, including race equity; lessons learned for Year 3 Efficacy Study (2026)

Young people will receive by email a £25 Love to Shop voucher within two weeks of taking part in a discussion; incentives are not planned for the professional audiences.

Young people SMS polls

Young people in the intervention group who consent to share their mobile number with the evaluation team will be polled via SMS at three time points: end of preparation week, end of week 3 and end of the placement. SMS polls are a timely, low-burden and accessible way to take a temperature check of young people during the programme, and offer timely insight on programme delivery.

Each poll includes 2-3 short, closed questions, capturing perceptions of impact and delivery experiences. Suggested topics are informed by the feasibility study, and are subject to change, based on delivery experiences and what insight would be most valuable at that point in time:

End of preparation week:

1. How prepared do you feel about starting your paid employment? (Rating scale)
2. Whether have an In-work Mentor in addition to In-work Supervisor? (Yes/No)

End of week 3 of placement:

1. How clear are your roles and responsibilities in your paid placement? (Rating scale)
2. Reminder of upcoming follow-up survey and £15 Love to Shop voucher for completing the survey, and a check on whether contact details have changed (if so, ask for updated email)

End of placement:

1. How do you feel about the support and guidance you're getting from your supervisor? (Rating scale)
2. How has this experience affected your confidence in the workplace? (Rating scale)

Management information (MI)

We will analyse information relating to the implementation and delivery of the programme from the management information (MI) collected by UKY at one point during the Year 2 Internal Pilot Study (2025); after the end of delivery. This will help provide quantitative evidence on the adoption, fidelity and integration of Summer Jobs and provide the contextual basis for the qualitative IPE activity. The table below details the data we will analyse and the research question it relates to.

Some of this data is already collected by UKY through their existing procedures and systems (Customer Relationship Management (CRM) via referral and registration forms; participant record; payroll provider records), and some involves additional data collection by UKY (employer's work placement record).

Research Question	**Data**
3. What is the demographic profile of young people, in terms of age, sex, ethnicity, long term health condition and special education needs? 4.What is the level of engagement (including number of days attended) to the one-week work readiness training and the five-week work placement by young people?	Number, source profile of eligible (complete right to work check) young people that 1) complete pre-employment work readiness training, 2) each of 5 weeks paid employment, and 3) end of placement celebration event. By profile, we mean programme eligibility criteria, and LDP.
1.To what extent is the referral, registration and consent process, and randomisation process being implemented as intended?	Number of LDPs each meet target of identifying 60 young people who complete right to work check and meet programme eligibility criteria.

	Whether target hit of at least 50% of young people registered to the programme referred to from external agencies Number of young people in intervention and control group Number of the following and how this compared to intended: young people recruited, completed referral form, completed registration form, eligibility checks, right to work checks conducted and passed Waiting time between recruitment, referral, registration, right to work checks and work readiness week Number and organisation type of referral organisations Number and type of employers participating in programme (e.g., corporation, small business, non-profit, government, individual employers) Number of young people matched to a placement of their interest Number of young people known to referring organisation already
2.To what extent are the one-week work readiness training, the five-week work placement and the letter of recommendation and celebration event at end of placement being implemented as intended and consistently with UKY's model, across LDPs?	Attendance and drop-out (and reason, where possible) of young people for each of work readiness week and 5 weeks of employment Attendance and drop-out of LDPs, youth workers and employers from programme Attendance of LDPs and youth workers to pre-programme training Number of one-to-one mentorship with a young worker each young person accessed Number of in-job supervisor support sessions accessed Number of in-job mentor support sessions accessed Number accessing access fund; accessing full value of access fund; accessing more than £5/day access fund, and any variation by young person demographic characteristics. Number receiving letter of recommendation Reasons for drop-out of young people (where LDPs can collect this before drop-out)

Diversity of placements completed

Analysis

Data and information from each component of the IPE will be analysed separately by the research team and then triangulated. The approach will be to synthesise findings from the qualitative research and identify areas where the sources provide different conclusions or where there is reinforcement. The analytical approach will use the Theory of Change as guidance and highlight areas where new components or pathways to the Theory of Change may be needed.

Qualitative analysis

Framework Analysis[81] will be used to examine and interpret qualitative data, identifying key themes through deductive and inductive methods.

Throughout the discussion, researchers will continually weigh up the implications of what the participants said and devise relevant follow-up questions (where useful to draw out additional insight). Through this process of active listening and 'weighing up' feedback, the researcher will ensure they are clear on the implications of the discussion on the IPE questions.

Where given permission, researchers record interviews on video-conferencing software on Microsoft Teams or via a digital recording device. Researchers will use the recording and interview summary to assess the implications of the discussion against the IPE questions. This involves triangulating feedback from different sections of the interview, including non-verbal cues observed.

Qualitative data will be analysed thematically. Researchers will organise and code this data in a bespoke excel-based analysis framework. The framework will be structured around thematic headings relating to the theory of change and research objectives. Individual interviews can then be compared to determine the commonality of experiences. Interviewers will write-up their discussion into this framework, including verbatim quotes, and their impressions/observations. The framework contains coded 'classification' variables, to allow the qualitative data to be ordered/'cut' in different ways to explore any subgroup differences. For example, LDP, young person age. The framework is piloted with the first couple of interviews then revised to ensure it is fit for purpose. A senior researcher will check the framework coding of 10% of each researchers' interview, providing feedback to improve specificity and clarity.

[81] Ritchie, J., & Lewis, J. (2003). Qualitative Research Practice—A Guide for Social Science Students and Researchers. London, Thousand Oaks, CA: Sage Publications Ltd.

Researchers will then process the findings through abstraction and interpretation. Researchers devise a more analytic set of building blocks to categorise and classify the data. The first stage is 'description,' identifying the range of things said about a particular theme; how this varies; and the different types of responses that could be identified. Variation is measured against the sampling characteristics. Other unexpected or emerging patterns are also noted.

Next, researchers undertake 'mapping linkage,' exploring the ways that different parts of the data are connected. This is followed by 'explanation': identifying the reasons why the data fell out in the way that it did. During this stage, researchers look for both explicit accounts (reasons given directly by participants) and implicit accounts (where researchers infer an underlying logic based on participant views, context of the local employment setting, power dynamics).

Management information and young people SMS poll analysis

Upon receipt from UKY, a researcher will conduct an initial check of the data received against our IPE MI plan and follow up with UKY to fill data gaps and clarify any discrepancies. After we are confident we have the correct data, our data services team processes the data (e.g., ensures consistent formatting; reorganises it for evaluation purpose) and creates an SPPS file and tables for descriptive analysis using a data specification the research team develops.

Triangulation

We will take a systematic approach to the analysis of all strands of data collection (impact and IPE) to generate insight that covers both the breadth of all participating professionals and young people, and the depth of experiences and impacts for different types of young people (different LDPs and younger/older age groups).

To incorporate the information from all strands of IPE data collection we will design an analysis framework. The framework will be structured around the research questions. It will be set up to allow us to identify differences across parents and children and stakeholder groups. We will organise an internal analysis workshop to triangulate the evidence gathered into a coherent set of findings; to explore possible convergence and divergence of trends and themes and anticipate their plausible outcomes; and draft recommendations for the programme.

Outputs

The Year 2 Internal Pilot Study (2025) output is a transitions recommendation template.

The Year 3 Efficacy Study (2026) output is a written evaluation report, combining Years 2 and 3 of the evaluation.

Cost data reporting and collecting

For guidance on the approach we expect evaluators to following in collecting and reporting cost information, see our published guidance: https://youthendowmentfund.org.uk/wp-content/uploads/2022/01/21.-YEF-Cost-reporting-guidance.pdf

Approach

As per YEF's guidance[82], costs will be reported on 'bottom-up' basis; that is, detailing the resources required to deliver the intervention, and estimating the monetary value of these resources. Costs will be estimated from the perspective of the organisations delivering the intervention (UKY, LDPs and Employers). Costs relating to the evaluation will be excluded. As far as possible, we will split costs between start-up costs (one-off cost) and ongoing costs.

Data will be collected directly from UKY and LDPs at two points, once following completion of the delivery of the Year 2 Internal Pilot Study (2025), and again following the delivery of the Year 3 Efficacy Study (2026) intervention. We will create an online form through which UKY and LDP staff are required to submit costs data against specified fields. We will quality assure this data by checking it against overall budgets reported by UKY and LDPs for the project. An organisational level census approach will be used to collect data from UKY and LDPs, i.e. UKY and all LDPs will be requested to submit costs data, ensuring that the data is representative.

Cost elements

Staffing and labour costs

We will request breakdowns of wages and direct non-wage costs (i.e. pension contribution and National Insurance). We will be requested detail of hours/days worked if roles are not full-time equivalent (FTE); for example, for seasonal staff. As far as possible, we will exclude costs related to the recruitment of the control group, as their presence is a product of the evaluation, rather than due to the delivery of the intervention. Staff costs that we anticipate accounting for are detailed below.

The Summer Jobs intervention will be managed UK Youth. The staff involved at UK Youth for the Year 2 Internal Pilot Study (2025) include:

[82] YEF-Cost-reporting-guidance.pdf

- Delivery: 1 x Project Manager (1 FTE) 4 x Project Officers, 1 x Head of Network Delivery, 1 x Assistant Director of Network Delivery
- Employer Recruitment: 1 x Employer Recruitment Manager (1 FTE), 1 x Employer Recruitment Officer (1 FTE), 1 x Department Coordinator
- Impact: 1 x Chief Impact Officer, 1 x Assistant Director of Impact, 1 x Design Manager

At the outset of the Year 3 Efficacy Study (2026) we will check with UK Youth whether any changes to their staffing are planned for the delivery of the following year, and factor the relevant costs into our planned data collection.

UK Youth will work with 18 LDPs for the Year 2 Internal Pilot Study (2025), with staffing as follows:

- 18x LDPs, with per LDP: 1 x Programme Lead (57 days), 1 x Support Worker (35 days), 2 x Seasonal Youth Worker (34 days per worker)

It is anticipated that for the Year 3 Efficacy Study (2026), UK Youth will work with 30 LDPs, to support the expansion of the trial. As in Year 2, all LDPs will be invited to submit their staffing costs via an online form.

Employers

UK Youth will secure employer placements for 600 young people during the Year 2 Internal Pilot Study (2025). Each young person will have an In-work Supervisor, to train, support and mentor young people, supervising a maximum of 5 young people. And optionally, employers may also match young people with an In-work Mentor, to provide extra support. Employers will also have time costs in advance of the young person starting work with them, including administration related to onboarding, planning and preparation of the placement, and training provided by UK Youth, and following the placement, for example to prepare a letter of recommendation.

Therefore, employer resources during the Year 2 Internal Pilot Study (2025) will include time from:

- between 120 – 600 x In-work Supervisors
- 600 x In-work Mentors
- A lead contact for each large employer

For the Year 3 Efficacy Study (2026), 900 work placements will be required, and therefore it is likely that the total pool of employers providing placements will increase.

As large number of employer staff may participate in the programme, it is not proportionate or necessary to request that they all submit information about the resources allocated to Summer Jobs, so we therefore invite a sample of members of staff from employers to submit figures via an online form. Data will be collected once following the delivery of the intervention for the internal pilot, and again following the delivery of the intervention for the efficacy study. We anticipate these being the same staff members who participate in depth interviews for case studies (18 x In-work Supervisors) in each year, so that we can triangulate information shared. Therefore, data will be collected from 36 x In-work Supervisors in total.

Programme procurement costs

UK Youth will also work with a payroll provider and CRM developer. We plan to collect the costs of these services directly from UKY each year.

Buildings and facilities

Building and facilities costs will include rental fees for premises to deliver employer or LDP training, if applicable. We will collect these costs directly from UKY and LDPs.

Materials and equipment

Young people will be provided with a £5 per day Access Fund. We will monitor the usage of the access fund via UKY reporting and if possible, calculate the breakdown of expenditure on equipment and materials. We will also collect from UKY and LDPs any costs associated with travel, catering etc incurred by staff delivering the programme.

Participation costs

Costs for this element will include payments to young people in the intervention group for completing the programme:

- 600 x 150 hours at living wage for the Year 2 Internal Pilot Study (2025).
- 900 x 150 hours at living wage for the Year 3 Efficacy Study (2026).
- However, employers will not be reimbursed for time costs associated with managing the young people placed on the programme, therefore as per YEF's guidance on cost

reporting[83], as we are estimating costs from the perspective of the organisations delivering the invention (UKY and LDPs) we will not consider costs faced by employers to be in scope. We will, however, clearly detail the input required in terms of time and skills by employers providing placements, so that the resources required are recorded.

Other inputs

We will directly collect from LDPs and UKY overhead costs per department of delivering Summer Jobs.

The cost analysis will also document employer contributions to the programme. These are donations from private sector employers, set at a level which is proportionate to their turnover and the number of placements they are hosting.

Uncertainty and assumptions

As we are taking an organisational level census approach for UYK and LDPs, and collecting figures retrospectively for costs incurred, the level of uncertainty around our estimates should be low. There are, however, factors which we cannot necessarily control for which may impact our estimates. For example, data will be self-reported by UKY, LDPs and employers and therefore we cannot independently verify the accuracy of figures quoted.

It is likely that a proportion of young people will drop-out of the programme during delivery. We will cost on the basis of full compliance (i.e. as if a young person attended all training and was employed for the 5 week placement period).

Diversity, equity and inclusion

Describe how the evaluation approach will be inclusive, fair and equitable, including:

To ensure the evaluation is accessible and inclusive, we will prioritise the young person's perspective in both design and delivery, while also considering the needs of parents, guardians, youth workers, local partners, referral agency staff, and UK Youth staff.

To ensure the evaluation is accessible and inclusive, we will:

- Consult with young people, youth workers, and Local Delivery Partners
- Follow guidance from the Race Equity Associate appointed by YEF

[83] YEF-Cost-reporting-guidance.pdf

- Engage in critical self-reflection to challenge assumptions throughout the evaluation process
- Ensure members of the evaluation team attend a half-day training session delivered by The Serious Youth Violence Network to increase their understanding of youth violence, the social, economic and personal factors that contribute to it, and the implications for our evaluation delivery
- Use trauma-informed approaches to our research activities
- Ensure engagement materials are available in multiple formats (written/animated), use Plain English, information is logically and clearly ordered, and materials are visually engaging
- Adhere to the Market Research Society Code of Conduct[84], the professional and ethical standards that IFF follows as an MRS member
- Act on any recommendations from our internal ethics review panel

The evaluation will contribute to the evidence base on reducing youth violence and supporting young people into employment, education, or training. Future cohorts will benefit from better understanding of the effectiveness of Summer Jobs, enabling policymakers and funders to make informed, evidence-based decisions on resource allocation.

Ethnicity is an aspect of diversity which is particularly important to consider for this evaluation. We know that Black children are disproportionally more likely to be arrested, cautioned or convicted, or be in held in custody[85], and that almost half (49%) of the participants in the Year 1 programme were from Black British, Black African or Black Caribbean ethnic backgrounds. Gender is also pertinent, as men are both more likely to be arrested for violent crime[86] and to be victims[87] of violent crime in England and Wales, and two-thirds (66%) of the Year 1 registrations were male. It is therefore particularly important that the evaluation is sensitive to the needs of these groups.

Young people with lived experience will provide input into the evaluation design and delivery. A 'Young Person Advisory Group' (YAG) will be convened four times over the course of the Year 2 Internal Pilot Study (2025) and Year 3 Efficacy Study (2026) . The YAG will include representation from young people who participated in the first year of the programme, but will also be expanded by recruiting additional programme participants (including participants from outside of London) so that a greater diversity of young people are represented. Our areas planned for initial consultation with the YAG include how best to

[84] MRS-Code-of-Conduct-2019.pdf
[85] Beyond the Headlines 2024 Summary | Youth Endowment Fund
[86] Arrests - GOV.UK Ethnicity facts and figures
[87] The nature of violent crime in England and Wales - Office for National Statistics

obtain informed consent to randomisation and communicate the outcome of randomisation; the suitability of the wording of measures planned for inclusion in the questionnaire; and methods to reduce attrition. Later in the evaluation, we will consult the YAG to validate emerging research findings.

We will ensure our communication with young people, youth workers and Local Delivery Partners about the evaluation will be accessible, inclusive and culturally sensitive through:

- Using plain English in all respondent facing materials, and providing key information about the multi-site trial in a variety of formats, for example in writing and through an animated video, to enable young people to give informed consent
- Offering the option to complete the baseline survey either online, or by telephone, and with or without the support of a youth worker, depending on the young person's communication preference
- A Youth Worker explaining the purpose of the evaluation and answering young people's questions before registering them for the programme, to support informed consent
- Minimising bias through neutrally worded, non-leading survey questions and topic guide probes
- Being conscious of the language used in our communications, using person centred terminology and reflecting the naming preferences of minoritised groups. We will consult style guidance provided by advocacy groups (such as Scope's information about writing about disability[88])
- Maintaining confidentiality and providing reassurances as necessary to enable participants to share their experiences of the programme in a safe, non-judgemental space

When conducting primary research, we will ensure we seek representation from the diversity of young people on the programme by monitoring by key demographic characteristics who participates and acting when gaps are identified. For example, for the qualitative research, we will screen young people to recruit to quotas by gender and ethnicity. For the survey research we will review the profile of those who have (and have not) completed the survey, and if there are patterns of non-response by respondent demographic characteristics, seek to understand and remove any barriers preventing these young people from taking part.

The project team have experience of working with vulnerable and marginalised communities through their prior research experience. This includes, for example, research

[88] How we write | Disability charity Scope UK

with women who experience gambling harm (Kelsey and Catherine), research with migrant groups about visas and employment status (Catherine) and barriers to participating the Census (Kelsey), research with people experiencing homelessness (Kelsey and Sashka), and research with survivors of domestic violence (Kelsey and Sashka). Kelsey has received 'inclusive cultures' training whilst at IFF, with this training planned for other members of the evaluation team during the mobilisation stage. The team also includes individuals (Kelsey, Catherine) who have also receive disability awareness training.

Ethics and registration

Two of IFF's internal ethics advisors will apply project-independent scrutiny to the evaluation design and approach. Their role is to ensure the evaluation is conducted ethically, responsibly and in compliance with relevant regulations and guidelines. This involves reviewing the approach and engagement materials to ensure the rights, dignity and welfare of participants are prioritised; that participants receive clear, understandable information about the study, including risks and benefits, and provide informed consent. They also assess potential risks to participants to ensure that these are minimised and justified by the potential benefits of the evaluation.

The trial protocol will be registered at www.controlled-trials.com and then the protocol will be updated to include the ISRCTN (International Standard Randomised Controlled Trial Number) as soon as it becomes available.

Data protection

All IFF Research systems and personnel are approved for the management of personal and sensitive data and are ISO certified to ISO27001 standard. This includes all physical systems, systems to detect intrusion, encryption of data from point of collection to storage, quality assurance and audit trails associated with any data collected. All identifiable personal and special data collected will be done with explicit consent. Data linkage will employ a unique identifier where the link to identifiable information will be stored on an encrypted secure database. Researchers will be trained to GDPR standard and will comply with all relevant data protection legislation. One year after final follow-up is completed, personally identifiable information will be deleted from the dataset held by the evaluation team. Encrypted data will be transferred to the Youth Endowment Fund and Youth Futures Foundation Data Archives.

Legal basis for processing personal data: The legal basis for processing personal data for this trial is public task. YEF is funded by the Home Office in the exercise of their statutory powers to assist victims, witnesses or other persons affected by offences. On this basis, work carried out by UKY and IFF as part of Summer Jobs can be a task carried out in the public interest. Personal data is processed under Article 6(1)(e) of the GDPR. Special Category Data is processed under Article 9(2)(j) of the GDPR.

Data controllers: IFF Research are the joint data controllers for this project, alongside UKY, throughout the duration of the evaluation. Following the end of the evaluation period, YEF and YFF become the data controllers once the data has been submitted to be archived.

Demonstrating GDPR compliance: Young people receive a privacy notice as part of consenting to register for Summer Jobs. This details the personal and special category data collected about them, who will have access to the personal information, how the personal information will be used, stored, transferred, and deleted, their protection rights, and how to complain, the legal basis for processing information. This is also detailed in the information leaflet and animated information leaflet.

Transferring data to the YEF and YFF data archives at the end of the evaluation: We will follow both organisations' processes for transferring evaluation data to them. The actual transfer will be via IFF's secure, encrypted data sharing platform.

Stakeholders and interests

Delivery team

The team at UK Youth (UKY) responsible for delivery is as follows:

- Chris Gurney, Assistant Director of Network Delivery, UKY: Holds UK Youth sponsorship of SUMMER JOBS PROGRAMME, accountable for sign off on critical programme decisions where they impact the organisation.
- Lauren Oliver, Head of Network Delivery, UKY: Responsible for strategic oversight of the programme, including partnership management.
- Rebecca Habgood, Summer Jobs Project Manager, UKY: Responsible for the day-to-day management of the delivery of the programme.

- Rachel Barber, Employer Recruitment Manager, UKY: Responsible for the recruitment, onboarding, training, and management of all employers offering Summer Jobs placements.
- Joseph Fisher, Department Coordinator, UKY: Working between employer recruitment and programme delivery. Responsible for providing administrative support for Summer Jobs Programme as required.
- Oscar Bingham, Assistant Director of Impact, UKY: Advisory role, providing guidance related to evaluation of the programme.
- Amy Kerridge, Design Manager, UKY: Advisory role responsible for guidance on the use of effective and appropriate design tools as required by the programme.
- Sarah Carr, Head of Brand, Communication and Marketing, UKY: Responsible for programme communications and marketing
- Ruth Tucker, Head of Operational Improvement, UKY: Responsible for UKY's internal systems and processes.

Evaluation team

The team delivering the evaluation includes:

- Kelsey Beninger, Research Director, IFF Research: Overall contract lead, IPE and cost lead, oversight of all outputs.
- Sashka Dimova, Research Director, IFF Research: Impact assessment lead, design input, and senior oversight in Kelsey's absence.
- Matteo Sandi, Assistant Professor in Economics (RTDB) at the Cattolica University of Milan, Research Economist at the Centre for Economic Performance (LSE): Advisory input on impact design, including use of offending and police datasets.
- Catherine O'Driscoll, Associate Director, IFF Research: Project management oversight, safeguarding lead.
- Hannah Silvester, Senior Research Manager, IFF Research: Project Manager, day-to-day point of contact for YEF and UK Youth.
- Iona Gallagher, Research Manager, IFF Research: Process evaluation lead.

- Monica Kumari, Senior Research Executive, IFF Research: Qualitative recruitment lead.
- Mohsin Uppal, Senior Research Executive, IFF Research: Survey administration and processing lead.
- Oscar Lind, Research Executive, IFF Research: Project support

Risks

#	Evaluation or Programme Delivery	Risk category	Risk	Likelihood	Impact	Mitigating Action(s)
1	Evaluation	Safeguarding	Distress caused to young people through evaluation activities	Medium	High	Bespoke safeguarding and mitigating distress plan; refresher training to evaluation team; support leaflet with points of contact for young people taking part in qualitative research; agree with LDPs that young people distressed by the programme can speak with their designated youth worker; Training for programme leads and youth workers from LDPs which includes overview of the information young people will be asked for and practical strategies for supporting YP through evaluation tasks.
2	Evaluation	Data collection	LDP disengage because burden to contribute to evaluation too high	Medium	High	Stratification by LDP means that LDP drop out does not bias estimates. Requirement to participate in evaluation as part of LDP contract with UKY and as condition of payment; dedicated sections in LDP training sessions 1 and 2 to cover evaluation requirements and value to their orgs/sector; centralised information sharing where CRM system allows; CRM updated to live system holding centralised information with specific interfaces for relevant users (youth workers, referrers, supervisors

						etc.), this should streamline processes including employment allocation and matching processes by allowing relevant parties to access information at the click of a button; dedicated evaluation email inbox for evaluation queries.
3	Evaluation	Outcomes	Co-primary and secondary outcomes measures not reliable	Low	High	Chosen measures are validated, and acceptability tested with Youth Advisory Group.
4	Evaluation	Outcomes	Delays to or unable to access Police National Computer (PNC) dataset for offending co-primary outcome assessment following efficacy study	Medium	High	Matteo is an authorised personnel for PNC and will submit a data access request through his affiliation with the LSE during summer 2027, one year after efficacy study, when data will become available on our cohort (for data access of both pilot and efficacy cohorts). Once the request is approved (typically 8 weeks), we will sign a Data Sharing Agreement (DSA). Alternative data sources on youth crime statistics aggregated up at the locality level and with monthly frequency would be acquired if access to the DfE-MoJ microdata was too delayed for it to be useful.
5	Evaluation	Outcomes	Delays to or unable to access Longitudinal Educational	Medium	High	IFF will develop and submit a Data Access Request to the DfE via the LEO Data Access team in summer 2027, one year after efficacy study, when data will become available on our cohort (for data access of both pilot and

			Outcomes (LEO) dataset for EET co-primary outcome assessment following efficacy study			efficacy cohorts). Once the request is approved (typically 8 weeks), we will sign a DSA with DfE. Back up plan is self-report EET through the endline young person survey.
6	Evaluation	Sample	Eligibility criteria not tight enough to ensure correct population of young people is engaged	Low	Medium	Lessons from feasibility study implemented to minimise this risk: refined eligibility criteria, introduced exclusion criteria, introduced minimum target of 50% of referrals must come from external organisations; introduced UKY conducting weekly eligibility checks of all registrations. UKY/IFF agreed monitoring data for UKY to collect. Evaluation to monitor criteria during data processing and checks. LDP onboarding and training reinforces the importance of adherence to requirements.
7	Evaluation	Data collection	Gap between recruitment and start of intervention is too short for baseline surveys to be completed	Medium	Medium	Baseline surveys embedded in registration form. Registration form asks for YP's personal email and mobile number, and gives space for another email (e.g. parent/guardian). Survey completion a requirement for conducting right to work checks, and randomising - if not completed, not eligible for Summer Jobs. UKY to set a recruitment milestone to LDPs to minimise likelihood many hold back recruitment until close to programme start. IFF monitors survey completion and regularly

						updates LDPs on outstanding surveys. IFF issues x2 reminders by email/SMS. Where a YP indicates in registration form they prefer telephone survey completion with an IFF interviewer, we default to this and bypass online completion. Deadline for registration 23rd May and deadline for baseline survey 28th May.
8	Evaluation	Data collection	Low outcome surveys response rate	Medium	Medium	See above row 7. Also, follow-up survey incentivised, and follow-up survey promotional communications embedded in UKY and LDP comms. 'Keep in touch' comms timed before follow-up survey emphasises participation importance/ valuable study. SMS polls to intervention participants remind of follow-up survey, and second SMS checks whether contact details have changed. Telephone interviewers call YP to complete, where phone number available and after invite plus 2 reminders. Back-up ideas: explore UKY or LDPs hosting 'informational events' for control group, and IFF researchers attend to administer surveys in-person.
9	Evaluation	Analysis	Different non-response to survey affecting validity and generalisability of	Medium	Medium	Clear communication around the survey e.g. what it will include and when it needs to be completed at the onset. Responses to survey maximised using financial incentives for completion for control group too. We also made the survey short and easy to fill in. We will employ strategies

			impact evaluation findings			to make the survey easily accessible and offer young people online and phone version for completion. We will also regularly monitor completion and we have multiple reminders in place to boost response. If non-response is high, we will conduct missing data analysis, including multiple imputation where appropriate and feasible. Findings of analyses with notable missing data problems will be interpreted with caution. Treatment group and control group contact details checked throughout evaluation.
10	Evaluation	Analysis	Contamination	Medium	High	Ensure participants and staff understand the importance of maintaining confidentiality about group assignments; capture this in these audiences' engagement materials, and in LDP and employer training. IFF communicates assignments by email to youth worker, young people, and where relevant, the external organisation referring. This means lower risk to incorrect outcome communication or delays in outcome communication (for example, compared with youth worker communicating it). IFF to monitor interactions to check for contamination: control group endline survey, control group qualitative research. Conduct compliance analysis in cases of observed non-compliance with assignment.

11	Evaluation	Data protection	Data Security Breach leads to sensitive information being shared	Low	High	Stringent data security measures in place and IFF holds the ISO27001 and CyberEssentials Plus accreditations. Evaluation team trained on data breach escalation and resolution process. LDP Training #2 to reinforce importance of secure information sharing (no sharing names/contact details of employers/YP by email). Survey hosted on secure, encrypted platform; confidential information held in secure IFF file folder that only authorised team members have access to.
12	Evaluation	Data collection	Difficulties engaging young people participating in Summer Jobs or in the control group in qualitative research	Medium	Medium	Incentive for participation. Engagement materials clearly communicate value of their involvement. Scheduling early, and at a time that suits them best (can accommodate evenings/weekends). Baseline survey includes consent to recontact for qual, so we can purposively sample a diverse sample, and approach back-up sample without delay.
13	Evaluation	Data collection	Difficulties engaging professionals in online qualitative research	Medium	Medium	Inform LDPs at pilot phase start of evaluation data collection planned, including qualitative research scope/timings. Liaise with LDP leads to identify and engage youth workers, in-work supervisors/mentors and organisations that helped them to recruit eligible young people. IFF to provide to LDP leads bespoke and engaging engagement materials for all audiences

14	Evaluation	Analysis	Difficulties obtaining consent to data linkage from young people (a requirement for randomisation)	High	High	Embed consent to data linkage in youth worker's recruitment activities engaging young people in Summer Jobs. IFF to produce age-appropriate information leaflet and animated leaflet about consent (data linkage plus other consent). Cover informed consent importance, processes and support in UKY's LDP training session #2.
15	Evaluation	Analysis	Programme data for IPE not suitable/available	Medium	Medium	Codesign stage involved mapping available data and agreeing additional data to collect through UKY's CMS. At end of pilot stage, evaluation team will review and assess evidence against the plan, and clarify through discussions with UKY how to fill any gaps or clarify reason for any differences in quality/content.
16	Evaluation	Analysis	Race equity not understood	Low	Medium	YEF's race equity advisor inputs into evaluation design, data collection tools and analysis plan. IFF has named researcher responsible for monitoring the plan is in place, and flagging opportunities to better understand race equity across the evaluation.
17	Evaluation	Delivery	unmanageable burden on UKY staff around evaluation	Low	High	Evaluation activities built into UKY resourcing as part of budgeting and planning; Clear strategy and ongoing communication with UKY; joint, live Gannt Chart; diarised, regular meetings for decision-making; written progress updates of key developments/progress. Assessment of existing data to avoid duplication of data

						collection. Commitment to working flexibly and collaboratively with the UKY team to minimise burden.
18	Evaluation	Delivery	a snap governmental election in the summer 2025 or a major recession	Low	Medium	YEF to confirm whether the evaluation can receive an exemption from purdah. If not, delay primary data collection activities until after purdah.
19	Programme Delivery	Accessibility	Young people face barriers to participation in Summer Jobs	Medium	High	> Access fund provides some financial support to overcome barriers > Encourage and enable (via face-to-face training) strong relationship building between youth workers and employers > Include in training the expectation that accessibility and inclusion are at the heart of the programme and way they might need to consider adapting roles, spaces, and approaches based on YP needs.
20	Programme Delivery	Sample	Fewer young people referred to Summer Jobs	Medium	Medium	- Comms strategy/activities targeting referral agencies/orgs - Tools, guidance and support provided to LDPs to promote locally - LDP Delivery Plans to include clear planning of activities to recruit young people - User-friendly digital systems for referrals

						- Ensure referral requirements are as light touch as possible
21	Programme Delivery	Sample	Fewer young people consent to programme and trial engagement	Medium	High	- Youth-appropriate/friendly materials to explain why this is needed - LDP training to communicate the importance and the process - Comms at referral point to ensure YP know this is a requirement
22	Programme Delivery	Delivery	Young people at risk of harm in Summer Job programme delivery	Medium	High	- Safeguarding framework sets out roles and responsibilities across all stakeholders and are built into contracts - Safeguarding procedures as key part of training for all LDPs and employers including signs to look for, managing disclosures, and processes for managing and reporting concerns - QA of safeguarding documentation as part of onboarding LDPs - Thresholds and clear escalation points for young people, LDPs and employers for concerns - Safeguarding procedures and information repeated at multiple points (initial engagement, all agreements, training, onboarding etc.)

						- Placement risk assessments completed and communicated to all parties
23	Programme Delivery	Delivery	LDP disengage because burden too high	Low	Medium	- Recruitment process, onboarding, QA process and contracts provide clarity on expectations - Training developed to support engagement in staggered, resource effective way - LDP budgets and grants developed to reflect expectations of delivery demands - UKY Project Officer support consistent and responsive - Escalation for Manager or Head level support where PO flags major concerns - Funding for LDPs has been increased in recognition
24	Programme Delivery	Delivery	Core team extended absence disrupting delivery/knowledge management	Low	Low	> UK Youth has a large team of staff with the capability to deliver this programme in the event that additional/ alternative staff resource is required > Project team has multiple members to ensure information and/or relationships are not too concentrated within a small number of staff > Use of shared digital platforms to track and share progress across the programme.
25	Programme Delivery	Delivery	Conflict between partners (IFF, YEF, YFF, UKY)	Low	Medium	> Clear roles & responsibilities, and communication preferences, established as part of project inception > Time scheduled for relationship and mutual trust

						building between respective teams as part of project set-up phase > Regular, transparent project status updates throughout delivery period > Senior representatives named on both sides in event that escalation is required > YEF-YFF will have a partnership agreement and Terms of Reference drawn up which covers the organisations in the event of major disagreements
26	Programme Delivery	Sample	Too few placements secured to reach target	Medium	High	- Establishment of Employer Recruitment team well ahead of delivery - Development and use of strong comms materials demonstrating the benefits of offering placements and drawing on employer experiences of year 1 - re-engagement of employers from year 1 - Focus on industries that couldn't engage due to timelines in year 1 - Target large-scale industries (construction, legal, NHS etc.) - Engage LDP's as employers - engage LDP networks and existing employer partnerships

						- Identify key contacts who can amplify networks - Local government, YEF, DCMS and YFF, UKY trustees etc.
27	Programme Delivery	Delivery	LDP(s) fails to hit key milestones	Medium	Medium	- Onboarding Project Officers include clear messages about holding DPs to key milestones - Project Officer team meetings include reporting back on progress against milestones and strategies for supporting delivery - Use of internal escalation processes where POs and PM are concerned about progress. - LDP SLAs include clear communication of timelines and requirements - All relevant LDP comms includes clear milestone communications
28	Programme Delivery	Outcomes	Quality of placement support from LDP(s) doesn't meet standard	Medium	Medium	- Use of UKY due diligence and QA processes to ensure appointment of strong LDPs with a history of successful delivery and clear capacity to deliver SJP. - PM and PO establish relationship with LDP leads to enable robust feedback loop and critical friendship (both ways). - PO in regular contact to monitor progress, including on-site visits to observe delivery - Young people and employers made aware of feedback procedures

						- POs adopt coaching approach with LDPs to support development and success
29	Programme Delivery	Delivery	Too few/not diverse enough placements	Medium	Medium	- Ensure employer recruitment strategy includes targeting varied industries in all geographical regions. - Encourage employers offering multiple placements to include opportunities across different areas of their work - Use video content in employer recruitment to demonstrate the variety of placements that can benefit young people
30	Programme Delivery	Sample	Too few young people recruited to establish adequate control/treatment groups	Low	High	> Local delivery partners selected with existing reach to target profile of young people and networks with community partners > Lead in time to begin recruitment of young people to the programme well in advance of placement start dates > Maintain a relatively small target load per LDP to ensure they are not over-stretched. > Strong communications through referral networks to reach a broader network of young people
31	Programme Delivery	Outcomes	LDP non-compliance with BAU approach	Medium	Medium	> Engage youth workers in defining BAU parameters >Ensure the requirement to comply with guidance for BAU approach is contracted via the LDP SLA > Tie delivery payments to milestones and performance > Progression to Year 3 for LDPs is reliant on satisfactory

						performance, which includes delivery of the control group to BAU guidance.
32	Programme Delivery	Sample	Higher than anticipated drop out of young people	Low	High	> Expectation management via clear communication of eligibility requirements, timelines and requirements > Regular communication by LDP to keep YP engaged > Reminders to YP that they will be paid! > Capture access needs and ensure LDPs and employers are aware of and responsive to these > Include content in training that reminds employers and LDPs of the importance of communication with the young person to maintain engagement
33	Programme Delivery	Delivery	Risks to young people inclusion - ASD or learning difficulties; low English-speaking skills	Low	High	> Encourage and enable (via face-to-face training) strong relationship building between youth workers and employers > Include in training the expectation that accessibility and inclusion are at the heart of the programme and they might need to consider adapting roles, spaces, and approaches based on YP needs. > Young people's reasonable adjustments and considerations are captured and shared with employers, who are expected to accommodate and discuss with youth workers and young people are required. > Any concerns to be escalated with UK Youth.

34	Programme Delivery	Delivery	In-job supervisors/mentors experience distress	Low	Medium	> Encourage and enable (via face-to-face training) strong relationship building between youth workers and employers > Clear expectation management during employer training to ensure challenges are considered and appropriate support is established internally for the supervisors and mentors > Clear communication of safeguarding procedures for SJP during all training
35	Programme Delivery	Delivery	Young people with conflict/past experience of violence together placed in same job	Low	High	> Include advice to LDPs in training regarding ensuring YP in conflict are not placed together > Invite LDP with experience in managing this to offer training to wider cohort > LDPs trained to give particular considerations to postcodes and neighbouring areas > LDPs asked to discuss potentials for conflict with individuals during initial 1:1 and ensure that no young people are placed together > LDPs to record any potential for conflict as part of the placement risk assessment > LDPs, for the most part, will know their young people well and will know the dynamics between them

						>Risk manage placements, including relationships with other YP placed in the same locations.
36	Programme Delivery	Delivery	Young people are not paid appropriately	Medium	Medium	> Engage Umbrella Company as the employer to ensure legal compliance. > all YP paid at the national living wage > Umbrella Company recruitment includes assessment of their capacity to deliver payroll services for large numbers of people.
37	Programme Delivery	Delivery	Digital system does not work as intended and there is a delay in communicating placement allocations to LDPs	Low	Medium	The digital system has been upgraded to an integrated portal with different interfaces for different personas i.e. youth worker, referral partners, supervisor etc. This should mean that the information can be held centrally and select parts seen only by the relevant parties therefore giving them real time information, reducing admin and avoiding duplication. Young people should be able to be assigned to their placement through the click of a button and employers see the relevant information; CMS updates happening early to allow for adequate testing; documents will be accessible should manual override be necessary.

Timeline

• Dates	Activity		Staff responsible/ leading
06/01/2025	**14/03/2025**	**PILOT Set Up and Mobilisation stage**	**All**
06/01/2025	**07/02/2025**	**Recruitment, vetting and DBS checks of staff for project delivery**	**UK Youth**
16/01/2025	24/01/2025	Submission of Key documents to YEF	All
27/01/2025	29/01/2025	YEF review protocol and provide feedback	YEF
30/01/2025	05/02/2025	Incorporate feedback and submit final trial protocol	IFF
24/02/2025	24/02/2025	Progression criteria reviewed and approved by YEF	All
01/03/2025	14/03/2025	IFF and UKY agree DSA	IFF
03/03/2025	14/03/2025	IFF obtains ethical approval and provides confirmation to YEF	IFF
14/03/2025	14/03/2025	UKY agree DSAs and referral mechanism with partners/stakeholders	UK Youth
17/03/2025	**01/01/2026**	**PILOT Launch and Delivery**	**All**
17/03/2025	**17/05/2025**	**YP registration open**	**UK Youth**
17/03/2025	17/03/2025	Baseline survey begins	IFF
23/05/2025	23/05/2025	YP registration close	UK Youth
28/05/2025	28/05/2025	Completion of baseline survey	IFF
10/06/2025	10/06/2025	Randomisation run	IFF
14/07/2025	05/09/2025	Delivery of intervention	UK Youth
30/09/2025	30/09/2025	Completion of all primary (IFF) data collection	IFF
01/10/2025	31/10/2025	Scoping for Year 3 and submission of indictive budget/project docs	UK Youth
01/12/2025	31/12/2025	Draft Pilot evaluation report submitted (excludes co-primary outcome assessment)	IFF
01/01/2026	15/01/2026	Pilot evaluation report submitted (excludes co-primary outcome assessment)	IFF
01/10/2025	31/10/2025	Draft Transition Point Decision Document	IFF
01/11/2025	01/11/2025	Submit to YEF: Transition Point Decision Document	IFF
30/11/2025	25/12/2025	YEF make decision whether to progress to efficacy study	YEF

01/01/2026	01/01/2026	YEF in-principle green light to progress	YEF
03/11/2026	**14/03/2026**	**EFFICACY Set Up and Mobilisation stage**	**All**
03/11/2025	**26/01/2026**	**Project team confirm/review referral mechanism with LDPs**	**UK Youth**
08/12/2025	12/12/2025	Pilot phase review - lessons learned	All
01/01/2026	26/01/2026	Draft updated protocol and statistical analysis plan	IFF
27/01/2026	29/01/2026	YEF review protocol and provide feedback	YEF
30/01/2026	05/02/2026	Submit final protocol and final SAP	IFF
06/02/2026	18/02/2026	Evaluator drafts information sheets and privacy notices	IFF
19/02/2026	28/02/2026	Submits final information sheets and privacy notices	IFF
01/03/2026	14/03/2026	(If necessary) Obtain ethical approval and provides confirmation to YEF	IFF
17/03/2026	**30/09/2028**	**EFFICACY Delivery**	**All**
17/03/2026	**17/05/2026**	**Referrals open**	**UK Youth**
17/03/2026	24/05/2026	Data collection begins	IFF
17/05/2026	17/05/2026	Referrals close	UK Youth
17/05/2026	17/05/2026	Completion of baseline data collection	IFF
10/06/2026	10/06/2026	Randomisation	IFF
14/07/2026	05/09/2026	Delivery of intervention	UK Youth
30/09/2026	30/09/2026	Completion of all primary data collection	IFF
31/12/2026	31/12/2026	End of YEF funded project delivery	UK Youth
31/01/2027	31/01/2027	Submission of draft final evaluation report (excludes co-primary outcome assessment)	IFF
15/12/2027	15/12/2027	Submission of draft final evaluation report (including co-primary outcome assessment)	IFF
16/12/2027	31/01/2028	YEF and peer review of draft final report	YEF
01/02/2028	28/02/2028	Submission of final, peer reviewed evaluation report	IFF
01/03/2028	31/05/2028	Evaluator supports with YEF publication process	IFF
01/06/2028	30/09/2028	Data archived	IFF

Appendix 1: Changes since the previous YEF evaluation

Appendix Table 1: Changes since the previous evaluation

Feature		Feasibility to pilot	Pilot to efficacy stage
Intervention	**Intervention content**	• Updating referral and registration information and template, to reflect the eligibility criteria changes • the location was expanded from England to include South Wales • Increase target number of employers to 200 and to diversify employment opportunities including the involvement of private sector companies since companies involved in Year 1 were mainly third sector organisations; through UKY bringing employer engagement and recruitment in-house in Year 2. • To centralise and simplify the collection, storing and sharing of information with LDPs; through optimisation of UK Youth's CRM system.	*Describe any changes to the content.*

	Delivery model	*No changes.*	*Describe any changes in the delivery mechanism (e.g. from developer-led to train-the-trainers; in-person vs online; etc.).*
	Intervention duration	*No changes*	*Describe any changes in the duration of delivery (e.g. shortened due to the inclusion of a pre-test)*
Evaluation	**Eligibility criteria**	• restrict the 'at risk of criminal exploitation' and 'Persistently absent from school' criteria to only be allowed in referrals from external organisations, and in exceptional cases, where none of the other criteria apply • change eligibility criteria 'One or more fixed-term exclusion' to 'Multiple fixed-term exclusions' and 'Permanent exclusion' • change upper age eligibility from aged 24 to aged 20 or under on 1st September 2025 • add a quota of at least 50% of young people registered for the programme should come from external referrals from other agencies e.g. statutory	*Describe any changes in the eligibility criteria for participation in the evaluation (settings, practitioners, families etc.).*

		agencies and other services, such as pupil referral units, youth justice services, social services, job centres and alternative provision units. add exclusion criteria 'Not currently studying towards a degree'.	
	Level of randomisation	*Not applicable to pilots.*	*Describe any changes to the design from efficacy to effectiveness stage to the level of randomisation*
	Outcomes and baseline	*Not applicable to pilots.*	*Describe any changes to the design from efficacy to effectiveness stage in:* ○ *Outcomes* ○ *Baselines*
	Control condition	*Not applicable to pilots.*	*Describe any changes to the design from efficacy to effectiveness stage to the control condition*

Appendix 2: Summary of Summer Jobs using the TIDieR framework

Name: Provide a name or phrase that describes the intervention.	The Summer Jobs programme provides young people aged 16-20 at risk of violence in England and Wales with short-term paid employment during the summer holidays.
Why: Describe any rationale, theory, or goal of the elements essential to the intervention.	Summer Youth Employment Schemes (SYEPs) are common in the US, with evidence suggesting they can reduce crime and violence and improve engagement in education. The Youth Endowment Fund (YEF) was interested in exploring whether these findings can be replicated in England and Wales.
What - Materials: Describe any physical or	The following materials will be provided; ● To the local delivery partners:

informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers. Provide information on where the materials can be accessed.	○ Information pack ○ Onboarding and training over x3, online sessions ○ Curriculum for young person preparation week ● To the employer: ○ Employer information pack ○ Onboarding and training over x1 in-person session ● To the young people: ○ Information pack, including the employee passport (a journal to document their placement journey) ○ Preparation week training and materials run by the local delivery partner ○ Any training materials provided by the employer
What - Procedures: Describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities.	The programme has three core components: 1. One week of paid pre-employment preparation Each young person will complete a week of training and onboarding, led by their youth worker from their assigned local delivery partner. In this week, they will be introduced to the programme, their employer, and complete various training modules to prepare them for the workplace. They will be told about the support mechanisms available to them throughout the programme and the role of each person they will be engaging with. They will also complete practical preparation activities, such as making sure they are able to travel to their place of work, and have access to the necessary materials (technology, clothes etc). In this week young people will also complete a self-directed work, which will allow a Young Person to do things like practice their route to work, get their work clothes sorted out, undertake any role-specific or employer-specific onboarding training they might need to do (online learning modules, for example). It can also be

	used to have an in-person first meetup with their employer if that hasn't happened in the structured sections. This is discussed and planned with the youth worker who can then check in with them to ensure it has been completed. 2. Five weeks of paid employment (up to 25h per week) Each young person will be allocated to an employer, wherever possible on the basis of interest, but also dependent on their location, needs and availability of suitable opportunities. They will be paid for 5 weeks of work, up to 25h per week. Their payment will be an online transfer processed on a weekly basis, and they will be paid for hours actually worked (to be monitored by the employer). Throughout the employment, young people will have access to various support: a. Their workplace supervisor, who will be monitoring their attendance and performance during employment. b. Wherever possible, employers will also be asked to provide the young person with a workplace mentor. The paid employment ends with a celebration event and a letter of employment reference. 3. Youth worker support Young people will be meeting with their youth worker three times over the course of the placement for regular check-ins and support sessions.
Who: For each category of intervention provider (such as psychologist, nursing assistant), describe their expertise, background, and any specific training given.	1. Youth worker (Local delivery partner) The youth worker will be the main point of contact between the employer, young person and local delivery partner. They will be responsible for ensuring that the young person is well supported within their placement, their needs are being met, and they have the adequate

	resources and training to engage with the employment opportunity. 2. Workplace supervisor (employer) The workplace supervisor will be responsible for allocating tasks to the young person, monitoring their completion, and providing everyday support to ensure they know what is expected of them in their placement. They will also be monitoring the young person's attendance and liaising with the local delivery partner to ensure the young person is paid for their hours worked. 3. Workplace mentor (employer) Wherever possible, employers will also be asked to provide an in-work mentor for the young person. This mentor will be responsible for overseeing the young person's development in the placement, and ensuring that they are being well supported in their day-to-day tasks. Their overarching role will be to advocate for the young person's needs within the organisation.
How: Describe the modes of delivery (such as face to face or by some other mechanism such as internet or telephone) of the intervention and whether it was provided individually or in a group.	The work placement will be delivered in person, on an individual basis. Some employers will be providing placements for more than one young person, but they will still be supported on an individual basis; i.e. they will each have their own supervisor, youth worker and mentor. The preparation week will be delivered in a hybrid pattern, with most of the sessions with the youth worker happening in-person. However, the young people will also be doing some self-directed independent preparation which they can complete remotely. The training and onboarding for employers and local delivery partners will take place remotely, in virtual sessions.
Where: Describe the type(s) of location(s) where the intervention	The Summer Jobs programme will be delivered in 18 LDPs in England and one LDP in South Wales – overseen by UKY. Specifically, Summer Jobs will operate in 2025 in London,

occurred, including any necessary infrastructure or relevant features.	the North East, Yorkshire and the Humber, Greater Manchester, West Midlands, and South Wales. The employers and local delivery partners will be recruited within these local authorities to minimise travel time for young people; they will not be expected to travel more than 30mins to attend their work placement.
When and how much: Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity, or dose.	Young people will be completing one week of preparation for employment, and then subsequently five weeks of placement work for five days per week. They will not be working more than 25h per week. The programme will take place during the school summer holidays (July - August 2025), with some flexibility in timelines for older participants who are not restricted by school timetables. The letter of recommendation and celebration event that follows the completion of the placement will take place in September 2025.
Tailoring: If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when and how.	**Preparation week** The pre-employment preparation curriculum will operate on a core-flex model, meaning local delivery partners will be told which elements of the training are compulsory, but youth workers will have flexibility to adapt the contents and delivery of the curriculum to each young person's needs. Young people will also likely have varying training to complete in this prep week depending on the industry they are completing their placement in, and whether their role requires any specific qualifications (such as food handling, health and safety, etc.). **Placement adaptations** Each young person's placement experience will likely differ based on the industry and employer they are allocated to. They will also be receiving differing amounts of support depending on their individual needs, past work experience, and demographic profile. Employers will have

	the flexibility to tailor their management and support to each young person based on their needs.

Appendix 3: Power calculations

1. **Offending –Incidence rate in control group in percentage points =30%**

```
#POWER CALCULATIONS FOR OFFENDING

#Individual level randomisation
#Binary outcome
#Power of 0.80
#Two tailed statistical test
#Significance level adjusted for 2 primary outcomes using Westfall-Young correction

#BASE SCENARIO

# Define values
n <- 1500 # per group
p1 <- 0.30 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p2 < p1, so OR should be < 1
 return((p1 / (1 - p1)) / (p2 / (1 - p2)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p1, p2) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")
```

```
 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate the reduction in offending (delta)
 delta <- p1 - p2

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p2, p1)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nReduction in offending (delta):", round(delta, 3),
   "\nTreatment group offending rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

#SCENARIO A - Assumed attrition of 10%

```
# Define values
n <- 1350 # per group
p1 <- 0.30 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p2 < p1, so OR should be < 1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p1, p2) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
```

```
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate the reduction in offending (delta)
 delta <- p1 - p2

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p2, p1)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nReduction in offending (delta):", round(delta, 3),
   "\nTreatment group offending rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

#SCENARIO B- Assumed attrition of 20%

```
# Define values
n <- 1200 # per group
p1 <- 0.30 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
```

```
calculate_or <- function(p1, p2) {
 # Odds ratio: p2 < p1, so OR should be < 1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p1, p2) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate the reduction in offending (delta)
 delta <- p1 - p2

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p2, p1)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nReduction in offending (delta):", round(delta, 3),
   "\nTreatment group offending rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

2. **Offending –Incidence rate in control group in percentage points =40%**

```
#POWER CALCULATIONS FOR OFFENDING
#Offending rate is assumed to be 40%
```

```
#Individual level randomisation
#Binary outcome
#Power of 0.80
#Two tailed statistical test
#Significance level adjusted for 2 primary outcomes using Westfall-Young correction

#BASE SCENARIO

# Define values
n <- 1500 # per group
p1 <- 0.40 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p2 < p1, so OR should be < 1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p1, p2) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate the reduction in offending (delta)
```

```
 delta <- p1 - p2

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p2, p1)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nReduction in offending (delta):", round(delta, 3),
   "\nTreatment group offending rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO A - Assumed attrition of 10%


# Define values
n <- 1350 # per group
p1 <- 0.40 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p2 < p1, so OR should be < 1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p1, p2) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
```

```
 cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
 next # Skip this iteration if p2 is invalid
}

# Assign p2 from the result
p2 <- result$p2 # This will be < p1 for detectable difference

# Calculate the reduction in offending (delta)
delta <- p1 - p2

# Calculate the odds ratio and Cohen's d
odds_ratio <- calculate_or(p2, p1)
cohens_d <- calculate_cohens_d(p1, p2)

# Display results
cat("\nAdjusted alpha:", alpha,
  "\nReduction in offending (delta):", round(delta, 3),
  "\nTreatment group offending rate (p2):", round(p2, 3),
  "\nOdds Ratio (OR):", round(odds_ratio, 3),
  "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO B- Assumed attrition of 20%


# Define values
n <- 1200 # per group
p1 <- 0.40 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p2 < p1, so OR should be < 1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p1, p2) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}
```

```
# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative = "two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate the reduction in offending (delta)
 delta <- p1 - p2

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p2, p1)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nReduction in offending (delta):", round(delta, 3),
   "\nTreatment group offending rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

3. Employment, Education and Training – Incidence rate in control group=50%

```
#POWER CALCULATIONS FOR EET

#Individual level randomisation
#Binary outcome
#Power of 0.80
#Two tailed statistical test
#Significance level adjusted for 2 primary outcomes using Westfall-Young correction

#BASE SCENARIO
```

```
# Define values
n <- 1350 # per group
p1 <- 0.50 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
```

```
  "\nTreatment group EET rate (p2):", round(p2, 3),
  "\nOdds Ratio (OR):", round(odds_ratio, 3),
  "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO A - Assumed attrition of 10%

# Define values
n <- 1215 # per group
p1 <- 0.50 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1
```

```
 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO A - Assumed attrition of 20%

# Define values
n <- 1080 # per group
p1 <- 0.50 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }
```

```
 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

4. Employment, Education and Training – Incidence rate in control group=65%

```
#POWER CALCULATIONS FOR EET

#Individual level randomisation
#Binary outcome
#Power of 0.80
#Two tailed statistical test
#Significance level adjusted for 2 primary outcomes using Westfall-Young correction

#BASE SCENARIO

# Define values
n <- 1350 # per group
p1 <- 0.65 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
```

```
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO A - Assumed attrition of 10%

# Define values
n <- 1215 # per group
p1 <- 0.65 # control group offending rate
power <- 0.80
```

```
# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

```
#SCENARIO A - Assumed attrition of 20%

# Define values
n <- 1080 # per group
p1 <- 0.65 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
```

```
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
```

5. Employment, Education and Training – Incidence rate in control group=75%

```
#POWER CALCULATIONS FOR EET

#Individual level randomisation
#Binary outcome
#Power of 0.80
#Two tailed statistical test
#Significance level adjusted for 2 primary outcomes using Westfall-Young correction

#BASE SCENARIO

# Define values
n <- 1350 # per group
p1 <- 0.75 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")
```

```
 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO A - Assumed attrition of 10%

# Define values
n <- 1215 # per group
p1 <- 0.75 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}
```

```
# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}

#SCENARIO A - Assumed attrition of 10%

# Define values
n <- 1215 # per group
p1 <- 0.75 # control group offending rate
power <- 0.80

# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
```

```
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
}
#SCENARIO A - Assumed attrition of 20%

# Define values
n <- 1080 # per group
p1 <- 0.75 # control group offending rate
power <- 0.80
```

```
# Adjusted alpha levels (Westfall-Young approximations)
adjusted_alphas <- c(0.03, 0.035)

# Function to calculate odds ratio (Corrected formula: p2 < p1)
calculate_or <- function(p1, p2) {
 # Odds ratio: p1 < p2, so OR should be >1
 return((p2 / (1 - p2)) / (p1 / (1 - p1)))
}

# Function to calculate Cohen's d from proportions
calculate_cohens_d <- function(p2, p1) {
 return((2 * (asin(sqrt(p1)) - asin(sqrt(p2)))) / sqrt(2))
}

# Run calculations assuming p2 < p1
for (alpha in adjusted_alphas) {
 # Perform power test
 result <- power.prop.test(n = n, p1 = p1, power = power, sig.level = alpha, alternative =
"two.sided")

 # Check if result$p2 is valid
 if (!is.finite(result$p2)) {
  cat("Error: p2 is not a valid number for alpha =", alpha, "\n")
  next # Skip this iteration if p2 is invalid
 }

 # Assign p2 from the result
 p2 <- result$p2 # This will be < p1 for detectable difference

 # Calculate (delta)
 delta <- p2 - p1

 # Calculate the odds ratio and Cohen's d
 odds_ratio <- calculate_or(p1, p2)
 cohens_d <- calculate_cohens_d(p1, p2)

 # Display results
 cat("\nAdjusted alpha:", alpha,
   "\nIncrease in EET (delta):", round(delta, 3),
   "\nTreatment group EET rate (p2):", round(p2, 3),
   "\nOdds Ratio (OR):", round(odds_ratio, 3),
   "\nCohen's d:", round(cohens_d, 3), "\n")
```

YOUTH ENDOWMENT FUND

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