Foundations
What Works Centre for Children & Families

STRENGTHENING FAMILIES, PROTECTING CHILDREN – NO WRONG DOOR

DIFFERENCE-IN-DIFFERENCES EVALUATION PROTOCOL

Delivery organisations	North Yorkshire County Council
Evaluator	Foundations – What Works Centre for Children and Families
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Type of evaluation	Difference-in-differences (DiD) quasi-experimental evaluation
Age or status of participants	Young people aged 12 to 17 years old – who have been referred to Children's Social Care services in England, identified from their first referral between 1st April 2015 and 31st March 2022 (further restrictions apply depending on the outcome measure).
Number of participating Local Authorities	Up to 148 local authorities (provisional) 4 intervention local authorities (Rochdale, Warrington, Norfolk, Redcar & Cleveland) Up to 144 comparator local authorities (provisional)
Number of children and families	Intervention local authorities: 27,238 Comparator local authorities: 2,959,776 Total: 2,987,014

Primary outcome(s)	Likelihood of becoming looked after within 18 months of a first referral to Children's Social Care (CSC) services during the study inclusion period
Secondary outcome(s)	(1) Number of days spent in care within the first period of care started during the study inclusion period, measured over 24-months or until the period of care ends, whichever occurs first (2) The number of care placement changes (excluding placement changes to Kinship Foster Care (KFC) or reunification with the family) within the first period of care started during the study inclusion period, measured over 24-months or until the end of the period of care, whichever occurs first (3) Likelihood of being Not in Education, Employment or Training (NEET), from the start of the academic year in which a young person turns 16 to the end of the academic year in which they turn 18 (measured at the end of each month over this period), for young people 'known to CSC services' at the start of the academic year in which they turn 16, or within 6-months prior
Contextual factors	This quasi-experimental evaluation of No Wrong Door complements a Stepped-Wedge Clustered Randomised Controlled Trial (SW-CRT) and an Implementation and Process Evaluation (IPE) of the same practice model. This evaluation, the SW-CRT and IPE evaluations are all part of the DfE-funded Strengthening Families, Protecting Children (SFPC) programme (2019-2022). The protocol for the original SW-CRT and IPE evaluations is available on the OSF. The scope of this quasi-experimental evaluation is restricted to the four local authorities who were involved in the accompanying SW-CRT and IPE: Rochdale, Warrington, Norfolk, Redcar & Cleveland. We evaluate the impact of No Wrong Door in these areas only and compared to service as usual in all other local authorities in England, excluding areas who were already using the practice model. Findings from this evaluation are meant to be used in triangulation with findings from the accompanying SW-CRT and IPE. Rochdale, Warrington, Norfolk, Redcar & Cleveland were selected as part of DfE's Children's Social Care Innovation Programme (CSCIP, 2014-2020). Participation in the programme required an Ofsted rating of "requires improvement" and high rates and/or rising numbers of looked after children over the last three years.
Version	Version 2.0

Changes were published before data was accessed.

Changes to version 1.0 (updated June 2026):

Key parameters of the evaluation:

- **Change in target population, inclusion criteria and follow-up timeframe for the NEET secondary outcome measure** (secondary outcome measure 3):

The previous NEET outcome measure focused on young people in care and recent care leavers aged 16 to 17 years-old. NEET status was meant to be followed-up from their date of care entry during the inclusion period for 24-months if they remained in care over this period, or for 12-months from the date of their care exit (or 24-months total, whichever happens the soonest).

Our original target population was a subset of the population of young people who the No Wrong Door services aim to support during their Education, Employment or Training (EET) journey.

We changed the focus of this research question to young people 'known' to CSC services (this included: those in care, recent care leavers, those with a CP plan, those who recently completed a CP plan, and those with an open referral to CSC). This change helps us look at changes in NEET outcomes among the total possible pool of young people who could be eligible to receive EET support via No Wrong Door. We expect this will increase sample sizes and be better suited to our statistical analyses, in addition to aligning the scope of participants to the total group of young people who could be eligible for No Wrong Door services. Sample size permitting, we specified one subgroup analyses on young people in care or with experiences of care (see NEET outcome section).

This change is in line with our we approach the measure of our primary outcome (changes in care-entry among all Children and Young People (CYP) referred to CSC services), which looks at a wider group of possible eligible CYP to identify the impact of No Wrong Door.

Finally, we expect NEET outcomes cannot be reliably measured after the end of the academic year in which young people turn 18. LAs have to monitor the NEET status of all young people who reside in their area until the end of the academic year in which they turn 18, but not beyond, unless the young person in on an Education, Health and Care Plan (EHCP). Since participants in our original measure could enter the study at different ages between 16 and 18, we expect some of their outcomes would have been censored before the end of their follow-up timeframe. Besides, our original measure planned for different durations of follow-up

depending on young people's care journeys, which could have also introduced censorship.

To remove censorship and align follow-up timeframes, we propose to look at cohorts of young people who enter the study from the academic year in which they turn 16, and monitor their NEET status on a monthly basis until the end of the academic year in which they turn 18. The total duration of follow-up will be 24 months. More details in the NEET outcome section.

- **Secondary outcome follow-up timeframes:** correction of inconsistencies between parts of the protocol
- **Comparison group selection**: we propose to include all local authorities in England who are not delivering No Wrong Door (with exceptions outlined in the protocol) instead of matching each intervention local authority to its own comparison area. Using a larger set of eligible English LAs is expected to increase precision by expanding the control pool and reducing variance in the study's estimates. Should this method not yield an appropriate comparison group upon pre-trend inspection, we will use a matched subset of local authorities, using coarsened exact matching.
- **Details about participants inclusion criteria**: we added details about the inclusion criteria for participants in the comparison and intervention groups, including clarifications about using a wash-out period of 18-months prior to the implementation of No Wrong Door for each timing cohort of local authorities to prevent contamination.

MDES

- **MDES calculations**. MDES calculations were updated based on changes in the comparison group selection.

Statistical Analyses

- **Change in our estimation method**: Using Callaway and Sant'Anna (2021)[1] DiD event-study and DiD estimation method instead of Two-Way Fixed Effects (TWFE). Two-Way Fixed Effect to estimate intervention effects in staggered settings is not recommended in the literature (Baker et al., 2025)[2]. Version 1.0 already considered following the Callaway

[1] Callaway, B., & Sant'Anna, P. H. C. (2021). Difference-in-Differences with multiple time periods. Journal of Econometrics, Themed Issue: Treatment Effect 1, 225(2), 200–230. https://doi.org/10.1016/j.jeconom.2020.12.001

[2] Baker, A., Callaway, B., Cunningham, S., Goodman-Bacon, A., & Sant'Anna, P. H. C. (2025). Difference-in-Differences Designs: A Practitioner's Guide (arXiv:2503.13323). arXiv. https://doi.org/10.48550/arXiv.2503.13323

and Sant'Anna approach in sensitivity analyses. We propose to use this method in our main analyses instead.

- **Changes in covariate adjustment**: (1) we removed 'presence of other innovation programmes' due to a lack of data for this variable in the stepped-wedge cluster randomised trial, to allow analyses to be comparable, (2) we removed 'Proportion of White British children in the sample' and 'Proportion of Children on FSM in the sample' since we adjust for these variables as individual-level characteristics, and adjust for time-invariant area-level effects by clustering standard errors at the LA level, (3) we added one LA-level covariate adjustment: the most recent Ofsted rating given to a local area's children's service before the implementation of No Wrong Door in Rochdale, the first LA in the study to deliver the practice model, considered a possible key confounder, since LAs in the intervention group were selected on the basis of their Ofsted rating history.
- **Handling missing data**: we dropped multiple imputation (MI) for missing data. We do not anticipate MI will be required since we will rely on secondary administrative data for these analyses and expect missingness to be minimal in the data used.
- **Changes in sensitivity analyses**: we propose a new set of sensitivity analyses, based on the change in estimation method for our main analyses. We propose to look at differential time effects through reporting event-time estimates. We also removed the 'decomposition' section using Goodman-Bacon (2018)[3], since we adopt the Callaway and Sant'Anna approach in our main analysis.

Summary

This protocol covers the quasi-experimental evaluation of No Wrong Door, a practice model of children's social care work, using a Difference-in-Differences (DiD) methodology. The evaluator is Foundations – the What Works Centre for Children and Families.

This study is conducted in addition to a Stepped-Wedge Clustered Randomised Controlled Trial (SW-CRT) and an Implementation and Process Evaluation (IPE) of the same intervention. Findings from this quasi-experimental evaluation are meant to be triangulated with the accompanying SW-CRT and IPE.

[3] Goodman-Bacon, A. (2018). Difference-in-Differences with Variation in Treatment Timing (Working Paper No. 25018). National Bureau of Economic Research. https://doi.org/10.3386/w25018

This evaluation was funded by the Department for Education as part of the Strengthening Families, Protecting Children (SFPC) programme.

Table of contents

Background and problem statement

This protocol describes the difference-in-differences (DiD) evaluation of No Wrong Door in four local authorities in England who implemented the model between 2020 and 2021. This evaluation is part of a broader programme of work called Strengthening Families, Protecting Children (SFPC).

SFPC is a five-year programme funded in 2019 by the Department for Education (DfE). The programme supported 18 local authorities' children services to improve work with families and safely reduce the number of children entering care. Selected local authorities were funded to adopt and adapt one of three children's social care innovation programme projects in their own area:

- Leeds' Family Valued
- Hertfordshire's Family Safeguarding
- North Yorkshire's No Wrong Door

Foundations – What Works Centre for Children and Families is conducting a four-part evaluation for each of these models of children's social care practice, as follows:

Part 1 – Pilot evaluation. One 'Trailblazer' local authority (LA) was selected to be the first to implement each practice model and serve as a pilot site. The pilot of No Wrong Door took place in Middlesbrough between 2020 and 2021. The report is available on Foundations' website.

Part 2 – Impact evaluation. An impact evaluation of each practice model was then conducted across five new local authorities, using a Stepped Wedge Cluster Randomised Controlled Trial (SW-CRT) design. This strand was cancelled for Family Valued due to disruptions during the trial. One participant local authority dropped out of the No Wrong Door trial (Leicester City Council), leaving the total number of participant local authorities in this trial to four.

Part 3 – Implementation and Process Evaluation (IPE). Running alongside the SW-CRTs, an IPE was conducted to understand how each practice model was delivered during rollout.

Part 4 – Difference-in-differences (DiD) analysis. Given the challenges the COVID-19 pandemic posed to the SW-CRT evaluations, a DiD analysis will be conducted for each practice model as an additional analytical approach, to complement the SW-CRT findings and strengthen the overall robustness of the impact estimates.

This document sets out the protocol for the difference-in-differences evaluation of No Wrong Door.

No Wrong Door

No Wrong Door was developed in North Yorkshire with support from the Department for Education's Innovation Programme. Its delivery in North Yorkshire was evaluated by a team at Loughborough University in 2017[4].

The intervention involves the creation of hubs which bring together an integrated range of accommodation options, services and outreach to support young people aged 12-25 who are looked after or on the edge of care, at risk of family or placement breakdown, stepping down from residential care to family-based care, or transitioning to independent living.

The hub staff team includes the following roles:

- A Manager and two Deputy Managers
- Hub Residential and Edge of Care Workers (key workers)
- Portfolio Leads who lead on areas such as education, rebuilding relationships, accommodation and transitions
- A Life Coach (Clinical Psychologist)
- Communication Support Worker (Speech & Language Therapist)
- Police Liaison Officer
- Hub Community Families / Relief Workers
- High Need Supported Lodgings / Relief Workers
- Business Support
- Case Support Worker
- Handy Person
- Police Intelligence Analyst
- Performance Analyst

Support is delivered through outreach to young people in existing family or foster care placements, and through supporting young people placed in hub placement options including foster care and supported accommodation. Short or medium term residential placements are also used where

[4] Lushey, C., Hyde-Dryden, G., Holmes, L., Blackmore, J. (2017). Evaluation of the No Wrong Door Innovation Programme: Research report. Department for Education: London. Accessed 18th March 2026 from https://assets.publishing.service.gov.uk/media/5a82c2c540f0b6230269c8f5/Evaluation_of_the_No_Wrong_Door_Innovation_Programme.pdf

needed, to support the long term goal of permanence in a family or community setting. Identification of suitable cases and referral to the hub is expected to be through social workers working with young people looked after or on the edge of care, although referral routes may vary according to local arrangements.

The integrated team supports the young person throughout their journey to avoid passing them from service to service. All staff are trained in restorative, strengths-based approaches. Young people receive a core offer of support to help reduce high risk behaviour, build and restore relationships, support achievement, develop self-esteem, self-worth and resilience, as well as to support transitions and provide appropriate crisis support.

No Wrong Door operates flexibly, bringing young people into the service quickly and supporting a slow transition out. A key non-negotiable of the programme is using residential care as a short-term intervention rather than a long term solution, and a significant indicator is that young people are always progressing to permanence within a family or community.

Successful delivery of the model is considered to be contingent on a service-wide practice model and approach to decision making and risk which is restorative, solution-focused, relationships and strengths-based, as well as significant support from senior leadership.

Context

The four local authorities implementing No Wrong Door as part of SFPC and included in this evaluation are Rochdale, Warrington, Norfolk, and Redcar & Cleveland. These authorities launched the model at the following dates:

- **Rochdale**: 1st April 2020
- **Warrington**: 1st April 2021
- **Norfolk**: 1st June 2021
- **Redcar & Cleveland**: 1st September 2021

At the point of rollout to the first local authority, Children's Services in these authorities all had an Ofsted judgement of 'requires improvement to be good', except for Warrington which received a judgement of 'good' in 2019. These authorities were selected by the Department for Education to participate in the programme due to having high rates of children looked after compared to their statistical neighbour median over the last 3 years, and/or rising rates of children looked after in each of the last 3 years.

In the difference-in-differences (DiD) analysis, we use these four local authorities as our intervention group and produce a comparison group from other local authorities in England that did not implement No Wrong Door.

The ongoing impact evaluation of No Wrong Door uses a Stepped-Wedge Clustered Randomised Controlled Trial (SW-CRT) design to estimate the impacts of No Wrong Door on children and families. While this design was chosen because of its robustness, the COVID-19 pandemic affected local authorities differently, making them less comparable in an RCT set-up without additional comparator local authorities. The pandemic disrupted the randomised implementation timings and, more broadly, the operating context of children's social care across England.

The DiD analysis can provide a second lens through which to analyse the programme, which rests on different assumptions to a Randomised Controlled Trial (RCT). The DiD analysis will aim to account for the differential effect of COVID-19 on different local authorities by using a comparator group of local authorities that did not implement No Wrong Door, drawn from a wide pool of eligible English local authorities, with similar pre-intervention trends in outcomes.

Impact evaluation

Aims

No Wrong Door's delivery in North Yorkshire was evaluated by a team at Loughborough University in 2017[5], using a pre-post design and matched cohorts. This evaluation triangulates results from a SW-CRT approach and a DiD analysis to provide a more robust evidence base of the impacts of No Wrong Door when scaled to four other local authorities: Rochdale, Warrington, Norfolk, and Redcar & Cleveland. The aim of this study is to provide an estimate of the impact of No Wrong Door on key outcomes for children and young people.

Scope of the evaluation

The No Wrong Door model is a whole-system reform that aims to affect multiple parties engaged with Children's Services. Whilst the practice model might impact a variety of outcomes for young people and families, this impact evaluation focuses primarily on whether the practice model reduces the number of young people looked after in participant local authorities.

Our population of interest are young people who have been referred to children's social care (primary outcome), who entered care, or were known to CSC services (secondary outcomes) and were aged 12-17 at the time of referral (or entering the study) in England. This is the primary age group that the No Wrong Door teams work with, as the model is targeted at adolescents who are looked after or on the edge of care, at risk of family or placement breakdown, stepping down from residential care, or transitioning to independent living.

Service as usual

In this evaluation, service as usual refers to the range of service and practice models used in children's social care in England outside the No Wrong Door model. Children's social care systems in England do not operate under a single mandated practice model, and local authorities adopt a variety of frameworks and organisational approaches for working with adolescents on the edge of care.

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[5] Lushey, C., Hyde-Dryden, G., Holmes, L., Blackmore, J. (2017). Evaluation of the No Wrong Door Innovation Programme: Research report. Department for Education: London. Accessed 18th March 2026 from https://assets.publishing.service.gov.uk/media/5a82c2c540f0b6230269c8f5/Evaluation_of_the_No_Wrong_Door_Innovation_Programme.pdf

Some children's social care services will operate edge-of-care or adolescent-focused models with similarities to No Wrong Door (e.g., multi-disciplinary hubs, edge of care teams). Other services will deliver support for adolescents at risk of becoming looked after through existing in-house teams or through referrals to third party services. The landscape of service-as-usual children's social care services for this population is therefore varied. The aim of this study is to evaluate the No Wrong Door model against the collection of all service and practice models delivered in England.

Research questions

We assess one primary research question about care entry, and three secondary research questions.

RQ1: What is the impact of No Wrong Door on the likelihood of young people (aged 12 to 17 years old) becoming looked after within 18 months of their first referral to Children's Social Care (CSC) services during the study inclusion period, compared to young people in service as usual local authorities in England?

Across all our research questions, we assess the impact of No Wrong Door compared to service-as-usual children's social care services across local authorities in England, which we consider to be any service or practice model that is not No Wrong Door.

Given the multifaceted nature of the practice model, we also expect to see changes in other important outcomes. To provide a more thorough assessment of the practice model's impacts, we address the following secondary research questions:

RQ2: What is the impact of No Wrong Door on the number of days spent in the first period of care measured over 24-months from care entry (i.e., from entry in care to exit or 24-months, whichever occurs first), among young people (aged 12 to 17 years old) who entered care during the study inclusion period, compared to young people in service-as-usual LAs?

RQ3: What is the impact of No Wrong Door on the number of placement changes experienced by young people (aged 12 to 17 years old) during their first period of care during the study inclusion period, measured over 24-months (i.e., from care-entry until exit or 24 months, whichever occurs first, and excluding changes to reunification or kinship care), compared to young people in service-as-usual LAs?

RQ4: What is the impact of No Wrong Door on the likelihood of being Not in Employment, Education or Training (NEET) for young people who were known to CSC services at the start of, or before the academic year in which they turn 16 years old, measured until the end of the academic year in which they turn 18 years old, compared to usual service?

We define 'being known' to CSC services as any of the following: being in care at the start of the academic year in which the young person turns 16, leaving care within 6 months of this academic year, being on a CP plan at the start of this academic year, having completed a CP plan within 6-months before the start of this academic year or having an open referral to CSC services at the start of this academic year.

Design

The analysis uses a difference-in-differences (DiD) design. The unit of analysis is at the individual (i.e., young person) level to maximise the power to detect an effect within the constraints of the project.

In a DiD design, we compare the change over time in outcomes in the local authorities implementing No Wrong Door ("intervention group") with the change in outcomes in comparator local authorities ("comparison group"). More information on the selection of a comparator group of local authorities is detailed below.

This analysis is intended to complement the Stepped-Wedge Clustered Randomised Controlled Trial (SW-CRT) of No Wrong Door in Rochdale, Warrington, Norfolk, and Redcar & Cleveland. The COVID-19 pandemic affected No Wrong Door local authorities to different extents, for example through implementation delays and the move to remote working. These unequal impacts may have led to systematic differences in how the practice model was implemented across local authorities, reducing their comparability. This may have contributed to different outcome trends between the intervention and comparator groups during the trial, potentially weakening the validity of the comparator group in the stepped-wedge design.

To mitigate these concerns, Foundations and the DfE chose to complement the SW-CRT analyses with a DiD approach. This approach will offer an insight into the impact of No Wrong Door on the same outcomes measured in the SW-CRT, whilst relying on a different comparator group drawn from the pool of all eligible English local authorities that did not implement No Wrong Door.

Table 1. Outcome measures.

Evaluation design		Difference-in-differences
Primary outcome	variable	Whether or not the young person has become looked after
	measure (instrument, scale)	Coded 1 if the young person has become looked after at any point within 18 months of their first referral to CSC services during the study inclusion period (i.e., has a date of care episode commenced). Coded 0 if the young person has not become looked after within this period (i.e., no date of care episode commenced was recorded).
	sample	Young people aged 12-17 at the time of referral that have been referred to CSC services within the study inclusion period, identified from their first referral during the period (subsequent referrals are ignored, and outcomes are measured from first referral only).

Secondary outcome 1	variable(s)	Number of days spent in care
	measure(s) (instrument, scale)	Discrete variable equal to the number of days that a young person has been in a single period of care over a 24-month period from the start of the initial episode of care (capped at 24 months). The number of days is recorded over 24 months (or until the end of the period of care, whichever occurs soonest) from the start of the first period of care within the study inclusion period.
	sample	Young people aged 12-17 at the start of their care episode who started a period of care within the study inclusion period.
Secondary outcome 2	variable(s)	Number of placement changes
	measure(s) (instrument, scale)	Discrete variable equal to the number of placement changes a young person experiences during a single period of care, excluding any placement changes to reunification or kinship care. The number of changes is recorded over 24 months (or until the end of the period of care, whichever occurs soonest) from the start of the first period of care within the study inclusion period.
	sample	Young people aged 12-17 at the start of their care episode who started a period of care within the study inclusion period.
Secondary outcome 3	variable(s)	NEET status
	measure(s) (instrument, scale)	Binary variable coded 1 if the young person is not in education, employment or training (NEET), measured at the end of each month for 24 months from the start of the academic year in which the young person turns 16 until the end of the academic year in which they turn 18, for young people known to CSC services.
	sample	Young people who meet any of the following criteria: • At the start of the academic year in which they turn 16, the young person is in care,

		and/or has an open CP plan, and/or has an open referral to CSC services, And/or: • Within 6-months of the start of the academic year in which they turn 16, the young person left care and/or completed a CP plan

Study period

The study inclusion period for this evaluation starts on 1st April 2015 and ends six months after the last local authority in the intervention group (Redcar & Cleveland) implemented No Wrong Door (31st March 2022). Outcomes are followed up beyond this point, but participants are identified using their first referral to CSC services, their first period of care, or the start of the academic year in which they turn 16 during the study inclusion period, depending on the outcome measure.

Participants' outcomes are followed up for at least 18 months from the date of their first referral to CSC services during the study inclusion period (for the primary outcome). For secondary outcomes related to care episodes (days in care, placement changes) outcomes are followed up for up to 24 months from the start of the first period of care (or until the end of this period, if happens before 24-months). Outcomes are followed-up for 24-months from the start of the academic year in which young people turn 16 until the end of the academic year in which they turn 18 for the NEET outcome, over a total of 24-months.

Pre- and post-implementation periods are defined based on the implementation schedule of the accompanying Stepped-Wedge Clustered Randomised Controlled Trial (SW-CRT) of No Wrong Door, which started on the 1st of April 2020 with Rochdale. The observation period between 1st April 2015 and 31st March 2020 will be used to assess pre-implementation trends in outcomes between comparison and intervention areas.

Local authority inclusion criteria

Intervention local authorities

Findings from this study are meant to complement the SW-CRT of No Wrong Door conducted in Rochdale, Warrington, Norfolk, and Redcar & Cleveland. As such, this study focuses on measuring the impact of No Wrong Door in the four sites of the SW-CRT, compared to service as usual in other local authorities in England.

The four local authorities involved in the SW-CRT started implementing No Wrong Door between April 2020 and September 2021. These will be used to define intervention timing 'cohorts' in this study. Due to the small number of local areas included in the intervention group, each area contributes its own cohort, as follows:

- **Cohort 1:** Rochdale, implementation start date 1st April 2020
- **Cohort 2:** Warrington, implementation start date 1st April 2021

- **Cohort 3:** Norfolk, implementation start date 1st June 2021
- **Cohort 4:** Redcar & Cleveland, implementation start date 1st September 2021

The post-implementation period for each site started after all hub staff (including specialist roles) was recruited and completed the No Wrong Door training.

Comparator local authority selection

We will use a comparison pool of relevant local authorities who are not delivering No Wrong Door, selected from all local authorities in England running a children's social care service.

To select relevant local authorities from all possible areas in England, we use a set of pre-specified exclusion criteria, defined below. The exclusion criteria ensure our final comparison group does not feature local areas with characteristics that would invalidate comparison. Our intention is to use all local authorities that were screened against our exclusion criteria in the preliminary comparison pool. Should this comparison pool not be valid after quality checks, we will use a matched subset of local areas (method defined below).

Looking at all eligible local authorities in England as comparators maximises statistical power by increasing the number of comparison observations contributing to the estimation of untreated potential outcomes, thereby improving the precision of the DiD estimates.

Exclusion criteria

We will exclude local authorities from our comparison pool based on the following criteria:

- **Criterion 1**: Local authorities who started implementing No Wrong Door before or during the study period. This includes North Yorkshire (the developer area) and Middlesbrough (the Trailblazer local authority), both of which are excluded from the comparator pool.

  Following discussions with the model developer, North Yorkshire, we established that the No Wrong Door model had not been implemented in any other local authority in England to date, outside of North Yorkshire, Middlesbrough, Rochdale, Warrington, Norfolk and Redcar & Cleveland. Whilst North Yorkshire has been in contact with and supported other local authorities to improve their children's services to varying degrees since 2015 (this included support to adopt practices that are in line with some aspects of the No Wrong Door model), there are no authorities formally delivering the No Wrong Door model.

- **Criterion 2**: Local authorities with atypical children's social care profiles that make comparison inappropriate (i.e., the City of London, Isles of Scilly).

Given our criteria, we provisionally exclude 4 local authorities from our analyses (North Yorkshire, Middlesbrough, City of London and Isles of Scilly). We include Leicester City Council in our comparison pool, the fifth local authority who intended to take part in the SW-CRT evaluation strand, but dropped out before starting delivering No Wrong Door for financial reasons.

Our criteria will ensure that all remaining LAs constitute a plausible donor pool. In our main analyses, the comparison group will only include local authorities that have never implemented No

Wrong Door (i.e., we include 'never-treated' local areas). This means that intervention local authorities will not be included in the comparison group, even before they started implementing the practice model (i.e., we exclude 'not-yet treated' local areas).

Quality checks

To check whether our comparison group is appropriate, we will plot trends in outcomes for all comparison local areas and each of the four intervention authorities of this study, up to five years before they implemented No Wrong Door (between 1st April 2015 and 31st March 2020). This will serve as an initial check to assess whether our comparison pool is appropriate. Visual plots of pre-outcome trends alone are not evidence that parallel trends hold. We will perform additional sensitivity tests, described in following sections.

If visual checks reveal substantial differences in outcome trends, we will match intervention local authorities to a subset of comparison local authorities, based on similarities in their socio-demographic profile and considering variables that are likely to impact trends in outcomes.

We will consider matching based on these covariates:

- Yearly number of young people aged 12-17 in the local authority (using ONS mid-year population estimates) before the implementation of No Wrong Door,
- Two measures of deprivation, pre-implementation of No Wrong Door: (1) local area deprivation (Index of Multiple Deprivation, 2019 by the Ministry of Housing, Communities and Local Government), (2) proportion of pupils eligible for Free School Meals (FSM) (using the National Pupil Database, DfE),
- Ofsted children's social care inspection ratings before No Wrong Door was implemented (using the 2018 or 2023 Five-year Ofsted Inspection [6], or the Association of Directors of Children's Services Ofsted ILACS[7]),
- Local authority spend (or prevention spend) per child before No Wrong Door was implemented (using Section 251 expenditure statements by the Ministry of Housing, Communities and Local Government – 2018 to 2021)[8]
- Rates of Children Looked After (CLA) (at the most granular level available) before the implementation of No Wrong Door.

In this scenario, we propose to use Coarsened Exact Matching (CEM) to match local authorities, as previously specified in version 1.0 of this protocol.

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[6] Children's Social Care Five-Year Ofsted Inspection Data (2023). Accessed 12th February 2026 from https://www.gov.uk/government/publications/five-year-ofsted-inspection-data.

[7] Ofsted ILACS data (2016-2026). Association of Directors of Children's Services (ADCS). Accessed 12th February 2026 from https://www.adcs.org.uk/inspection-of-childrens-services/

[8] Bennett, D. L., Webb, C. J. R., Mason, K. E., Schlüter, D. K., Fahy, K., Alexiou, A., Wickham, S., Barr, B., & Taylor-Robinson, D. (2021). Funding for preventative Children's Services and rates of children becoming looked after: A natural experiment using longitudinal area-level data in England. *Children and Youth Services Review*, *131*, 106289. https://doi.org/10.1016/j.childyouth.2021.106289

Participants inclusion

The inclusion criteria for young people in the study are as follows:

Criterion 1: Young people will be identified from their first referral to CSC services (primary outcome), first period of care (secondary outcomes related to care), or meeting specific criteria before or at the start of the academic year in which the young person turns 16 (NEET outcomes) during the study inclusion period. The specific criteria for inclusion for the NEET outcome is available in the NEET outcome section.

For the primary outcome, and first two secondary outcomes: young people might have had previous referrals / care entry before the start of the study inclusion period, or subsequent referrals / care entry dafter their first referral / care entry dates during the study period. These referrals / care entry dates are not taken into account, and outcomes are followed up from their first referral in the study period only.

Criterion 2: For the primary outcome and first two secondary outcomes, young people must be aged 12 to 17 years old at the time of their first referral / care entry date during the study inclusion period. Young people will enter the study at age 15 or 16 for the NEET outcome.

Criterion 3:

- For the primary and first two secondary outcomes, we introduce a 'wash-out' period for all participants, whereby young people (across all local authorities in implementation and comparator groups) whose first referral / care entry fall within 18 or 24 months before the implementation of No Wrong Door in each implementing area are excluded from causal effect estimations. This helps ensure a clean baseline period before the delivery of No Wrong Door, such that pre-intervention outcomes for young people in the intervention group are not influenced by young people who eventually benefitted from the practice model even if they were referred before delivery started. We also remove participants in the comparison group who were referred during the wash-out period to adjust for time-varying trends that could introduce systematic differences in outcomes between the intervention and comparison groups and bias estimations. Details on how we will implement the wash-out period are included in the analysis plan section of this protocol.
- For NEET outcomes, the washout period is based on whether the academic period in which the young person turns 16 crosses overlaps with the start date for the delivery of No Wrong Door. We will exclude transition cohorts whose follow-up period from academic year 16 to academic year 18 overlaps with the start of No Wrong Door delivery in the relevant implementation area. The same exclusion will be applied to comparator areas using the corresponding implementation date. More information in the NEET outcome section.

Young people who were referred in Rochdale, Warrington, Norfolk, and Redcar & Cleveland before the delivery of No Wrong Door (and excluding those referred within 18 months of delivery start, or those who entered care within 24-months of delivery start, or those who academic year 16 overlapped with No Wrong Door delivery start dates) in each local area are assigned to the intervention group in the 'pre-period'. Young people who enter the study in these areas after delivery are assigned to the intervention group in the 'post-period'.

Young people referred/in care/who enter the study at the start of the academic year in which they turn 16 in comparison local authorities are subject to the same cohort-specific timing rules and wash-out exclusions. Since comparison local authorities are never treated, their observations are used as comparison observations for estimation at the corresponding times for each implementation cohort, rather than being assigned to fixed 'pre' and 'post' comparison-group periods.

Outcome measures

We will evaluate one primary outcome measure and three secondary outcome measures. Individual-level data will be collected from the Department for Education (DfE) National Pupil Database (NPD), and accessed via the ONS Secure Research Service (SRS). Local authorities will not be involved in the data collection for the DiD analysis.

Primary outcome measure

Whether or not the young person has become looked after

To answer research question 1, we will analyse whether young people (aged 12-17 who are referred to CSC services within the study inclusion period, identified from their first referral during the period) are more or less likely to become looked after within 18 months of starting the referral where No Wrong Door had been implemented, compared to where it had not been. The outcome measure is a binary variable, indicating whether or not a young person that is in our sample (defined above) has become looked after at any point within 18 months of their first referral to CSC services in the study period.

Note that the episode of care does not have to result directly from the initial referral. For example, a young person who had a case that was closed but then returns to children's services and becomes looked after within 18 months of the initial referral date will be coded as 1.

No Wrong Door works with young people who are looked after or on the edge of care. One of the goals of the programme is to keep young people out of the care system and safely with their families. Since the definition of 'edge of care' can differ between local authorities, and data on edge-of-care status may not be readily available before the programme was implemented, we use a wide population estimate using all young people aged 12-17 who have been referred to CSC services within the study inclusion period as our baseline population. This will encompass the vast majority of young people on the edge of care and will also capture cases that we would not be able to capture if we limited the population to a more narrowly defined population. However, this means that our sample population will also include some young people who were not eligible to No Wrong Door services. This may attenuate estimated impacts, as the analysis will include individuals who were not directly exposed to the programme.

Secondary outcome measures

In addition to the primary outcome, we will also seek to evaluate three secondary outcome measures.

Days spent in care

To answer research question 2, we use a discrete variable measuring the number of days a young person has spent in care over a period of 24 months from the start of the initial episode of care, for a single period of care. Larger values will be censored at 24 months. Our sample will be different to our primary sample (young people who are referred within the study inclusion period), and will only include young people who started an episode of care within the study inclusion period and were aged 12-17 at the point of first entering care within the study inclusion period. It is possible young people have multiple periods of care during the follow-up timeframe, but we only measure the duration of their first period of care which started during the study inclusion period.

The number of days a young person spends in care is one of the indicators of the No Wrong Door model's effectiveness in supporting transitions out of care to permanence in a family or community setting.

Number of placement changes

To answer research question 3, we use a discrete variable measuring the number of times a young person changes placements during a single period of care. Our sample will include any young person who started a period of care within the study inclusion period and was aged 12-17 years old at the point of first entering care within the study inclusion period. We will only count the number of placement changes within 24 months of beginning the initial period of care.

The number of placement changes can serve as a measure of the effectiveness of No Wrong Door in supporting stable placements for young people in care. The integrated, multi-disciplinary support that No Wrong Door provides in a crisis is intended to help avoid placement breakdowns for young people in care. We will exclude any moves into kinship care or reunification with the family from our count since we consider these moves to be less harmful to the young person than other types of placement changes.

NEET status

To answer research question 4, we will use a binary outcome measure, indicating whether or not a young person who was known to CSC services at the start of, or before the academic year in which they turned 16, was not in education, employment or training (NEET) at the end of the month.

NEET status will be measured as a binary indicator (1 = NEET, 0 = not NEET) recorded at the end of each month. Each young person will be measured repeatedly, contributing one observation per month during the follow-up period. The follow-up period for each young person will run from the start the academic year in which they turn 16 (from 1st September) until the end of the academic year in which they turn 18 (to 31st August), a total of 24-months.

LAs have to monitor the NEET status of all young people who reside in their area until the end of the academic year in which they turn 18 (or up to 25 if the young person is subject to an Education, Health and Care Plan [EHCP]). This is captured in the NCCIS, a dataset stored and maintained in DfE's NPD, which we will use to measure this outcome.

The study inclusion period for this outcome will run from the start of the 2015-2016 academic year (1st September 2015), until the end of the 2022-2023 academic year (31st August 2023). The cohort

turning 16 during the 2022-2023 academic year (starting on the 1st September 2022) will be the last cohort included in the analyses and will be followed-up until the 31st August 2024 (end of the 2022-23 academic year).

The multi-disciplinary teams working with young people through No Wrong Door, and the support provided for education and employment, are expected to reduce the rate of young people who are NEET.

Participants

Sample participants for this outcome will be young people who were known to CSC services at the start of, or before the academic year in which they turn 16. This sample of participants will be made up of young people with different journeys and experiences with CSC services. The sample will include the following subgroups: (1) young people in care or with care experience (2) young people who receive, or were receiving statutory services (3) young people referred to CSC services.

We will include all participants who meet the following inclusion criteria:

1. Young people in care or with care experience:
    a. Those who are in care at the start of the academic in which they turn 16,
    b. Those who left care within 6-months of the academic year in which they turn 16,
2. Young people who receive or were receiving statutory services:
    a. Those who are on a CP plan at the start of the academic in which they turn 16,
    b. Those who completed a CP plan within 6-months of the academic year in which they turn 16,
3. Young people referred to CSC services:
    a. Those who have an open referral to CSC services at the start of the academic year in which they turn 16.

To avoid mixing pre- and post-implementation exposure within the same follow-up window, we will exclude transition cohorts whose follow-up period from academic year 16 to academic year 18 overlaps with the start of No Wrong Door delivery in the relevant implementation area. The same exclusion will be applied to comparator areas using the corresponding implementation date, to preserve comparability across intervention and comparator cohorts.

Subgroup analyses

Sample size allowing, we will conduct subgroup analyses for the NEET outcome and looking at the subgroup of young people in care or with care experience (subgroups 1a and 1b). This subgroup analysis will help isolate the effects of No Wrong Door on NEET outcomes for young people with care experience, a group of young people who may face particular risks with transitioning into independent living.

Note on findings interpretation

Care should be taken in the interpretation of the results of our analysis. Each result (pertaining to a specific outcome measure) will help create a picture of the changes that are taking place because of

the intervention. However, in isolation we should be wary of concluding strongly that one direction is good or bad.

For example, a reduction in the number of days young people spend in care could be positive — indicating that No Wrong Door is supporting timely and successful transitions to permanence in a family or community setting. However, it could also be negative — for example, if it reflects young people leaving care before they are ready, or premature transitions to independent living.

Similarly, an increase in placement changes might reflect appropriate moves in line with the young person's needs (e.g. moves towards independence), or it could reflect placement instability. Thus, it is hard to unambiguously interpret changes in these measures as either good or bad.

We will evaluate each analysis in the context of the others that we conduct. We will also interpret the results alongside the findings of the associated implementation and process evaluation, which may shed further light on the factors driving these outcome changes. We will reflect any remaining ambiguity accordingly in our reports.

Finally, it is unlikely findings will generalise to all local authorities in England. In this study, local authorities that make up the intervention group were selected on the basis of specific criteria (i.e., Ofsted ratings and trends in care entry), which will not be representative of all LAs in England. For instance, we might expect the effect of No Wrong Door to be heterogeneous across local areas with different characteristics, which our findings would not measure.

Sample size / MDES calculations

We conducted minimum detectable effect size (MDES) calculations for the primary difference-in-differences (DiD) estimand — the average post-period treatment effect — using Schochet's (2022) DiD power calculator. MDES values were calculated under a primary scenario and a set of sensitivity scenarios that varied design assumptions to assess the robustness of power to alternative parameter values. All calculations assumed a two-sided test with $\alpha = 0.05$.

The Schochet (2022) DiD power calculation dashboard is built around a matched design framework, in which intervention units are paired with a limited set of comparable control units and power is derived under that structure. In our study, however, intervention units are compared against a broader donor pool rather than individually matched controls. Because this approach can increase the effective sample size and reduce the variance of the estimated treatment effect relative to a strictly matched design, the variance assumptions embedded in the Schochet (2022) dashboard may be conservative for our setting. As a result, the MDES generated by the tool may be larger than the true MDES required under our donor-pool design.

Depending on the scenario, this study is powered (80%, $\alpha = 0.05$) to detect an effect of 0.039 standard deviation (scenario A), 0.047 (B), 0.061 (C), 0.058 (D) or 0.039 (E) standard deviations.

Under scenario A, and assuming the baseline probability of a child entering care within 18 months is 6%, our MDES corresponds to an absolute change of about 0.93 percentage points on the probability scale. Given an average of 187 children at risk per month, this means our study is powered to detect a change of about 1.7 fewer (or more) children entering care per month, on average — equivalent to roughly 21 children per year of referrals. Effects of this magnitude or larger

would be detected with at least 80% power under the assumed design. Smaller true effects are unlikely to be detected reliably. We will specify the study design as a multi-period DiD with the following parameters:

- **Study periods:** 108 monthly periods (scenario A, B and C) or 36 quarterly periods (scenario D) between 1st April 2015 and 31st March 2024
- **Intervention and comparison clusters:** 4 intervention clusters (Rochdale, Warrington, Norfolk, Redcar & Cleveland), and 144 comparison clusters, for a total of 148 clusters (scenario A to D), or 110 comparison clusters, for a total of 114 clusters (scenario E)
- **Participants:** 187 participants within cluster-period (scenarios A, B, C and E) or 560 (scenario D), based on the average monthly number of first referrals in local authorities in England between the 2015-16 and 2022-23 reporting years (1st April 2015 and 31st March 2022)
- **Timing groups:** Timing groups are based on the staggered implementation schedule of No Wrong Door in Rochdale, Warrington, Norfolk, and Redcar & Cleveland. There is only one intervention local authority in each timing group.
- **Timing group start times:** Start times for each timing group were t = 60, 72, 74 and 77 (scenario A, B and C) and t = 20, 24, 25, 26 (scenario D).
- **Matched comparison clusters in each timing group**: 36, 36, 36, 36 clusters for each timing group, for a total of 144 comparator local authorities (scenario A to D), and 27, 27, 28, 28 clusters for each timing group, for a total of 110 comparator local authorities (scenario E)
- **Error structure and precision:** We will assume a baseline AR(1) autocorrelation structure with $\rho = 0.3$, an intraclass correlation (ICC) of 0.00722, no precision loss from weighting (design effect = 1) in the baseline scenario, and no precision gain from model covariates. Sensitivity scenarios will vary the autocorrelation, design effect, and period length parameters.
- **Test:** MDES values will be computed for a two-sided test with $\alpha = 0.05$.

Table 2. Scenario-based MDES calculations

Scenarios	**Scenario A –** reference	**Scenario B –** change in design effect	**Scenario C –** change in autocorrelation	**Scenario D –** change in period length	**Scenario E –** number of comparator LAs
MDES	**0.039**	**0.047**	**0.061**	**0.058**	**0.039**
Number of time periods	108	108	108	**36**	108
Total number of intervention clusters (local authorities)	4	4	4	4	4

Number of intervention timing groups	4	4	4	4	4
Start period for each timing group	T = 60, 72, 74, 77	T = 60, 72, 74, 77	T = 60, 72, 74, 77	**T = 20, 24, 25, 26**	T = 60, 72, 74, 77
Number of treatment clusters in each timing group	1 in each	1 in each	1 in each	1 in each	1 in each
Total number of comparison clusters	144	144	144	144	**110**
Number of matched comparison clusters in each timing group	36, 36, 36, 36	36, 36, 36, 36	36, 36, 36, 36	36, 36, 36, 36	**27, 27, 28, 28**
Number of individuals per cluster per time	187	187	187	**560**	187
Autocorrelation structure of cluster-level errors over time	AR1	AR1	AR1	AR1	AR1
Autocorrelation parameter	0.3	0.3	**0.7**	0.3	0.3
Clustering effect: ICC within cluster-time cells	0.00722	0.00722	0.00722	0.00722	0.00722
Design effect	1	**1.5**	1	1	1
Regression R2 value from model covariates that improve precision	0	0	0	0	0
Correlation between model treatment indicators and covariates that reduces precision	0	0	0	0	0
Alpha level	0.05	0.05	0.05	0.05	0.05

Test	Two-tailed	Two-tailed	Two-tailed	Two-tailed	Two-tailed
Power level range	0.8	0.8	0.8	0.8	0.8

Analysis plan

Main analysis

We will estimate the impact of the No Wrong Door model using a DiD event-study analysis, following Callaway and Sant'Anna's (2021)[9] approach. Local authorities adopted the No Wrong Door model at different points in time in this study. We estimate the causal effects of No Wrong Door for different periods of time by comparing changes in outcomes for intervention areas with changes for suitable comparator areas that have never implemented the practice model during these periods.

We will estimate DiD event-study parameters between 1st April 2015 (5 years pre-trial) and the end of the study period (to 31st March 2024), at monthly intervals (if possible, otherwise quarterly intervals). We will also report an overall estimate of the effect of No Wrong Door based on our DiD event-study estimates.

Target parameters

Our target parameter is the aggregated Average Treatment effect on the Treated (ATT) of No Wrong Door across all intervention local authorities and implementation periods. This is obtained from aggregating all intervention effects for a specific group and at a specific time-period: $ATT(g,t)$. This parameter ($ATT(g,t)$) is a generalisation of the simple 2x2 difference-in-differences ATT described in Callaway and Sant'Anna (2021).

$ATT(g,t)$ represents the average effect of the intervention at a specific point in time for a specific group that adopted the intervention at the same time, where g indexes a group's implementation date and t indexes time. Callaway and Sant'Anna's (2021) method uses only valid comparisons in each period (i.e., 'never-treated' or 'not-yet-treated' local authorities) and avoids contamination from units that implemented the intervention serving as controls for other intervention units. In our analyses, we use 'never-treated' local authorities only in our comparison group.

For eligible participants i within local authorities g at a particular time t, $ATT(g,t)$ is denoted by:

$$ATT(g,t) = \mathbb{E}(Y_{i,t}(g) - Y_{i,t}(0)|G_i = g)$$

Where:

[9] 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

- $Y_{i,t}(g)$ is the potential outcome for unit i at time t if they first receive the intervention in period g;
- $Y_{i,t}(0)$ is the potential outcome for unit i at time t if they never receive the intervention;
- $G_i = g$ indicates that unit i first receives the intervention in period g.

We estimate $ATT(g,t)$ at six-month intervals. Pre-treatment relative periods are used to assess the plausibility of the parallel trends assumption. Post-treatment periods provide an event-study profile describing how effects evolve with time since implementation.

We use all $ATT(g,t)s$ to report the aggregated effect of No Wrong Door across all group-time intervention effects. There are a variety of ways to produce an aggregated estimate from all $ATT(g,t)s$. Callaway and Sant'Anna (2021) recommend a general purpose summary of the average effect of implementing an intervention θ^0_{sel}, defined as

$$\theta^0_{sel} = \sum_{g \in \mathcal{G}} \theta_{sel}(g) P(G = g | G \leq \mathcal{T})$$

Where:

- $\theta_{sel}(g)$ is the average effect of participating in the intervention for participants in group g.
- $\mathcal{T}$ is the total number of time periods in the study.

As Callaway and Sant'Anna (2021) describe it, θ^0_{sel} first calculates the average effect for each group and across all time periods, and then averages these effects across groups – resulting in an overall average effect of participating in the intervention.

In our analyses, we will implement a 'wash-out' period to ensure a clean baseline period before the delivery of No Wrong Door, such that pre-intervention outcomes for young people in the intervention group are not influenced by young people who eventually benefitted from the practice model even if they were referred before delivery started. To implement the wash-out period, we will use the 'anticipation' parameter available in the 'did' package (Callaway and Sant'Anna, 2021)[10]. In practice, specifying an anticipation window removes a pre-specified number of periods preceding the intervention start from the set of valid comparisons used to estimate group-time treatment effects, treating them as part of the transition into intervention rather than as control observations. This approach reduces bias that could arise if outcomes begin to change during the implementation phase, before the intervention is fully operational.

Estimation method

Callaway and Sant'Anna (2021) discuss three types of estimation methods to recover ATT(g,t):

- Outcome regression (OR),

[10] Callaway B, Sant'Anna P (2021). "did: Difference in Differences." R package version 2.3.0, <https://bcallaway11.github.io/did/>.

- Inverse probability weighting (IPW),
- 'Double-robust' method (DR) that combines OR and IPW.

The double-robust method presents robustness features that yields consistent estimates of $ATT(g,t)$ if either the outcome regression model or the intervention assignment (propensity score) model is correctly specified, but not necessarily both. This provides additional protection against model misspecification relative to relying on a single modelling strategy. We will use the double-robust method in our main analyses.

Reporting

Overall effect of No Wrong Door: We compute the aggregated treatment effect θ^0_{sel} by taking a weighted average of all estimated $ATT(g,t)$ values across cohorts and periods, using the general-purpose aggregation method in Callaway & Sant'Anna (2021). To support interpretation, we convert this estimate into a standardised effect size using Glass's delta, with the comparison-group pre-period standard deviation as the denominator.

Identifying assumptions

We will discuss the identifying assumptions required to hold for our findings to be valid causal estimates in our main analyses (e.g., conditional parallel trends, no-anticipation).

Rationale behind our estimation approach

The first version of this protocol proposed a two-way fixed effects (TWFE) specification estimated via feasible GLS. However, TWFE estimators are known to produce biased estimates in staggered DiD designs when intervention effects vary across cohorts or over time since implementation. In these settings, TWFE can produce negatively weighted comparisons, inappropriate use of already-'treated' local authorities as controls for later-'treated' ones, and in some cases estimates with the wrong sign.

Given that heterogeneous effects are likely in this context — local authorities may require time to embed the practice model and outcomes may evolve differently depending on implementation maturity — we directly adopt the Callaway and Sant'Anna (2021) estimator as our primary approach. This method avoids pitfalls inherent in TWFE[11], and provides transparent group-time estimates and valid identification under the parallel trend and no-anticipation assumptions.

Covariates

We include the following individual-level covariates, gathered at the point of referral / care entry (first referral or first period of care entry during the study inclusion period) for the primary outcome and first two secondary outcomes, or from CSC records obtained before the start of the

[11] Baker, A., Callaway, B., Cunningham, S., Goodman-Bacon, A., & Sant'Anna, P. H. C. (2025). *Difference-in-Differences Designs: A Practitioner's Guide* (No. arXiv:2503.13323). arXiv. https://doi.org/10.48550/arXiv.2503.13323

academic year in which participants turn 16 for the NEET outcome; and local authority covariates (where they are available) gathered from the most recent time point preceding the point of referral.

Vector of individual level covariates of the young person

- Gender (included as a categorical variable: 0=Not recorded/unborn, 1=male, 2=female, 3=indeterminate, 4=Missing)
- Ethnicity[12]
- Age at referral, or at first period of care entry (for the primary and first two secondary outcomes), or age at the start of the academic year in which the young person turns 16,
- Disabled status (included as a binary indicator: 0=No, 1=Yes)
- Eligibility for free school meals (included as a binary indicator: 0=No, 1=Yes, if pupil has ever been recorded as eligible for free school meals on Census day in any Spring Census up to the pupil's current year), Pupil Premium eligibility (for Reception, Year 1 and Year 2)[13]
- Is the young person an Unaccompanied Asylum Seeker (included as a binary indicator, 0=No, 1=Yes)
- Number of previous child protection plans
- Depending on data availability, the main need for which the young person started to receive services for this referral (if applicable), as defined in the CIN census (included as a categorical variable). This covariate is only applicable to young people in the primary outcome sample who enter the study based on their first referral to CSC services during the study inclusion period.

In addition, we would have wanted to take into account families (e.g. through adding family fixed effects), however we are reasonably confident data will not be available, so we have refrained from including them.

- The latest Ofsted rating granted to a local area's children's service before the implementation of the No Wrong Door in Rochdale, the first LA in the study to deliver the practice model, obtained from the 2018 and 2023 Children's Social Care Ofsted Inspection official statistics data[14] or the Association of Directors of Children's Services Ofsted ILACS data (2016-2026)[15]

Handling missing data

In cases of missing data, we will consider the possible reasons for its missingness and undertake statistical analyses to determine whether there are any patterns relating to other recorded

[12] In the categories defined in the DfE's CIN Census.

[13] We use Pupil Premium Eligibility for the first three years as every child is eligible for free school meals during this period.

[14] Children's Social Care Five-Year Ofsted Inspection Data (2023). Accessed 12th February 2026 from https://www.gov.uk/government/publications/five-year-ofsted-inspection-data.

[15] Ofsted ILACS data (2016-2026). Association of Directors of Children's Services (ADCS). Accessed 12th February 2026 from https://www.adcs.org.uk/inspection-of-childrens-services/.

covariates or to the intervention variable. Since we collect data via secondary administrative records, we expect minimal missingness in the data. Where missingness is greater than 30%, we remove the covariate from our analyses. Where missingness is under 30%, we will code missing values as a covariate level of its own (using 'missing indicator' analysis).

Sensitivity analysis

Definition of intervention and comparison group

We adopt a conservative approach in our primary analysis and define any young person as part of the comparison group whose local authority had not implemented No Wrong Door at the start date of the first referral within the study period. This will most likely underestimate the intervention effect, since young people in the comparison group might have been in contact with No Wrong Door at a later stage of the referral.

To analyse the magnitude of the intervention effect further, we run additional analysis using different intervention and comparison group definitions. We will look at different intervention definitions including:

- Young people who spent at least half their time on any open referrals in the study period when the local authority had implemented No Wrong Door, (e.g. if a young person had 64 days of open referrals during the study period, and had at least 32 of those days after the local authority had implemented No Wrong Door, they would be coded 1, otherwise coded 0).
- Young people who spent at least 4 weeks across any open referrals during the study period under No Wrong Door coded as 1, otherwise coded 0.

Placebo tests (change of intervention dates/intervention group)

If our primary findings indicate a statistically significant effect of No Wrong Door on our primary outcome, we will consider conducting placebo tests to check their plausibility. We propose to conduct two tests:

1. **Intervention timing falsification**: We will randomly assign earlier implementation dates and report findings based on these new intervention timings. We expect to estimate no effect around these falsified intervention dates. This test will be performed using pre-intervention estimates from our primary analyses.
2. **Intervention assignment falsification**: We will randomly assign 'intervention' and 'comparison' group status amongst the local authorities selected in our analyses, and report findings based on this falsified intervention allocation. Provisionally, and if computationally feasible, we propose to simulate this random allocation over 1000 iterations. We will report the distribution of the resulting estimates (mean, median, 2.5th/97.5th percentiles).

If we identify other relevant placebo tests to conduct (e.g., on an outcome that should not be impacted by No Wrong Door), we will report these additional tests.

Participant inclusion criteria – referrals

As a sensitivity analysis, we will broaden the participation inclusion criteria to include all referrals to children's social care occurring during the study inclusion period, rather than restricting the sample to first referrals only. This addresses the possibility that No Wrong Door primarily works with young people who are already known to social care services through an initial referral. Under this scenario, young people with first-ever referrals would be less likely, or not likely at all, to receive support from No Wrong Door teams until a subsequent referral. In this case, the primary specification could underestimate or fail to capture the programme's full effect.

By including both first and subsequent referrals, we assess the robustness of findings to alternative definitions of exposure. All model specifications, covariate adjustments, and statistical procedures will be applied identically to those used in the primary analyses.

Intervention group composition

The main impact analysis is restricted to the four SFPC-funded local authorities with adequate implementation and pre-treatment data (Rochdale, Warrington, Norfolk and Redcar & Cleveland). In our main analyses, North Yorkshire Council, which developed No Wrong Door and first implemented it in 2015, and Middlesbrough, the area selected to pilot the model in 2020, are excluded from the main analysis altogether — from the intervention group, and, as No Wrong Door deliverers, from the comparison pool of local authorities.

In this sensitivity analysis, we propose to add North Yorkshire and Middlesbrough to the intervention group to assess whether the estimated average treatment effect on the treated (*ATT*) is sensitive to their exclusion, and to exploit the longer outcome series available for these earlier adopters.

North Yorkshire and Middlesbrough adopted No Wrong Door earlier than the LAs included in our main analyses, thus this analysis requires a longer pre-intervention window. Middlesbrough started delivering No Wrong Door in September 2020. North Yorkshire started delivering No Wrong Door in April 2015. We will work with the model developer to establish the exact dates after which the model started being delivered in both areas.

We will conduct this analysis only if outcome data of adequate quality can be obtained back to 2011. Where this is possible, both North Yorkshire and Middlesbrough will be included in the intervention group, and our study period will span from 2011 to 2024, providing approximately four years of pre-implementation data for North Yorkshire (2011–2014, ahead of its 2015 go-live) and eight years for Middlesbrough (2011–2019, ahead of its 2020 go-live). Where adequate data cannot be obtained for the full North Yorkshire pre-period, we will include Middlesbrough only, and the study period will span 2015 to 2024, providing five years of pre-implementation data ahead of Middlesbrough 2020 go-live.

The staggered adoption dates across North Yorkshire, Middlesbrough and the rest of the SFPC-funded local authorities will be handled by the Callaway & Sant'Anna estimator exactly as in the main analysis. All other features of the design will follow the plan set out for the main analyses (see the Main Analyses section).

Comparison group composition

Ofsted ratings

We will conduct sensitivity analyses using an expanded exclusion criteria for local authorities in the comparison group based on Ofsted ratings pre-implementation. We will exclude local authorities that received two consecutive 'outstanding' Ofsted ratings in the Ofsted inspections held before the start of the study period.

Local authorities in the intervention group of this study were partly selected on the basis of an 'inadequate' or 'requires improvement' Ofsted rating before 2020, although Warrington received a judgement of 'good' in 2019. Local areas with children's services with a history of outstanding performance will be likely to have systematically different trends in CSC outcomes compared to the intervention group. Removing local authorities with a history of outstanding children's service performance will enable us to test the robustness of our findings to a different comparison group composition.

Partners in Practice

We will consider excluding local authorities who were partners in the Partners in Practice programme funded by the DfE from 2016, if sufficient evidence suggests these areas may have experienced 'contamination' (e.g., adopted core practices that overlap with the No Wrong Door model). We will investigate first whether there are reasons to believe that contamination could have taken place in these places.

The Partners in Practice (PiP) programme funded by the Department for Education (DfE) commenced in 2016 as a new strand of the Government's improvement agenda for Children's Social Care, located alongside the Children's Social Care Innovation Programme. The PiP programme was intended to create 'a genuine partnership between local and central government by bringing together the best practitioners and leaders in children's social care to improve the system'.

Local authorities involved in the Partners in Practice programme and which will be considered for exclusion are:

- Achieving for Children (Royal Borough of Kingston upon Thames and the London Borough of Richmond upon Thames)
- Hampshire County Council
- London Borough of Islington
- Leeds City Council
- Westminster, Kensington & Chelsea, Hammersmith and Fulham
- Lincolnshire County Council
- Doncaster Trust
- East Riding of Yorkshire
- Essex
- Camden
- Tyneside Alliance (North Tyneside and South Tyneside Councils)

- Stockport
- Cheshire West and Chester

Exploratory analysis

Dynamic effects

Time-since-implementation: For each outcome, we will present group-time intervention effects ATT(g,t), plotted across relative time-since-implementation of No Wrong Door. This aims to show dynamic effects of the model on all outcomes over time since implementation. The event-study plot will display:

- Estimated coefficients for each relative time period (monthly bins) since implementation,
- Bootstrapped confidence intervals clustered at the local authority level

These results will estimate the average effect of No Wrong Door by time-since-go-live-date, pooling across groups and calendar periods of implementation.

Local authority effects

For each outcome, we will report cohort-specific effects of No Wrong Door, using the did package (Callaway and Sant'Anna, 2021). This will represent the average treatment effect on the treated (ATT) of No Wrong Door for each intervention local authority (Rochdale, Warrington, Norfolk, and Redcar & Cleveland) since implementation. Each local area ATT will be averaged over all calendar time periods since implementation. Important to note, it is possible this exploratory analysis is not powered.

Triangulation of results

Since we will conduct an analysis exploiting the stepped-wedge design of the implementation as well as a DiD analysis, results will have to be triangulated to reach a conclusion of the impact evaluation of No Wrong Door. In the case that both evaluations align, this will provide robust evidence of the potential impact of No Wrong Door.

However, if the results diverge, care will have to be taken to draw adequate conclusions. We are conducting two types of analysis simultaneously and both have methodological challenges which will be affected by the roll-out of the programme and the ability to find suitable comparison groups. If the assumptions underlying each quantitative method only hold for one of the approaches, we will rely primarily on these results to assess the practice model's impact. If the assumptions hold for both approaches, we will try to identify what accounts for the observed differences in results and will take these considerations into account when drawing conclusions.

Other evaluation strands

The difference-in-differences evaluation of No Wrong Door is accompanied by a Stepped-Wedge Clustered Randomised Controlled Trial (SW-CRT) and an Implementation and Process Evaluation (IPE). The protocol for the accompanying trial is available on the OSF.

Timeline

Activity	Timeframe
First LA implements No Wrong Door	1st April 2020
Final LA implements No Wrong Door	1st September 2021
Observation period for the final participants from the population sample ends	31st March 2024
Data collected via DfE Data Sharing Service	Application sent in November 2025 Data access planned for June 2026
Analysis (DiD) and triangulation of results between all three strands of analysis	2025-26 and 2026-27
Reporting and publication	2027

Ethics & participation

We maximise the benefit of the evaluation by providing an additional lens to understand the impact, in particular getting closer to a causal estimate of the impact of No Wrong Door, which is informative for local authority decision-making as to whether or not to invest in No Wrong Door. We believe the risk of harm is very low. The data used is administrative data which is collected / created in the course of day to day children's social work and at school. No further collection of data is required. The analysis does not involve innovative technology, denial of service, large-scale profiling, biometric data, genetic data, data matching, invisible processing, tracking or targeting of individuals for marketing purposes. The outputs will be presented as summary statistics and will be checked for statistical disclosure.

The low risk of harm mostly comes from the possibility of harm if the individual were identified (very unlikely) following a data breach (also very unlikely). We mitigate the risk of a data breach by using the ONS' secure research service (SRS). Data will be stored on the ONS' systems. Access to the data will be limited to the project team at Foundations; all researchers have undergone rigorous data protection training. It is very unlikely that the data requested will enable re-identification because we only ask for the data necessary to undertake the analysis and this contains no "instant identifiers" (e.g. name, address etc), or 'meaningful identifiers' (e.g., Unique Pupil Reference, which can be used to identify children in schools). Instead, we rely on 'meaningless' anonymised identifiers (e.g. Pupil Matching Reference) provided by the Department for Education (DfE) to enable data linkage between datasets whilst preserving children's anonymity.

The study protocol has undergone an ethics review by a member of Foundations' legacy organisation's (What Works Children's Social Care) Evaluation Advisory Board.

Registration

The study will be pre-registered on OSF (Open Science Framework, https://osf.io/) run by the Centre for Open Science (https://cos.io/).

Data protection

The underlying data used to conduct this analysis consists of administrative data from all local authorities in England, five of which are funded by the Department for Education (DfE) to introduce No Wrong Door as part of the Strengthening Families, Protecting Children programme. The data we will use for this study also includes data collected about pupils in schools. All processing activities carried out to conduct this analysis will abide by the Data Protection Act 2018[16]. The Department for Education (DfE) conducted a full data protection impact assessment (DPIA) for this study.

The data subjects are children who have been referred to children's social care. The personal data processed includes demographic details, and quantitative measures of their children's social care status (e.g. whether or not they become looked after, or are on child protection plans). Special category data is included, specifically ethnicity, and disability status (which we count as health data). We will link data from the Children in Need (CIN) dataset (where we identify children with a referral to children's services) and the Children Looked After (CLA) dataset (SSDA903) to data from the School Census (including the Absences dataset) to obtain information about demographic characteristics, Free School Meals (FSM) and school absences.

The data is owned by the DfE and will be made available via the ONS' Secure Research Service (SRS)[17]. Data will not be stored on Foundations systems but on the ONS systems, which are highly secure and controlled by the ONS. The SRS is governed by the Five Safes Framework, an approach that ensures to data owners and the public that data are used safely. Access will only be granted to research team members being part of the wider project team, and who are ONS accredited, and have undergone training and assessment. When access is granted to the ONS accredited researcher the data requested will be transferred to a secure "research instance" within the SRS. This "research instance" of the SRS is the location the data will be housed and used for the duration of the evaluation.

[16] Information Commissioner's Office, Guide to the General Data Protection Regulation (GDPR). https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/

[17] Details of the SRS can be found here: https://www.ons.gov.uk/aboutus/whatwedo/statistics/requestingstatistics/approvedresearcherscheme

Once the project evaluation has completed the evaluator will request for the data to be moved from the "research instance" in the SRS to the Foundations data "archive instance" which is also housed in the SRS.

The legal basis for processing the data is legitimate interests - details of how we pass the three part test are contained in the privacy notice linked to above. We are processing special category data on the condition that it is necessary for archiving, scientific, historical research or statistical purposes. This is because processing this special category data will help ensure our research is as accurate and informative as possible. For the purposes of the evaluation DfE and Foundations are the data controllers, and the ONS are data processors. Data about individuals requested via the ONS secure research service will be pseudo-anonymised.

We will not request any 'instant identifiers' (that would allow us to point to an individual in the dataset) or 'meaningful identifiers' (e.g., Unique Pupil Reference, which can be used to identify children in schools). Instead, we rely on 'meaningless', anonymised identifiers (e.g. Pupil Matching Reference) provided by the Department for Education to enable data linkage between datasets whilst preserving children's anonymity. Before sharing data via the ONS SRS, the DfE data teams explicitly de-identifies the data we request, and provides these meaningless identifiers that allow tracking individuals over time and linking necessary datasets provided. Only the DfE would be able to link back to meaningful identifiers (such as the Unique Pupil Number). It is extremely unlikely that any researcher accessing the data would be able to identify any individuals in the data, and no attempts to do so will be conducted.

Prior to any results being extracted from the ONS SRS environment, they undergo checking for statistical disclosure, first by Foundations staff, then by ONS staff. Further checks will be conducted by Foundations staff prior to publication of any reports.

For the purposes of having the data held in the Foundations data archive Foundations are the data controllers and the ONS are Data Processors. Foundations reviews any researcher requests for access to the data housed in the Foundations data archive in the SRS. Foundations maintains an Archive Access Approval Panel who reviews all access and research project requests for the further use of the data once in the data archive based on criteria in keeping with the essence of the DfE grant funding letter to Foundations.

Upon completion of the evaluation the lawful basis Foundations, as sole independent controller, shall rely on, for the purpose of archiving and any subsequent secondary analysis of the data, GDPR Article 6.1(e), and GDPR Article 9.2(j) and DPA18 Schedule 1 Part 1.4(a),(b)&(c) for special category data including data considered to be a protected characteristic under the UK Equality Act 2010.

Data archived within the Foundations instance of the Office for National Statistics Secure Research Service ("ONS SRS") for the purposes of secondary research on the data within this evaluation shall be non-identifiable data and governed under the UK Digital Economy Act 2017 and the UK Statistics and Registration Service Act 2007.

Accountability and governance

Foundations takes and documents the appropriate technical and organisational measures in place to comply with GDPR. Data Protection is overseen by Foundations' Operations Director with support from a designated member of the Senior Research Team. The approach of Foundations to information security is further outlined in its IT Usage and Data Protection policies.

Checks on staff

The data will only be accessed by Foundations research team members. Research staff at Foundations have undergone data protection training and have substantial experience in handling data, as well as being subject to Disclosure and Barring Service checks. The research team continues to review the training needs of the team to ensure Foundations' approach remains up-to-date. All Foundations researchers accessing the data will have undergone the ONS SRS's accreditation system, including receiving relevant training and assessment.

Personnel

The evaluation is funded by the Department for Education and will be undertaken by Foundations – What Works Centre for Children and Families. The Principal Investigator is Aoife O'Higgins and the data analysis and reporting will be led by Perrine Machuel.