

Evidence  
Development and  
Incubation Team

THE  
POLICY  
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# OnSide Youth Zones Impact Evaluation

## Final Report

Prepared by the Policy Institute at King's College London

Authors:

Domenica Avila-Luna

Dimitris Vallis

Parnika Purwar

February 2026



 **OnSide**  
Here for young people

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# Acknowledgements

We are grateful to the members of the Data Advisory Board for their ongoing guidance and advice throughout this evaluation. Their insights have strengthened both the evaluation strategy and the robustness of the findings. We would also like to thank colleagues at the Office for National Statistics who supported the analysis, and our colleagues at the Policy Institute — including Irene Soriano Redondo, Johnny Runge, Stephen Hunsaker, Michael Sanders, and Susannah Hume — for their valuable input and support in preparing this report.

We are especially grateful to the young people who participated in the focus groups, sharing their experiences and perspectives, and to the colleagues at OnSide for their ongoing support, access to information, and commitment to facilitating this evaluation.

This research was commissioned by OnSide Youth Zones and funded by The Burberry Foundation. Established as a charity by Burberry Group plc in 2008, The Burberry Foundation is dedicated to improving the lives of young people worldwide. Through its flagship programme, Burberry Inspire, the Foundation partners with a network of youth organisations to support young people to engage in creative activities, connect with their local communities, and develop new skills. Since 2023, OnSide Youth Zones has served as the lead partner for Burberry Inspire in the UK.

This work was undertaken in the Office for National Statistics Secure Research Service using data from ONS and other owners and does not imply the endorsement of the ONS or other data owners.

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# Executive summary

## Background

School absenteeism is a major challenge in England, strongly linked to lower attainment, weaker long-term employment prospects, and wider wellbeing risks, especially for disadvantaged young people (Klein, M.D., 2022). Since the pandemic, absence has risen, with severe absenteeism continuing to increase even as overall rates stabilise. This has prompted renewed efforts to tackle the structural and psychosocial barriers to attendance, from poverty to anxiety and loneliness.

In this context, extracurricular and out-of-school provision is increasingly seen as a promising way to support reengagement, yet its effectiveness remains under-evaluated. High-quality youth work can strengthen social connection, confidence, wellbeing and belonging, all associated with better attendance – but causal evidence is limited.

To address this gap, OnSide, a national youth charity, commissioned the Policy Institute at King's College London to conduct an independent evaluation of its network of Youth Zones. The study examines whether regular participation in Youth Zones leads to measurable improvements in educational outcomes, in particular school attendance.

OnSide Youth Zones are purpose-built, youth-led spaces located in disadvantaged communities, offering access to safe environments, trusted youth workers, enriching activities, and personal support. They aim to improve wellbeing, confidence, aspirations, and engagement in education by offering high-quality opportunities and support outside the school day.

## Methodology and approach

The evaluation used a quasi-experimental design, comparing young people aged 8-19 who regularly attended a Youth Zone with a matched group of non-participants. Changes in outcomes before and after joining a Youth Zone were assessed to estimate the causal impact of Youth Zone participation.

The evaluation focused primarily on the impact on school attendance, specifically unauthorised absences (instances where pupils miss school without permission). The study also examined impact on attainment, suspensions, exclusions, and post-16 destinations. The analysis draws on OnSide's monitoring data linked to administrative datasets. In terms of sample size, the matched sample used for the analysis of unauthorised absences (primary analysis) included 24,790 young people, with half (12,395) in the treatment group (who regularly attended a Youth Zone) and half in the comparator group, respectively.

The quasi-experimental design provides robust evidence of impact, supported by statistical tests confirming that the groups were well-matched, increasing confidence that the

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estimated effects reflect causal impacts. While not a randomised controlled trial – the gold standard for causal inference – the design nonetheless provides strong evidence on the impact of Youth Zone participation.

## Findings

Analysis of data from 2008-2024 shows that regular Youth Zone attendance reduces unauthorised absenteeism rates, on average, by 1.54 absences per year in sessions, or approximately 1 day, which corresponds to a small-sized effect (Cohen's  $d$  of 0.07). This represents a relative reduction of 17% compared to the number of unauthorised absences per year on the comparator group. This impact has strengthened in recent years as absenteeism has increased nationally. In 2024, regular Youth Zone attendance resulted in 3.84 fewer unauthorised absences (or approximately 2 days) corresponding to a small/moderate-effect size (Cohen's  $d$  of 0.17).

Effects vary across groups. Young people who attend more frequently benefit most, and those who join at age 11 or younger show clear improvements whereas attendance observed for groups that joined at an older age showed no clear improvement as a result of exposure to Youth Zones. Moreover, the highest statistically significant impact is concentrated among those who are identified as being severely absent, with severe absence defined as those missing more than half of school sessions in a year.

Although Youth Zones are not designed specifically to reduce school absence, participation is associated with a meaningful improvement in attendance, with effect sizes comparable to — and in some cases exceeding — those seen in targeted attendance interventions.

Furthermore, evidence on extracurricular provision is limited, and attendance programmes often show mixed or modest impacts, so these findings highlight the importance of Youth Zones in supporting young people's school engagement, particularly for more vulnerable groups.

No statistically significant impacts were found on other educational outcomes, including suspensions, exclusions, and attainment. In the case of attainment in particular, it was not possible to design an analysis capable of producing causal evidence; the findings should therefore be interpreted as indicative rather than conclusive. Limited data prevented robust analysis of post-16 destinations, and the analysis of attainment was also somewhat limited due to variations in assessment methodologies limiting confirmation of parallel trends. Given the strong evidence in the literature linking absenteeism with other educational and long-term outcomes (Keppens, G., 2023), it remains possible that these effects exist but could not be detected by this study. This may be due to data limitations or to features of the evaluation design, which may not have captured impacts that unfold over a different timeframe.

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A small number of focus groups with young people highlighted the value of Youth Zones as supportive, social spaces offering trusted relationships and varied activities. Participants reported improvements in confidence, communication, wellbeing and aspirations.

## Recommendations and next steps

The evaluation provides compelling evidence that youth clubs, such as Youth Zones, can be an effective policy intervention for reducing school absence, particularly among those who are severely absent. However, this impact depends on sustained and early engagement, ideally before age 11.

Based on these findings, the report recommends recognising extracurricular youth clubs as an important component of policy responses to school disengagement, with a particular focus on targeted outreach to the most deprived and severely absent young people, especially at earlier ages, for whom Youth Zones appear most effective. Further research, including access to LEO data, would strengthen understanding of longer-term outcomes such as post-education destinations and wider life trajectories. Additional work should also examine how Youth Zones can be most effective during key transition years, when absenteeism is highest, and in-depth qualitative studies are recommended to understand the mechanisms behind their impact, particularly given that reducing absenteeism is not an explicit outcome in OnSide Youth Zones' Theory of Change. Together, these findings highlight the strong potential of youth clubs to complement existing education policy and support sustained re-engagement among young people most at risk.

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# Chapter 1: Introduction

This report presents the results of an independent evaluation of the OnSide Network of Youth Zones, completed by the Policy Institute at King's College London. Youth Zones are dedicated centres located in disadvantaged areas across England. They provide young people with safe spaces where they can access support, take part in a range of activities, and develop new skills. This evaluation focuses on whether and how Youth Zones influence young people's educational outcomes and their destinations after leaving education.

This introductory chapter will first present readers with the context and background of the study, in particular related to the primary outcome of absenteeism, which is explored in this report. It then provides some information about the evaluation as well as its aims and research questions.

## 1.1. Background and context

### 1.1.1. Absenteeism among young people in England

One of the key educational outcomes explored in this evaluation is absenteeism – a term referring to when a student is frequently absent from school. Absenteeism continues to be a key challenge for the school system in England (Hunt, 2025). The consequences can be substantial. At primary level, pupils with high attendance in Year 6 (95–100%) have 30% higher chance of reaching the expected standard in reading, writing and maths compared to similar pupils attending 90–95% of the time, and the link is even stronger for pupils in secondary school (Department for Education, 2025). Beyond academic attainment, absenteeism is associated with poorer longer-term outcomes, including weakened productivity and labour market prospects (Dräger et al., 2024). These risks are disproportionately prevalent in disadvantaged communities (Sosu, E. M., 2021), compounding existing inequalities.

In the UK, absence levels have increased sharply since the pandemic, with reported levels doubling during this period (Gibbons et al., 2024). While absenteeism among primary school pupils is projected to return to pre-pandemic levels, research suggests that high levels of absence among secondary school pupils are likely to persist (Gibbons et al., 2024). In response, the government and schools have intensified efforts to re-engage young people in education (Department for Education, 2025).

Recent national data show signs of some improvement in overall and 'persistent' absenteeism in England, though they are still at high levels, but 'severe' absenteeism continues to rise (Department for Education, 2025):

- Overall absenteeism: decreased to 6.6% in 2024-25.
- Persistent absenteeism (defined as missing 10% or more of school sessions): decreased to 17.7%.

- 
- Severe absenteeism (defined as missing 50% or more of school sessions) has increased from 2.14% to 2.26%.
  - The increase in severe absenteeism has consistently continued following the same pre-pandemic upward trajectory and is shared across all school types (Education Policy Institute, 2025).

Overall, continued effort is needed to ensure that all children and young people can fully benefit from the education system.

## 1.1.2. Types and causes of absenteeism people

Young people may miss school for a range of reasons, which are typically classified as:

- ‘Authorised absences’ – for example, illness or medical appointments.
- ‘Unauthorised absences’ – when students miss school without the school’s permission.

For this evaluation, school attendance is measured through the number of unauthorised absences in a year. While both authorised and unauthorised absences can have long-term impacts on education and labour market outcomes (Liu et al., 2021), unauthorised absences are the focus here because they are the type most likely to be impacted by OnSide’s provision. This approach was also recommended by the Data Governance Board (see more about the Data Governance Board later).

Unauthorised absences are more strongly correlated with educational disengagement, academic underperformance, and longer-term risks such as unemployment (Dräger et al., 2024; Klein et al., 2024). They often reflect broader challenges related to motivation, parental support, and other barriers to sustained engagement with education. These absences are particularly prevalent among disadvantaged students (Department for Education, 2024). As such, OnSide’s work focuses on young people from disadvantaged communities in England, with a particular focus on enhancing their sense of belonging and aspiration.

More generally, school attendance is influenced by both structural and psychosocial factors, including socioeconomic conditions:

- Structural factors refer to the environment a young person develops in and the resources they have access to. Socioeconomic barriers – such as low family income, limited access to learning resources, and weaker community networks – are associated with lower attendance and poorer educational outcomes (Broer et al., 2019; Crenna-Jennings, 2018). Children from disadvantaged backgrounds often face additional and overlapping barriers such as reduced parental support, lower-quality schooling, and a sense of limited control over their future, which further affects engagement with education (Office of National Statistics, 2023).

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- Psychosocial factors, particularly those related to mental health and wellbeing, also play a significant role. Anxiety, panic, and loneliness can hinder school attendance, disproportionately affecting children from lower-income backgrounds (Office of National Statistics, 2018). Loneliness, in particular, has been linked to poorer physical health, weaker sense of belonging, and reduced attention and engagement – all of which undermine academic attainment and future prospects (Rokach & Goldberg, 2021; Jefferson et al., 2023).

Effective policy responses must tackle both structural and psychosocial causes.

### 1.1.3. Role of extracurricular activities to improve attendance

Extracurricular activities offer a promising avenue for supporting attendance, particularly within disadvantaged communities. Such activities can enhance social connections, reduce loneliness, support wellbeing, and build skills that underpin academic success and future opportunities. There is a growing body of research that suggests that participation in out-of-school activities is positively associated with success among students from disadvantaged backgrounds (King et al., 2021), in part because these settings help develop key life skills such as non-cognitive skills like self-efficacy, confidence, communication and collaboration (Murray & Cousens, 2020). These skills are known to play a key role in long-term educational attainment and progression (Heckman & Rubinstein, 2001; Schoon et al., 2021). Reducing inequalities in access to high-quality extracurricular activities therefore represent a potentially powerful intervention for improving educational outcomes (O'Donnell et al., 2023).

Youth clubs offer one way to provide structured extracurricular activities within targeted communities, yet their effectiveness in improving educational engagement remains underexplored. Existing evidence on out-of-school interventions tends to be correlational and therefore lacks robustness (Education Endowment Foundation, 2021). Findings on the impact of extracurricular activities can be contradictory and might reflect the underlying socioeconomic differences between participants (Carbonaro & Maloney, 2019; Hunt, 2005). Notwithstanding this, a study, published in 2024, examined the causal impact of youth clubs in London, showing that closures of youth clubs due to austerity had negative impacts on involvement in criminal activities and educational outcomes (Villa, 2024). However, to the best of our knowledge, there is not much causal evidence of youth clubs in the UK context, especially surrounding impacts on absenteeism.

## 1.2. The evaluation

Given the growing recognition of the potential benefits of after-school activities, the UK government has launched a national youth strategy that supports a variety of commitments to young people and youth services, investing large sums to support youth work (Department for Culture, Media & Sport, 2025). Youth clubs are receiving particular attention, yet the number of studies dedicated to identifying the causal impact of youth

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clubs on education outcomes remains low. To address this evidence gap, OnSide commissioned the Policy Institute at King's College London to conduct an independent evaluation of its own Youth Zone provision.

Prior to this evaluation, OnSide has monitored its impact on their members. In 2020, OnSide developed a systematic evaluation framework to track social-emotional skills such as confidence, self-esteem, resilience, mental and physical health, and life skills (OnSide-Impact, 2024-25). This evaluation framework has facilitated the examination of the progress of young people who were engaging with the Youth Zones and informed delivery through sharing best practices across the Network of Youth Zones. Through internal and external assessments at no fewer than 6-month intervals, for 2024/2025, OnSide found young people improved or maintained outcomes: self-confidence (76%); aspiration and achievement (83%); physical/mental health (77%); and social skills and relationships (77%).

This study focuses on providing a more robust, causal estimate of the impact of Youth Zone participation on educational outcomes. It focuses on young people who regularly attended an OnSide Youth Zone between 2012 and 2024, and explores their outcomes using OnSide's routinely collected monitoring data, alongside administrative records from the Department for Education (DfE), including the National Pupil Database (NPD), the Individualised Learner Record (IRL), and data from the Higher Education Statistics Agency (HESA). This is the first youth sector research utilising all of NPD, IRL and HESA data in order to assess the impact of youth work.

The evaluation employed a quasi-experimental design (QED). The approach compares changes in young people's outcomes before and after they joined a Youth Zone with those of a matched comparator group, representing the trajectory expected for participants had the Youth Zones not existed. Chapter 3 provides more detailed information about the methodological approach.

Overall, we believe our evaluation approach provides a strong basis for assessing the impact of extracurricular clubs on educational outcomes. We hope this evaluation informs and enhances future delivery modes and contributes valuable evidence to the wider sector and policymakers, including by informing effective approaches to supporting young people in England.

## 1.3. Evaluation questions

The study aims to answer the following research questions:

- What is the overall effect of Youth Zones on educational outcomes?
- What is the Youth Zone-specific effect on educational outcomes, and how much does this vary across Youth Zones?
- How are relevant individual characteristics related to the effectiveness of Youth Zones?

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- What are the main factors involved in determining the effectiveness of the Youth Zones?

## 1.4. The Data Advisory Board

A Data Advisory Board was established to provide a strategic steer to the evaluation team throughout the evaluation, and to offer critical commentary and advice at key milestones, including on evaluation design, preliminary findings, and final reporting. The Board brought together a diverse range of expertise, combining academic technical knowledge with practical experience from youth workers and practitioners across relevant sectors, ensuring that the evaluation was both methodologically robust and grounded in real-world insight.

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# Chapter 2: OnSide Youth Zones

## 2.1. What are OnSide Youth Zones?

The OnSide Network of Youth Zones is a collaboration of 18 independent local charities (a further 5 are in development at the time of writing of this report) committed to providing exceptional, life-changing youth work that has a genuine long-term impact on the lives of young people. OnSide funds, builds, launches and supports the Network of Youth Zones in England's most disadvantaged areas. Youth Zones are a result of a four-way partnership: young people, their communities, local authorities, and the private sector, including business and philanthropists, who together fund and build each Youth Zone.

OnSide Youth Zones provide a safe and welcoming environment where young people have opportunities to engage in activities of their choice. Youth Zones combine universal and targeted youth work, allowing young people to tailor their experiences based on their preferences and needs. Youth Zones aim to celebrate young people's achievements and provide developmental opportunities.

The OnSide Network works towards five goals:

- Goal 1: Give young people a safe, exciting place to go for fun, to build their social networks, and support their personal development.
- Goal 2: Help young people to lead healthier, happier lives.
- Goal 3: Enable young people to better face the challenges of life.
- Goal 4: Support young people to raise their aspirations and fulfil their potential.
- Goal 5: Strengthen communities by supporting young people to be empowered, active, responsible citizens.

Being a member of a Youth Zone gives you access to a range of facilities, such as:

- Sports facilities, including indoor and outdoor sports courts, climbing walls, and fitness suite.
- Creative spaces such as art rooms, music studios, and media suites.
- Social spaces like cafés, chill-out areas, and gaming zones.
- Learning areas with dedicated rooms for homework support and workshops.

Additionally, young people can access the following programmes and services:

- Skill development, such as cooking, coding, personal development, communication and conflict resolution, among others.
- Targeted support, where youth workers support young people to address issues related to employment, education, and mental health. This is delivered within the premises of the Youth Zone and also through detached youth work, where youth workers meet a young person outside of the Youth Zone.

- Mentorship opportunities, in groups or one to one to work on wellbeing, resilience, sense of belonging, amongst other issues.
- Employability programmes, career events and support with volunteering activities and training.

To access a Youth Zone, young people pay a fee of £5 annual membership and 50 pence entry fee, through which OnSide aims to motivate a sense of ownership and agency among young people. There is not a minimum mandatory attendance to the Youth Zone, with some young people attending sporadically, while others attend on a more regular basis.

OnSide’s Theory of Change can be found in the Theory of Change section in the Technical Appendix. It provides a structured explanation of how and why the Youth Zones are expected to lead to its intended outcomes.

## 2.2. Youth Zones included in the evaluation

OnSide Youth Zones are spread across England and have opened on a rolling basis since 2011. Table 1 presents the Youth Zones in operation that have been included in the analysis.

**Table 1: Youth Zones in scope for the analysis**

Youth Zone	Location	Opening Date
Carlisle Youth Zone	Carlisle	01/04/2011
Manchester Youth Zone	Manchester North	06/02/2012
Mahdlo Youth Zone	Oldham	19/03/2012
Blackburn and Darwen Youth Zone	Blackburn and Darwen	01/06/2012
Wigan Youth Zone	Wigan	08/06/2013
The Way Youth Zone	Wolverhampton	16/01/2016
The Hive Youth Zone	Wirral	08/04/2017
Inspire Youth Zone	Chorley	05/05/2018
Future Youth Zone	Barking and Dagenham	18/05/2019
Unitas Youth Zone	Barnet	23/06/2019
Legacy Youth Zone	Croydon	07/09/2019
HideOut Youth Zone	Manchester East	26/09/2020
Warrington Youth Zone	Warrington	02/07/2022
WEST Youth Zone	Hammersmith and Fulham	21/04/2024

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# Chapter 3: Methodology

This chapter provided details about our methodological approach, including target population, evaluation design, and outcomes and data used. The evaluation design was pre-registered on the Open Science Framework (OSF)<sup>1</sup>, which strengthens the transparency and methodological rigour and increases confidence in the robustness of our conclusions.

## 3.1. Target population

The evaluation focused on young people identified by OnSide as meaningfully engaged members. This designation referred to individuals who regularly attended a Youth Zone, defined as attending at least one session per month for six consecutive months. Participants ranged in age between 8 and 19. Some Youth Zones may include children younger than 8 and provision can be extended up to the age of 25 for those with special needs or disabilities, but those groups are not included in the analysis.

## 3.2. Methodology design

### 3.2.1. Quasi-experimental design

The core goal of the research design was to establish a highly credible basis for assessing impact. We meticulously constructed a comparison group that accurately reflects what would have happened without the intervention to ensure findings truly isolate and measure the causal effect of attending a Youth Zone. Each step of the process is described below and presented in Figure 1.

#### Step 1: Matching Local Authorities (The Big Picture)

We started by identifying the most similar local authorities across the country. Local authorities with a Youth Zone were matched with non-Youth Zone ones that were as similar as possible on various demographics. These included socioeconomic characteristics, percentage of young people in Education, Employment and Training (EET), deprivation levels, population density, rural/urban classification and percentage of young people with registers in the criminal justice system. This step ensured we were only comparing like-for-like areas on characteristics that could be correlated with the outcome of interest or the likelihood of having access to a Youth Zone. These formed our initial pool of potential comparators.

#### Step 2: Matching Individuals (The Close-Up)

From this pool of young people from similar local authorities, we conducted a second matching. We selected individual young people in the non-Youth Zone local authorities who

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<sup>1</sup> Registration can be found here: <https://doi.org/10.17605/OSF.IO/Z9DUP>

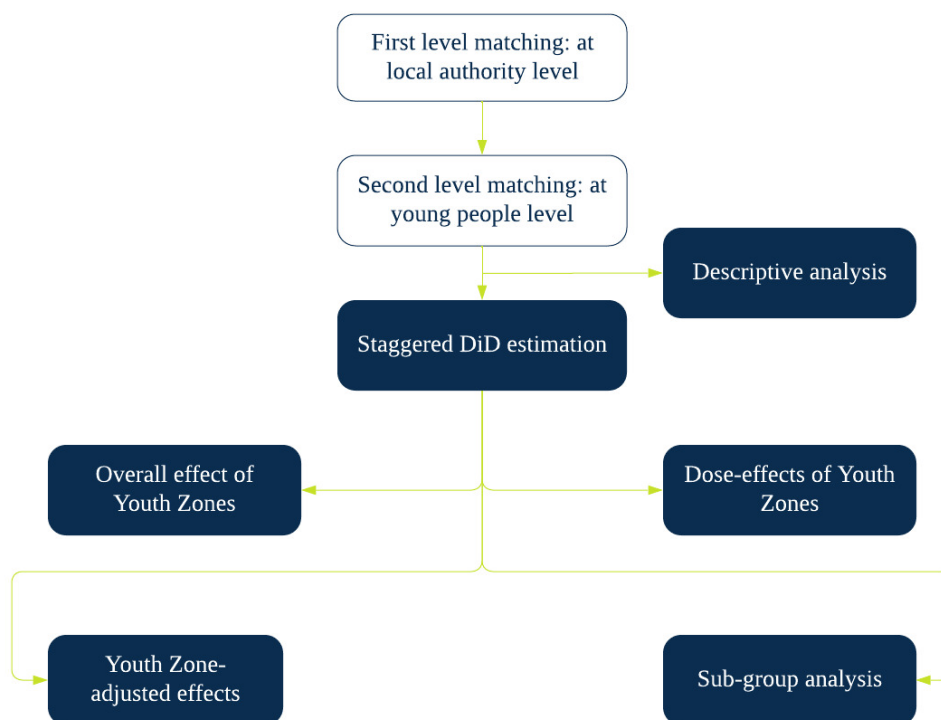
were, on average, most similar to those who actually attended a Youth Zone with respect to matching variables such as age, ethnicity, gender, having English as an additional language and the share of students on Free School Meals (FSM) at school level. This created a final, tailored comparison group that closely mirrored the treated group.

### Step 3: Measuring the Effect

Using the matched sample, we employed a quasi-experimental approach called Staggered Difference-in-Differences (DiD), combined with two-way fixed effects. Through this method, we ensured Parallel Trends across the treatment and comparator groups, which allowed us to isolate the change in outcomes that was directly attributable to attending a Youth Zone. Beyond the overall effect, our analysis also explored variation in impact across subgroups, such as by local area, age when joining, level of absence, level of deprivation, and frequency of attendance.

For further details, please see the Methodology Section in the Technical Appendix.

**Figure 1: Methodological approach**



### 3.2.2. Focus groups

To contextualise the quantitative findings, we also conducted three focus groups. These aimed to provide in-depth examples of young people’s experiences and allowed the research team to understand how the services provided by the Youth Zones link to the outcomes of interest. We explored participants’ perceptions of skills development, progress, and attitudes towards education. We put particular focus on experiences around motivation and absenteeism to frame the primary outcome of this evaluation.

Focus groups each comprised six to eight participants. Two of them took place in Youth Zones with regular participants, and one was conducted with OnSide’s Youth Advisory Board. Recruitment was supported by OnSide, focusing on young people who regularly attended a Youth Zone, to gather insights from participants who have engaged in various activities or have actively engaged over a sustained period of time.

### 3.3. Outcomes and Data

Table 2 summarises the relevant outcomes explored in the evaluation, as agreed with OnSide at the onset, and the sources of information and data. The primary outcome was attendance, and the secondary outcomes were attainment (pre-16 and post-16), suspensions, exclusions, and destination of the learner after leaving education. Administrative data was accessed through the NPD, the ILR, and HESA records.

**Table 2: Outcome measures**

Outcome	Description	
Primary outcome	Variable	Attendance
	Measure(s) (instrument, scale)	Unauthorised absences across 6 half terms, as recorded in the NPD
Secondary outcome	Variable	Attainment (Pre-16)
	Measure(s) (instrument, scale)	KS2 and GCSE (KS4) as recorded in the NPD.
Secondary outcome	Variable	Suspensions
	Measure(s) (instrument, scale)	Fixed exclusion from a school during the year, based on NPD records, as binary variable and as number of suspended sessions
Secondary outcome	Variable	Exclusions
	Measure(s) (instrument, scale)	Binary variable that equals 1 if a young person has been permanently excluded from a school during the year, based on NPD records.
Secondary outcome	Variable	Post-16 Outcomes: Attainment
	Measure(s) (instrument, scale)	Attainment measure through A levels, as recorded in the NPD.
Secondary outcome	Variable	Post-16 Outcomes: Destination of the learner after completion of learning
	Measure(s) (instrument, scale)	Categorical variable measured through the combination of the Employment variable from the ILR, and Education information from HESA.

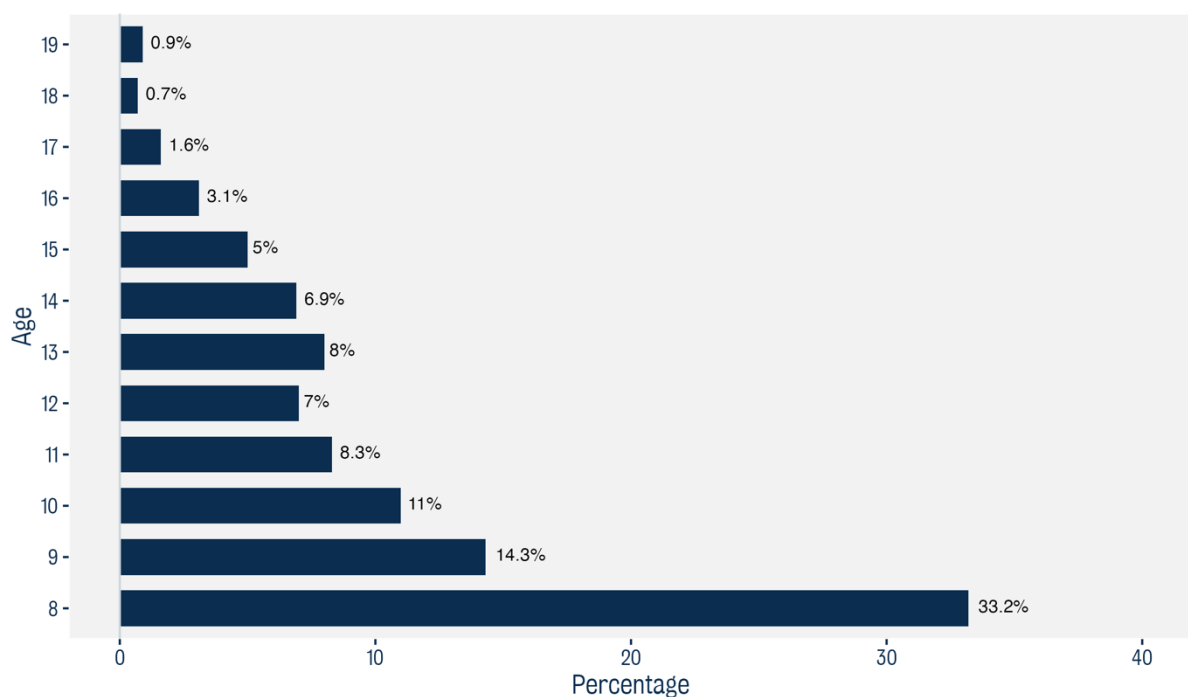
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# Chapter 4: Who regularly attends Youth Zones?

Before outlining the impact results in Chapter 5 onwards, this chapter provides an overview of the demographic profile of young people who regularly attend a Youth Zone.

Figure 2 presents the age distribution when joining a Youth Zone. Most young people join Youth Zones during their pre-teen years, with 60% of people in the sample having joined between the ages of 8 and 10, and only 3.2% having joined between the ages of 17 and 19.

**Figure 2: Age distribution of young people who attend Youth Zones, age when joining**



Source: OnSide monitoring records  
Number of observations: 19653

Figure 3 shows the gender composition. Nearly 58% identify as male and 42% as female.

**Figure 3: Gender distribution of young people who attend Youth Zones**

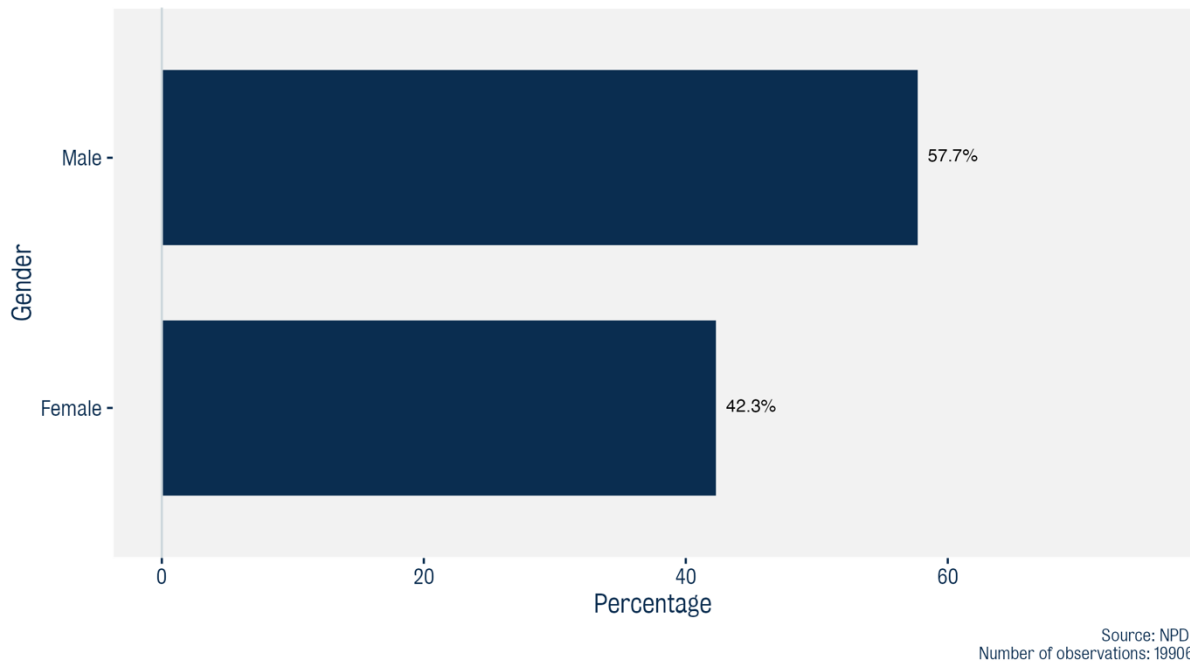
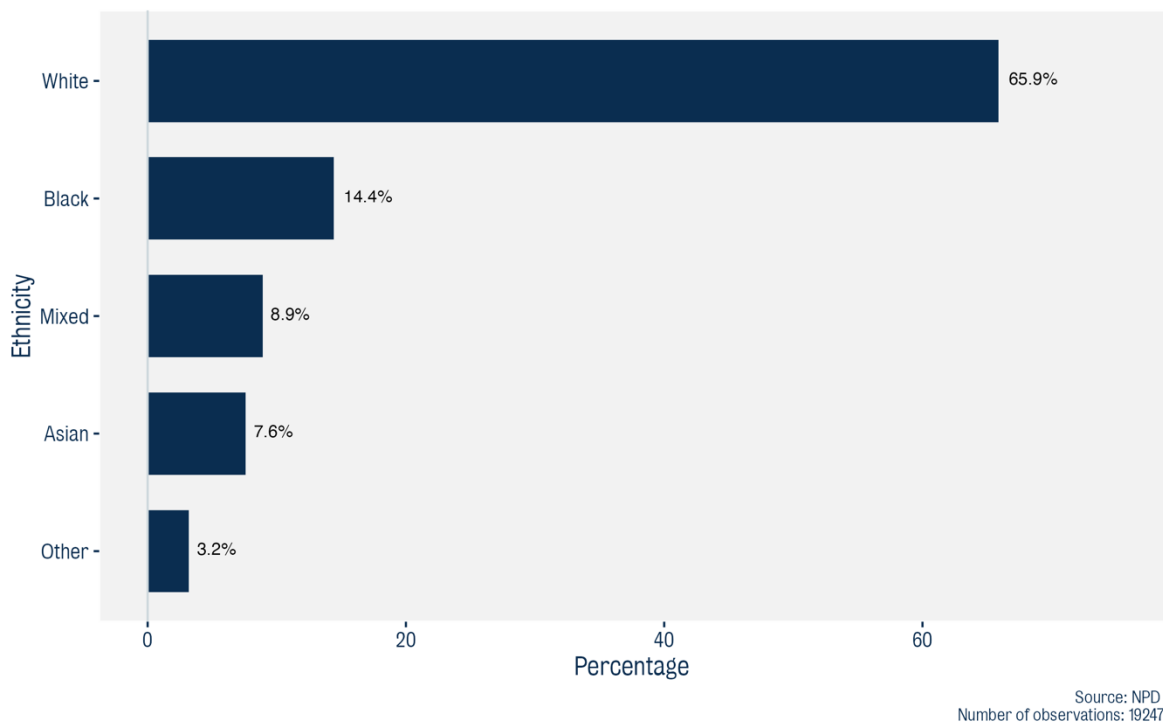


Figure 4 shows the ethnicity distribution. 66% of attendees identify as White, 14% as Black, 9% as mixed ethnicity, and nearly 8% as Asian. Compared to 2021 census data for England and Wales, young people from Black and mixed ethnic groups are overrepresented among Youth Zones’ attendees. This pattern may reflect, in part, the fact that Youth Zones are typically located in more disadvantaged areas, which often have more ethnically diverse populations.

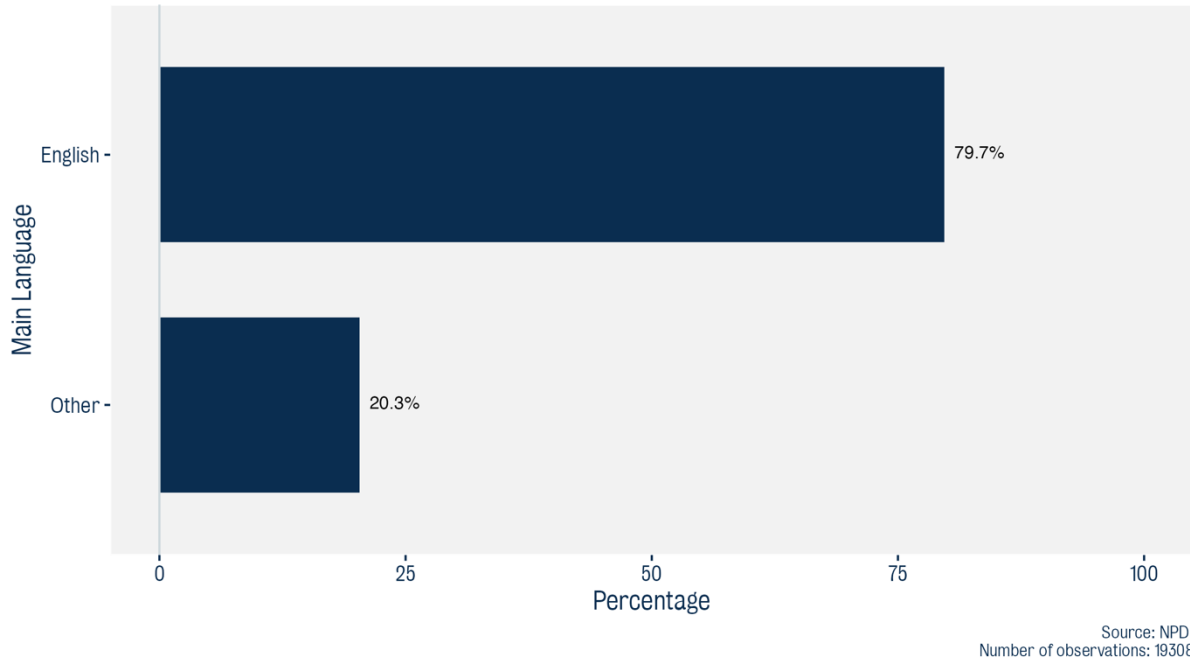
**Figure 4: Ethnicity distribution of young people who attend Youth Zones**



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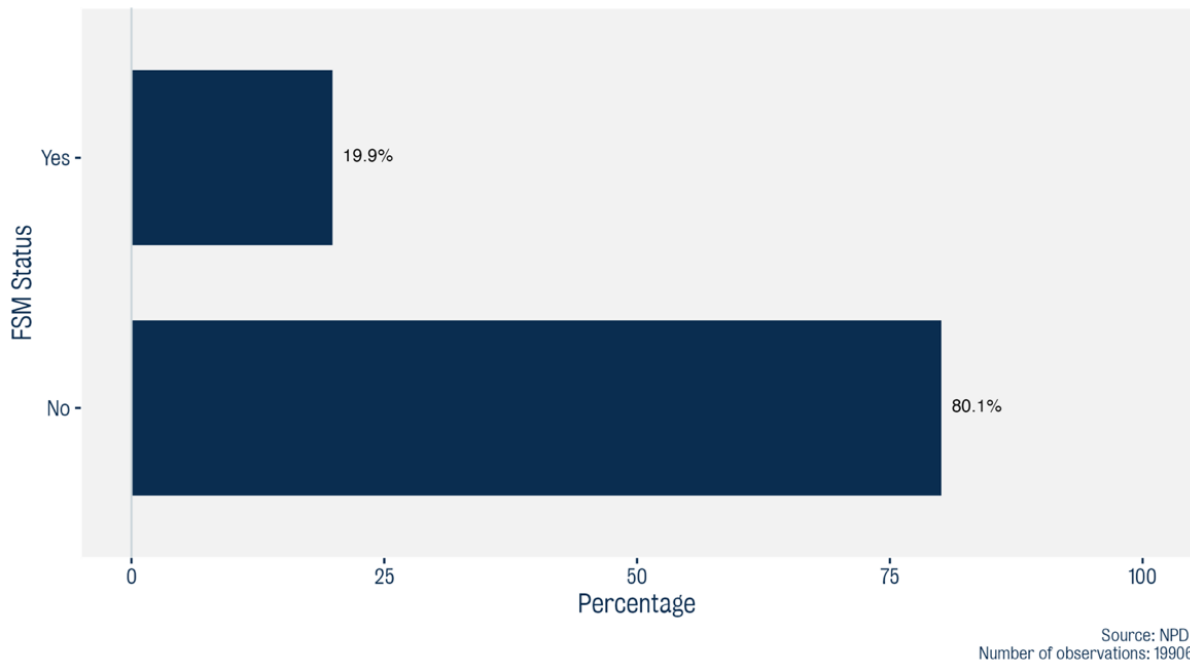
Figure 5 shows that most of the young people who regularly attend Youth Zones speak English as their primary language (80%), compared to around 20% of young people whose main language is not English.

**Figure 5: Percentage by main language of young people who attend Youth Zones**



To explore sociodemographic status, we considered both FSM and the Index of Multiple Deprivation of the young person's postcode. 20% of regular attendees receive FSM as reported in the school census data, which is presented in Figure 6. This is 6 percentage points lower than the average of 25.7% of pupils eligible for FSM across England (DfE, 2025b). It is important to note that, according to internal data from OnSide's most recent Annual Impact Report, 47% of the young people served by OnSide are eligible for FSM (OnSide Youth Zones, 2026). As this evaluation focused exclusively on young people who regularly attend the youth zone, the difference suggests that the two groups differ in their composition.

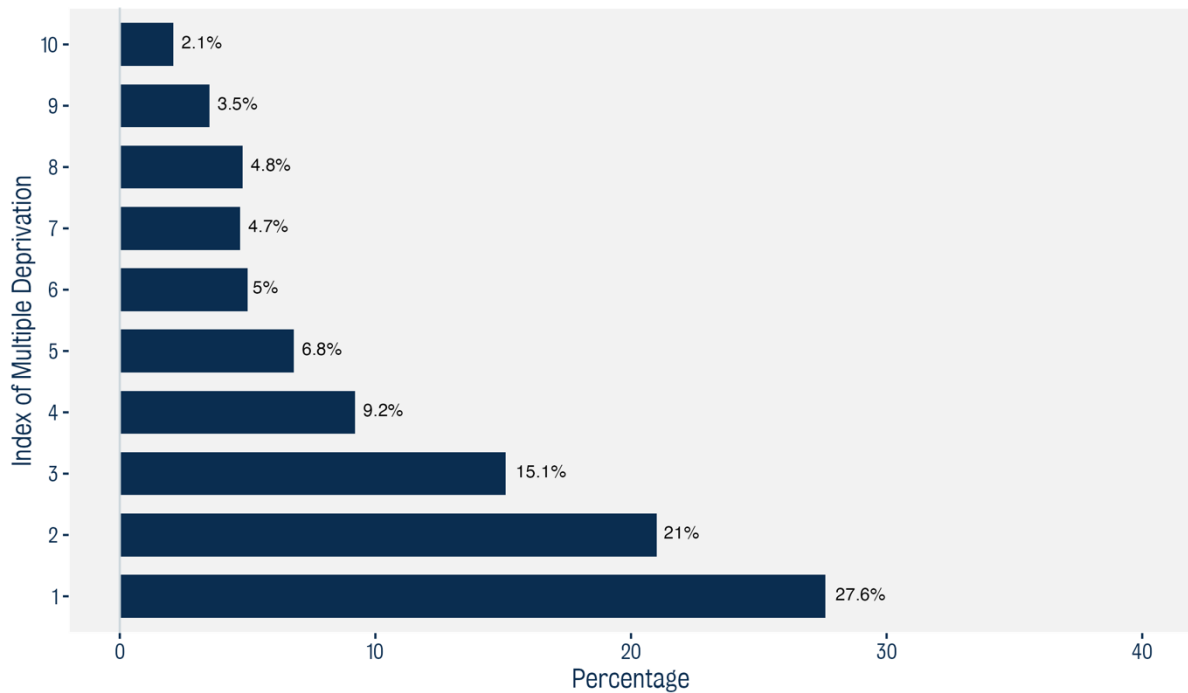
**Figure 6: Free School Meal status distribution of young people who attend Youth Zones**



The Index of Multiple Deprivation is a combination of seven measures of deprivation, including income, employment, education, health, crime, barriers to housing and services, and living environment. The index is grouped by decile, with 1 indicating young people living in the most deprived areas and 10 those living in the least deprived areas.

As seen in Figure 7, 28% of the regular attendees are living in some of the most deprived areas of England, with 75% of the entire sample living in the bottom 50% of deprived areas. This is consistent with OnSide’s strong focus on serving disadvantaged communities.

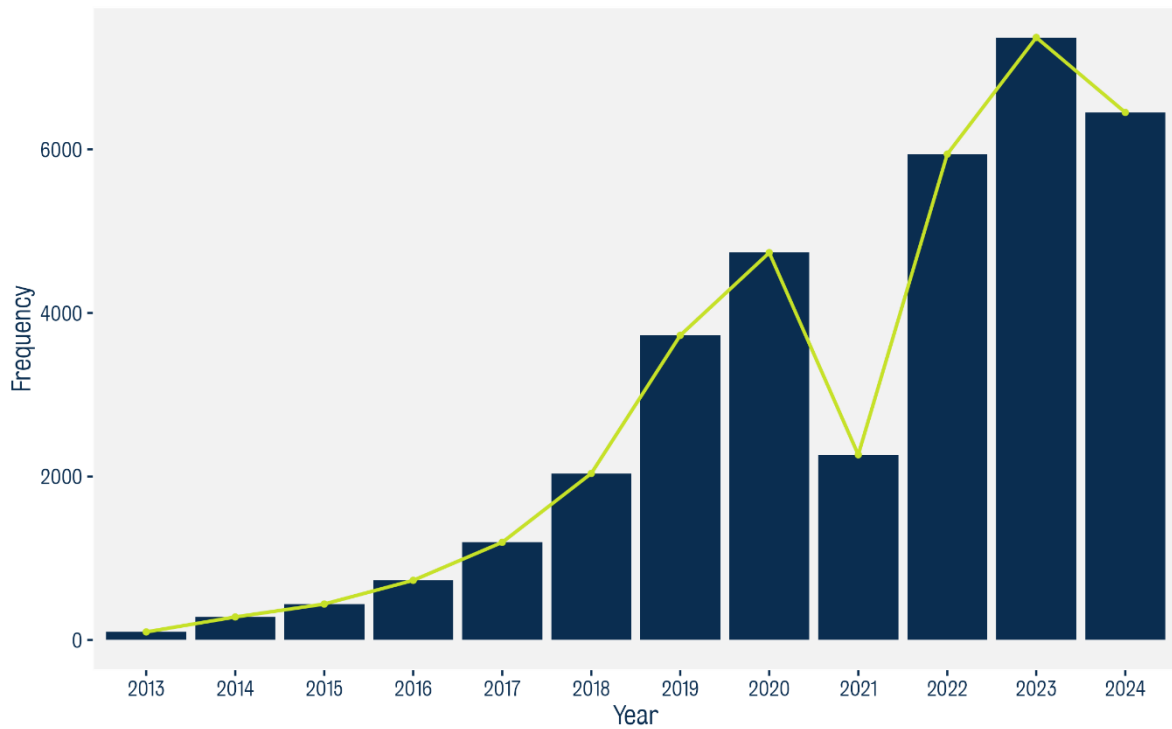
**Figure 7: Index of Multiple Deprivation distribution of young people who attend Youth Zones**



Source: OnSide monitoring records  
Number of observations: 19666

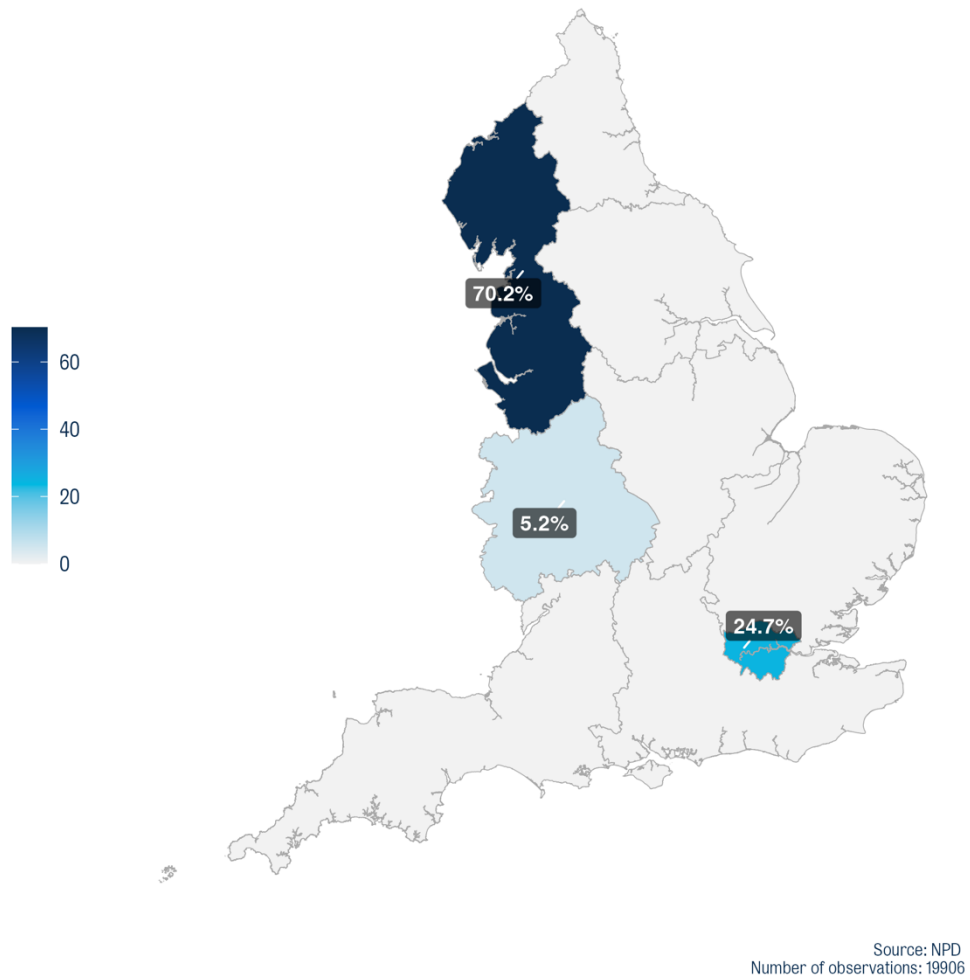
Active engagement, which refers to young people who regularly attend a Youth Zone, has grown significantly over the past decade as the number of Youth Zones has consistently grown. Between 2013 and 2023, engagement in Youth Zones increased 74-fold, growing each year except in 2021 due to the pandemic. While 2024 saw a decline from the previous year, engagement levels remained higher than in all the years prior to 2023, with nearly 6,500 young people actively engaged in the Youth Zones, from those in scope of the evaluation. Figure 8 shows the distribution across time.

**Figure 8: Annual number of young people regularly attending a Youth Zone**



Thirty-nine local authorities participated in the evaluation, of which 13 had Youth Zones and the remaining 26 did not, thereby creating a comparison group. The sample was divided by local authority, but to visualise the grouping more clearly, the sample is shown in Figure 9 by region. The regional distribution of the sample is largely concentrated in the North West, accounting for 70% of the sample of young people, followed by London with nearly 25% and the West Midlands at 5%.

**Figure 9: Regional distribution of the sample of young people who attend Youth Zones**



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# Chapter 5: Findings – impact on unauthorised absence

This chapter describes the impacts on the primary outcome measure, unauthorised absenteeism. First, it outlines the overall impact across all years studied, and then year-by-year impacts. Then, it explores the impacts across different Youth Zones, by young people who attend a different number of sessions, and across different subgroups of young people. Finally, it provides some reflections on the findings, in particular an analysis to show that the parallel trends assumption likely holds, which means the findings can be considered causal, as well as a discussion about the effect sizes identified and how they compare to similar interventions.

For context, the matched sample over which the analysis behind these results was conducted includes 24,790 young people, with half (12,395) in the treatment group (who regularly attended a Youth Zone) and half in the comparator groups, respectively.

## 5.1. Impact on unauthorised absence

### 5.1.1. Overall impact and year-by-year impact

Based on the data between 2008 and 2024, our analysis indicates that regular engagement with a Youth Zone caused a reduction in unauthorised absences. On average, young people in the comparator group reported approximately 5 days missed from school due to unauthorised absences (9.33 sessions) from a total of 165 days per year (approximately 331 sessions), based on data between 2008 and 2024<sup>2</sup>. This corresponds to an unauthorised absence rate of 2.8%. In comparison, young people who attended a Youth Zone at least once per month for six consecutive months missed approximately one fewer day of school per year due to unauthorised absence (a reduction of 1.54 sessions). This corresponds to an estimated unauthorised absence rate of 2.3% — a reduction of 0.5 percentage points associated with participation in the Youth Zone relative to the comparator group. This corresponds to a small-sized but statistically significant effect (Cohen's  $d^3=0.07$ ). While this may appear modest, this reduction of 0.5 percentage points represents a 17% relative reduction compared to the comparators group's baseline incidence rate indicating a relevant improvement in school attendance for young people who regularly attend Youth Zones. Figure 10 presents the overall effect.

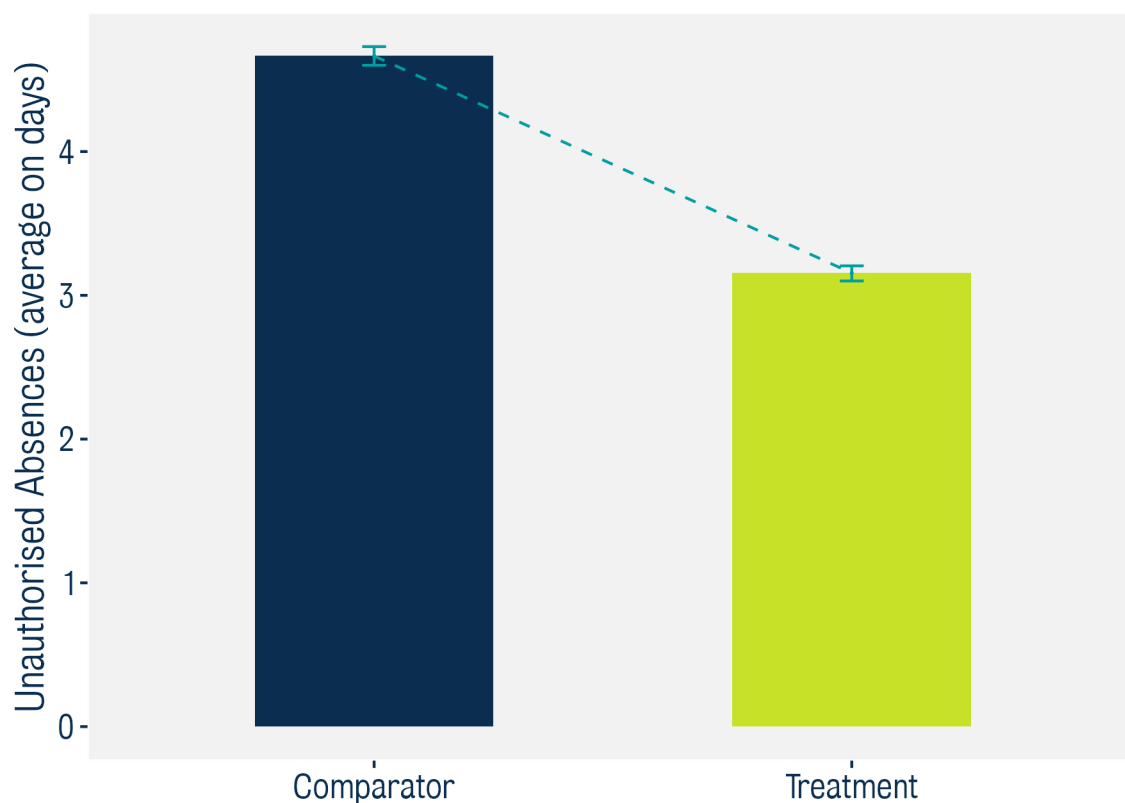
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<sup>2</sup> Records from 2020 are excluded as the data is not available in the NPD.

<sup>3</sup> Cohen's  $d$  is a standard way to measure the size of an effect. It expresses the difference between two groups (for example, treated vs. comparator) relative to the variation in the outcome. A small Cohen's  $d$  (around 0.2) means the effect is small compared with typical differences between individuals, a medium effect (around 0.5) is moderate, and a large effect (0.8 or higher) is considered substantial. Even a small Cohen's  $d$  can be meaningful in practice, especially when the outcome affects many people or has important policy implications.

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**Figure 10: Average Treatment Effect on unauthorised absenteeism**



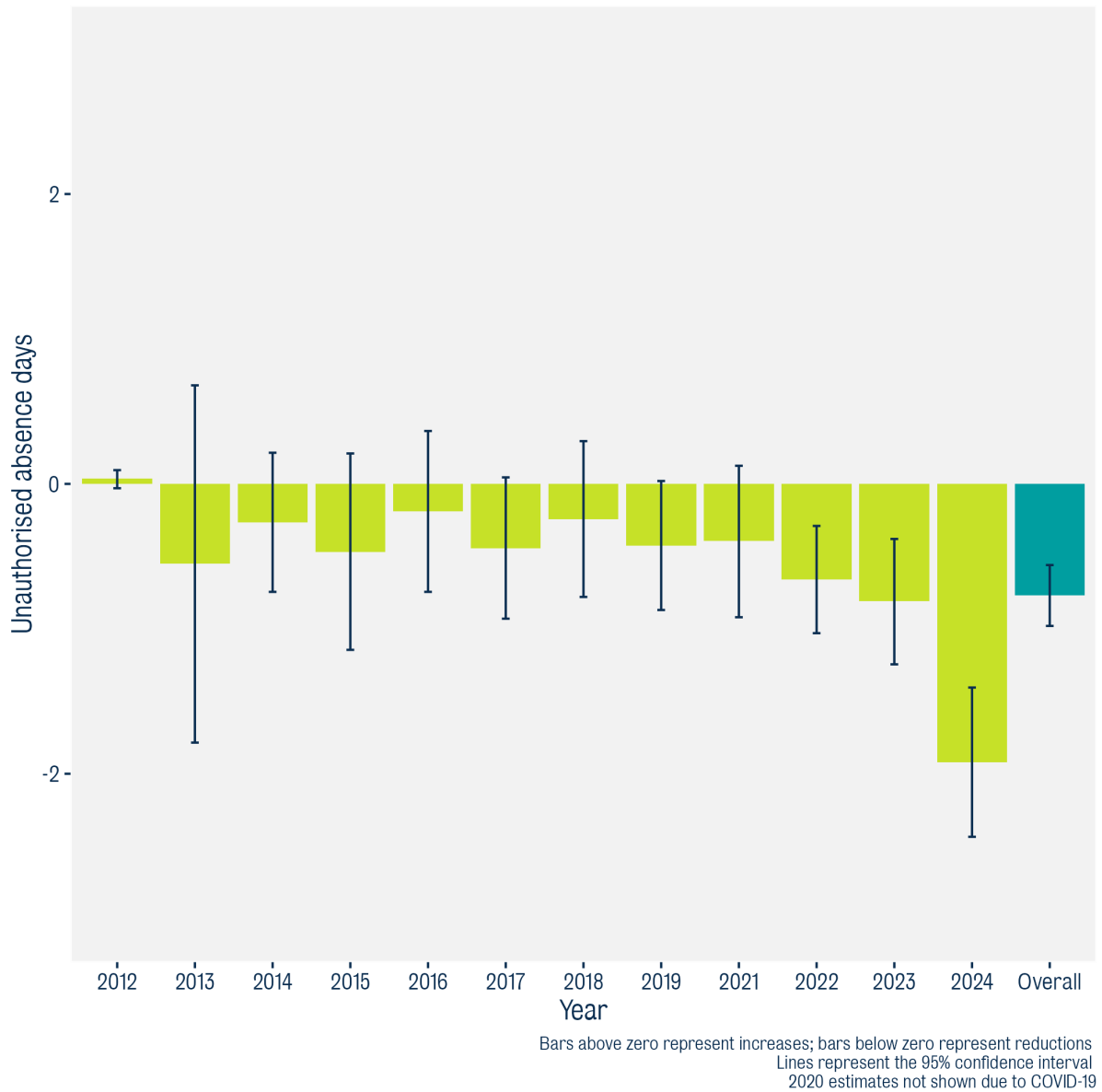
Bars represent the 95% confidence interval  
Average estimated for the period 2012-2024

Absenteeism rates have risen in recent years. Leveraging OnSide’s longitudinal records and a large sample size, we examined how the effect of regularly attending a Youth Zone varies over time. Results are presented in Figure 12. We found that the size of the impact has strengthened across time. While the effect of attending a Youth Zone was not statistically different from zero until 2021, it became significant from 2022 onwards. Effect sizes nearly tripled between 2022 and 2024, increasing from a reduction of approximately one absent day (1.32 sessions) (Cohen’s  $d = -0.06$ ) to a reduction of two absent days (3.84 sessions) (Cohen’s  $d = -0.17$ ).

In 2024, young people in the comparator group recorded an average of 9 days missed from school due to unauthorised absences out of 170 possible days, corresponding to an incidence rate of 5.3%. In percentage terms, a reduction of two absent days in 2024 represents a 1.13 percentage point reduction over the last year. Again, while this decrease may appear modest, it reflects a 21% reduction relative to the comparator group’s baseline incidence rate, indicating a meaningful improvement in attendance among regular Youth Zone attendees.

Annual estimates are summarised in Table 3 below. Statistically significant effects are those for which the thin black confidence interval bars do not cross zero.

**Figure 11: Impact of attending a Youth Zone in unauthorised absenteeism (overall and by year)**



**Table 3: Estimations of the effect of attending a Youth Zone and unauthorised absences measured on school days**

Variable	Estimate (days)	P-Value	Confidence Interval	Effect Size (Cohen's d)	Significance
Overall	-0.770	0.00	[-0.98, -0.56]	-0.07	***
2012	0.035	0.29	[-0.03, 0.1]	0.00	
2013	-0.55	0.38	[-1.78, 0.68]	-0.05	

Variable	Estimate (days)	P-Value	Confidence Interval	Effect Size (Cohen's d)	Significance
2014	-0.27	0.28	[-0.74, 0.22]	-0.02	
2015	-0.47	0.18	[-1.15, 0.21]	-0.04	
2016	-0.19	0.50	[-0.74, 0.36]	-0.01	
2017	-0.45	0.08	[-0.93, 0.04]	-0.04	+
2018	-0.25	0.37	[-0.78, 0.3]	-0.02	
2019	-0.43	0.06	[-0.87, 0.02]	-0.04	+
2021	-0.40	0.14	[-0.92, 0.12]	-0.03	
2022	-0.66	0.00	[-1.03, -0.29]	-0.06	***
2023	-0.81	0.00	[-1.25, -0.38]	-0.07	***
2024	-1.92	0.00	[-2.44, -1.41]	-0.17	***

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching.

The year coefficients correspond to the estimated effect for that year.

## 5.1.2. Impact across Youth Zones

To understand whether differences between Youth Zones affect the results, we used a method called random-effects meta-analysis. This approach accounts for the fact that each Youth Zone may have unique characteristics that influence outcomes, allowing for variation in effectiveness across locations. It then combines these results to provide an overall, weighted estimate of the effect, while assuming that the core Youth Zone programme is consistent across all sites. It also assumes that the intervention is exactly the same across all Youth Zones. The results are presented in Table 4.

**Table 4: Estimations adjusted by Youth Zone characteristics**

Variable	Estimate	P-Value	Confidence Interval	Effect Size (Cohen's d)	Significance
Adjusted Effect	-1.41	0.00	[-2.04, -0.77]	-0.12	***

Estimations conducted using a Random-effects meta-analysis post-matching.

After adjusting for individual Youth Zone effects, we find that the estimated impact for 2012-2024 increases: regular attendance is associated with an average reduction of absent days of 1.41 per year, compared to 0.77 days from the main analysis. The adjusted effect is larger than the overall one and represents a 0.9 percentage points reduction in relative terms, corresponding to a small-sized effect (Cohen's  $d=-0.12$ ).

This suggests that the effect of Youth Zone participation varies across sites. Some Youth Zones appear to have stronger impacts, while for others the effect may be smaller or not statistically distinguishable from zero. Although the study design is not powered to estimate site-specific effects with precision, the evidence indicates meaningful variation in impact across Youth Zones.

### 5.1.3. Impact by dosage

We also examined how the intensity of Youth Zone attendance (dosage) affects the estimated impact. Specifically, we estimated how each additional session attended by a young person influences their rate of unauthorised absences. The results are presented in Table 5.

**Table 5: Effect of dosage of attendance to a Youth Zone**

Variable	Estimate	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance
Number of sessions attended	-0.01	0.00	[-0.02, -0.005]	-0.001	***

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching. Estimates report the overall effect across years.

Our estimates indicate that each additional Youth Zone session attended reduces unauthorised absences (measured on school days) by 0.01. Put differently, a young person who attends 100 sessions in a Youth Zone would, on average, reduce their unauthorised absences by one day, but some will need to attend less to achieve this effect.

It is worth noting that sessions in Youth Zones vary from light-touch interactions that involve the young person accessing sports facilities to work on their individual goals for

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instance, to young people receiving intensive support through a close relationship with a youth worker.

Qualitative insights from the focus groups reinforce this diversity in participation. Young people reported attending Youth Zones between one and four days per week, depending on availability and personal commitments, and can attend several sessions during a day. Schedules vary across sites: some Youth Zones open seven days a week, others six, and age-specific timetables shape patterns of attendance. In our Manchester focus group, many young people reported attending three times a week or more, often staying for several hours (typically around five hours per visit), arriving straight after school.

Taken together, these patterns help contextualise the estimated effect: although the average reduction per session is modest, many young people accumulate substantial exposure over time, and certain subgroups – particularly those receiving more intensive support – may experience larger gains than the population average.

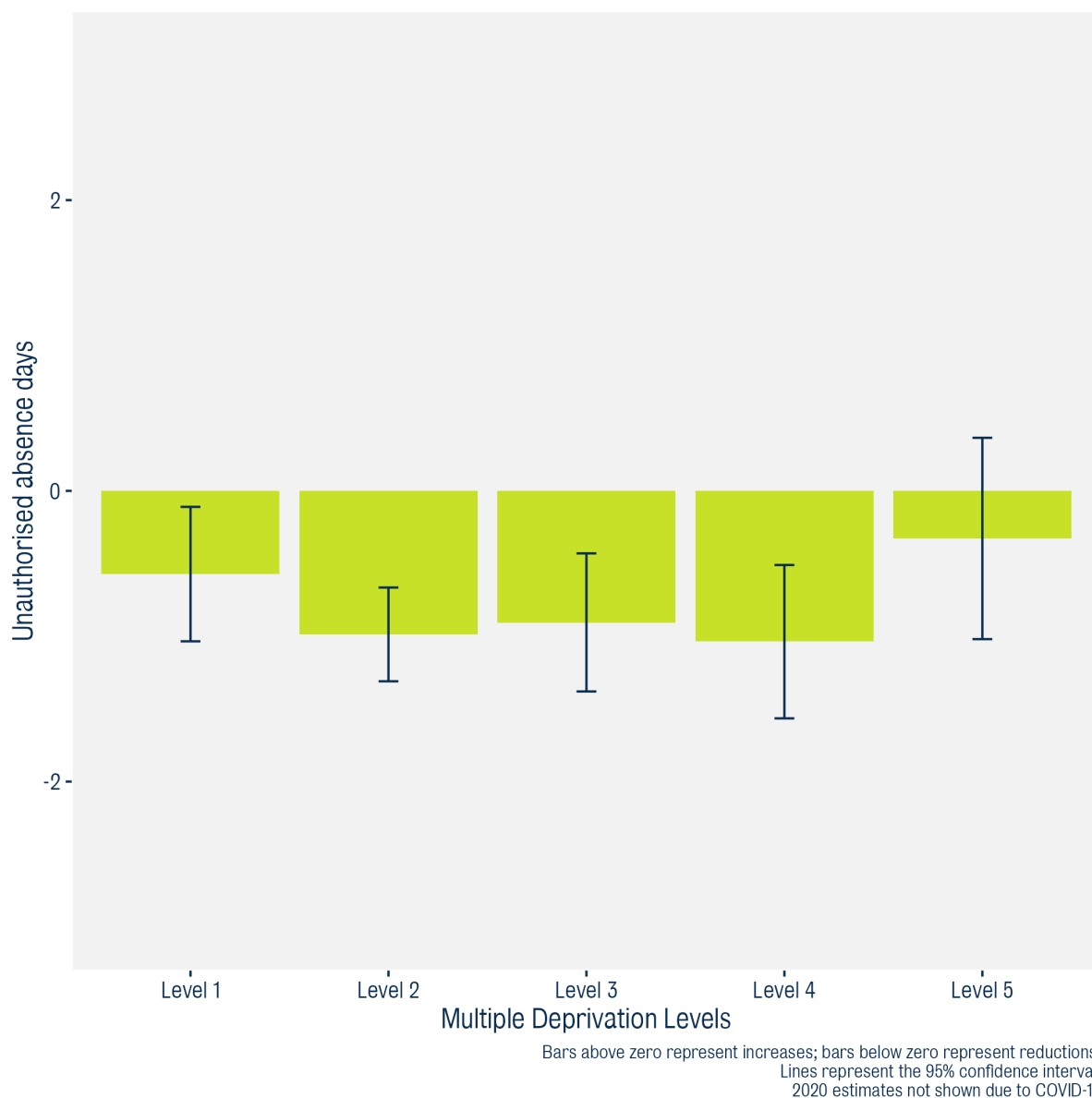
#### 5.1.4. Impact across groups

We also examined whether the impact of attending a Youth Zone varies across different groups of young people. In particular, we explored differences in effects by levels of deprivation, absenteeism groups, and age at the time of joining. While the large sample size enables this subgroup analysis, the results should be interpreted with care. Several important considerations and caveats apply, which are outlined in the following sections.

##### Impact by levels of deprivation

We used the Index of Multiple Deprivation (IMD) from OnSide's monitoring data, which categorises areas into ten deprivation levels. We grouped these into five broader categories for clarity, with Level 5 representing the least deprived areas. Figure 12 presents the results.

**Figure 12: Impact of attending a Youth Zone per level of Multiple Deprivation**



Overall, the evidence suggests that regular attendance at a Youth Zone causes a reduction in unauthorised absenteeism among young people across the four most deprived quintiles (levels 1 – 4), with the least deprived group showing no effects on absenteeism. The estimated effects are small in magnitude, with the strongest impacts observed in deprivation quintiles two and four, although the differences between these levels are trivial.

Table 6 presents the results along with the sample distribution across deprivation levels, showing that the least deprived group represents the smallest proportion of participants. The absence of a detectable effect for this group may therefore be due to limited statistical power rather than a true lack of impact. In any case, any potential effect is likely to be small.

**Table 6: Estimations of the effect of attending a Youth Zone and unauthorised absences by level of Multiple Deprivation**

Subgroup	Estimate (days)	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance	Share of young people
Level 1	-0.57	0.02	[-1.03, -0.11]	-0.05	*	28.19
Level 2	-0.99	0.00	[-1.31, -0.66]	-0.10	***	36.60
Level 3	-0.91	0.00	[-1.38, -0.43]	-0.09	***	16.94
Level 4	-1.04	0.00	[-1.56, -0.51]	-0.11	***	10.35
Level 5	-0.33	0.35	[-1.02, 0.36]	-0.03		7.93

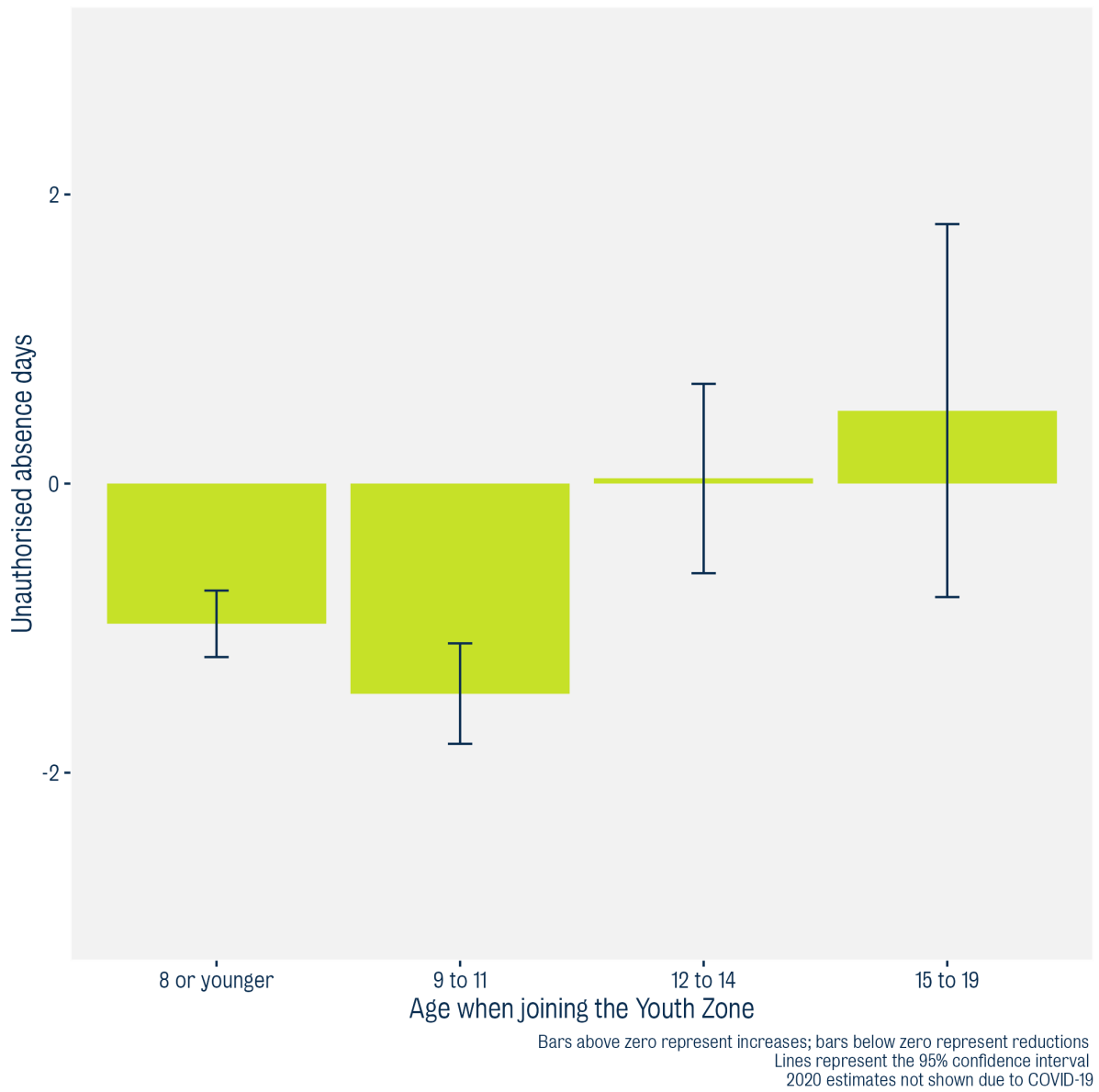
Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching

Estimate reports per income quintile derived from the OnSide reported Index of Multiple deprivation

### Impact by age at time of joining

From OnSide’s monitoring information, we used the records on the age that young people had when joining the Youth Zone to identify whether the effectiveness of attending a Youth Zone is influenced by that. Indeed, we found that Youth Zones are more effective for regular attendees when they join before the age of 11, with it being particularly high for those who joined between 9 and 11 years old. Results are presented in Figure 13 and Table 7.

**Figure 13: Impact of attending a Youth Zone age at joining**



**Table 7: Estimations of the effect of attending a Youth Zone and unauthorised absences by age when joining a Youth Zone**

Subgroup	Estimate (days)	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance	Share of young people
8 or younger	-0.97	0.00	[-1.2, -0.74]	-0.09	***	37.23
9 to 11	-1.45	0.00	[-1.8, -1.1]	-0.13	***	34.98
12 to 14	0.035	0.92	[-0.62, 0.69]	0.00		21.09
15 to 19	0.51	0.44	[-0.78, 1.79]	0.06		6.70

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching

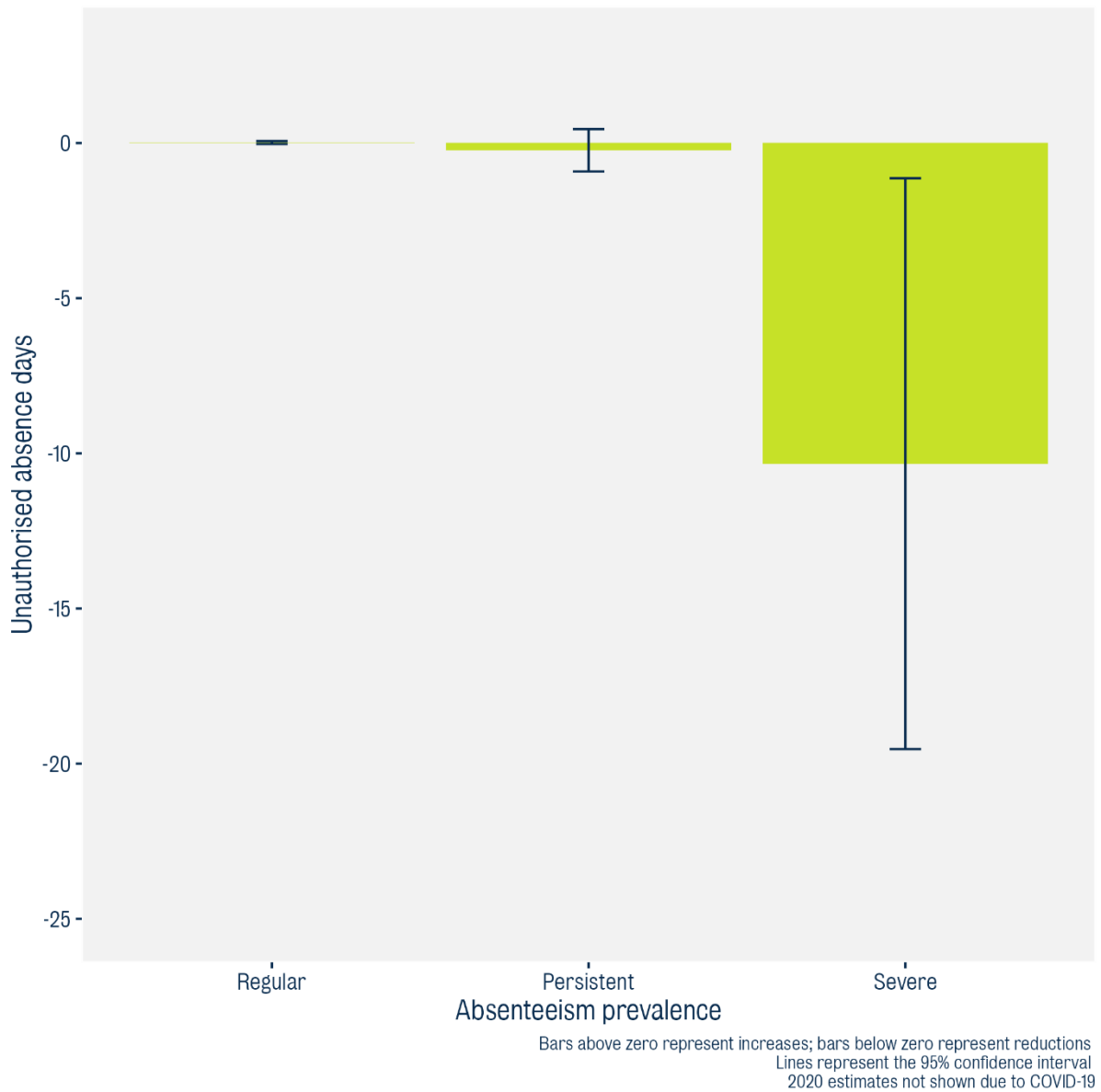
Estimate reports per absenteeism group derived from NPD data and OnSide monitoring information

### Impact by level of absenteeism

We also examined whether the impact of Youth Zones differs across levels of absenteeism. The DfE defines absenteeism groups based on the proportion of sessions missed over the course of a year. Young people who miss more than 50% of their possible sessions are classified as 'severely absent', while those missing 10% or more are considered 'persistently absent'. For this analysis, we made these categories mutually exclusive: young people who are absent for between 10% and less than 50% of sessions are classed as persistently absent, and those missing less than 10% are referred to as regular attendees.

We found that regularly attending a Youth Zone reduces unauthorised absences for young people identified as severely absent considerably (Cohen's  $d=-0.23$ ). The estimation shows a large reduction, although it is not possible to say with certainty what's the size of the estimated effect of attending a Youth Zone, given that the confidence intervals are considerably wide [between 1 and 20 days of absence]. This suggests the model for this group is not strong in terms of precision, likely due to sample size constraints, as this group only represents 2.5% of the entire sample. The results are presented in Figure 14 and Table 8.

**Figure 14: Attending a Youth Zone per absenteeism prevalence**



**Table 8: Estimations of the effect of attending a Youth Zone and unauthorised absences by level absenteeism**

Subgroup	Estimate (days)	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance	Share of young people
Regular	0.02	0.47	[-0.03, 0.06]	0.01		71.82
Persistent	-0.23	0.50	[-0.92, 0.45]	-0.02		25.68
Severe	-10.34	0.03	[-19.53, -1.14]	-0.23	*	2.50

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching

Estimate reports per absenteeism group derived from NPD data

## 5.2. Contextualising the findings

This section situates the identified effects into the existing evidence on interventions to tackle absenteeism.

To interpret these results, it is important to highlight that Youth Zones are not explicitly designed to reduce unauthorised or overall absenteeism. Their core aims focus on building a sense of belonging, strengthening community networks and raising aspirations through high-quality youth work. It is therefore notable that they nonetheless contribute to reducing a problem that is currently a key national issue on education.

We find a small-sized overall effect of attending a Youth Zone. To assess the practical significance of this result, it is useful to situate it within the broader evidence base on what works to improve attendance. Various results stemming from the existing literature of randomised experiments targeting attendance, report either null effects or highly variable impacts. For example, a stepped-wedge cluster randomised trial of a free school breakfast programme found no statistically significant effect on attendance or academic outcomes (Mhurchu et al., 2013), illustrating how even well-resourced, theoretically sound interventions often fail to move attendance meaningfully. Where positive effects are observed, they are frequently modest in magnitude and/or highly variable. Guryan et al. (2020), for instance, report that participation in the Check & Connect mentoring programme reduced absences by around 4.2 days for pupils in grades 5–7, an effect not dissimilar in scale to what is implied by the estimate in this report on Youth Zones. Crucially, the Education Endowment Foundation's (EEF's) (2022) review of 72 experimental and quasi-experimental studies highlights both the high variance and mixed success of attendance interventions overall, while noting that even among the stronger approaches, such as parental engagement, the typical effect size range is only 0.07 to 0.13. Seen in this context, the Youth Zone estimate sits squarely within the upper end of what is realistically

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achievable in this evidence base, and its statistical significance strengthens confidence that the observed impact reflects a genuine improvement in attendance.

Across the studies reviewed, reported effect sizes range from Cohen's  $d = 0.07$  to  $0.14$  (EEF, 2022). Another systematic review of 22 randomised controlled trials and quasi-experiments reports a median effect size of Cohen's  $d = 0.18$  (Eklund et al., 2022). Much of this evidence is US-based, so it is particularly relevant that the effects identified in this evaluation fall within a similar range in a UK context, where such findings are rare. This suggests that the Youth Zone impact detected [between Cohen's  $d = -0.07$  and Cohen's  $d = -0.23$ ] here is meaningful when viewed against the backdrop of the wider literature.

EEF's broader work also emphasises that there are a lot of mixed results around the effectiveness of interventions, and they are normally parent-focus or school-based. Evidence on the impact of extracurricular provision – and particularly on unauthorised absence – is far more limited, making the presence of a likely, measurable effect especially important.

Finally, it is important to recognise that the average treatment effect observed across all years is likely an attenuated estimate of Youth Zones' true impact. Effects are larger in more recent years, for some specific Youth Zones, and for key subgroups – particularly young people who join earlier and those who are severely absent. For these groups, the estimated effects are notably stronger.

### 5.3. The parallel trends assumption

A DiD model relies on the 'parallel trends' assumption: in the absence of Youth Zone participation, young people in the treatment and comparison group would have followed the same trajectories. If this holds, any observed differences in unauthorised absenteeism between the two groups can be attributed to the effect of regular attendance at Youth Zones.

In this evaluation, the main source of potential bias that could undermine the parallel trends assumption is that young people choose whether to attend a Youth Zone, so participants may differ from non-participants in important ways that influence outcomes. To reduce this source of bias and strengthen the credibility of the parallel trends assumption, we took several steps:

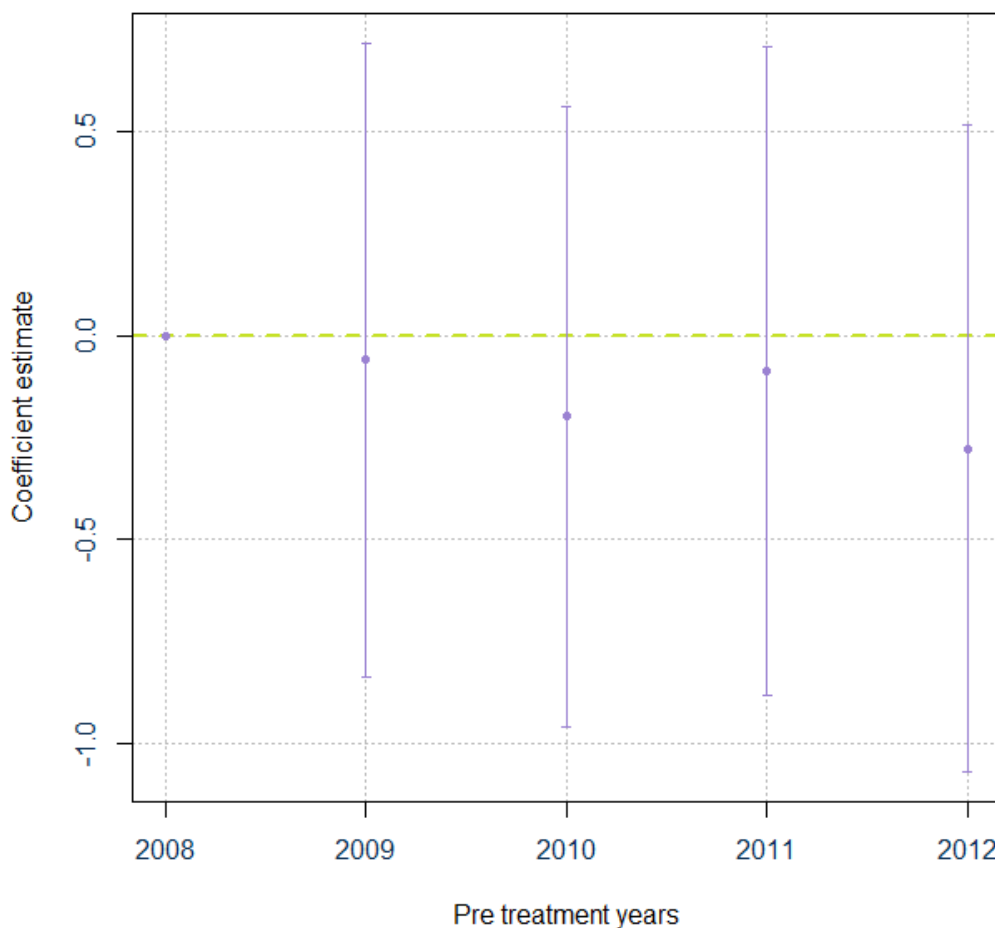
1. Selecting a comparable group: We selected young people from local authorities without a Youth Zone to identify similar young people to those attending a Youth Zone. This involved a two-stage matching process as described in Chapter 4.
2. Using a staggered DiD model: A Two-Way Fixed Effects model allowed us to account for the fact that young people join Youth Zones at different times. This method leverages differences in the timing of Youth Zone attendance and accounts for the intermittent nature of participation and its influence on outcomes.
3. Controlling for other factors: The model accounts for observable and unobservable time-invariant characteristics, as well as year-specific shocks that could affect all

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young people in the sample, such as changes in national education policy or the pandemic.

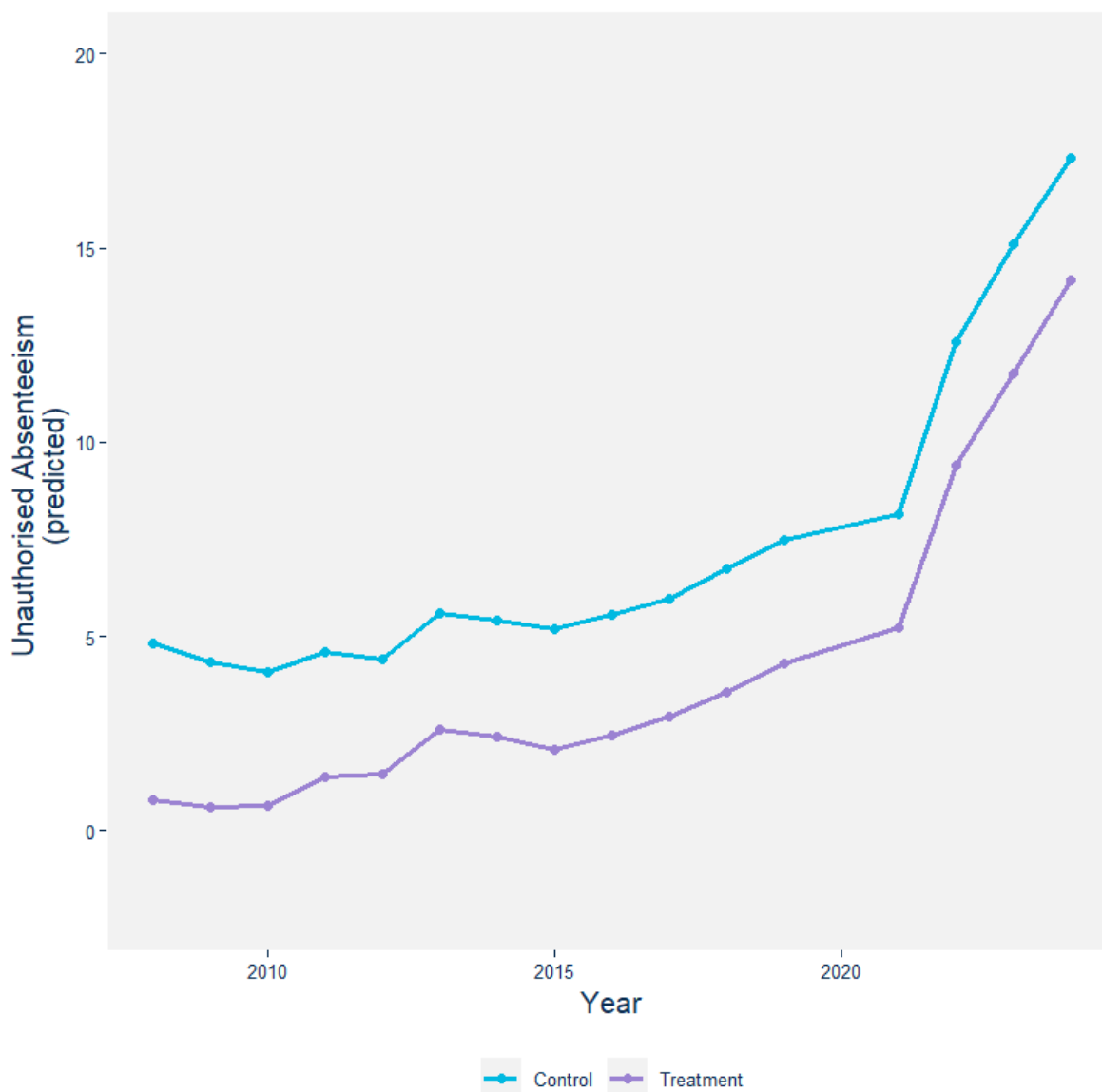
To test whether the parallel trends assumption holds for our analysis of absenteeism, we ran the model using only the pre-treatment period, examining whether there were any statistically significant differences in unauthorised absenteeism in the four years prior to the opening of Youth Zones. The expectation would be that prior to the introduction of the Youth Zones, the matched sample of the group of young people to-be-treated should show no differences in attendance compared to the control group. This expectation is confirmed, as shown in Figure 15, where point estimates of the treatment effects prior to the introduction of Youth Zones are effectively null. Estimates are identified as close to zero and confidence intervals also show considerable overlap with the zero threshold; both elements strongly suggest effects prior to the introduction of the Youth Zones were both small and statistically insignificant.

**Figure 15: Effect estimate across time before Youth zones' opening**



We also examined parallel trends visually. Using the model, we predicted unauthorised absenteeism for both Youth Zone attendees and their comparator group during the pre-treatment period as a placebo test. The results, shown in Figure 16, confirm the pattern.

**Figure 16: Graphical representation of parallel trends**



Together, these tests indicate that the parallel trends assumption is reasonable and that the estimated effects are likely to reflect causal impacts. However, it is important to note that this analysis is not based on a randomised controlled trial – the gold standard for identifying causal effects – or on a situation where assignment to the intervention is effectively as good as random. In the absence of such an experimental design, we have applied a rigorous analytical approach that mitigates potential biases and provides robust evidence on the impact of attending a Youth Zone on absenteeism.

## 5.4. Limitations

There are several important limitations to consider when interpreting these findings. For the absenteeism (and the outcomes related to exclusions and suspensions outcomes explored in the next chapter), the main limitation is that, by construction, the model does not control for

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unobserved time-varying confounders, such as heterogeneous trend changes between the treatment and comparator groups as a result of local authority-specific policies targeting, for instance deprived areas that could indirectly affect attendance (e.g. Early Help / Family Hub expansions or restructuring). Although we do not expect such factors to be strong enough to systematically bias the results, having conducted extensive checks on matched groups and inspected parallel trends to minimise this risk, some residual confounding cannot be entirely ruled out.

For attainment outcomes (also explored in the next chapter), the methods used do not support causal inference, meaning these results should be viewed as suggestive evidence rather than definitive estimates of the impact of Youth Zones.

We also did not proceed with the planned destination analysis due to limitations in the underlying data. The ILR database does not contain a destination variable and attempts to manually generate a representative outcome using available data resulted in low quality variable with high levels of missingness, compromising the reliability of any potential findings.

Finally, while focus groups provide valuable insight into young people's experiences, they do not constitute a full Implementation and Process Evaluation (IPE). They should therefore be interpreted as contextual information supporting the quantitative analysis, rather than as comprehensive evidence on mechanisms. More extensive research would be needed to fully understand how Youth Zones generate impact and how young people experience the programme.

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# Chapter 6: Findings – impact on secondary outcomes

As part of this evaluation, we also explored a range of secondary outcomes, including suspensions, exclusions, attainment (pre- and post-16), and destinations after the end of education. These aim to capture whether attending a Youth Zone influence other aspects of the education trajectory of the young person than attendance. The impact on secondary outcomes is described below.

## 6.1. Suspensions and exclusions

Exclusions and suspensions are recognised by the Department for Education (2024) as key management tools for addressing behaviour in schools. They are intended to be used only as a last resort, once all other behavioural support strategies have been exhausted. The term suspension refers to a temporary exclusion from school for a fixed period, while exclusion refers to a permanent removal from the school roll.

We found no statistically significant effect of regularly attending a Youth Zone on exclusions or suspensions. The results are summarised in Table 9 and Table 10. This suggests that, as a policy intervention, Youth Zones may have limited influence on reducing the likelihood of exclusion or suspension among young people already at risk of such outcomes.

As recommended by the Data Advisory Board, we also re-run the analysis for suspensions using as outcome the number of missed sessions instead of the binary outcome, to provide additional variability to the estimation. The negative coefficient on the number of sessions missed as a result of a suspension implies the intervention had – in absolute terms – a positive effect, effectively suggesting a reduction in the number of sessions missed, though this effect was not statistically different from zero. The results are presented in Table 10.

**Table 9: Effect of attending a Youth Zone on exclusions**

Variable	Estimate	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance
Overall	0.006	0.52	[-0.02, 0.04]	0.04	

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching

Estimates report the overall effect across years.

**Table 10: Effect of attending a Youth Zone on suspensions**

Variable	Estimate	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance
Overall (binary)	0.04	0.7	[-0.02, 0.04]	0.01	
Number of sessions	-1.27	0.17	[-2.10, 1.60]	0.11	

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching  
Estimates report the overall effect across years.

## 6.2. Attainment

We found no statistically significant effect of regular Youth Zone attendance on any of the attainment measures examined.

Initially, we aimed to harmonise the different attainment metrics across different stages of a young person's educational journey, but the underlying variation in assessment methodologies made this unfeasible. As a result, we were unable to use the Two-Way Fixed Effects model from earlier analyses<sup>4</sup>. Instead, we conducted a matched-comparator analysis, described in detail in the Technical Appendix.

Each attainment outcome was therefore analysed separately, and only young people who had reached the relevant Key Stage assessment were included in each model. This reduces statistical power. Importantly, the model does not allow us to make causal claims about the impact of Youth Zones, so the findings should be interpreted as suggestive rather than definitive evidence.

Table 11 summarises the results. We did not find any statistically significant associations across KS2, KS4 (GCSEs), or KS5 (A-levels). A few points are worth noting:

- Timing of effects: The model only captures impacts in the same year as regular attendance to Youth Zones occurs. While this is useful for detecting immediate impacts, it may miss longer-term or cumulative effects.
- Direction of coefficients: Some estimates have negative signs. Given that Youth Zones primarily support young people from disadvantaged backgrounds – and without fixed effects in the model – the negative sign likely reflects residual differences between the treatment and comparator groups that matching could not fully eliminate.

<sup>4</sup> In the analysis we included a control for previous attainment.

**Table 11: Estimations: Association between attending a Youth Zone and attainment**

Variable	Estimate	P Value	Confidence Interval	Effect Size (Cohen's d)	Significance
KS2	0.93	0.37	[-1.10, 2.97]	0.11	Not significant
KS4	-0.15	0.41	[-0.23, 0.09]	-0.07	Not significant
A-Levels	-35.58	0.20	[-89.84, 18.69]	-0.21	Not significant

Estimations conducted using a Two-Way Fixed Effect Difference in Differences post-matching

Estimates report the overall effect across years.

### 6.3. Post-learning destinations

We also explored the effects on Education, Employment or Training (EET) destinations of participants who were previously exposed to Youth Zones. However, as the destination variable within the available data was discontinued, identification of these effects relied on the construction of a proxy, whose quality, in turn, came with various caveats, which were identified during the protocol formulation stage. Unfortunately, lack of sufficient data implied the analysis could only be conducted using a cross-sectional – rather than a panel – approach, as was initially expected and planned in the protocol.

This limitation was compounded by various statistical limitation that related both to an appropriate identification of a "treated" group – since contrary to all other outcomes, treatment was not contemporaneous to EET – and the formalisation of a post-Youth Zone "endline" for participants, which varied in timing significantly due to lack of available data. The latter issue came in part as the result of the low average age of participants in Youth Zones, which in turn implied a low number of post-18 participants with an identifiable outcome, significantly reducing power.

Although some effects on EET can be theorised as likely mediated by the observed effects on absenteeism, a formal quantitative assessment of the effects on destination could not be reliably conducted. Chapter 7 on focus groups findings includes an exploration of whether and how participation in Youth Zones might have influenced young people's future aspirations, but a quantitative assessment targeted at EET outcomes is required to produce robust, causal evidence.

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# Chapter 7: Focus group findings

This chapter provides a summary of findings from the three focus groups we conducted with Youth Zone members. These were conducted to provide richness and nuance to the quantitative findings, but it is important to note the focus group findings are based on a small and likely a non-representative sample of attendees, so they should be interpreted appropriately. Only three focus groups were conducted in total, limiting the breadth of perspectives captured. In addition, one group consisted of members of a Youth Advisory Board, who are likely to be more engaged, confident, and motivated than the wider population of young people. Additionally, among the Youth Zones operating, we only visited two. The focus groups explored a number of key areas: how young people discovered the Youth Zone, why they chose to join, how they experience Youth Zones, and perceived outcomes from their participation, including in relation to some of the key primary and secondary outcomes. The findings are summarised below.

## 7.1. Awareness

Young people reported a mix of outreach, social networks, and independent searches as pathways into Youth Zones:

- Outreach work: Youth workers actively engaged with local areas, for example by playing football to bring young people together, raising awareness of Youth Zone activities.
- Word-of-mouth and friends: Young people had friends already attending, highlighting the importance of peer networks in facilitating participation.
- Online searches and publicity: Some young people discovered Youth Zones independently through online searches or promotional materials.

These findings suggest that peer influence and direct outreach are critical for engagement, particularly in areas where Youth Zones are well-established.

## 7.2. Motivations for joining

Motivations were diverse but centred around socialisation and access to facilities. Many young people joined to socialise with peers and make new friends. Others were drawn by specific activities, such as access to the gym or sports facilities.

For Youth Board participants, there was also a sense of structured engagement and skill-building that motivated participation. This indicates that Youth Zones appeal both as a social space and as a venue for personal development, depending on individual preferences.

## 7.3. Experiences

Participants highlighted multiple aspects they enjoyed:

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- Variety and choice: Young people appreciated being able to choose from a wide range of activities, including sports, creative activities (music, photography, pottery), media projects, gaming, and residential trips.
  - Social connections: Meeting new people and maintaining friendships was consistently cited as a key benefit. Some participants particularly valued the opportunity to meet friends and engage in activities together.
  - Positive relationships with staff: Youth workers were described as supportive, approachable, and instrumental in creating a safe, welcoming environment. Youth Board participants noted that staff contributed to a “family-like” atmosphere.

Young people’s favourite activities spanned both competitive and creative experiences:

- Sports competitions (especially football) were popular.
- Media activities, such as photography and leadership opportunities, such as ambassador programmes, were also valued.
- Residential trips offered a unique opportunity to develop confidence and social skills outside the typical Youth Zone setting.

The wide variety of available activities clearly allow Youth Zones to cater to diverse interests, supporting engagement across different age groups, social backgrounds, and personal preferences.

## 7.4. Perceived outcomes

In terms of perceived outcomes, young people reported a range of improvements in skills, confidence, and social outcomes, though the extent varied across participants:

- Communication and confidence: Several participants described substantial improvements in their ability to communicate, speak in front of others, and step out of their comfort zone.

“I’ve gone from literally not talking to anyone to now being quite happy to stand up and talk in front of hundreds of people.” (Youth Zone attendee)

- Skill acquisition: Participants gained both general life skills (e.g., cooking, teamwork) and activity-specific skills (e.g., boxing, climbing).
- Self-expression and wellbeing: Many highlighted the ability to “be yourself,” make friends, and enjoy a supportive environment. Some reported improvements in happiness and overall wellbeing.

“Over the past year, they’ve kind of helped me realise that I am important as a person and my opinions do matter.” (Youth Zone attendee)

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- Residential trips: These were particularly valued for confidence-building, exposure to new experiences, and public speaking. One participant reflected:

“So, I've sort of worked my confidence up throughout sort of that type of activities [residential] and stuff.” (Youth Zone attendee)

It is worth noting that not all participants reported tangible skill gains, and some were uncertain whether participation had improved their confidence. This suggests variation in outcomes, likely influenced by the intensity and type of participation as well as individual characteristics.

We also explored directly some of the key primary and secondary outcomes with focus group participants. For instance, the focus groups suggested some potential explanations for the reduction in school absenteeism:

- Timing of Youth Zones: The opening around 4pm after school ends creates an incentive for school attendance, as young people can go to school and then directly to the Youth Zone afterwards.
- Relaxed space and staff support: Some also noted that the Youth Zones provided a relaxed space, which could be calming and motivate people to attend school.

“I think the Youth Zones help just to, like, make sure everyone's, like, relaxed and calm. Just have a little bit of fun before you go back to school the next day. Or just get everything off your mind because you can literally speak to any staff member in there and they'll listen to you.” (Youth Zone attendee)

- Social environment: Some said the social environment might help some support their school experience, for instance from gaining confidence from meeting people from different backgrounds and schools, or improving their confidence to speak up more and speak to new people.

Other suggested explanations included gaining confidence in engaging more in sports at school, receiving opportunities and open pathways to explore things they are interested in, receiving support with college applications, and getting help with school subjects they struggled with both from youth workers and friends in the Youth Zone. Other participants found it harder to identify changes in relation to their experience at school or college.

Focus groups also explored potential changes in young people's aspirations or plans for the future, which may ultimately affect post-learning destinations. Overall, the qualitative findings suggest that Youth Zones may influence young people's aspirations and career explorations, but responses were mixed. Some young people expressed uncertainty about

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their future, while others reported that Youth Zone participation had helped clarify their aspirations. For example, one participant wanted to be a professional boxer, valuing access to practice facilities; another expressed interest in becoming a youth worker, inspired by strong relationships with Youth Zone staff; a third aimed to become an artist.

Similarly, members of the Youth Advisory Board described experiences that shaped their career interests: one participant cited involvement in holiday clubs and junior programmes as influential in deciding to pursue teaching, while another discovered a passion for public speaking and hosting events, leading to an interest in TV presenting.

One participant mentioned specifically that the Youth Zone staff had helped them with their transition to college:

“I obviously had my transition from high school to college last year and a lot happened to me last year. I don't think I would have got through the end of high school without them [Youth Zone]” (Youth Zone attendee)

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# Conclusions and Recommendations

In this section, we outline the main takeaways from the evaluation, along with lessons learned and recommended next steps. These include direct recommendations from the research team as well as broader reflections from OnSide for the youth sector, based on the evaluation findings.

The finding that Youth Zones can reduce unauthorised absenteeism, and that these effects are even stronger for young people from disadvantaged backgrounds, highlights their potential contribution to policy discussions on tackling England's ongoing absenteeism challenge. While overall absenteeism rates appear to be returning to pre-pandemic levels, the consistent rise in severe absenteeism remains particularly high and concerning. Youth Zones' impact on severely absent young people offers a meaningful avenue for re-engagement. With this in mind, we set out several recommendations for strengthening the impact of Youth Zones:

1. Consider extracurricular youth clubs as a valuable mechanism for re-engagement with school for policy development

Policy interventions aimed at improving school engagement and reducing unauthorised absence should recognise the important role that extracurricular youth clubs – such as OnSide Youth Zones – can play in re-engaging young people. Their core features offer useful lessons for policy design. For example, coordinating youth hub timetables to run immediately after school, as highlighted in our focus groups, may strengthen continuity between school and out-of-school activities. More broadly, creating accessible, youth-friendly spaces that support social connection, emotional regulation, and a sense of belonging is particularly important in the post-Covid-19 context (Gibbons et al., 2024; Mucci et al., 2024). These environments may help mitigate losses in social capital experienced by young people from disadvantaged backgrounds and provide a complementary pathway to support sustained school engagement.

2. Increase outreach to the most deprived and severely absent young people

Youth Zones – and similar extracurricular spaces that foster belonging and positive engagement – show meaningful potential to reduce unauthorised absenteeism, particularly among young people who are already highly disengaged from school. We recommend that the Youth Zone Network work closely with schools and local authorities to identify those most at risk and proactively invite them into Youth Zone activities. Early engagement is especially important: our subgroup analysis indicates that young people benefit more when they join at a younger age. Targeted outreach could therefore help maximise programme effectiveness.

3. Strengthen analysis of longer-term outcomes through access to LEO data

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As highlighted in the studies included in the introduction, persistent absence can have cumulative effects on long-term education and labour market outcomes. To fully understand the wider implications of Youth Zone participation, we recommend future analysis using the Longitudinal Education Outcomes (LEO) dataset. This would allow robust exploration of progression into further education, employment, and potential interactions with the criminal justice system – areas that cannot be assessed with the data used in this report.

#### 4. Strengthen analysis of the impact of Youth Zones during transition years

We recommend giving specific focus to the impact of centre-based youth work during transition years, particularly from Year 6 to Year 7. Research has identified a notable decline in young people’s engagement during Year 7 (age 11), an issue that has drawn increasing attention in education policy (Children’s Commissioner for England, 2025; Jerrim, 2025). While we provide some indicative evidence suggesting that Youth Zones may act as a protective factor against this disengagement – based on analysis of outcomes for young people who joined between ages 9 and 11 – more focused research is needed. In particular, future studies should examine the transition period directly, assessing not only whether youth zones are effective at this stage, but also the key mechanisms through which any positive effects occur.

#### 5. Conduct in-depth qualitative research to understand mechanisms of change.

While this evaluation shows that Youth Zones have a positive impact on reducing unauthorised absenteeism, the mechanisms driving this effect remain unclear, particularly as attendance is not a core outcome in OnSide’s Theory of Change. We recommend undertaking more in-depth qualitative research to understand how and why Youth Zones influence school attendance, and what this means for the young people who benefit most. Such insights would help refine the programme model and strengthen future evaluations.

It is especially important to investigate why Youth Zones appear effective in re-engaging young people with exceptionally high levels of absenteeism who are missing more than 50% of school and who are typically the hardest to bring back into education. The OnSide Youth Zones seem to offer a pathway that consistently increases their connection with school, but the mechanisms behind this remain unknown. Understanding these drivers would allow policymakers and OnSide to consider targeted approaches for this group, and to explore how government and Youth Zones can work together to address severe absenteeism while preserving the unique features that make the Youth Zone model effective.

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# References

- Baker, A. C., Larcker, D. F., & Wang, C. C. Y. (2022). How much should we trust staggered difference-in-differences estimates? *Journal of Financial Economics*, 144(2), 370–395. <https://doi.org/10.1016/j.jfineco.2022.01.004>
- Broer, M., Bai, Y., & Fonseca, F. (2019). Socioeconomic inequality and educational outcomes: An introduction. *IEA Research for Education*, 1–6. [https://doi.org/10.1007/978-3-030-11991-1\\_1](https://doi.org/10.1007/978-3-030-11991-1_1)
- Callaway, B., & Sant’Anna, P. H. C. (2021). Difference-in-Differences with multiple time periods. *Journal of Econometrics*, 225(2), 200–230. <https://doi.org/10.1016/j.jeconom.2020.12.001>
- Callaway, B., & Sant’Anna, P. H. C. (2022). Introduction to DiD with Multiple Time Periods. <https://cran.r-project.org/web/packages/did/vignettes/multi-period-did.html>
- Carbonaro, W., & Maloney, E. (2019). Extracurricular activities and student outcomes in elementary and middle school: Causal effects or self-selection? *Socius: Sociological Research for a Dynamic World*, 5. <https://doi.org/10.1177/2378023119845496>
- Dräger, J., Klein, M., & Sosu, E. (2024). The long-term consequences of early school absences for educational attainment and labour market outcomes. *British Educational Research Journal*, 50(4), 1636–1654. <https://doi.org/10.1002/berj.3992>
- Department for Education- DfE. (2024). Suspension and permanent exclusion guidance.
- Department for Education - DfE. (2025a). Why school attendance matters, and what we’re doing to improve it – The Education Hub. <https://educationhub.blog.gov.uk/2025/08/why-school-attendance-matters-and-what-were-doing-to-improve-it/>
- Department for Education- DfE. (2025b). Schools, pupils and their characteristics, Academic year 2024/25. <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics/2024-25>
- Department for Education. (2025c). *Pupil absence in schools in England, autumn and spring term 2024/25*. GOV.UK. <https://explore-education-statistics.service.gov.uk/find-statistics/pupil-absence-in-schools-in-england/2024-25-autumn-and-spring-term>
- Department for Culture, Media & Sport. (2025). Youth Matters: Your National Youth Strategy. GOV.UK. <https://www.gov.uk/government/publications/youth-matters-your-national-youth-strategy/youth-matters-your-national-youth-strategy>
-

- 
- Education Policy Institute. (2025). Examining post-pandemic absences in England (5). Education Policy Institute. <https://epi.org.uk/publications-and-research/examining-post-pandemic-absences-in-england-5/>
- EEF. (2022). Attendance Rapid Evidence Assessment. [https://d2tic4wvo1iusb.cloudfront.net/documents/pages/Attendance-REA-report.pdf?v=1647348064&utm\\_source=chatgpt.com](https://d2tic4wvo1iusb.cloudfront.net/documents/pages/Attendance-REA-report.pdf?v=1647348064&utm_source=chatgpt.com)
- Eklund, K., Burns, M. K., Oyen, K., DeMarchena, S., & McCollom, E. M. (2022). Addressing Chronic Absenteeism in Schools: A Meta-Analysis of Evidence-Based Interventions. *School Psychology Review*, 51(1), 95–111. <https://doi.org/10.1080/2372966X.2020.1789436>
- Gibbons, S., McNally, S., & Montebruno, P. (2024). Overview: the pandemic, pupil attendance and achievement.
- Greifer, N. (2023, October 12). Assessing Balance.
- Guryan, J., Christenson, S., Cureton, A., Lai, I., Ludwig, J., Schwarz, C., Shirey, E., & Turner, M. C. (2020). The effect of mentoring on school attendance and academic outcomes: A randomized evaluation of the Check & Connect program (NBER Working Paper No. 27661). National Bureau of Economic Research. <https://www.nber.org/papers/w27661>
- Heckman, J. J., & Rubinstein, Y. (2001). The importance of noncognitive skills: Lessons from the Ged Testing Program. *American Economic Review*, 91(2), 145–149. <https://doi.org/10.1257/aer.91.2.145>
- Huang, Y., & Hsu, J. C. (2007). Hochberg's Step-Up Method: Cutting Corners Off Holm's Step-Down Method. *Biometrika*, 94(4), 965–975. <https://doi.org/10.1093/biomet/asm067>
- Hunt, E. (2025, August 11). Examining post-pandemic absences in England (5). Education Policy Institute. <https://epi.org.uk/publications-and-research/examining-post-pandemic-absences-in-england-5/>
- Hunt, N., & Marshall, K. (2005). *Exceptional Children and Youth*. Boston, MA: Houghton Mifflin.
- Jefferson, R., Barreto, M., Verity, L., & Qualter, P. (2023). Loneliness during the school years: How it affects learning and how schools can help\*. *Journal of School Health*, 93(5), 428–435. <https://doi.org/10.1111/josh.13306>
- Jennings, W. C. (2018, July). Key drivers of the Disadvantage Gap: Literature Review. <https://epi.org.uk/wp-content/uploads/2018/07/EPI-Annual-Report-2018-Lit-review.pdf>
-

- 
- Keppens, G. (2023). School absenteeism and academic achievement: Does the timing of the absence matter? *Learning and Instruction*, 86, 101769.  
<https://doi.org/10.1016/j.learninstruc.2023.101769>
- King, R. B., McInerney, D. M., & Watkins, D. A. (2012). Competitiveness is not that bad...at least in the east: Testing the Hierarchical Model of achievement motivation in the Asian setting. *International Journal of Intercultural Relations*, 36(3), 446–457.  
<https://doi.org/10.1016/j.ijintrel.2011.10.003>
- Klein, D. M., P. E., Dräger, D. J., & Casoni, V. P. (n.d.). (rep.). Nuffield Foundation. Retrieved from <https://www.nuffieldfoundation.org/wp-content/uploads/2022/05/Understanding-School-Attendance-Educational-Attainment-and-Labour-Market-Outcomes-Report.pdf>.
- Lee, S., & Lee, D. K. (2018). What is the proper way to apply the multiple comparison test? *Korean Journal of Anesthesiology*, 71(5), 353–360.  
<https://doi.org/10.4097/kja.d.18.00242>
- Mucci, G. A., Collins, E., Pearce, E., Avina, M., Hao, S., Onungwa, C., Bunac, J., Hunte, Y., Coopersmith, L., & Yewell, N. (2024). The Lost Years: An Integrative Review of the Mental Health, Educational, and Social Impact of the Pandemic on Children and Adolescents From 2019 to 2022. *Journal of Pediatric Neuropsychology*, 10(1), 49–90. <https://doi.org/10.1007/s40817-024-00160-0>
- Mhurchu, C. N., Gorton, D., Turley, M., Jiang, Y., Michie, J., Maddison, R., & Hattie, J. (2013). Effects of a free school breakfast programme on children’s attendance, academic achievement and short-term hunger: Results from a stepped-wedge, cluster randomised controlled trial. *Journal of Epidemiology & Community Health*, 67(3), 257–264. <https://jech.bmj.com/content/67/3/257>
- Mukherjee, K., Gunsoy, N. B., Kristy, R. M., Cappelleri, J. C., Roydhouse, J., Stephenson, J. J., Vanness, D. J., Ramachandran, S., Onwudiwe, N. C., Pentakota, S. R., Karcher, H., & Di Tanna, G. L. (2023). Handling Missing Data in Health Economics and Outcomes Research (HEOR): A Systematic Review and Practical Recommendations. *Pharmacoeconomics*, 41(12), 1589–1601.  
<https://doi.org/10.1007/s40273-023-01297-0>
- O’Donnell, A. W., Redmond, G., Gardner, A. A., Wang, J. J., & Mooney, A. (2023). Extracurricular activity participation, school belonging, and depressed mood: A test of the compensation hypothesis during adolescence. *Applied Developmental Science*, 28(4), 596–611. <https://doi.org/10.1080/10888691.2023.2260745>
- OnSide Youth Zones. (2026). OnSide Network Impact Report 24-25 [PDF]. OnSide Youth Zones.  
<https://www.onsideyouthzones.org/content/uploads/2026/02/OnSide-Network-Impact-Report-24-25-FINAL.pdf>
-

- 
- Rokach, A., & Goldberg, J. O. (2021). Editorial: From loneliness to belonging - the path we hope to take. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.761440>
- Schoon, I., Nasim, B., & Cook, R. (2021). Social Inequalities in early childhood competences, and the relative role of social and emotional versus cognitive skills in predicting adult outcomes. *British Educational Research Journal*, 47(5), 1259–1280. <https://doi.org/10.1002/berj.3724>
- Sosu, E. M., Dare, S., Goodfellow, C., & Klein, M. (2021). Socioeconomic status and school absenteeism: A systematic review and narrative synthesis. *Review of Education*, 9(3). <https://doi.org/10.1002/rev3.3291>
- Stewart, L. A., & Clarke, M. J. (1995). Practical methodology of meta-analyses (overviews) using updated individual patient data. Cochrane Working Group. *Statistics in Medicine*, 14(19), 2057–2079. <https://doi.org/10.1002/sim.4780141902>
- Stuart, E. A. (2010). Matching methods for causal inference: A review and a look forward. *Statistical Science: A Review Journal of the Institute of Mathematical Statistics*, 25(1), 1–21. <https://doi.org/10.1214/09-STS313>
- Vickerstaff, V., Omar, R. Z., & Ambler, G. (2019). Methods to adjust for multiple comparisons in the analysis and sample size calculation of randomised controlled trials with multiple primary outcomes. *BMC Medical Research Methodology*, 19(1), 129. <https://doi.org/10.1186/s12874-019-0754-4>
- Villa, C. (2024). The Effects of Youth Clubs on Education and Crime. <https://doi.org/10.1920/wp.ifs.2024.5124>
- White, I. R., Royston, P., & Wood, A. M. (2011). Multiple imputation using chained equations: Issues and guidance for practice. *Statistics in Medicine*, 30(4), 377–399. <https://doi.org/10.1002/sim.4067>

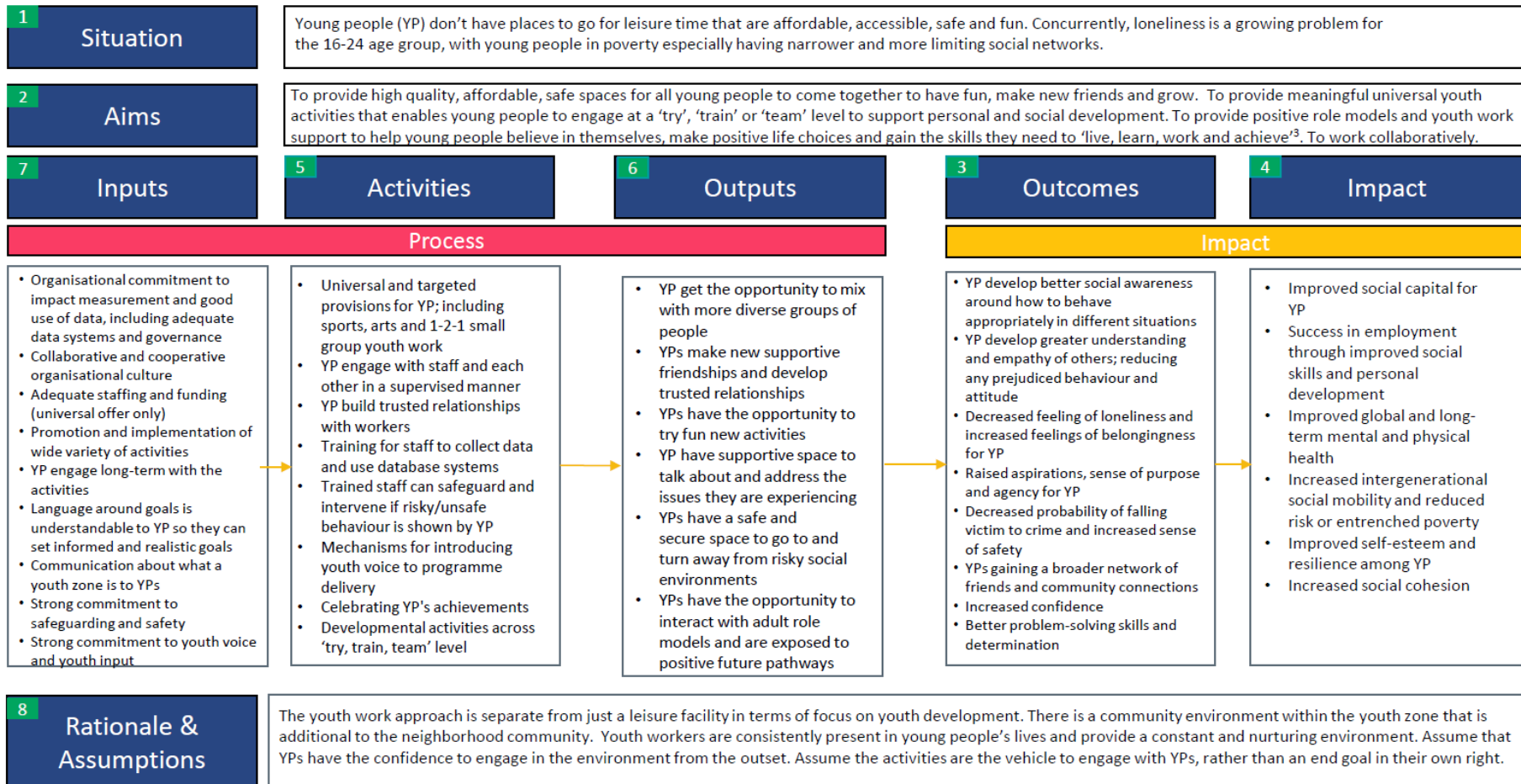
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# Technical Appendix

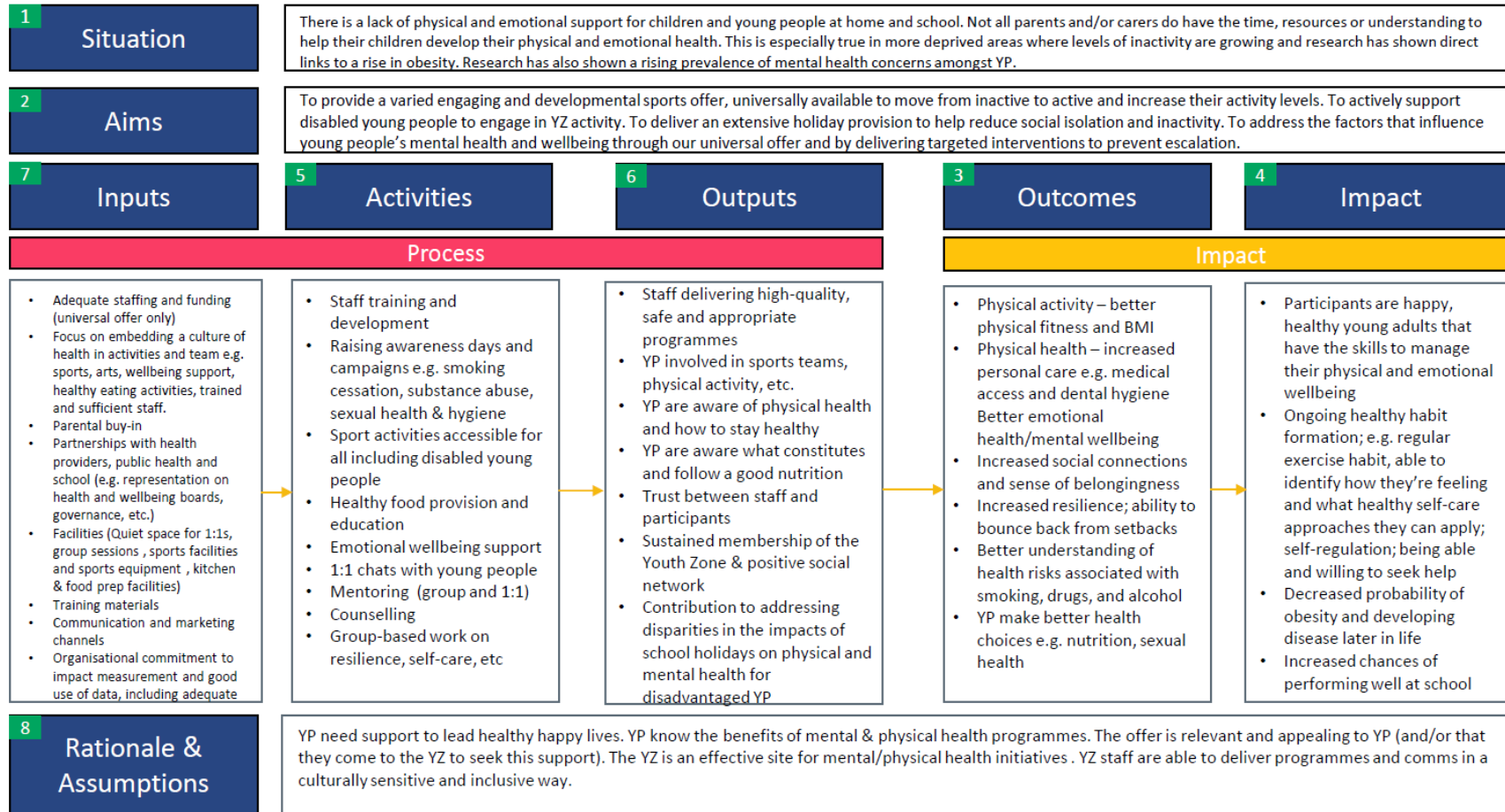
## OnSide's Theory of Change

OnSide's Theory of Change is structured around five overarching goals. For each goal, the relevant Theories of Change articulate how different elements of the Youth Zone offer contribute to outcomes and, ultimately, to achieving the goal. King's College London previously supported OnSide in developing these Theories of Change.

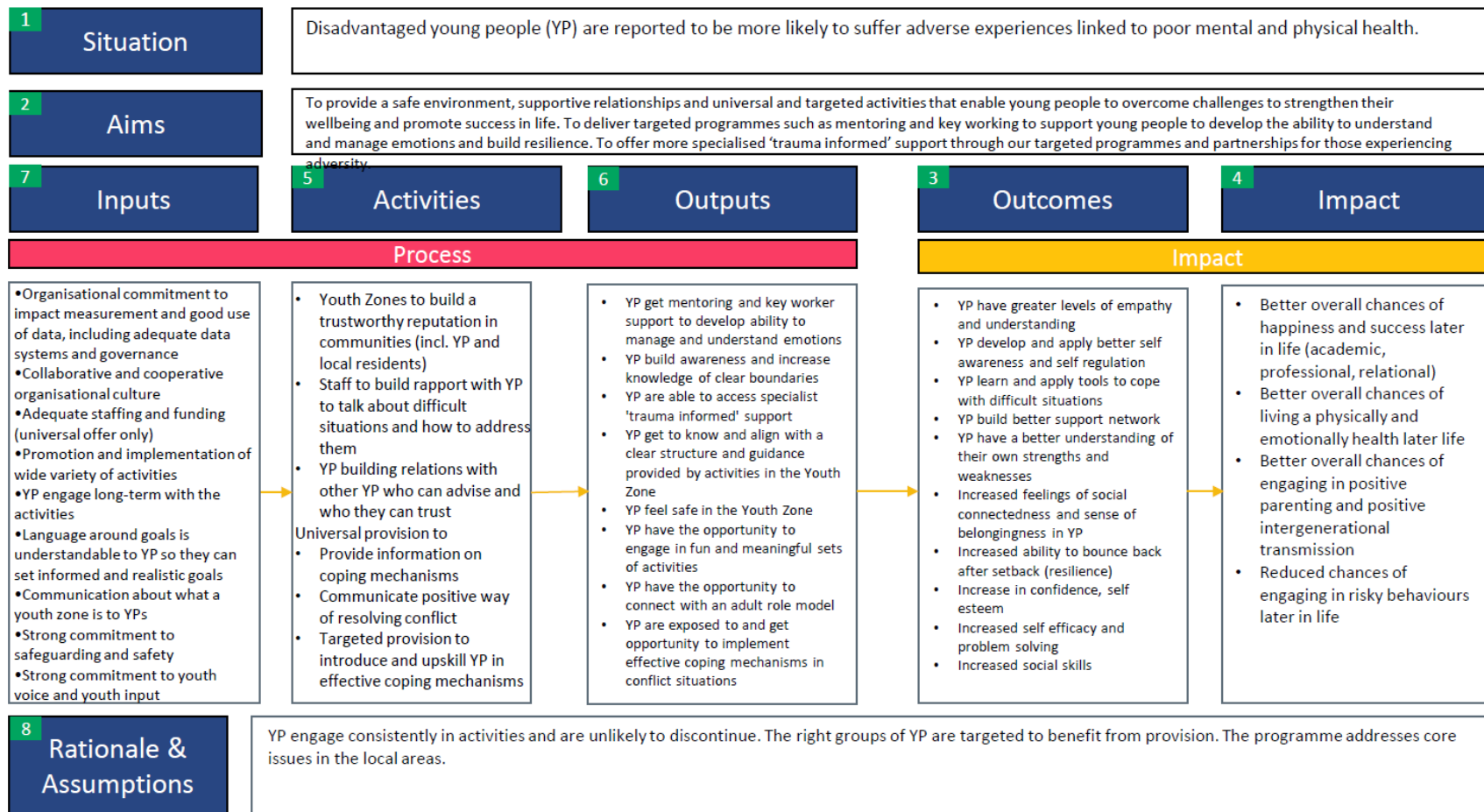
**Goal 1: Give young people a safe exciting place to go to have fun, build their social networks and support their personal development.**



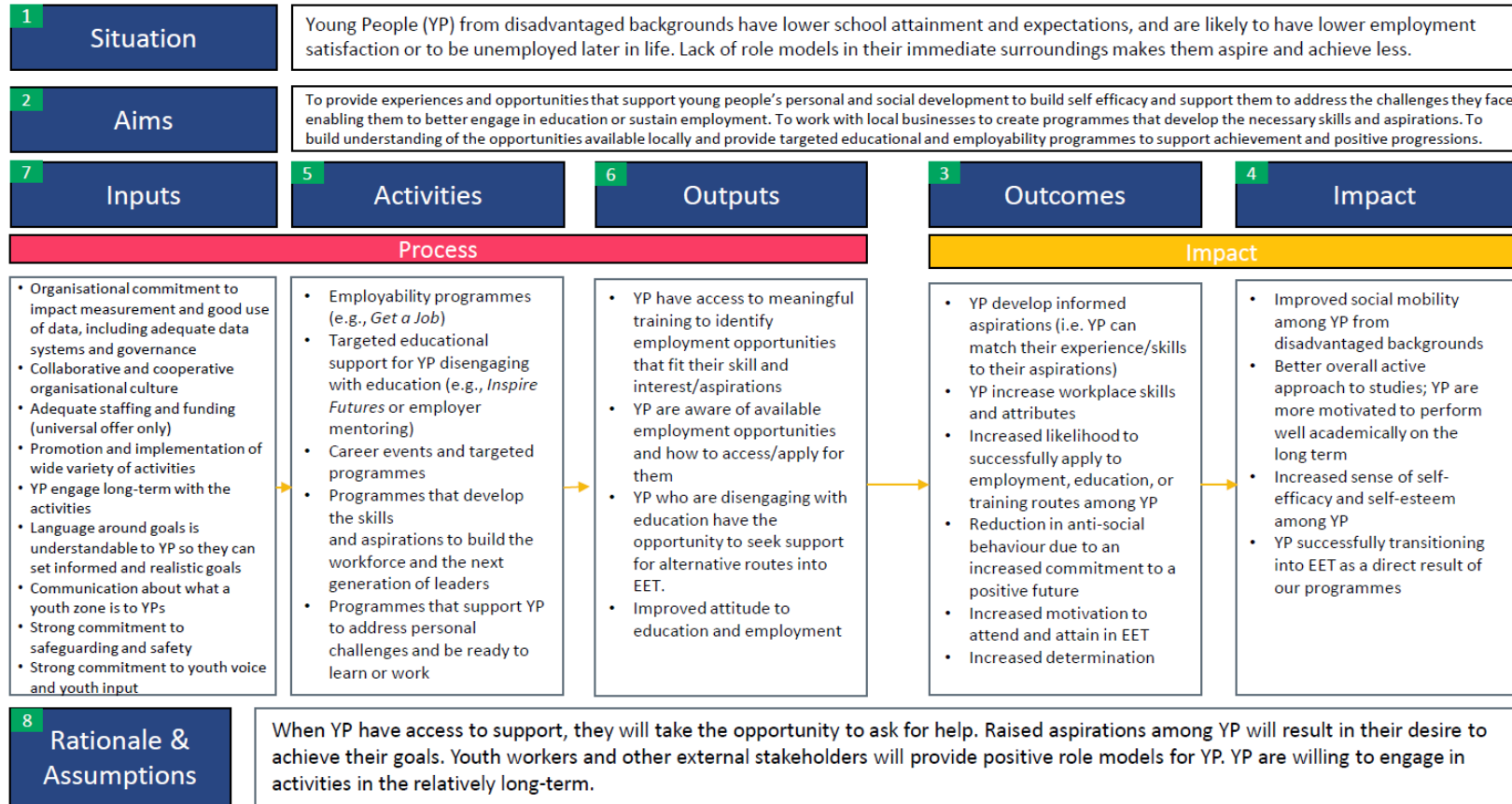
n Goal 2: Help young people to lead healthier, happier lives.



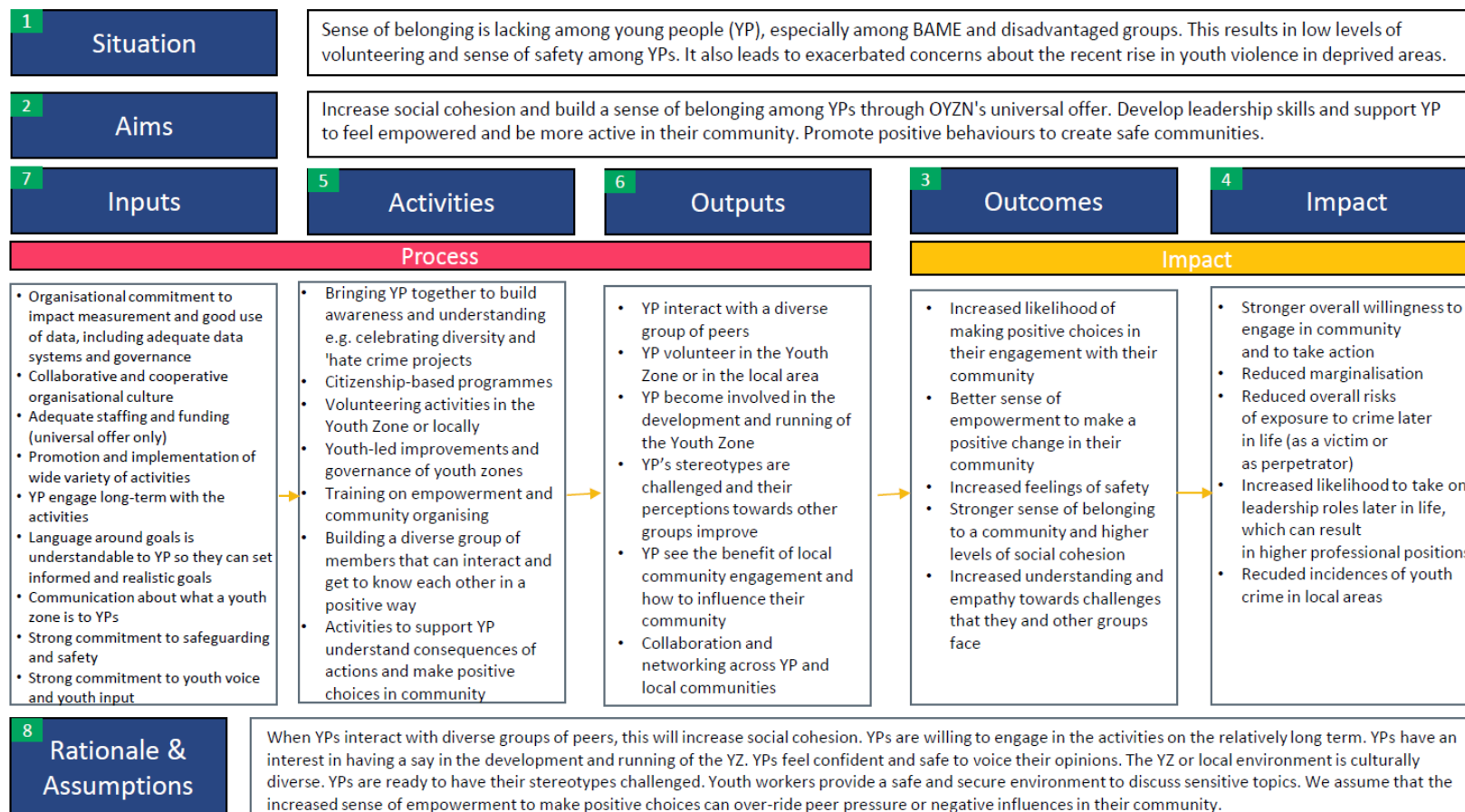
Goal 3: Enable young people to better face the challenges of life



**Goal 4: Support young people to raise their aspirations and fulfil their potential**



**Goal 5: Strengthen communities by supporting young people to be empowered, active, responsible citizens.**



## Robustness checks to Matching

### Matched Sample Indicators

**Table 12: Absolute Standardised Mean Differences: unmatched vs. matched sample – Iteration selected for analysis**

Variable	Unmatched Absolute Standardised Mean Difference	Matched Absolute Standardised Mean Difference
Age in 2025	1.82	0.00
Gender: male	0.11	0.00
Gender: female	0.11	0.00
Ethnicity: non-white	0.15	0.00
Ethnicity: white	0.15	0.00
School level FSM	0.53	0.00
Language: English	0.14	0.00
Language: Other	0.16	0.00
Language: Missing	0.05	0.00

**Table 13: Quality Indicators for matched sample with differences between treatment and comparator groups<sup>5</sup>**

Variable	Means Treated	Means Control	Std. Mean Diff.	Var. Ratio	eCDF Mean	eCDF Max	Std. Pair Dist.
Age in 2025	14.84	14.84	0.00	1.00	0.00	0.00	0.00
Gender: male	0.44	0.44	0.00		0.00	0.00	0.00

<sup>5</sup> Some values appear as zero after rounding to two decimal places, although slight differences were present prior to rounding.

Gender: female	0.56	0.56	0.00		0.00	0.00	0.00
Ethnicity: non-white	0.32	0.32	0.00		0.00	0.00	0.00
Ethnicity: white	0.68	0.68	0.00		0.00	0.00	0.00
School level FSM	0.32	0.32	-0.00	1.00	0.00	0.01	0.00
Language: English	0.79	0.79	0.00		0.00	0.00	0.00
Language: Other	0.19	0.19	0.00		0.00	0.00	0.00
Language: Missing	0.01	0.01	0.00		0.00	0.00	0.00

## Indicators from an alternative matching considered

**Table 14: Absolute Standardised Mean Differences: unmatched vs. matched sample – Iteration using Mahalanobis Distance for Matching**

Variable	Unmatched Absolute Standardised Mean Difference	Matched Absolute Standardised Mean Difference
Distance	0.56	0.00
Age in 2025	1.82	0.01
Gender: male	0.11	0.01
Gender: female	0.11	0.01
Ethnicity: non-white	0.15	0.00
Ethnicity: white	0.15	0.00
School level FSM	0.53	0.01

Language: English	0.14	0.01
Language: Other	0.16	0.02
Language: Missing	0.05	0.04

## Treatment Group Characteristics: Comparison Overall sample vs. Matched sample Participants

**Table 15: Differences in composition between original OnSide's sample and matched sample**

Demographic Characteristics		Overall Sample	Matched Sample
Age	8	26.5	37.2
	9	13.0	15.0
	10	10.4	11.4
	11	8.0	8.6
	12	7.7	6.6
	13	8.2	7.9
	14	7.4	6.6
	15	6.0	4.3
	16	5.7	1.6
	17	3.3	0.6
	18	3.8	0.2
Ethnicity	Asian	9.1	6.4

	Black	14.2	13.8
	Mixed	8.7	8.5
	Other	11.8	3.1
	White	56.2	68.2
Eligible for Free School Meals	No	80.3	79.9
	Yes	19.7	20.1
Gender	Male	59.9	43.6
	Female	40.1	56.4
Index of Multiple Deprivation	1	27.3	27.2
	2	21.7	20.2
	3	14.0	15.5
	4	8.9	9.2
	5	6.0	7.2
	6	4.7	5.1
	7	4.4	4.8
	8	5.7	4.2
	9	3.6	3.5

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	10	3.7	3.0
English as an additional language	English	74.2	79.2
	Other	25.8	20.8

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## Methodology

All analysis was conducted in R. The core of the evaluation was conducted in the ONS Secured Research System (SRS).

### Descriptive Statistics

Descriptive statistics were employed to provide a comprehensive summary of the demographic and socioeconomic attributes of both the Youth Zone participants and the comparator group. These statistics included measures such as mean, median, standard deviation, and frequency distributions for various variables, such as age, gender, ethnicity, educational attainment, and geographical location.

Descriptive analyses offered insights into the composition and characteristics of the study populations, enabling us to identify potential covariates and confounding variables that may be correlated with the outcomes of interest such as gender and deprivation levels, among others.

### Matching Strategy

This section summarises the entire matching strategy used in this evaluation. This strategy was adapted for the different milestones in the Analytical Strategy, to account for features of the outcomes of interest, as well as the specifics of the various models.

We used coarsened exact matching (CEM), a statistical technique that identifies a comparator group with characteristics closely resembling those of the Youth Zone participants. CEM ensures that individuals in the comparator group share similar socioeconomic and demographic profiles with the Youth Zone participants, thereby establishing a suitable counterfactual for assessing the intervention's impact.

Matching happened through two stages. Firstly, we identified the local authorities in which Youth Zones had been established, which allowed us to then identify a comparator group of local authorities that had not had exposure to a Youth Zone. Matching, therefore, firstly took place at local authority level where pre-intervention local authority characteristics of Youth Zones were matched to untreated local authorities. This estimation was conducted outside the ONS SRS service and informed the application to extract NPD data.

We then proceeded to a second-stage matching where we utilised young people from the untreated local authorities as a comparator pool. We used individual-level characteristics of members to match them to similar untreated individuals, as available in the NPD. By matching on key variables, such as Date of Birth, we aimed to minimize selection bias and confounding factors, enhancing the validity of the analysis.

Several rounds of matching were therefore conducted until a robust comparator group was defined. This comparator group is, on average, similar to the treatment group in all observable covariates, which allowed us to assume the similarity holds on unobservable

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variables too (Stuart, 2010). Additionally, we required that the identified comparator group delivered a sample with enough power to detect the intervention's effect.

When matching, it is important to account for the trade-off between having a comparator group bringing enough power for detectability, and a comparator that is well-balanced to avoid biasing estimations. In this case, CEM uses a combination of binned continuous variables along with exact discrete characteristics to create strata per treated unit. Where it is not possible to create a stratum for a treated unit with at least one control unit, such unit is discarded, resulting on balanced samples of high quality (Firestone, 2015).

Matching was conducted using the MatchIt package in R.

Matching was performed using “never treated” individuals as the basis. These individuals comprised the comparator pool from local authorities (LAs) that did not have any Youth Zones.

Although we had initially planned a second round of matching to include individuals who engaged with a Youth Zone, but whose engagement was insufficient to qualify as regular members, this was later abandoned. Both the treatment group and the comparator pool of “never treated” individuals were already sufficiently large, and there were no concerns regarding statistical power.

An additional round of matching was conducted loosening the matching conditions, and another was conducted using Mahalanobis distance without replacement as matching method to evaluate changes.

To assess whether a comparator group was robust enough, we used several balance checks, following Greifer (2023):

- First, we assessed the pre-matching differences across treatment and comparator groups on relevant covariates, on the basis of absolute standardised mean differences.
- We then assessed the post-matching standardised mean differences, graphically and in values.
- We also evaluated other pre- and post-matching indicators such as variance ratio, to assess the difference in variance on covariates across treatment and comparator group; and empirical cumulative density functions, to provide further information on the differences at distribution level for key covariates.
- Although considered in the protocol, we did not conduct Kosmogorov-Smirnov tests as imbalances were detected by the differences in means or by any other of the indicators reported above.

There are no hard rules when deciding which is the most appropriate comparator group. Nevertheless, based on these balance checks, the research team jointly made a decision around which comparator group will be used in the analysis.

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We also assessed whether the selected comparator group satisfied the parallel trends assumption through the following approaches, as suggested by Callaway & Sant’Anna (2021, 2022):

1. We explored graphically the pre-treatment trends between treated individuals, before the first-ever treatment starting point, and a “never treated” comparator group, which in our case, is the matched comparator group. The trends were observed for the primary outcome, as an average rate per year.
2. We will use a conditioned parallel trends approach, where we will run regressions on the primary outcome while controlling for all relevant covariates.

## Primary Analysis

For the primary analysis we utilised a quasi-experimental approach, combining CEM with a staggered DID estimation framework. We therefore compared outcomes between the treated individuals and the comparator group before and after the intervention. By matching on existing characteristics and utilising DiD to examine changes in outcomes over time for both groups, we were able to estimate the causal effect of Youth Zones while accounting for potential fixed and time-varying confounders (such as Covid-19).

Analysis involved utilisation of the entire pooled sample of participants across all Youth Zones to determine the overall effect of the intervention on the outcomes of interest. This analysis followed the assumption that all Youth Zones can be considered as the same intervention. For a participant to be qualified as treated, a minimum length of regular membership was considered as a threshold, where  $g$  refers to the length of engagement, of young person  $i$  during period  $t$ , and where treatment was defined as:

$$D_{it} = 1\{g_{it} \geq \text{regular membership}\}$$

This provides us with an indication of the causal effect over the average member period.

### Outcomes with natural baseline

The analysis described below was run for outcomes with available annual measures in the NPD, ILR and HESA. Initially, these outcomes were attendance, attainment, expulsions and suspensions. Yet, for attainment, it was not possible to combine and harmonised KS2 and KS3 SAT and GCSEs to create a continuous variable of attainment, and those measures were therefore analysed as part of the outcomes with no natural baseline.

As Youth Zones include new members on a rolling basis with each participant exposed to treatment at different time points, the model used was a Two-Way Fixed Effects (TWFE) DiD, as specified below:

$$(1) Y_{it} = a_i + a_t + \beta^{DID} D_{it} + u_{it}$$

Where:

- $Y_{it}$  is the outcome value for participant  $i$  in time period  $t$ ,
- $\alpha_i$  represents the effect of the time-invariant characteristics of participant  $i$ ,
- $a_t$  is a vector of time dummies representing the combined effects of the time-varying but participant-invariant factors, such as Covid 19,
- $\beta^{DID}$  is the DID estimator which is a representation of the interaction between being in the intervention group and the periods at which a participant has been exposed to the treatment, and
- $u_{it}$  is the error term clustered to account for the panel structure of the data.

This model specification allows for the flexibility of different treatment start times for each participant and allows for switching on and off of treatment based on the participant's membership and type of outcome. For example, for attendance, time was defined as the years in which outcomes were available for each participant, with the endline defined as attendance in Year 11, or the last time point retrievable depending on data availability. This implies that  $D_{it}$  can then capture the interaction between time at which participant  $i$  is actively treated throughout their membership.

With a TWFE DiD model, any between-participant time-invariant effects such as constant baseline characteristics are controlled for, as well as any time-variant shocks (i.e. Covid). Controlling for these effects will increase the validity of the assumption of conditional parallel trends and the causal estimation of the treatment effect. The inclusion of fixed effects also reduces the number of covariates required in the second-stage matching, as presented in the Matching Strategy section. Matching will need to be conducted only including time-variant covariates, mainly Date of Birth.

## Outcomes with no natural baseline

For outcomes that do not have a natural baseline such as Post-16 outcomes, and Attainment measures including A-Levels, GCSEs, KS2 and KSE3 SAT the use of DiD was not feasible. For these outcomes, we implemented the second stage matching utilising several baseline covariates in order to attempt to satisfy the parallel trends assumption and then estimate the post-treatment difference of the outcome between treated and matched comparator groups:

$$(2) Y_i = \beta_0 + \beta_1 D_i + b_2 LA_i + X_i' \gamma + e_i$$

Where:

- $\beta_1$  identifies the treatment effect,
- $LA_i$  is a vector of covariates capturing the Local Authority characteristics used in matching, and
- $X_i$  captures the individual-level characteristics used in matching, and
- $e_i$  refers to robust standard errors.

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### *Robustness checks*

To test whether the estimations are sensitive to model specifications, we conducted several robustness checks, such as re-running the primary analysis dropping the fixed effects and using different combinations of covariates instead as available in the NPD. We reported if changes in estimations were found, as they provide evidence on how sensitive the results are to unobservable characteristics not accounted for by the covariates included.

Additionally, we re-ran the analysis using as a comparator group the second-best match achieved and compare the results to assess how dependent they are on the selection of the comparator group.

## Secondary Analysis

The secondary analyses explored additional dimensions of the intervention's impact, providing a more nuanced understanding of its effectiveness. Secondary analysis focused mainly on the primary outcome.

To examine variations in outcomes across different Youth Zones, we employed a statistical technique known as random-effects meta-analysis. This method involves aggregating the treatment effects calculated for each individual Youth-Zones to derive an overarching effect across all Youth Zones. Random-effects meta-analysis acknowledges that the effectiveness of interventions can be influenced by unique factors specific to each Youth Zone, allowing for variability in outcomes among Youth Zones while estimating a combined effect.

Random effects meta-analysis is a two-stage process (Stewart & Clarke, 1995). We firstly utilised a series of individual Youth Zone analyses<sup>6</sup>. We refer to the total number of Youth Zones as  $M$ . For each Youth Zone-specific dataset  $\{1, 2, \dots, M\}$ , we then estimated a treatment effect named  $\beta_3$  using an auxiliary model that repeats the primary analysis, utilising Individual Participant Data (IPD) Meta Analysis. Through this process, we constructed a vector with  $M$  number of estimates representing each Youth Zone-specific treatment effect  $\{\beta_{3,1}, \beta_{3,2}, \dots, \beta_{3,M}\}$ .

These treatment effects were then analysed collectively with a random effects meta-analysis model. Through this model, a combined effect estimate was calculated as a weighted average of the individual treatment effects. This weighted average treatment effect of the treated can be expressed as:

$$(3) \text{ Weighted } ATT = \frac{\sum_{m=1}^M \beta_{3,m} w_m}{\sum_{m=1}^M w_m}$$

Where:

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<sup>6</sup> We have caveated the interpretation of individual analysis as power constraints with individual youth zones do not allow to make claims around per youth zone impacts.

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- $\beta_{3,m}$  is the intervention effect estimated in the  $m^{th}$  Youth Zone model,
  - $w_m$  is the weight given to the  $m^{th}$  model,
  - and the denominator denotes the summation across all models.
  - The larger the weight given to the  $m^{th}$  model, the more it will contribute to the weighted average treatment effect.

## Treatment heterogeneity and dose-response

It is likely that treatment effect may vary depending on the amount of exposure a participant has had to a Youth Zone. To account for this heterogeneity, we expanded the model specified in the primary analysis to incorporate a dose-response specification by utilising a continuous treatment variable instead of a binary one, which was able to capture the number of sessions a participant was exposed to a Youth Zone in a particular year. Through this model we were able to investigate how varying levels of engagement related to the strength of observed treatment effects. A participant can attend to several Youth Zone sessions in a day.

We also conducted a sensitivity analysis by utilising a dynamic difference in differences model (Baker et al., 2022) in order to assess the level of heterogeneity with respect to the timing of the intervention. This model extended the model specified in the primary analysis to incorporate a set of interactions between treatment and time<sup>7</sup>.

## Sub-group analysis

Additional exploratory analysis was also performed in order to investigate whether the Youth Zones intervention had a heterogeneous effect on different sub-groups of interest. This was captured by repeating the primary analysis model per sub-group of interest.

After conversations with OnSide colleagues and the Data Advisory Group, it was agreed that the following variables were in scope: age group, disadvantage marker based on the Index of Multiple Deprivation, and absenteeism group (including persistent absence, severe absence, and others).

## Missing Data

Given that the analysis will utilise administrative data sources for primary and secondary outcomes and relevant covariates, attrition was low. Consistently, we conducted the analysis on the basis of complete cases for that analytical specification, and imputation was not conducted.

It is important to note that for post-learning destination, the sample size was small not due to missingness but rather because the majority of young people have not reached yet a post-

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<sup>7</sup> This type of dynamic DiD models will, in general, be less powered than binary indicator regressions, due an increased number of parameters.

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learning age, or because we suspected inconsistencies in the available data which would have been transferred into any imputation attempted.

## Multiple Comparisons

In the original protocol, we planned to adjust for multiple comparisons due to the number of secondary outcomes and models specified. The risk of identifying spurious differential treatment effects across subgroups was to be addressed using the Hochberg step-up procedure (Lee & Lee, 2018). This method compares p-values sequentially against adjusted critical values, beginning with the largest p-value. Adjustments were to be applied to the p-values for treatment effect estimates within each analysis type across the secondary analyses. This approach was selected over alternative procedures because of its favourable balance between Type I error control and statistical power, as demonstrated in comparison studies (Huang & Hsu, 2007; Vickerstaff et al., 2019).

However, these multiple comparison adjustments were not ultimately implemented. First, the statistically significant findings observed were well below conventional thresholds ( $p < 0.001$ ), reducing concern that results were marginal or sensitive to adjustment. Second, the final set of analyses differed from those originally planned. Some analyses were reclassified from causal to correlational in nature (e.g., analyses involving attainment outcomes), while others proved infeasible due to data limitations (e.g., post-learning destination outcomes). As a result, the total number of analyses reduced, further limiting the risk of false positive findings arising from multiple testing.

## Data disruptions associated with Covid-19

While we proposed a fixed effects model to control for biases driven by Covid-19, we did encounter data constraints. There were disruptions on how the data was recorded during 2019-2020. These disruptions involved entirely dumping records for those years, and in those cases, we had to limit the analysis to non-disrupted years, including comparisons pre-post-Covid, permitted enough sample size.

## Focus Groups

Strategies for participant engagement and retention

We conducted three focus groups with young people attending Youth Zones to contextualise quantitative findings and provide in-depth examples of their experiences. One focus group was conducted with young people sitting on OnSide's Youth Advisory Board, and the other two were with young people who attended a Youth Zone on specific days of visit of the research team.

The focus groups allowed us to understand how the services provided by the Youth Zones link to the outcomes of interest. We aimed to particularly explore participants' perceptions of skills development, progress and attitudes towards education, with particular focus on

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experiences around motivation and absenteeism. Topics guides were designed on the basis of the quantitative results, to understand the key findings through participants' experiences.

Focus groups included six to eight participants and took part online and in two will Youth Zones across the country. In order to recruit participants, we worked closely with OnSide to identify potential participants who have attended regularly, aiming at gathering insights from participants who have engaged in various activities or have actively engaged over a sustained period of time.

Before conducting the focus groups, participants will be provided details about the research through an information sheet which emphasised their rights and the relevance of their contributions, to encourage their participation in the focus group. Information sheets were distributed to participants via email and/or handed out to them in the Youth Zone by OnSide staff. The information sheet clearly outlined how we handle their data, highlighting confidentiality as well as the fact that their participation is entirely voluntary and that they hold the right to drop out of the focus group at any point. For young children below the age of 16, engagement with them will be contingent upon receiving additional consent from their parents/legal guardians. Focus lasted up to 90 minutes and participants received a £15 voucher as a thank you for their time.

Ahead of the focus groups, young people and their parents or tutors (when relevant) were informed of standard safeguarding processes including our responsibility to pass information on if they disclose a risk of harm or immediate, serious risk to themselves or others. In general, focus groups did not touch upon sensitive topics; however, we made this disclaimer to participants to safeguard them, in case the conversation raises some concerns.