# LABOUR MARKET EVALUATION PILOT FUND

## Kirklees Better Outcomes Partnership: *Understanding the effects of person-centred service reforms in housing support*

BLAVATNIK SCHOOL OF GOVERNMENT

UNIVERSITY OF OXFORD

GOVERNMENT OUTCOMES LAB

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## Contribution statement

**Maria Patouna** authored this report. She contributed to the research design, developed the conceptual report design, and played a core role in the development and analysis of the dataset. Maria led on drafting, analysis and co-edited the report.

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# About the Government Outcomes Lab

The Government Outcomes Lab (GO Lab) is a global centre of expertise based at the Blavatnik School of Government, University of Oxford. Our mission is to enable governments across the world to foster effective partnerships with the non-profit and private sectors for better outcomes.

We are an international team of multi-disciplinary researchers, data specialists & policy experts. We generate actionable knowledge, offering a comprehensive and evidence-based approach to the study of cross-sector partnerships through the three main strands of our work: research, data and engagement.

You can find out more about our work at golab.bsg.ox.ac.uk.

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# Table of Contents

# List of Figures

# List of Tables

# List of Abbreviations

| | |
|---|---|
| **ATT** | Average Treatment Effect on the Treated |
| **DCMS** | Department for Culture, Media and Sport |
| **DWP** | Department for Work and Pensions |
| **FFS** | Fee-for-service |
| **FTE** | Full time equivalent |
| **FY** | Financial Year |
| **HB** | Housing Benefit |
| **HMRC** | His Majesty's Revenue and Customs |
| **DLA** | Disability Living Allowance |
| **KBOP** | Kirklees Better Outcomes Partnership |
| **LCF** | Life Chances Fund |
| **MI** | Management Information |
| **NN** | Nearest Neighbour |
| **PIP** | Personal Independence Payment |
| **PSM** | Propensity Score Matching |
| **PTS** | Person-Led, Transitional and Strength Based support |
| **SOP** | Social Outcomes Partnership |
| **UC** | Universal Credit |
| **UCHE** | Universal Credit Housing Element |

# Glossary of Key Terms

| Term | Definition |
|---|---|
| **Caliper** | The specified maximum allowable difference in propensity scores between treated and control units, ensuring that matches are only made within a defined tolerance range. This prevents poor-quality matches by excluding control individuals whose propensity scores differ substantially from those of treated individuals, thereby improving the credibility of the estimated counterfactual (DWP, 2025b). |
| **Cohort** | The targeted population of programme participants, or service users. |
| **Commissioning** | The cyclical process by which entities assess the needs of people in an area, determine priorities, design and contract appropriate services, and monitor and evaluate their performance. This term is used widely in the UK public sector context, but less so elsewhere. It is sometimes used interchangeably with "contracting". |
| **Common support/ On Support/ Off support** | Common support refers to the range of propensity scores shared by both the treatment and comparison groups. Observations within this overlapping range are considered to be 'on support', meaning they have suitable matches. Those outside of this overlap are classified as 'off support' due to the absence of comparable matches in the other group. |
| **DCMS** | The Department for Culture, Media and Sport (DCMS) is a department of the United Kingdom government. It hosts the Civil Society and Youth Directorate and VCSE Public Sector Commissioning Team (formerly the Centre for social outcomes partnerships), which holds policy responsibility for this policy area within UK central government. In 2016, DCMS launched the Life Chances Fund (LCF), within which it acts as the central government outcome payer |
| **Fee-for-service contract** | In a fee-for-service (also known as fee-for-activity) model, a particular service is specified by the commissioning organisation, and providers are paid to deliver that service. Payment levels may be informed by specific inputs or activities and the accountability focus is usually the activity that service users participate in. |
| **Housing Benefit** | A means-tested social security benefit designed to assist eligible individuals with rental costs, primarily targeted at those with low incomes or in receipt of other benefits. For most working-age claimants, Housing Benefit is being phased out and replaced by Universal Credit, except in specific housing circumstances. New claims |

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| | are limited to individuals who have reached State Pension age or those residing in supported, sheltered, or temporary accommodation where care, support, or supervision is provided.[1] |
| **Social investor** | An investor seeking social impact in addition to financial return. Social investors can be individuals, institutional investors and philanthropic foundations, who invest through their endowment. In UK SOPs, these assets are often managed by 'investment fund managers' rather than the original investing institutions or individuals who provide the capital |
| **KBOP partnership** | The KBOP partnership constitutes the alliance of service providers and the social prime. |
| **Legacy contract** | See Fee-for-Service Contract |
| **Life Chances Fund (LCF)** | The LCF was launched as an £80m outcomes fund committed in 2016 by UK central government (DCMS) to tackle complex social problems. It provides top-up contributions to locally commissioned outcomes-based contracts involving social investment, referred to as social outcomes partnerships (SOPs). The overall fund spend of the LCF was reduced to £70m from £80m as part of the DCMS budget negotiations in September 2020. This does not affect the ability to deliver existing commitments to projects in the Fund. |
| **Mean Standardised Bias (MSB)** | The "difference in means between the treatment and matched comparison groups is divided by the square root of the mean sample variance to calculate the mean standardised bias. It is expressed as a percentage" (DWP, 2025b). |
| **Medium scenario grants** | One of 3 temporary funding options offered to LCF projects during the Covid-19 crisis of 2020. This included activity payments based on projected medium case performance scenarios. |
| **Outcome (outcome metrics/outcome payment triggers)** | The outcome (or outcome metric) is a result of interest that is typically measured at the level of service users or programme participants. In evaluation literature, outcomes are understood as not directly under the control of a delivery organisation: they are affected both by the implementation of a service (the activities and outputs it delivers) and by behavioural responses from people participating in that programme. Achieving these outcomes 'triggers' outcome payments within an outcomes contract or SOP arrangement. |
| **Outcome-based contract** | 'Outcomes' can feature in a contractual arrangement in a range of ways. Typically, an outcomes-based contract is understood as a |

[1] For further details refer to GOV.UK. (n.d.). *Housing Benefit*. GOV.UK. Available at: https://www.gov.uk/housing-benefit

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| | contract where payments are made wholly or partly contingent on the achievement of measured outcomes. Also known as an outcomes contract. |
| **Outcome payer** | The organisation that pays for the outcomes in an outcomes contract or impact bond. Outcome payers are often referred to as commissioners. |
| **Outcome payment** | Payment by outcome payers for achieving pre-agreed outcomes. Payments may be made to a special purpose vehicle or management entity in an impact bond or to service providers in other forms of outcome-based contracts. |
| **Person-led service provision** | Service provision tailored to individual needs and wishes, enhancing user choice. |
| **Payment by Results** | A way of delivering services where all or part of the payment is contingent on achieving specified results. |
| **Propensity score** | The "estimated probability of taking the treatment as a function of variables that predict treatment assignment" (Morgan & Winship, 2014: 151) |
| **Propensity Score Matching (PSM)** | A statistical technique used to create a comparison group that closely resembles the treatment group based on key observable characteristics influencing both the likelihood of participation in a programme and subsequent outcomes. PSM estimates the probability (propensity score) of participation for each individual and matches participants with non-participants who have similar scores. PSM is a standard approach in evaluations conducted by the DWP Employment Data Lab. |
| **Provider** | Also known as service provider, service delivery organisation or delivery partner. Providers are the entity(ies) responsible for delivering the intervention to participants. Depending on the SOP's contractual structure, providers work with the social prime, fund manager and/or outcome payer(s) to make the impact bond work. A provider can be a private sector organisation, social enterprise, charity, NGO or any other legal form. |
| **Procurement** | Acquisition of goods and services from third party suppliers under legally binding contractual terms. In outcome-based contracts where the government is the outcome payer, the procurement processes may play a role shaping the market, in defining the outcome specifications, the terms of the outcomes contract, pricing the outcomes, and selecting the parties. |

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| **Person-Led, Transitional and Strength-Based Support (PTS)** | The Person-Led, Transitional and Strength-Based (PTS) approach, developed by the Mayday Trust, is a fully person-led model of support grounded in strengths-based and asset-focused principles. It is designed to empower individuals by focusing on their capabilities, ambitions and self-defined goals, with minimal professional direction. Under the original model, support workers act as non-directive coaches.<br><br>In this report, "PTS" refers to an adapted version of this model delivered by KBOP. While drawing on the core principles of PTS, such as flexibility, holistic support, and a focus on individual strengths and ambitions, the KBOP approach incorporated elements of structured professional support. Specifically, support workers played a more active role, offering advice and guidance around accommodation and related challenges, in recognition of the fact that participants were typically referred in situations of acute housing need. Expert input was considered necessary to prevent further deterioration of participants' circumstances.<br><br>While still person-centred and strengths-based, the KBOP model also allowed practitioners to exercise professional judgement, including encouraging or constructively challenging decisions where these were likely to affect key outcomes, such as progression in education, training, or employment. As such, the intervention is best understood as a PTS-inspired approach, rather than a direct implementation of the original PTS model. |
| **Rate Card** | A schedule of payments for specific, pre-agreed outcome measures that a commissioner (outcome payor) is willing to make for each participant, cohort or specified improvement that verifiably achieves each outcome. |
| **Rubin's B** | The "absolute standardised difference in the means of the linear index of the propensity scores for the participant and comparison groups" (DWP, 2025a). |
| **Rubin's R** | The "ratio of participant to comparison group variances in the propensity scores" (DWP, 2025a). |
| **Service users** | See Cohort. |
| **Statistically significant** | A result is considered statistically significant when the probability of it occurring by random chance, assuming no true effect exists, is below a predetermined threshold. |

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| **Social outcomes partnership (SOP)** | A type of outcome-based contract that incorporates the use of independent, third-party funding from social investors to cover the upfront capital required for a provider to set up and deliver a service. The service is set out to achieve measurable outcomes established by the commissioning authority and the investor is repaid only if these outcomes are achieved. In the literature SOPs are also referred to as social outcome contracts (SOCs). This report uses the term SOP to refer to the commissioning arrangement; the term social outcomes contract is used to refer to the contract between the Council and the social prime. |
| **Social Prime** | The KBOP Social Prime is the investor-owned contract holding and project management entity sitting between the Council and the alliance of service provider organisations. It is the contract party to the social outcomes contract with Kirklees Council and it also holds the bi-lateral contracts with providers. |
| **Strengths-based approach** | This is a form of person-led service provision which seeks to increase service users' ownership of the support process by encouraging each person participating in a service to centre their strengths and ambitions as they journey beyond formal service provision. |
| **The National Lottery Community Fund (The Community Fund)** | The Community Fund, legally named the Big Lottery Fund, is a non-departmental public body responsible for distributing funds raised by the National Lottery. The Community Fund aims to support projects which help communities and people it considers most in need. The Community Fund manages the Life Chances Fund on behalf of DCMS. |
| **Universal Credit Housing Element (UCHE)** | A means-tested component of Universal Credit that provides additional financial support to help eligible claimants meet housing costs, including rent to private landlords, housing associations, or local authorities, as well as certain service charges. The amount awarded varies based on the claimant's specific housing circumstances and overall financial need.[2] |
| **Voluntary, community and social enterprise (VSCE) sector** | A 'catch all' term that includes any organisation working with social objectives ranging from small community organizations to large, registered charities operating locally, regionally and nationally |

[2] For further details, refer to GOV.UK. (n.d.). *Housing costs and Universal Credit*. GOV.UK. Available at: https://www.gov.uk/housing-and-universal-credit.

# Executive Summary

### *What is the Life Chances Fund & Kirklees Better Outcomes Partnership?*

The Life Chances Fund (LCF) was a £70 million programme funded by the Department for Culture, Media and Sport (DCMS). It ran between 2016-2025 and is the largest outcomes fund launched to date in the UK. The LCF was designed to tackle complex social problems across policy areas including child and family welfare, homelessness, health and wellbeing, employment and training, and more. The LCF is delivered through 29 locally-commissioned social outcomes partnerships (SOPs — also known as social impact bonds). You can find out more about the LCF here.

The Kirklees Better Outcomes Partnership (KBOP) was one of the 29 SOPs in the LCF. KBOP sought to improve outcomes for adults with housing-related support needs through education, training and employment; accommodation; and health and wellbeing. As DCMS's knowledge and learning partner for the Life Chances Fund, the Government Outcomes Lab evaluated KBOP within a wider set of evaluations. You can read more about KBOP and SOPs on the Government Outcomes Lab website.

### *This report*

This report presents findings from the Labour Market Evaluation Pilot (LMEP) Fund, a one-year study conducted between April 2024 and March 2025 as part of the LCF. The study focuses on the Kirklees Better Outcomes Partnership (KBOP), an outcomes-based housing support programme delivered under a SOP in Kirklees, England.

The evaluation compares the effects of the KBOP outcomes-based support service with the previous fee-for-service model of housing-related support commissioned by Kirklees Council. Both models targeted adults facing multiple and compound disadvantage where support was delivered by a similar group of voluntary sector providers.

KBOP was designed to address persistent challenges of fragmentation and short-termism in support provision. By replacing prescriptive service specifications with a more flexible, person-centred and asset-based approach, the programme aimed to better meet the needs of individuals and achieve a broader set of social outcomes. These included improvements in employment, education, housing stability and wellbeing. Unlike the legacy model, which paid providers in advance for delivering fixed support hours, the SOP linked payment to the achievement of verifiable outcomes.

Through a quantitative impact evaluation and cost-effectiveness analysis, the LMEP study explores whether these person-centred reforms lead to improved labour market and housing outcomes, compared to more conventional housing support services. In doing so, it contributes to the evidence base on what works in supporting

people experiencing severe and overlapping disadvantage within a locally delivered service context.

### *Methods*

The LMEP evaluation comprises two strands. The first is a quasi-experimental impact evaluation designed to estimate the causal effect of the asset-based KBOP intervention. It draws on data from KBOP and legacy service providers, linked to administrative records from the Department for Work and Pensions (DWP). A longitudinal dataset was constructed using the Registration and Population Interaction Database (RAPID), Universal Credit (UC), and Single Housing Benefit Extract (SHBE), enabling the tracking of individuals' employment and housing benefit trajectories over a five-year period, covering two years pre-intervention, the intervention year, and two years post-intervention. Propensity Score Matching (PSM)[3] was used to construct a comparator group comprising individuals who received support under services delivered prior to the full implementation of the SOP model. Matching was based on pre-intervention characteristics, including demographics, employment history, and benefit receipt. Propensity scores were estimated using logistic regression, and nearest neighbour matching was applied. Post-matching balance diagnostics confirmed covariate similarity between groups. Robustness checks and subgroup analyses were also undertaken.

The second strand is a cost-effectiveness analysis designed to assess whether the KBOP intervention is more cost-effective than the conventional support services previously delivered under fee-for-service contracts. The analysis is conducted from the perspective of a government commissioner seeking to improve employment and housing outcomes within a constrained budget. It compares aggregate per-person costs and outcomes across the two models. Costs are classified into three categories: (1) programme delivery costs, (2) transaction costs, and (3) other relevant costs. Data on costs were sourced from contract documents, government financial records, and semi-structured interviews with stakeholders in local and central government. Effectiveness was measured in terms of (1) earnings from employment, (2) cumulative time in employment, and (3) housing benefit receipt. These outcomes were estimated using linked datasets that combine provider-reported management information with administrative records held by DWP. Sensitivity analyses were conducted to test the robustness of results under varying cost and effectiveness assumptions.

### *Key findings*

The impact evaluation demonstrates that the KBOP intervention was associated with increased labour market engagement among participants. Individuals receiving support through KBOP were significantly more likely, by 3 percentage points, to

[3] While the pre-analysis plan outlined additional identification strategies to be tested (e.g. difference-in-differences and construction of an administrative control group within the same time period), PSM was adopted as the main analysis given data access issues and time constraints on the analysis.

either sustain pre-intervention employment or begin a new job within the first six months of programme entry, relative to matched pre-KBOP participants. KBOP participants were also significantly more likely to record an employment spell within the first and second year post intervention compared to the control group, by 5 and 6 percentage points respectively). Furthermore, KBOP participants were more likely to sustain employment over time, with the intervention linked to a statistically significant 5 to 6 percentage point increase in the likelihood of being employed for up to six continuous months. While average earnings increased in both the first year (£518) and second year (£402) post-intervention, these gains were not statistically significant at conventional thresholds. Subgroup analysis suggests that older KBOP participants, those with a history of receiving mobility and daily living support benefits, and those who had been unemployed prior to programme entry experienced the greatest benefits. In terms of housing outcomes, KBOP participants were significantly more likely to stop receiving the housing support component of Universal Credit (UCHE) for up to eighteen consecutive months post-intervention, with effect sizes ranging from 6 to 10 percentage points. Importantly, KBOP participants were more likely, not only to stop receiving UCHE, but also to avoid transitioning onto HB claims afterwards. On average, they were 6 to 8 percentage points more likely than matched counterparts to remain off UCHE for up to eighteen consecutive months and not claim HB during the remaining follow-up period, indicating broader and more sustained independence from housing support. This effect appears to be driven by participants who previously had a history of receiving Universal Credit.

Findings from the cost-effectiveness analysis show that the net present cost (NPC) of the KBOP programme was higher in total (£23.2m) than the pre-KBOP model (£17.8m), due to additional costs such as set-up and development, evaluation, central government involvement, and IT costs. However, because KBOP served a larger number of participants, the NPC per person was approximately 33% lower (£3,236 vs. £4,856). In terms of outcomes, KBOP participants had higher cumulative earnings over a three-year period (£29,288 per person vs. £25,776) and spent more months in employment (26 vs. 24). There was also a lesser reliance on housing-related benefits than pre-KBOP. A greater proportion of KBOP participants were also employed at some point during the follow-up period (33% vs. 29%), reflecting the programme's focus on enabling first steps toward employment. Taken together, these findings indicate that KBOP was more effective and less costly per unit of outcome achieved. The incremental cost-effectiveness ratios (ICERs) suggest that for every £1 increase in earnings, the cost per person was £0.46 lower; each additional month in employment cost £639 less; and each reduced month on housing support cost £510 less than under the legacy model. These results provide evidence that KBOP delivered improved outcomes at a lower marginal cost compared to the traditional fee-for-service approach.

# 1. Introduction

## 1.1. Kirklees Better Outcomes Partnership (KBOP)

The Kirklees Better Outcomes Partnership (KBOP) aimed to secure better outcomes for disadvantaged Kirklees residents by delivering Person-Led, Transitional and Strength Based support (PTS)[4]. KBOP was funded by the Department for Culture, Media and Sport's (DCMS) Life Chances Fund (LCF) and by Kirklees Council and has been operational since 2019. KBOP supported people experiencing multiple and complex disadvantage, for example, people who are at risk of becoming homeless, offenders, people with mental health problems, learning disabilities, those that abuse substances, those at risk of domestic abuse, care leavers or young people at risk including young parents.

Like other local councils in England, Kirklees used to commission ad-hoc housing support services to support people who were at risk of homelessness from a group of non-profit provider organisations (i.e. the legacy floating support service) under fee-for-service (FFS) contracts ("pre-KBOP"). In 2019, the council introduced an outcomes contract backed by social investors, known as the KBOP Social Outcomes Partnership (SOP). Under the SOP, payment between Kirklees Council and KBOP was linked to performance.

KBOP was one of 29 SOP projects under the LCF, a £70 million fund aiming to tackle complex social problems across a range of policy areas including child and family welfare; homelessness; health and wellbeing; employment and training; criminal justice; and education and early years. KBOP was selected for specific longitudinal study because it was preceded by a similar service provided under FFS contracts between the Council and the same providers. To date, the GO Lab has undertaken previous work which sought to develop and test a set of hypotheses on how the SOP model influences the contracting environment, and how it ultimately shapes management practice and frontline delivery. This work is based on qualitative analysis (in-depth interviews and documentary analysis).[5]

In comparison, this evaluation comprises an impact evaluation and cost effectiveness analysis. The three key aims are:

- To investigate the effect of PTS[4] on time in employment and earnings for KBOP compared to pre-KBOP;

[4] While the PTS framework, originally developed by the Mayday Trust, is a fully person-led and non-directive model, the KBOP intervention represents an adapted application. KBOP drew on key principles of PTS—such as strengths-based support and individual autonomy—but incorporated practitioner-led elements, including guidance and encouragement where participant choices were likely to undermine positive outcomes. For the purposes of this report, this adapted version is referred to as "PTS" to denote the KBOP-inspired application of the original model.

[5] Refer to Rosenbach and Carter, 2020; Rosenbach et al., 2023; Rosenbach et al., 2025.

To investigate the changes in utilisation of housing-related benefits[6] for KBOP compared to pre-KBOP; and
- To compare the costs and effects of KBOP services delivered through the SOP mechanism with those of pre-KBOP services delivered under conventional fee-for-service contracting arrangements.

This evaluation is undertaken using DWP administrative data, KBOP management information and semi-structured interviews.

## 1.2. Research questions and PICO statement

The two guiding evaluation questions are:
- **RQ1:** What is the is the effect of PTS on time in employment and earnings and utilisation of housing support benefits for KBOP participants when compared to more conventional housing support services in Kirklees?
- **RQ2:** Is PTS backed by a SOP cost effective compared with traditionally funded services?

Using a PICO statement, the research question can be broken down:
- **Population:** People referred to and accessing housing-related support services in Kirklees who are experiencing multiple and compound disadvantage.
- **Intervention:** Person-Led, Transitional and Strength Based support backed by a social impact bond.
- **Comparator:** Housing-related floating support services delivered to a specified activity schedule under legacy Supporting People arrangements.
- **Outcome:** Time in employment and earnings from paid employment, and housing support benefit receipt (each month). Earnings can be derived in £ or can be standardised to accommodate the prevailing level of national minimum wage.

It should be noted that the GO Lab was commissioned to deliver this evaluation through the LMEP Fund, based on a proposal that set out a pre-specified research design involving a quasi-experimental methodology, the use of administrative data and local management information. A pre-analysis plan was circulated to and agreed by the project's advisory group, outlining the intended identification strategies; primarily matched difference-in-differences comparisons between individuals in the pre-KBOP and KBOP cohorts, as well as comparisons using matched non-participant groups drawn from administrative data.

[6] Includes (1) Housing benefits (HB) - helps to pay rent for those who are unemployed or on a low income or claiming benefits. In our context, it is for individuals who are in supported, sheltered or temporary housing; and (2) Universal Credit Housing Element (UCHE) - provides extra money to those on universal credit to pay their housing costs (i.e. rent to a private landlord or housing association).

At the outset, it was not clear whether it would be feasible to combine sensitive local management data with national administrative records in a secure and methodologically sound way. A central component of the project was therefore to test the practical and analytical viability of integrating these datasets to construct a credible comparison group. GO Lab researchers worked closely with DWP analysts to navigate the systems and software required for secure data access and analysis within the department.

This report reflects the outcome of those efforts, demonstrating not only the feasibility of linking diverse data sources for policy evaluation, but also the value of doing so to generate robust insights on the effectiveness and cost-effectiveness of complex public service interventions.

# 2. The KBOP intervention and comparison with previous service arrangements in Kirklees

### *The 'counterfactual'*

Prior to the introduction of the KBOP intervention in 2019, Kirklees Council commissioned housing-related support through a legacy model of Floating Support services. These services, initially developed under the national Supporting People programme launched in 2003, aimed to prevent homelessness by helping individuals sustain tenancies and live independently. They were not explicitly designed to support participants into employment, training, or other long-term socioeconomic outcomes.

Floating Support was a non-accommodation-based service, delivered on a one-to-one basis by voluntary sector organisations, typically over a twelve-month period (previously twenty-four months before funding reductions).[7] The intensity of support was administratively categorised into low, medium, or high risk, with corresponding weekly contact hours. By early 2019, the service was delivered by nine voluntary and community sector providers, many of whom later became KBOP delivery partners.

The commissioning model consisted of 15 individual contracts, each managed by one of three council contract officers. Providers were paid monthly in advance via block contracts, based on forecasted caseloads rather than verified results. There was no centralised data management system and limited standardisation across referral routes or case management processes. Access to services was handled through decentralised and inconsistent eligibility assessments.

Monitoring under this model was primarily process-oriented. While providers were expected to help clients achieve 'independent living', this outcome lacked a shared operational definition and was not tied to formal performance indicators. Evidence of participant progress was captured through individual support plans, which were subject to periodic auditing. Outcome sustainment was not routinely measured or incentivised.

### *KBOP SOP*

In September 2019, Kirklees Council transitioned from its legacy Floating Support model to a new outcomes-based model of service delivery through the KBOP. Delivered under a SOP arrangement and co-funded by the Life Chances Fund, the programme marked a strategic shift away from fee-for-service commissioning toward an approach focused on measurable improvements in participant outcomes.

[7] The description in this report is based on findings from the first interim evaluation report on the pre-SOP fee-for-service arrangement (Rosenbach and Carter, 2020).

The SOP aimed to improve accommodation, employment, wellbeing, and financial resilience among vulnerable adults facing complex, overlapping challenges, including homelessness, mental health conditions, substance misuse, domestic abuse, and repeat interactions with the criminal justice system. Both the legacy Floating Support service and the KBOP SOP shared broadly similar eligibility criteria, targeting individuals aged 16 and over at risk of losing or struggling to maintain independent housing. This included those with learning disabilities, experience in the care system, young parents, and refugees.

The evaluation covers the first five years of the SOP, which ran from September 2019 to March 2024. During this period ,over £22 million in outcomes payments were disbursed. Kirklees Council contributed 70% of the outcome funding, with the remaining 30% provided by central government. Following the end of the Life Chances Fund, the Council committed to continuing the service under a renewed but scaled-down outcomes-based contract.

The SOP was coordinated by KBOP, a "social prime" created and owned by Bridges Outcomes Partnerships. KBOP was responsible for programme design and oversight, managing delivery through a network of eight voluntary sector providers – many of whom had also delivered services under the former Floating Support model.[8,9] Under the SOP, these providers held bilateral contracts with KBOP and were paid on a full cost recovery basis, according to their agreed annual budgets. All delivery costs were covered for the duration of the contract, while KBOP itself was remunerated through performance-based payments. This marked a significant departure from the legacy model, in which providers were paid in advance through block contracts and were not held to standardised performance expectations.

A central innovation introduced by KBOP was its shift to a person-centred model of housing-related support, grounded in the Person-led, Transitional, Strength-based (PTS) framework developed by the Mayday Trust.[10] This approach reflects asset-based principles, tailoring support to the individual's strengths, preferences, and priorities rather than focusing on deficits or standardised risk profiles. The aim was to offer participants greater autonomy, choice, and ownership over their support journey, while improving coordination across local services. Under this model, support was co-designed with participants, with no prescribed length, frequency, or intensity of engagement. Instead, the pace and focus of support were shaped by each individual's goals and evolving needs. Outcomes were defined jointly by

[8] The network of service provider organisations under the SOP included Community Links, Connect Housing, Foundation UK, Fusion Housing, Home Group, Horton Housing Association, Making Space, and Pennine Housing. Richmond Fellowship was also initially part of the provider network but withdrew from KBOP in 2020.
[9] This is discussed in the second interim evaluation report in more detail (Rosenbach et al., 2023).
[10] In the KBOP SOP the personalised, strengths-based service provision was based on the 'person-led, transitional and strength-based (PTS) response approach', developed by the Mayday Trust. In general, a strengths-based approach focuses on identifying, building on, and leveraging and individual's existing skills, abilities, and resources to empower and achieve positive outcomes.

participants and reflected in the contractual rate card – while housing-related outcomes applied universally, others were more tailored, depending on the participant's priorities and aspirations. Cases remained open until the outcomes each participant sought to achieve had been realised. Participants retained the option to re-access the service post-case closure if required, though outcomes could only be claimed once per person. By embedding this personalised, strengths-focused ethos into service delivery, the KBOP model sought to disrupt traditional deficit-based approaches and foster more sustainable, participant-led progress (Centre for Homelessness Impact, 2025).

In 2020, KBOP introduced a centralised referral hub, replacing the fragmented and inconsistent intake systems that had previously characterised housing support in Kirklees. This innovation streamlined access to services and ensured more equitable triaging of cases. The SOP also included a triage function to provide one-off or short-term support to individuals not requiring full engagement with the core floating support offer.

To support both practitioner autonomy and participant agency, frontline workers had access to discretionary funding that allowed for rapid, personalised responses to individual needs, such as essential goods or transport costs, without requiring prior approval. A lived experience forum was also embedded in the programme's governance structure, contributing to service design, recruitment processes, and dropout prevention strategies.

Operationally, outcome achievement was tracked via a shared case management system (CDPSoft), jointly accessed by the Council and KBOP, with providers able to view only their own caseloads. Providers submitted evidence of outcome achievement under KBOP's supervision, and Kirklees Council conducted final verification prior to releasing payment. The Council retained discretion to withhold payment if submitted evidence did not meet the required standards.

Overall, the shift from the legacy Floating Support model to the KBOP SOP marked a fundamental transformation in the commissioning and delivery of housing-related support in Kirklees.[11] Whereas the former was structured around fee-for-service contracts focused on forecasted caseloads, process compliance, and administratively defined risk categories, the KBOP SOP introduced a performance-based model that prioritised personalised outcomes and relational support. By embracing an asset-based, person-centred framework, KBOP shifted from rigid, standardised intervention templates to flexible, co-designed support journeys. In doing so, the programme moved away from deficit-focused case management and toward a system built on participant agency, adaptive learning, and measurable

[11] This is discussed in the third interim evaluation report in more detail (Rosenbach et al., 2025).

progress—anchored by outcome payments and supported by cross-sector coordination and social investment.

# 3. Research Method

## 3.1. Defining the Treatment and Control Groups

### *KBOP Implementation Timeline*

The KBOP intervention was formally launched in September 2019. However, the transition to a fully embedded asset-based service delivery model unfolded incrementally over the following eighteen months. In its initial phase, KBOP was implemented under interim leadership and service delivery which largely mirrored conventional approaches, with a continued emphasis on performance-driven outcomes and legacy practices inherited from the earlier Kirklees Floating Support Programme (Rosenbach et al., 2023).

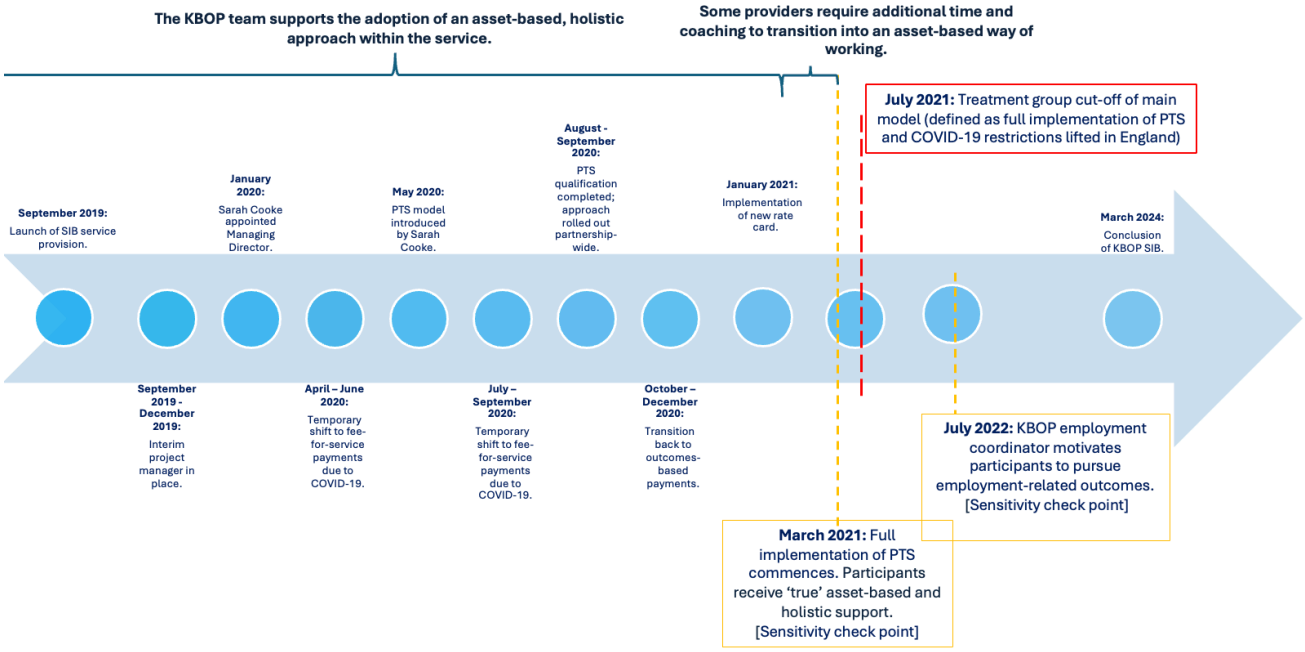
A significant shift in strategic direction took place in January 2020 with the appointment of a new Managing Director, who introduced a more person-centred and holistic philosophy of care, drawing inspiration from the PTS model. While KBOP did not replicate PTS in its entirety, its support model began to prioritise participant autonomy, relational support and flexible engagement with self-defined goals. In contrast to the PTS model's coaching-led delivery, KBOP support workers adopted a more hands-on, advisory role – particularly in facilitating accommodation-related decisions - while maintaining the core ethos of strengths-based practice.

To operationalise this strategic shift, KBOP undertook a series of targeted organisational reforms aimed at embedding asset-based practices across the partnership (Bridges Outcomes Partnerships, 2020). These reforms included structured training for managers and Support Worker Champions, delivered both internally and in collaboration with external partners such as the Mayday Trust.[12] A Support Worker Champions Forum was also established to facilitate the exchange of implementation insights and promote shared learning; the forum convened regularly over an eighteen-month period. In addition, all-staff training sessions were held at six-month intervals to reinforce asset-based principles across the workforce. The approach was systematically embedded within governance and operational frameworks – for example, by making it a standing agenda item in monthly learning meetings and quarterly operations forums, and by formally incorporating it into the KBOP operations manual and quality assurance framework. While the new model was adopted progressively across the delivery network, it was reported that some providers required additional support, including joint casework and further training. For these providers, full adoption was estimated to have occurred approximately three months after the programme-wide transition point.

The emergence of the COVID-19 pandemic in early 2020 presented a substantial disruption to the programme's implementation and delivery environment. From April

[12] As reported by KBOP (2024, October 17).

to September 2020, the outcomes-based funding model was temporarily suspended and replaced with a medium scenario grant arrangement, under which payments were made based on projected medium-case activity levels rather than realised outcomes. Concurrently, national lockdown measures severely constrained participants' access to employment, training and housing opportunities, while also limiting in-person service delivery and altering engagement dynamics across the programme.




*Main Figure 1: Key KBOP timelines*

### *Definition of the Treatment Exposure*

For the purposes of this evaluation, the treatment group comprises individuals whose intervention commenced on or after the 19th of July 2021. This timing reflects a point at which the holistic model was both fully operational and no longer hindered by pandemic-related constraints. Notably, the 19th of July 2021 marked the final stage of lifting COVID-19 restrictions in England (Cabinet Office, 2021), providing a clearer window for uninterrupted service delivery and more stable conditions for outcome tracking. Also, this approach excludes individuals who engaged with the initial 'traditional support' model, as even preliminary interactions with staff may have influenced their subsequent engagement with KBOP, introducing potential confounding effects. Overall, this ensures that everyone classified as receiving treatment has experienced the person-led support in its full potential.

### *Control Group*

The control group comprises individuals who engaged with legacy floating support services prior to September 2019, primarily drawn from the caseload of Fusion Housing. It also includes individuals who entered KBOP between the 1st of September 2019 and the 19th of July 2021, a mobilisation phase that pre-dates the full

implementation of the PTS-inspired service reforms. As such, individuals with an intervention start date falling within this transitional period were classified as part of the control group, reflecting the phased nature of the organisational shift.

The final control group data include 148 records from Fusion Housing and 1,491 records from KBOP, covering individuals supported either directly by KBOP or by other organisations within its provider network (see **Main Table 2**).

It is important to note that comparisons between pre-KBOP and KBOP participants necessarily reflect differences not only in the design of social housing support models (PTS-inspired approach versus conventional housing support) and their associated financing mechanisms (outcomes-based contracting versus fee-for-service arrangements), but also in the broader policy and labour market context. Specifically, pre-KBOP participants engaged with services in a pre-pandemic environment, whereas KBOP participants received support during the post-pandemic recovery period, a time marked by distinct labour market dynamics and economic conditions.

## 3.2. Data Sources

### 3.2.1. Management Information (MI) and Linkage to Administrative Data

The impact evaluation relies on the integration of Management Information (MI) data provided by the KBOP and former service providers, linked to administrative datasets held by the Department for Work and Pensions (DWP). Refer to **Main Figure 2** for an overview of the data sources and dependences.

MI data was requested from all five pre-KBOP service providers[13] previously responsible for delivering the Kirklees Floating Support Programme, as well as from KBOP itself. Of these, three pre-KBOP providers[14] and KBOP agreed to participate in an information session where the evaluation plan, data sharing and data transfer strategy were presented. Following this session, two pre-KBOP providers[15] and KBOP agreed to provide their MI for the analysis, so Memoranda of Understanding (MoU) were signed to formalise data sharing and transfer protocols. The submitted MI data was subsequently cleaned, consolidated and streamlined by the GO Lab to ensure consistency and analytical readiness.

The processed dataset was then submitted to DWP for linkage. In accordance with established DWP procedures, the Data Transfer and Control Team (DTCT) securely stored the dataset, which was then processed by the Data Analytics Research Team

[13] Horton Housing Association, Fusion Housing, Connect Housing, Home Group and Inspire North
[14] Horton Housing Association, Fusion Housing, Home Group.
[15] Horton Housing Association, Fusion Housing.

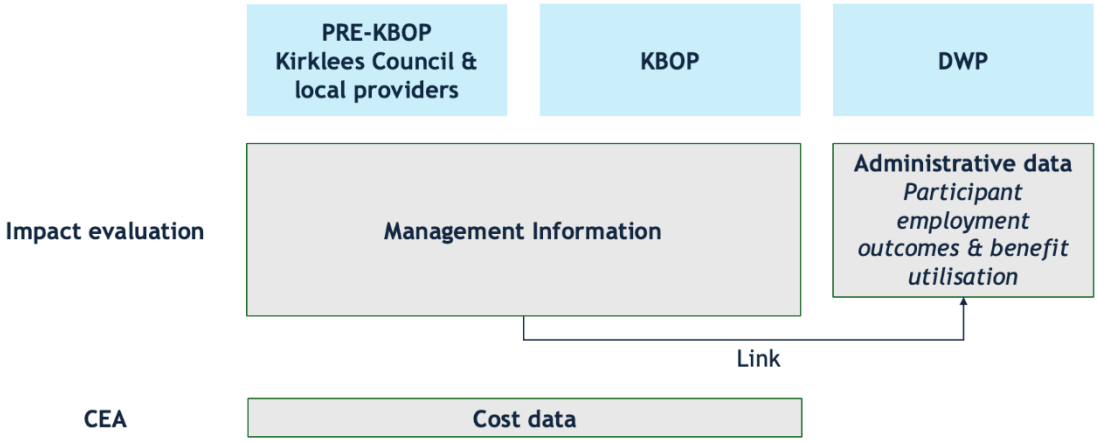
(DART). Using personal identifiers - National Insurance numbers (NINOs), first name(s), surnames and postcodes - DART applied deterministic (fuzzy) matching to identify corresponding administrative records. This method involves the evaluation of a series of match-keys, which are predefined combinations of personal data variables. Records from the inbound dataset (covering KBOP and pre-KBOP MI) are systematically compared with master (administrative DWP) files and assigned a match status based on alignment across the selected match-keys (DWP, 2025).

In total, 5,771 participant records were submitted across providers. Of these, 5,146 contained valid NINOs and could be successfully matched to DWP administrative records, resulting in a match rate of 88.8%. Notably, none of the records submitted by Horton Housing Association could be successfully matched due to missing name fields in the original MI data submission. The absence of this critical identifier rendered record linkage infeasible, resulting in the exclusion of all Horton cases from the matched dataset.

After removing duplicates (based on NINOs), the dataset comprised 5,127 unique individuals. Three additional records could not be linked to administrative data and were subsequently removed from the evaluation. This yielded a final analysis sample of 5,124 participants distributed across the treatment and control groups. Refer to **Main Table 2:** Sample size for a breakdown of sample sizes at each stage of data processing.

As a result of the linkage process, DWP returned a pseudonymised individual - level dataset to the GO Lab, with all explicit personal identifiers removed and encrypted NINOs. This returned dataset was subsequently matched with participants' administrative records held across three core systems: the Registration and Population Interaction Database (RAPID), Universal Credit (UC) and the Single Housing Benefit Extract (SHBE). The integration of these records enabled the construction of a longitudinal dataset capturing detailed information on participants' demographics, benefits receipt history, as well as employment and earnings over time.

The resulting dataset spans a five-year observation window: two years prior to the intervention, the intervention year, and two years post-intervention. This window is defined relative to each participant's intervention start date. The earliest Financial Year (FY) for which data are available is 2013/2014 (1 April 2013 – 31 March 2014) and the most recent is 2023/2024 (1 April 2023 – 31 March 2024). At the time of writing, the RAPID dataset extends up to the end of the 2023/2024 FY; data for the 2024/2025 period are not yet available (See **Section 3.2.3** for further information).




*Main Figure 2: Data sources and dependencies*

KBOP's MI record comprises a total of unique 7,185 unique placements, inclusive of re-referrals and co-working arrangements. Of these, KBOP shared with the GO Lab MI data for 5,411 individuals (approximately 85% of the sample). This dataset encompassed both KBOP participants and individuals inherited from the pre-KBOP service delivery period. The remaining 15% (1,774 individuals) were excluded from the analysis sample, as they were considered not in scope for the analysis. These participants were receiving services from the Pennine Domestic Abuse Partnership (PDAP) which had a focus on domestic violence, rather than employment, training and education.

Additionally, KBOP's records included information on 759 individuals who were referred but did not ultimately engage with the service. These cases were not considered suitable for inclusion in the control group for two principal reasons. First, the majority presented with lower-intensity housing needs and chose not to participate, making them unsuitable as a counterfactual for KBOP participants. Second, limited engagement meant that KBOP retained limited personally identifiable information for these individuals, significantly increasing the risk of false positive matches during linkage with DWP administrative records.

### 3.2.2. Tracking Window and Sample Selection Criteria

The lower bound of the treatment exposure window is set on the 19th of July 2021. The upper bound is set on the 31st of March 2022. This was selected to allow for a full two-year follow-up period, enabling the assessment of longer-term outcomes. The 1st of April 2022 marks the beginning of the 2022/2023 FY, with outcomes subsequently tracked over two consecutive fiscal years: 2022/2023 FY (1st April 2022 – 31st March 2023) and 2023/2024 FY (1st April 2023 – 31st March 2024). While this follow-up requirement narrowed the eligible sample – from an initial 2,696 treatment records to 721 individuals who could be tracked over the full two-year

period – it ensured that the evaluation could explore post-intervention trajectories over a meaningful duration (see **Main Table 2**).

**Table 1: Age Distribution Across Control and Treatment Groups**

| Age Group | Control Group | Treatment Group | TOTAL |
|---|---|---|---|
| **Under working age** | 13 (0.78%) | 26 (0.75%) | 39 (0.76%) |
| **Working age** | 1,646 (98.21%) | 3,364 (97.56%) | 5,010 (97.78%) |
| **Pension age** | 17 (1.01%) | 58 (1.68%) | 75 (1.46%) |
| **TOTAL** | 1,676 (100.00%) | 3,448 (100.00%) | 5,124 (100.00%) |

***Main Table 1:*** *Age distribution across the sample*

To maintain relevance to the labour market focus of the evaluation, the analysis sample is restricted to individuals of working age-defined here as those aged 18 to 65 at the time of their intervention start (**Main Table 2** presents a detailed account of sample sizes at each stage of the data processing pipeline, including exclusions based on age criteria and intervention timing).

**Table 2: Sample size**

| Group | Management Information before fuzzy matching | DWP administrative data after fuzzy matching | DWP administrative data July 2021 cut-off Working age at intervention start | DWP administrative data July 2021 cut-off Working age at intervention start & intervention start before 2022FY[16] |
|---|---|---|---|---|
| **Control – Fusion Housing** | 169 | 150 | 148 | 148 |
| **Control - Horton Housing Association** | 190 | 0 | 0 | 0 |
| **Control – KBOP** | 534 | 503 | 1,491 | 1,491 |
| **Control – TOTAL** | 893 | 653 | 1,639 | 1,639 |
| **Treatment - TOTAL** | 4,877[17] | 4,471 | 2,696 | 721 |

[16] There are a total of 5,937 unique participants under KBOP (or 7,185 placements which includes re-referrals and co-work). Management information on 5,411 participants (85% of the sample) was sent by KBOP which included both KBOP participants and participants inherited from pre-KBOP. The remaining participants (15% of the sample) were excluded as they were considered not in scope for the analysis – these participants were receiving services from the Pennine Domestic Abuse Partnership (PDAP) which had a focus on domestic violence, rather than employment, training and education.
[17] Ibid.

| | | | | |
|---|---|---|---|---|
| **TOTAL SAMPLE** | 5,771 | 5,124 | 4,335 | 2, 360 |

***Main Table 2:*** *Sample size*

### 3.2.3. Administrative Data

#### *DWP data*

DWP administrative datasets form the backbone of this analysis. They contain detailed records of individuals' benefit and employment programme spells, alongside key claimant characteristics. This data is structured across a network of interlinked datasets, which can be connected via unique personal identifiers. Once individuals are located through the fuzzy matching process, these identifiers facilitate linkage across datasets, enabling the reconstruction of longitudinal benefit histories at the individual level.

Key data sources used in this evaluation include the Generalised Matching Service (GMS) for legacy benefits, the Single Housing Benefit Extract (SHBE) and Universal Credit (UC) records. Although these datasets are owned by DWP, SHBE is provided by local authorities and sourced directly from local housing benefit systems.

Typically, benefit datasets capture the start and end dates of claims, payment amounts and the reason for benefit receipt. Supplementary demographic information (such as age, sex and household composition) enables the creation of detailed socio-demographic profiles, which are essential for contextualising individuals' benefit trajectories.[18]

#### *HMRC data*

The Employment Data Lab also accesses administrative records from HM Revenue and Customs (HMRC) Tax System, which capture information related to employment and pension payments under the Pay As You Earn (PAYE) system. These records provide detailed start and end dates of employment spells, allowing for the construction of comprehensive employment histories. Such data are essential both for matching comparison and participant groups and for assessing key labour market outcomes.

In addition, information on self-employment is derived from the HMRC Self-Assessment system. Combined with other data sources, this allows for the identification of self-employed individuals. A key limitation of the self-employment data is the time lag in availability. Data for a given financial year typically become accessible in March of the following year, after individuals and businesses submit their Tax Return by the annual self-assessment deadline of 30th of January.

[18] Refer to Section 2.2 in the *Employment Data Lab: Methodology report* (Department for Work and Pensions, 2025a) for additional information on administrative datasets.

## 3.3. Outcome Measures

The analysis examines three key outcomes: time in employment, earnings from paid employment and housing support benefit receipt. These outcomes are operationalised using variables derived from administrative datasets provided by DWP (refer to **Main Table 3**). Specifically, employment and earnings measures are sourced from the RAPID dataset, while housing benefit data are obtained from the UC and SHBE systems.

### *1. Time in Employment*

Time in employment is operationalised using monthly employment indicators available in the RAPID dataset. The primary measure-estimated days in employment within a financial year-is calculated by multiplying the average number of days per month (365 divided by 12, which yields approximately 30.41 days) by the total number of months in which an individual is flagged as employed. It should be noted that, while this method provides a reasonable approximation, it assumes full-month employment for each flagged month and does not account for variation in month length, which may result in slight overestimation of actual time worked.

Several additional indicators are constructed to capture different dimensions of labour market participation in the two years following participants' intervention start. These include whether individuals were recorded as being in employment at any point during the 1st or second year after the intervention start, as well as whether they entered their first employment spell within 1–6 months or 7–12 months of the intervention. Note that individuals already in employment at the start of the intervention are categorised as having entered employment within the first six months (detailed balancing statistics on participants' labour market participation history prior to joining the intervention can be found in **Appendix C**: Covariate Balance Assessment, Tables C2–C5).

To assess the sustainability of employment, further variables capture whether individuals maintained employment for at least one, two, three or six consecutive months at any time within the 24-month follow-up period. These variables are non-mutually exclusive and are aligned with KBOP's standard approach to tracking employment sustainment outcomes (INDIGO, 2024). Sustained employment does not imply continuous work with the same employer, as individuals may transition between different employment spells across months.

### *2. Earnings from Paid Employment*

Earnings are measured using annualised taxable income figures recorded in RAPID, which reflect the total gross pay from all employment sources within the financial year, net of pension contributions and non-taxable deductions. To ensure comparability over time, these nominal earnings were adjusted for inflation using

Consumer Price Index (CPI) data from the Office for National Statistics (2025) with year-specific adjustment factors applied to convert all values into constant 2024 Great British Pounds (GBP). Note that, because earnings are reported by financial year rather than exact calendar dates, the timing of reported income may not align neatly with the intervention start, especially for participants who began the programme close to the start of a financial year.[19]

### *3. Housing support benefit receipts*

Receipt of housing-related financial support is tracked using monthly indicators from UC and SHBE datasets. These indicators identify whether individuals received either Housing Benefit (HB) or the Housing Element of Universal Credit (UCHE) in each month of the observation window.

In addition to capturing monthly benefit receipt, the analysis includes measures of sustained non-reliance on housing support. These are defined as at least three, six, twelve or eighteen consecutive months without any HB or UCHE receipt within the 24 months following the intervention's start. A more restrictive outcome variable is also constructed, capturing instances of at least three, six, twelve or eighteen consecutive months without UCHE, followed by no HB receipt in the remaining months of the two-year follow-up period. Both sets of variables are non-mutually exclusive and are aligned with KBOP's framework for measuring accommodation sustainment outcomes (INDIGO, 2024).

[19] Suppose a participant began the KBOP intervention on the 10th of April 2019. Because this date falls just after the start of the 2019/20 financial year (which runs from beginning of April to end of March), their first full financial year post-intervention would be 2020/21. As a result, earnings reported for that financial year could include income earned nearly two years after programme initiation.

**Table 3: Outcome Variables**

| Variable name | Description |
|---|---|
| **Time in employment** | |
| SPELL DAYS P1YR WORK | Approximate total days in employment in the 1st financial year after the intervention's start. |
| SPELL DAYS P2YR WORK | Approximate total days in employment in the 2nd financial year after their intervention start. |
| SPELL TIME TO WORK 1-6 | Proportion of individuals who retained pre-intervention employment or recorded a new employment spell within 1–6 months after their intervention start |
| SPELL TIME TO WORK 7-12 | Proportion of individuals who recorded a new employment spell within 7 to 12 months after their intervention start |
| Work first year | Proportion of individuals who recorded an employment spell at any point in the 12 months after their intervention start |
| Work second year | Proportion of individuals who recorded an employment spell at any point in the 24 months after their intervention start |
| Sustained employment [1, 2, 3, 6] months after start | Proportion of individuals who recorded an employment for at least 1, 2, 3, or 6 months within the 2 years after their intervention start |
| **Earnings from paid employment** | |
| ANN EARNINGS AMT YRP1 adjusted | Total amount of gross pay (net of private pension contributions) from all employments in the 1st financial year after the intervention's start. Expressed in real 2024 GBP |
| ANN EARNINGS AMT YRP2 adjusted | Total amount of gross pay (net of private pension contributions) from all employments in the 2nd financial year after the intervention's start. Expressed in real 2024 GBP |
| **Housing support benefit receipts** | |
| UCHE receipt p [0-24] | Proportion of individuals who receive UCHE benefit from the intervention month (p0) through 24 months post-intervention |
| HB receipt p [0-24] | Proportion of individuals who receive HB benefit from the intervention month (p0) through 24 months post-intervention |
| Sustained non-reliance on UCHE receipts for [3, 6, 12, 18] months after intervention start | Proportion of individuals who did not receive UCHE benefit for at least 3, 6, 12 or 18 consecutive months within 2 years after their intervention start |
| Sustained non-reliance on HB receipts for [3, 6, 12, 18] months after intervention start | Proportion of individuals who did not receive HB benefit for at least 3, 6, 12 or 18 consecutive months within 2 years after their intervention start |
| Sustained non-reliance on UCHE receipts for [3, 6, 12, 18] months after intervention start and no HB receipt after | Proportion of individuals with at least 3, 6, 12 or 18 consecutive months without UCHE receipt, followed by no HB receipt for the remainder of the 24-month period after their intervention start |

***Main Table 3:*** *Overview of key outcome variables. For further details, refer to Appendix A.*

## 3.4. Sample Characteristics

**Main Table 4** summarises the baseline characteristics of individuals in the unmatched treatment and control groups, based on administrative records.

The average age of participants was broadly similar across groups, at 36.6 years in the control group and 35.9 years in the treatment group. Approximately half of participants in both groups were male (52% of control participants compared to 48% of treatment participants). The presence of dependent children was somewhat lower among the treatment group, with 6% having children compared to 11% in the control group.

A history of Employment and Support Allowance (ESA) receipt was more common among control (34%) than among treatment group participants (20%). Similarly, previous claims for Jobseeker's Allowance (JSA) and Income Support (IS) were higher in the control group, with 9% and 9% respectively, compared to 2% and 4% in the treatment group. In contrast, receipt of Personal Independence Payment (PIP) was comparable across groups (24%). Disability Living Allowance (DLA) receipt was slightly higher in the control group (7%) relative to the treatment group (2%).

A slightly greater proportion of treatment participants were receiving UC (73% compared to 59% among control participants) and the UC Housing Element (36% compared to 30% among control participants), while HB receipt was higher among the control group (36% compared to 26% of treatment participants).

Labour market status at the point of intervention also showed modest differences between groups. Employment rates were slightly higher among treatment participants, with 21% recorded as being in work at programme entry compared to 18% of individuals in the control group. Approximately 41% of the treatment group and 39% of the control group were classified as "looking for work," defined as having an active Jobseeker's Allowance (JSA) claim or a UC claim under searching for work or working with requirements. Inactivity rates, defined as having an active ESA record or a UC record with conditionality of 'no work requirements', 'preparing for work', or 'planning for work' - were broadly comparable across groups. Specifically, 47% of both the treatment group participants and the control group participants were in this category. Approximately 6% of individuals in both groups fell into the "Other" labour market category, which includes those whose circumstances did not fit standard employment or benefit classifications. It should be noted that these labour market categories are not mutually exclusive; participants could fall into multiple categories if, for example, they were engaged in part-time employment while also receiving benefit payments.[20]

[20] Refer to Table 3.1 in the *Employment Data Lab: Methodology report* (Department for Work and Pensions, 2025a) for further details about the definitions of each labour market category.

Consistent with the employment trends, mean annual earnings in the year of the intervention start were higher among treatment participants, averaging £2,905 compared to £2,232 among the control group.

| Table 4: Baseline Characteristics of Unmatched Treatment and Control Groups | | |
|---|---|---|
| **Variable** | **Control Mean** | **Treatment Mean** |
| **Demographics** | | |
| Mean Age (years) | 36.59 | 35.88 |
| Presence of children (%) | 10.82 | 6.10 |
| Male (%) | 51.99 | 47.71 |
| **History of benefit receipt** | | |
| History of Employment and Support Allowance receipt (%) | 34.03 | 19.69 |
| History of Jobseeker's Allowance receipt (%) | 8.92 | 2.22 |
| History of Income Support receipt (%) | 9.42 | 4.02 |
| History of Personal Independence Payment receipt (%) | 23.78 | 23.99 |
| History of Disability Living Allowance receipt (%) | 7.40 | 2.36 |
| **Housing-related benefits receipt at intervention start** | | |
| Received UC the month of the intervention start (%) | 59.46 | 73.23 |
| Received UCHE the month of the intervention start (%) | 29.60 | 35.84 |
| Received HB the month of the intervention start (%) | 36.12 | 25.78 |
| **Labour market status at intervention start** | | |
| In work the month of the intervention start (%) | 18.09 | 20.54 |
| Looking for work the month of the intervention start (%) | 38.77 | 41.36 |
| Inactive the month of the intervention start (%) | 47.19 | 46.74 |
| In other labour category market, the month of the intervention start (%) | 6.26 | 5.81 |
| **Earnings from paid employment** | | |
| Mean annual earnings the year of the intervention start (real 2024 GBP) | £ 2,232.25 | £ 2,905.29 |

Note: The information is drawn from DWP administrative records and reflects baseline characteristics of individuals in the unmatched treatment and control groups. Benefit history refers to relevant claims or employment within the two years prior to the intervention start.

***Main Table 4**: Baseline characteristics of unmatched treatment and control groups.*

# 4. Impact Evaluation

## 4.1. Methodology

### 4.1.1. Propensity Score Matching

The statistical analysis for this evaluation is undertaken according to the established approach of DWP's Employment Data Lab,[21] which employs Propensity Score Matching (PSM) to estimate causal effects in non-randomised settings.[22] PSM facilitates the creation of a valid counterfactual by matching individuals in the treatment group with observationally similar individuals in the control group, based on their probability of receiving the intervention - known as the propensity score.

These propensity scores are derived from observed pre-intervention characteristics, enabling the construction of a matched comparison group that mirrors the treatment group in key respects. By aligning individuals with similar scores, PSM aims to isolate the effect of the intervention while reducing bias due to observed confounding variables.

A fundamental premise of PSM is the Conditional Independence Assumption (CIA), which holds that - conditional on the included covariates - treatment assignment is independent of potential outcomes. In practical terms, this means that if all relevant variables influencing both participation and outcomes are observed and controlled for, any remaining difference in outcomes can be causally attributed to the intervention. The credibility of this assumption depends on both the depth of the available data and the research team's understanding of the programme's institutional context (Caliendo and Kopeinig, 2008).

PSM also addresses the challenge of high-dimensionality in covariate space by condensing multiple variables into a single balancing score. This not only enhances the feasibility of the matching process but also preserves the statistical integrity of the evaluation (Rosenbaum and Rubin, 1983). The subsequent sections detail the implementation of the PSM procedure, including the choice of matching variables and rationale for the selected comparison group.

[21] HM Department for Work and Pensions. (2025). *Chapter 4: Analysis*. In *Employment Data Lab: Methodology report*. [Online]. GOV.UK. Available at: https://www.gov.uk/government/publications/employment-data-lab-information-and-guidance/employment-data-lab-methodology-report#chapter-4-analysis

[22] While the pre-analysis plan outlined additional identification strategies to be tested (e.g. difference-in-differences and construction of an administrative control group within the same time period), PSM was adopted as the main analysis given data access issues and time constraints on the analysis.

### 4.1.2. Matching Variables

To credibly estimate the causal impact of receiving receiving holistic, personalised, and asset-based support from KBOP under the SOP mechanism – compared to conventional housing-related support delivered by pre-KBOP providers under fee-for-service contracts – it is essential to identify a set of covariates that, once controlled for, render the treatment and control groups comparable. Under the CIA, if selection into the programme is fully explained by these covariates, the estimated differences in outcomes can be interpreted as the causal effect of the intervention.

Because participants were not randomly allocated to either KBOP or its predecessor services, the analysis uses matching to approximate the conditions of a randomised control trial. This is achieved through two mechanisms: first, by restricting the control group to recipients of the legacy (pre-KBOP) service - who share similar eligibility criteria with KBOP participants - and second, by incorporating a comprehensive set of covariates into the matching algorithm to adjust for any residual differences between groups.

The matching model draws on an extensive set of demographic and socioeconomic indicators, including age, gender, prior benefit receipt and employment trajectories during the two years preceding the intervention (e.g., Hevenstone et al., 2022; Bhuller et al., 2023). Labour market history, in particular, acts as a proxy for unobserved attributes such as motivation, resilience, or work readiness, which may influence both the likelihood of programme participation and subsequent employment outcomes (Caliendo et al., 2014). The inclusion of variables such as the presence of dependent children helps further account for barriers to employment and stability.

Although the dataset does not include a direct measure of homelessness, this limitation is partially mitigated by programme eligibility requirements. Both KBOP and its predecessor targeted individuals with support needs that impair their ability to live independently, implying comparable levels of housing instability across groups. As such, while not explicitly controlled for, homelessness risk is likely balanced due to shared targeting criteria, reducing the risk of omitted variable bias.

| Table 5: Matching Variables | |
|---|---|
| **Variable name** | **Description** |
| **Demographics** | |
| CHAR AGE | Age |
| CHAR AGE SQ | Age squared |
| CHAR SEX | Sex of the individual; 1 is male and 0 is female) |
| CHAR CHILDREN | Indicator of where an individual has dependent children |
| **History of benefit receipt[23]** | |
| SPELL HIST HB | Flag indicating if there is history of Housing Benefit receipt in the two years prior to intervention start |
| SPELL HIST CHB PARENT | Flag indicating if there is history of Child Benefit – Parent receipt in the two years prior to intervention start |
| SPELL HIST WTC | Flag indicating if there is history of Working Tax Credit receipt in the two years prior to intervention start |
| SPELL HIST CTC | Flag indicating if there is history of Child Tax Credit receipt in the two years prior to intervention start |
| SPELL HIST ESA | Flag indicating if there is history of Employment and Support Allowance receipt in the two years prior to intervention start |
| SPELL HIST JSA | Flag indicating if there is history of Jobseeker's Allowance receipt in the two years prior to intervention start |
| SPELL HIST IB | Flag indicating if there is history of Incapacity Benefit receipt in the two years prior to intervention start |
| SPELL HIST ICA | Flag indicating if there is history of Invalid Care Support receipt in the two years prior to intervention start |
| SPELL HIST IS | Flag indicating if there is history of Income Support receipt in the two years prior to intervention start |
| SPELL HIST PIB | Flag indicating if there is history of Passported Incapacity Benefit receipt in the two years prior to intervention start |
| SPELL HIST BB | Flag indicating if there is history of Bereavement Benefit receipt in the two years prior to intervention start |
| SPELL HIST BSP | Flag indicating if there is history of Bereavement Support Payment receipt in the two years prior to intervention start |
| SPELL HIST SDA | Flag indicating if there is history of Severe Disablement Allowance receipt in the two years prior to intervention start |
| SPELL HIST WB | Flag indicating if there is history of Widow's Benefit receipt in the two years prior to intervention start |
| SPELL HIST UC | Flag indicating if there is history of Universal Credit receipt in the two years prior to intervention start |
| SPELL HIST EMPLOYMENT | Flag indicating if there is history employment in the two years prior to intervention start |
| SPELL HIST DLA | Flag indicating if there is history of Disability Living Allowance receipt in the two years prior to intervention start |
| SPELL HIST PIP | Flag indicating if there is history of Personal Independence Payment receipt in the two years prior to intervention start |

[23] The history of benefit receipt variables cover a two-year look-back period prior to the intervention. The absence of a recorded history does not necessarily indicate that an individual has never received the benefit, but rather that no receipt was recorded within that specific two-year window. This approach follows the standard method used by the DWP Employment Data Lab when constructing benefit history indicators.

| | |
|---|---|
| PIT SANC HIST | Flag indicating if there is a recorded sanction in the two years prior to intervention start |
| **Past involvement in DWP interventions** | |
| PIT INT HIST | Participation in a DWP intervention or programme in the two years prior to intervention start |
| PIT INT START | Participation in a DWP intervention or programme at the intervention start |
| PIT REF START | Referral to, but not participation, in a DWP intervention in the two years prior to intervention start |
| **Labour market status[24] history** | |
| SPELL WORK m [24 - 1] | Monthly indicator of employment or self-employment status during the 24-month pre-intervention period |
| SPELL LFW m [24 - 1] | Monthly indicator of 'looking for work' labour market status during the 24-month pre-intervention period |
| SPELL Inactive m [24 - 1] | Monthly indicator of inactive labour market status during the 24-month pre-intervention period |
| SPELL OTHER m [24 - 1] | Monthly indicator of other labour market status during the 24-month pre-intervention period |

***Main Table 5**: Overview of matching variables. For further details, refer to Appendix A.*

[24] Refer to Table 3.1 in the *Employment Data Lab: Methodology report* (Department for Work and Pensions, 2025) for further details about the definitions of each labour market category.

### 4.1.3. Estimating Propensity Scores

Propensity scores were estimated using a logit model, which is particularly well-suited for binary treatment contexts where the objective is to model the probability of receiving the intervention (i.e., participation in KBOP PTS versus pre-KBOP floating support). The logit model is often preferred over linear probability models as it ensures predicted probabilities remain within the 0 to 1 range and more effectively accommodates skewed distributions (Smith, 1997).

While both logit and probit models generally produce comparable results in binary treatment analyses, the logit model has the practical advantage of placing greater probability mass in the tails of the distribution. This feature can improve predictive accuracy, especially for individuals with very high or very low propensity scores, where precise estimation is critical (Caliendo and Kopeinig, 2008).

### 4.1.4. Matching

Following the estimation of propensity scores, Nearest Neighbour (NN) matching was employed to construct a comparable control group. Nearest neighbour matching involves selecting for each treated participant the closest eligible counterparts from the control group participants, based on the smallest differences in their propensity scores. This evaluation adopted a one-to-many matching approach, whereby each treated case was matched to the 100 closest control cases. This method reduces the variance of the estimated treatment effect by leveraging more information per treated individual, while maintaining sufficient similarity between matched pairs (DWP, 2025b).

To ensure that these matches were of high quality, a caliper was applied. This means that a control individual is selected as a match only if their propensity score lies within the predefined caliper range and is the closest possible match to the treated individual within that range (Caliendo and Kopeinig, 2008). This approach ensures that the matched pairs are as similar as possible, thus improving the reliability of the treatment effect estimation. In this analysis, a strict caliper of 0.01 was used, reflecting a narrow tolerance that enhances the comparability between groups and strengthens the credibility of the estimated counterfactual outcomes (DWP, 2025b). Such tight thresholds are particularly important when matching large numbers of neighbours, as they guard against poor-quality matches.

Moreover, matching was conducted with replacement, meaning that a single control individual could serve as a match for more than one treated individual if they provided the best available comparison. This technique is especially valuable when the control group is relatively small or when the overlap in propensity scores between groups is limited. Although replacement can slightly increase variance, it significantly improves match quality by reducing reliance on suboptimal comparisons in cases with limited suitable control participants (DWP, 2025b).

These methodological decisions reflect a deliberate balancing of the bias-variance trade-off inherent in matching techniques: the use of 100 nearest neighbours helps to stabilise estimates by lowering variance, while the application of a tight caliper and matching with replacement helps to control for bias arising from poor matches. Together, these strategies support a robust and credible estimation of the Average Treatment Effect on the Treated (ATT) - the average difference in outcomes between those who received the intervention and what they would have experienced in its absence.

This matching process was implemented using the "psmatch2" package in Stata (Sianesi and Leuven, 2003).

### 4.1.5. Assessing Balance

Following the implementation of PSM, it is critical to evaluate whether the matched treatment and control groups are sufficiently comparable in terms of the covariates used in the matching process. This evaluation, known as balance assessment, is fundamental to establishing the credibility of the estimated treatment effect.

Balance is typically assessed quantitatively using the Mean Standardised Bias (MSB) for each covariate. MSB reflects the standardised difference in means between the treatment and control groups, allowing direct comparison across variables irrespective of their original scales (DWP, 2025b). Lower MSB values signify better balance, with thresholds below 5% generally regarded as acceptable in empirical research (Caliendo and Kopeinig, 2008). In addition to MSB, statistical significance tests are conducted to examine whether any residual differences are likely to affect the reliability of the results.

To further assess balance, Rubin's B and R statistics are employed. Rubin's B measures the absolute standardised difference in the mean propensity scores across groups, providing insight into systematic bias in treatment assignment. Rubin's R evaluates the ratio of variances in propensity scores between treatment and control groups, indicating the extent of dispersion post-matching. For robust causal inference, Rubin (2001) recommends B values below 25 and R values between 0.5 and 2. Achieving these thresholds suggests that the matching process has effectively minimised both bias and variance (DWP, 2025a).

In certain instances, it is not possible to identify suitable matches for some treated individuals because their estimated propensity scores lie outside the range observed among the control group. These individuals are referred to as 'off support', indicating that no sufficiently comparable counterparts exist to credibly estimate what their outcomes would have been in the absence of the intervention. To maintain the validity of the treatment effect estimation, such off-support cases are

excluded from the analysis (Dehejia and Wahba, 1999; DWP, 2025b). Consequently, ATT is only defined over the region of 'common support', where overlap exists between the propensity score distributions of treated and control groups.

### 4.1.6. Estimating Impact

After confirming adequate covariate balance, the outcomes of the matched control group are used to estimate the counterfactual - that is, what the treated group's outcomes would have been in the absence of the intervention. The average treatment effect on the treated (ATT) is then calculated as the difference between the mean outcomes of the treated individuals and their matched control participants. This provides an estimate of the intervention's causal impact, grounded in the assumption that, conditional on matching, any observed differences are attributable to the treatment.

It is important, however, to distinguish between descriptive differences and statistically significant effects when interpreting these results. Descriptive differences refer to the observed variation in average outcomes between the treatment and comparison groups; for example, a higher proportion of KBOP participants being employed relative to their matched pre-KBOP counterparts. While such patterns may suggest the presence of an intervention effect, they do not, on their own, confirm whether the observed differences are meaningful or simply the result of random variation within the sample.

To assess whether an observed difference is likely to reflect a true underlying effect rather than random variation, we apply statistical hypothesis testing, with p-values used as a tool to quantify the strength of the evidence against the null hypothesis. A p-value indicates the probability of observing a difference at least as large as the one found in the data, assuming that there is no true difference between groups (i.e., the null hypothesis is true). Smaller p-values provide stronger statistical evidence that the observed difference is unlikely to have occurred by chance alone (Imai, 2017).

In this evaluation, we treat p-values below 0.10 as statistically significant, in line with common practice in applied policy research where sample sizes may be modest and effects subtle (Angrist and Pischke, 2009). A p-value of 0.10 implies there is a 10% probability that the observed effect is due to chance, or conversely, a 90% confidence level that the effect is real. Similarly, p-values below 0.05 and 0.01 correspond to 95% and 99% confidence levels, respectively. When results fall below these thresholds, we interpret the findings as statistically significant evidence of an effect (Halperin and Heath, 2020). When results do not meet these thresholds, we still report the direction and size of the effect as indicative, but caution that such findings should not be interpreted as definitive evidence of impact.

This distinction is essential for drawing meaningful conclusions from impact evaluations. While descriptive data can suggest promising patterns, statistical significance provides the necessary foundation to determine whether observed effects are likely attributable to the intervention, rather than to chance.

### 4.1.7. Robustness Checks and Sub-group Analysis

***Varying the choice of matching estimators***

In addition to the primary NN matching approach, several alternative matching estimators were examined to test the robustness of the results. Specifically, radius matching and kernel matching were implemented using different caliper and bandwidth settings. Radius matching, a variant of caliper matching, pairs treated individuals with all control cases whose propensity scores lie within a pre-specified distance or radius (Caliendo and Kopeinig, 2008). This method offers flexibility by utilising multiple comparators where available, rather than relying on a fixed number of nearest neighbours. In this analysis, radius matching was tested using calipers of 0.01 and 0.001.

Kernel matching was also considered, which estimates the counterfactual outcome for treated individuals based on a weighted average of many control group members, with greater weight assigned to those with propensity scores closer to the treated case. This approach can help reduce variance due to its use of multiple comparators, but it may introduce bias if dissimilar matches are included with non-negligible weights (ibid). Kernel matching was assessed using bandwidths equivalent to calipers of 0.01 and 0.001.

Furthermore, a more restricted NN specification was evaluated, matching each treated case to the 20 nearest neighbours, also with a caliper of 0.01. This is a more selective approach, which can potentially reduce bias by using fewer, more similar matches.

PSM results for the alternative matching estimators are discussed in **Section 4.4.1** and presented in detail in **Appendix E.1**.

***Alternative cut-off dates***

To assess the robustness of the findings to alternative definitions of the intervention start, two additional cut-off points were tested. First, 1st March 2021 was used to reflect the point at which the full implementation of person-centred support commenced across all providers. Second, 1st July 2022 was tested to account for the introduction of an employment coordinator role, which aimed to strengthen focus

on employment outcomes. These alternative specifications allow for testing whether the estimated treatment effects are robust to changes in service support intensity and delivery timeline. Refer to **Section 4.4.2** and **Appendix F** for further details.

### *Rosenbaum Bounds*

While PSM effectively addresses bias from observed variables, it cannot account for unobserved confounding factors, which might influence both participation in the intervention and outcomes. To assess the robustness of the estimated treatment effects to such hidden bias, a Rosenbaum Bounds sensitivity analysis (Rosenbaum, 2002) was undertaken.

Rosenbaum Bounds quantify how strong an unmeasured confounder would need to be to alter the significance of the observed treatment effect. Specifically, the method evaluates whether the treatment effect remains statistically significant under varying degrees of hypothetical hidden bias. For this analysis, the rbounds command within Stata developed by DiPrete and Gangl (2004) was applied.

Sensitivity parameters (Γ, gamma) were varied from 1.00 (indicating no hidden bias) to 1.25 in increments of 0.01. A gamma greater than 1 reflects increasing levels of assumed unmeasured confounding. By examining whether the treatment effect persists across this range, we assess the extent to which the findings remain credible even under plausible violations of the no-unmeasured-confounding assumption was assessed (DWP, 2025a).

Rosenbaum Bounds analysis results are discussed in **Section 4.4.3** and presented in detail in **Appendix E.2**.

### *Sub-group analysis*

Subgroup analysis was conducted to explore whether treatment effects varied across key population segments. These analyses were pre-specified in consultation with the KBOP team and focused on demographic characteristics (age and sex), employment history and prior benefit claim history. Specifically, subgroups included individuals aged 18–35 and 36–65, male and female participants, those employed or unemployed in the year before the intervention and individuals with or without past UC, HB, or mobility and daily living support-related (DLA / PIP) benefit claims. Results were also estimated separately for those who sustained UC claims throughout the follow-up period. These checks aimed to evaluate the consistency of the programme's effects and to uncover any differential impacts across relevant subpopulations. Refer to **Section 4.5** for a discussion of key findings, and **Appendix G** for full presentation of results.

## 4.2. Balance Statistics

*Post-matching diagnostics indicate a high degree of balance between the treatment and control groups (**Main Table 6Main Table 6:** Balance diagnostics for covariates after matching, assessing bias reduction and distributional similarity between treatment and control group.*

). The mean and median bias reductions, at 2.22% and 1.78% respectively, suggest that any remaining differences across covariates are negligible. Rubin's B statistic of 15.68 and Rubin's R value of 1.00 both lie comfortably within accepted thresholds, reinforcing that the matched samples exhibit comparable covariate distributions and variance structures. Furthermore, the observed variance (2.84), skewness (0.61) and kurtosis (2.28) indicate that the overall distributional characteristics of the sample have been preserved post-matching, without introducing distortions.

**Table 6: Post-Matching Balance Diagnostics Using 100 Nearest Neighbours with 0.01 Caliper**

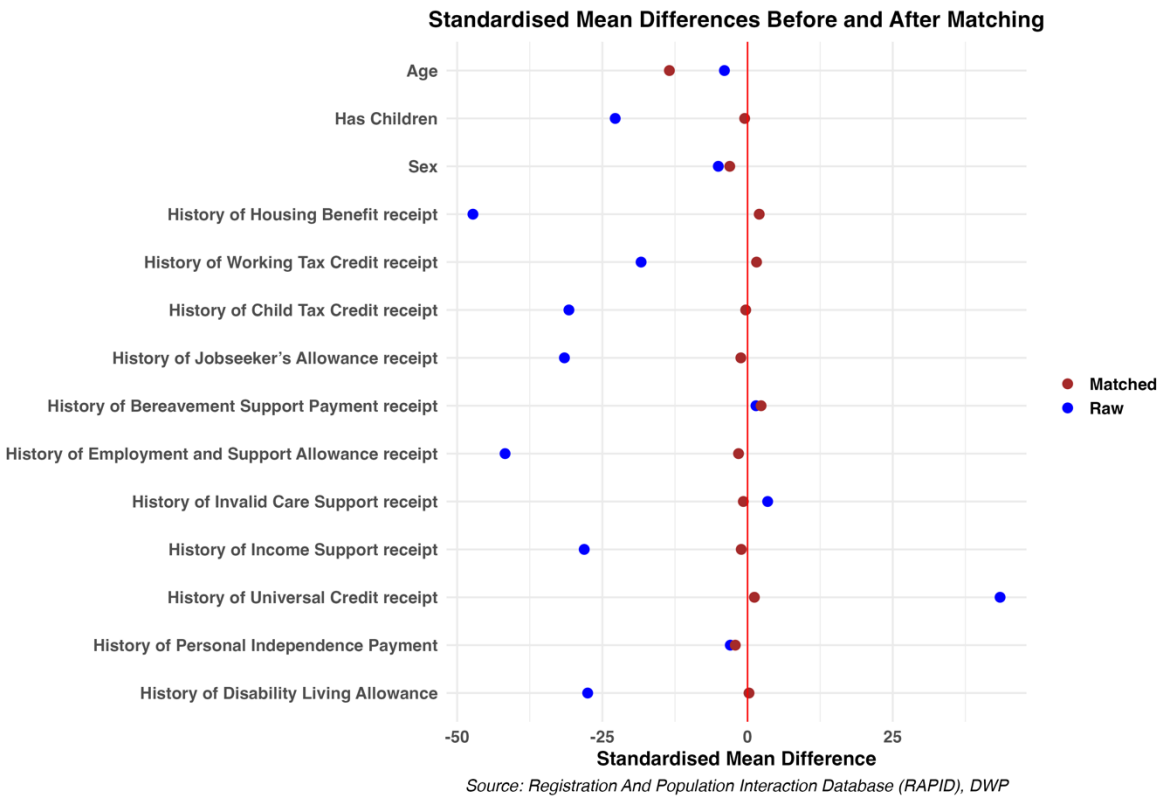
| Matching estimator | Mean Bias Reduction | Median Bias Reduction | Rubin's B | Rubin's R | Variance | Skewness | Kurtosis | Off support treatment group individuals | Off support control group individuals | Total N |
|---|---|---|---|---|---|---|---|---|---|---|
| 100 NN 0.01 caliper | 2.22 | 1.78 | 15.6805 | 1.00 | 2.84 | 0.61 | 2.28 | 17 | 0 | 2,728 |

***Main Table 6:** Balance diagnostics for covariates after matching, assessing bias reduction and distributional similarity between treatment and control group.*

A total of 17 treated individuals were excluded as off-support cases due to the absence of appropriate matches, resulting in a final analysis sample of 2,728 individuals.

Further covariate-level balance diagnostics, including detailed comparisons of benefits receipt and employment histories in the two years preceding the intervention, reinforce the strong alignment between treatment and control groups post-matching (refer to **Appendix C**).

Collectively, these balance diagnostics affirm the adequacy of the matching process, providing a robust basis for reliable impact estimation.




***Main Figure 3**: Standardised mean differences for selected key covariates before and after matching.*

## 4.3. Results

### 4.3.1. Employment-related outcomes

***Time to work***

The impact evaluation of the KBOP intervention on participants' employment outcomes reveals a positive and statistically significant effect on several dimensions of labour market engagement. Within the first six months of programme entry, 7.9% of KBOP participants sustained pre-intervention employment or initiated a new spell of employment, compared to 4.9% of those who received support under the pre-KBOP model. This difference of 3.0 percentage points is statistically significant at the 95% confidence level ($p = 0.03$) and indicates that the intervention meaningfully increased the likelihood of early employment (re-)entry.

By contrast, no significant difference was observed in employment entry between the subsequent six-month period (months seven to twelve post-intervention). While During this time, 5.1% of KBOP participants initiated employment compared to 4.4% of pre-KBOP participants; a difference of 0.7 percentage points, which was not statistically significant ($p = 0.54$). These findings suggest that the KBOP intervention was most effective in supporting early transitions into employment.

### *Work in the first two years post intervention*

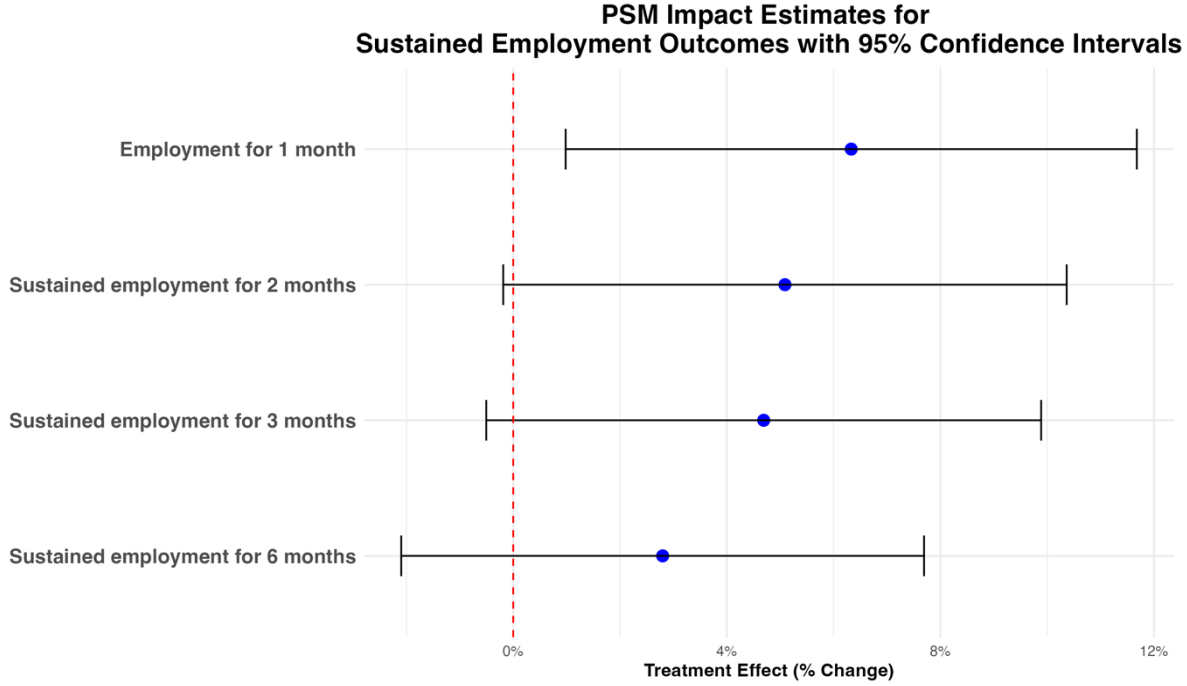
Further analysis shows that the positive impact of the intervention extended beyond the initial months. KBOP participants were, on average, 5 percentage points more likely to record at least one spell of employment in the first year after programme entry and 6 percentage points more likely in the second year, relative to their pre-KBOP counterparts. These effects, statistically significant at the 90% and 95% confidence levels, respectively, suggest that the intervention supported not only early transitions but also sustained engagement with the labour market over the two-year follow-up period.


*Source: Registration And Population Interaction Database (RAPID), DWP*

***Main Figure 4:*** *Estimated impact of KBOP participation on time to work and employment in the first and second year post-intervention, with 95% confidence intervals.*

### *Sustained employment*

Beyond employment entry, KBOP was associated with increased continuity of labour market engagement. During the two-year follow-up period, KBOP participants were more likely to be in employment for sustained durations. The share of individuals recording one or two consecutive months of employment was on average 6 percentage points higher among KBOP participants (both p = 0.02), statistically significant at the 95% confidence level. For three and six consecutive months, the differences were on average 5 percentage points (p = 0.06 and p = 0.08, respectively), suggesting significance at the 90% confidence level. These findings indicate that KBOP not only improved initial job access but also contributed to sustained employment.

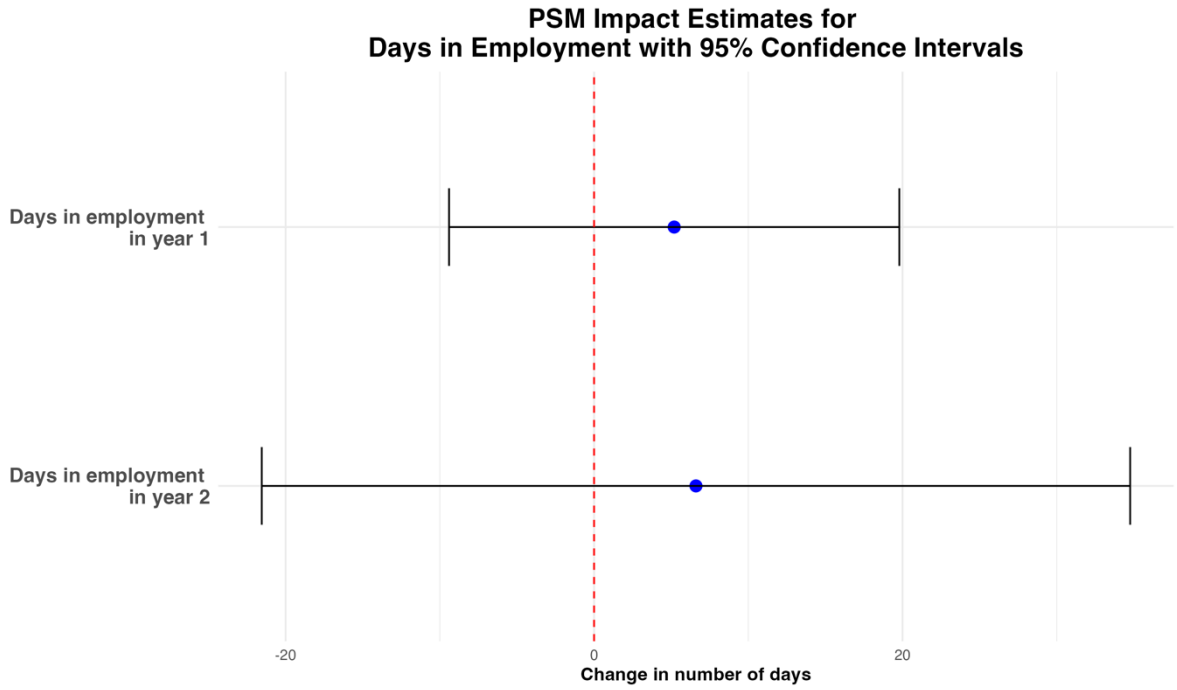



*Source: Registration And Population Interaction Database (RAPID), DWP*

***Main Figure 5:*** *Estimated impact of KBOP participation on sustained employment durations (1, 2, 3 and 6 months) for the 24-month period after the intervention start, with 95% confidence intervals.*

### *Days in employment*

When examining the total number of days spent in employment, the intervention did not yield statistically significant differences. On average, KBOP participants worked, on average, 5 more days in the first year (p = 0.5) and, on average, 6 more days over the full two-year period (p = 0.6) compared to the pre-KBOP group. These results suggest that while the intervention enhanced the likelihood of employment entry and short-term continuity, total days worked remained broadly comparable across the two cohorts.

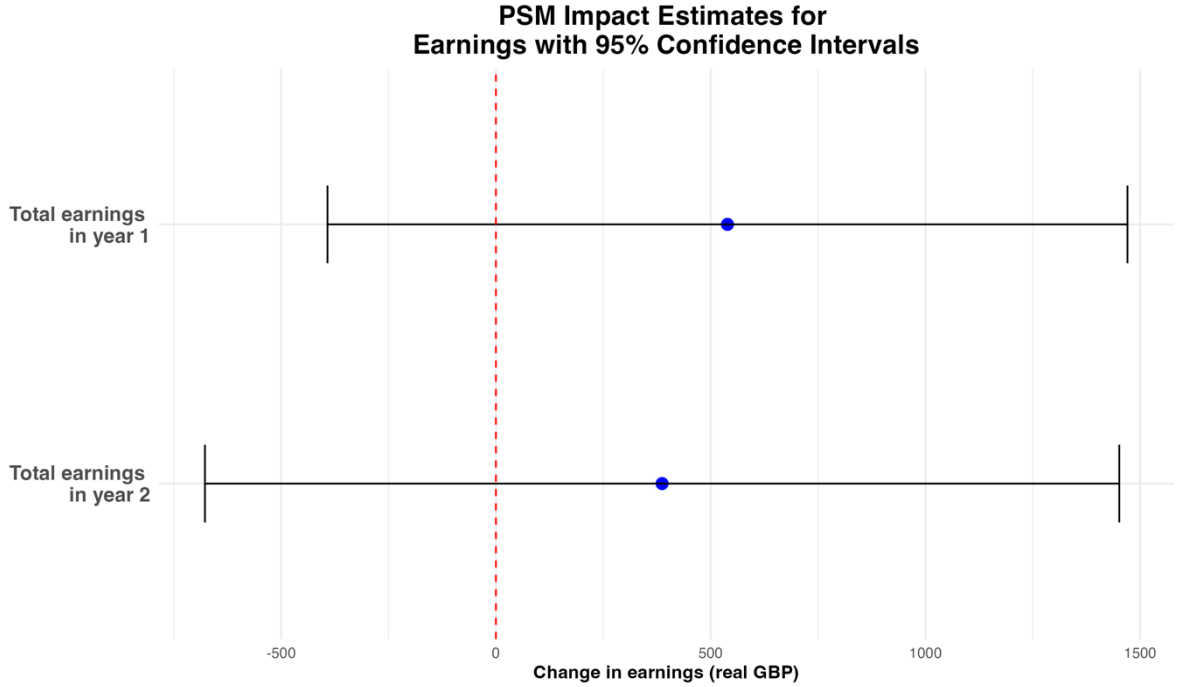



*Source: Registration And Population Interaction Database (RAPID), DWP*

***Main Figure 6**: Estimated impact of KBOP participation on total days in employment during year 1 and year 2 post-intervention, with 95% confidence intervals.*

### *Earnings from paid employment*

With respect to earnings, KBOP participants exhibited modest increases in total income from paid employment, though these differences were not statistically significant. In the first year post-intervention, KBOP participants earned £518 more on average than their pre-KBOP counterparts (p = 0.20) and £402 more in the second year (p = 0.4). Although the direction of the effect is positive, the absence of statistical significance (p > 0.10) suggests that the observed differences cannot be confidently attributed to the intervention.




*Source: Registration And Population Interaction Database (RAPID), DWP*

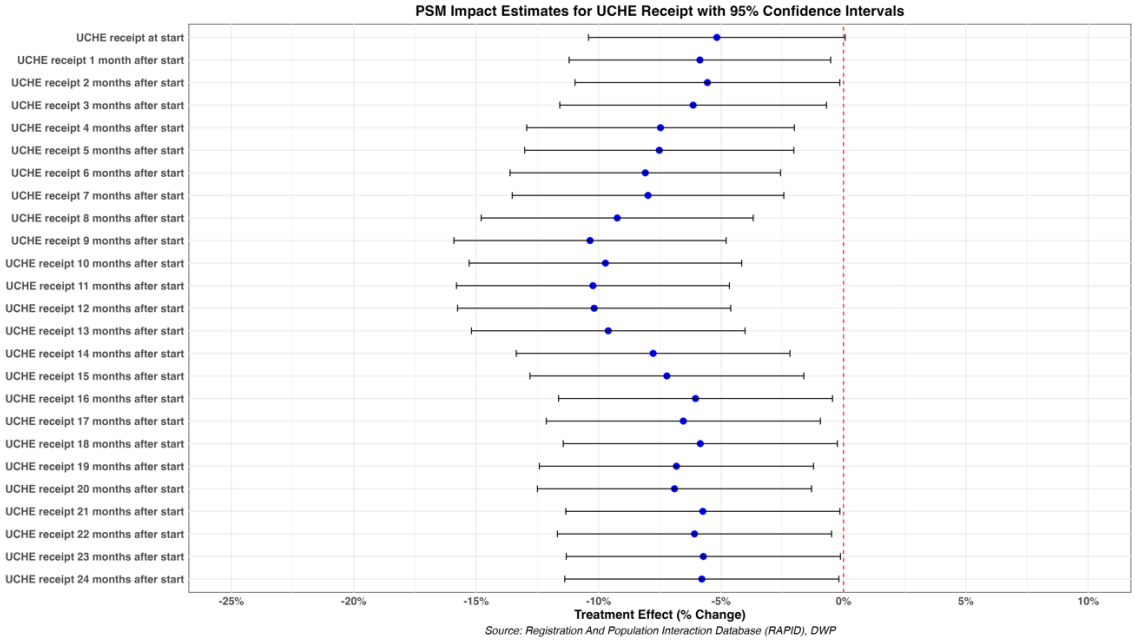
***Main Figure 7:*** *Estimated impact of KBOP participation on annual earnings (real 2024 GBP) during the first and second year post-intervention, with 95% confidence intervals.*

### 4.3.2. Housing-related outcomes

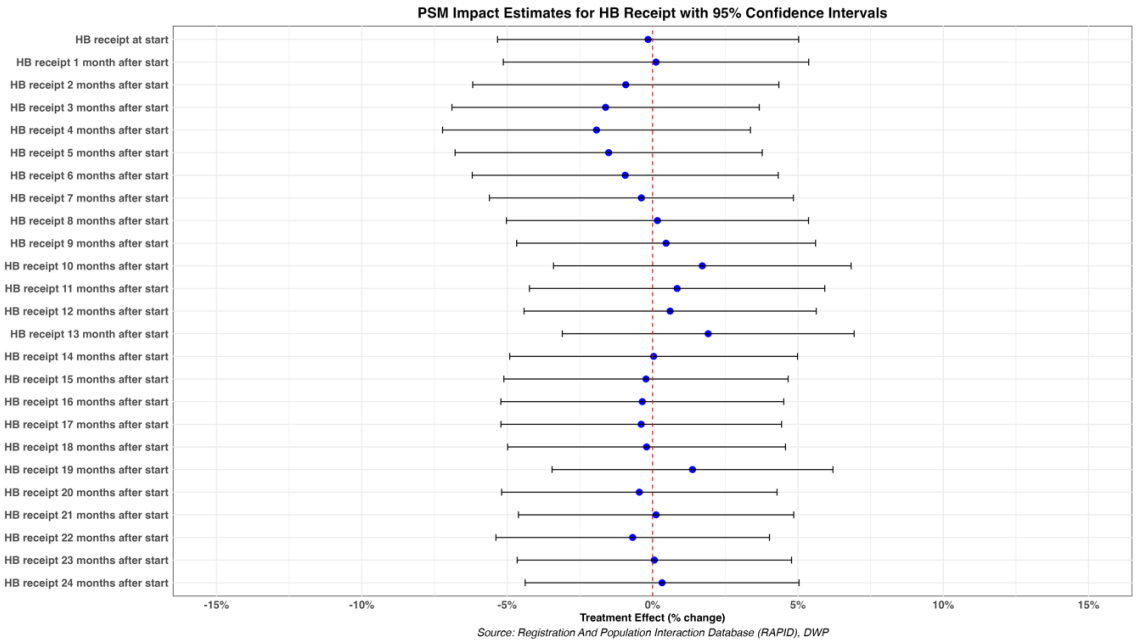
#### *Monthly housing benefit receipts*

The analysis of housing support benefit receipt shows that KBOP participation was associated with consistently lower rates of UCHE receipt compared to the pre-KBOP cohort. While UCHE receipt increased over time for both groups, KBOP participants were between 5 and 10 percentage points less likely to receive UCHE at various points throughout the 24-month follow-up period. These differences are statistically significant at the 95% confidence level ($p \leq 0.05$), as shown in **Main Figure 8**.

In terms of HB receipt, no statistically significant differences emerged between the two cohorts. Despite minor variations, these differences did not meet conventional thresholds for significance ($p \leq 0.10$), indicating that the intervention did not substantially alter the intensity or frequency of HB claims.



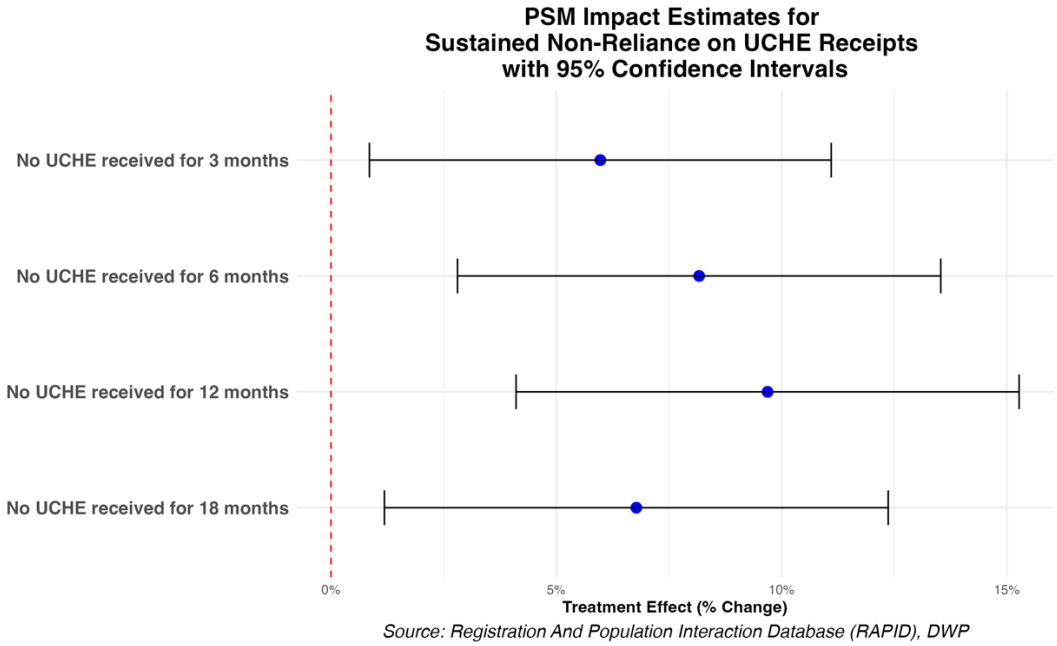

***Main Figure 8:*** *Estimated impact of KBOP participation monthly UCHE receipt for the 24-month period after the intervention start, with 95% confidence intervals.*




***Main Figure 9**: Estimated impact of KBOP participation monthly HB receipt for the 24-month period after the intervention start, with 95% confidence intervals*

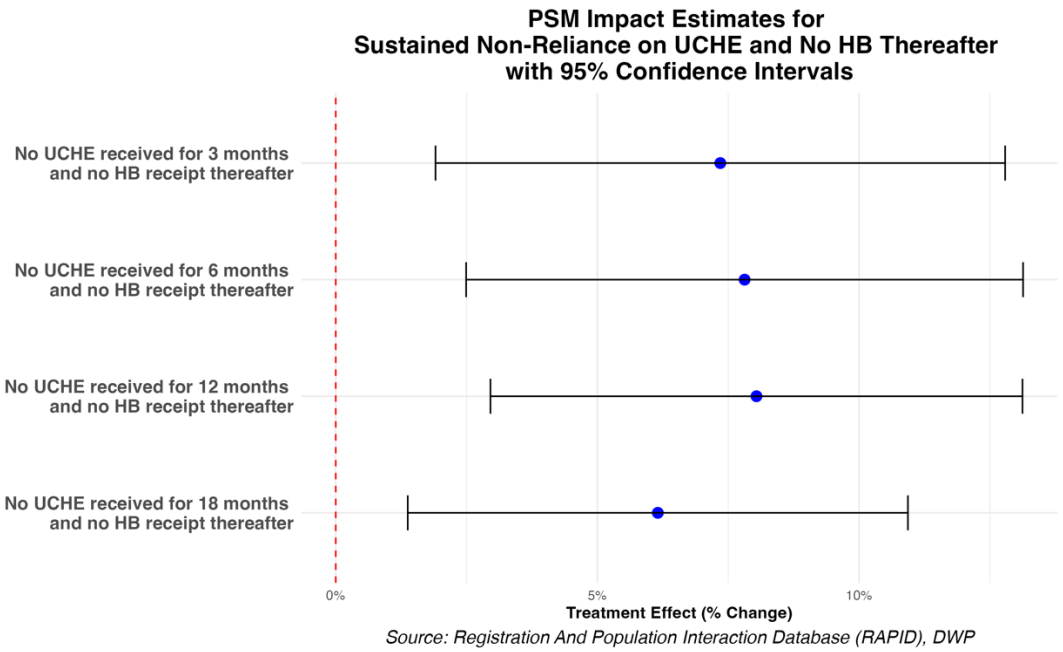
### *Sustained non-reliance on housing benefits*

A more detailed analysis of sustained non-reliance on UCHE reveals that KBOP participants were consistently less likely to rely on housing-related benefits over extended periods. The proportion of participants remaining off UCHE for at least three consecutive months was 6 percentage points higher in the KBOP group than in the pre-KBOP group (p = 0.02), while the corresponding increases for six, twelve and eighteen consecutive months were 8 percentage points (p = 0.03), 10 percentage points (p = 0.00) and 7 percentage points (p = 0.01), respectively. These findings are statistically significant at confidence levels ranging from 90% to 99%, underscoring the programme's role in promoting extended periods of housing support independence.



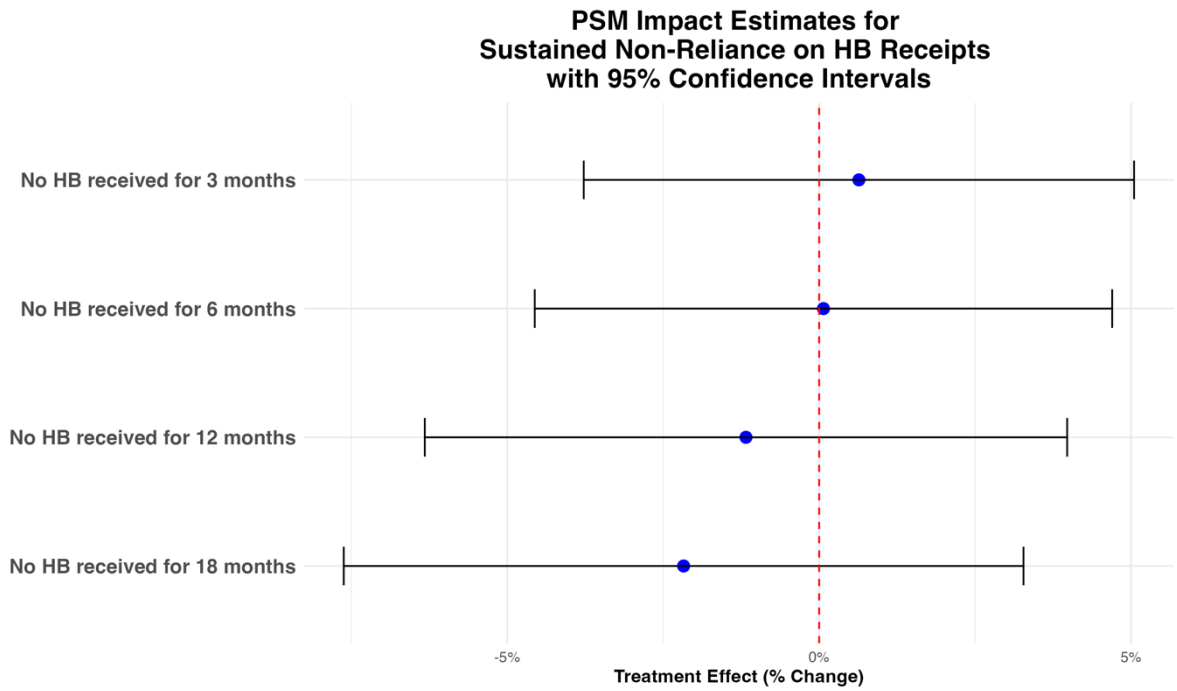

*Main Figure 10: Estimated impact of KBOP participation on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, with 95% confidence intervals.*

This positive pattern persisted even under stricter criteria which required that participants not only refrain from UCHE claims but also avoid HB claims following UCHE exit. Under this condition, KBOP participants were 7 percentage points more likely to remain off UCHE and HB for at least three consecutive months (p = 0.01), 8 percentage points more likely for six consecutive months (p = 0.00), 8 percentage points for twelve consecutive months (p = 0.00) and 6 percentage points for eighteen consecutive months (p = 0.00). These results, all statistically significant at the 90% confidence level or above, indicate that KBOP not only reduced reliance on UCHE but also contributed to broader independence from housing support benefits.




*Main Figure 11: Estimated impact of KBOP participation on sustained non-reliance on UCHE, followed by no HB receipt for the remainder of the 24-month period after the intervention start, with 95% confidence intervals*

However, the analysis of sustained non-reliance on HB alone did not yield statistically significant results. KBOP participants were only marginally more likely to not receive HB for three (0.64 percentage points, p = 0.8) and six consecutive months (0.07 percentage points, p = 0.9) and slightly less likely to do so for twelve (-1.2 percentage points, p = 0.7) and eighteen consecutive months (-2.2 percentage points, p = 0.4). None of these differences reached statistical significance, suggesting that the intervention's direct impact on HB alone was limited.




*Source: Registration And Population Interaction Database (RAPID), DWP*

***Main Figure 12:*** *Estimated impact of KBOP participation on sustained non-reliance on HB receipt for the 24-month period after the intervention start, with 95% confidence intervals.*

## 4.4. Robustness checks

### 4.4.1. Varying Matching Estimator

To test the sensitivity of the impact estimates, balance diagnostics were evaluated across a range of alternative matching estimators (see Appendix E). The results consistently indicate that covariate balance was maintained across all specifications, reinforcing the robustness of the matching procedure. Mean bias reduction ranged from 2.12% to 3.43%, while median bias reduction varied between 1.55% and 2.99%, reflecting minimal residual imbalance in all cases. Rubin's B values remained within accepted thresholds, though slightly elevated for kernel and radius matching with a 0.001 caliper. Rubin's R values remained close to 1 throughout, suggesting stable variance ratios between groups.

Although the more restrictive estimators (kernel 0.001 and radius 0.001) delivered marginally higher bias reduction, this came at the cost of significant sample loss. In particular, radius 0.001 excluded 136 treated individuals due to lack of suitable matches. Distributional statistics, including variance (ranging from 2.74 to 5.65), skewness (0.07 to 0.76) and kurtosis (2.10 to 2.69), remained stable and within reasonable bounds for all specifications, indicating no substantial distortions.

These diagnostics highlight that the primary matching approach (100 NN with 0.01 caliper) provides the most favourable trade-off between covariate balance and sample retention. While alternative estimators achieved broadly similar balance, none demonstrated improved overall performance in this context. Consequently,

100 NN with a 0.01 caliper was retained as the most robust and effective matching strategy for this evaluation.

### 4.4.2. Different Cut-off Dates

The robustness of the main model's findings was tested by considering two alternative cut-off dates, corresponding to key milestones in the implementation of the KBOP service model:

- **1st March 2021** was selected to reflect the point at which all providers were delivering the full model of asset-based, holistic support backed by the SIB arrangement. This date represents the start of consistent implementation across the programme, ensuring that participants received the intended intensity and quality of person-centred support.
- **1st July 2022** was tested to account for the appointment of a dedicated Employment Coordinator. This role was introduced to enhance the programme's focus on employment-related outcomes by supporting participants to build confidence, set aspirations and actively pursue labour market opportunities.

Testing these two alternative specifications allows us to examine whether the estimated treatment effects are sensitive to variations in the intensity and maturity of programme delivery over time.[25]

#### *March 2021 cut-off date*

In the first six months following programme entry, KBOP participants were, on average, 2.1 percentage points more likely to enter employment than their matched counterparts, a statistically significant difference ($p = 0.04$). Specifically, 7.0% of KBOP participants entered employment during this period, compared to 4.9% of those in the control group. In the following six months (months seven to twelve), the difference narrowed to 0.6 percentage points (4.6% vs. 3.9%) and was not statistically significant ($p = 0.49$), suggesting the impact on job entry was concentrated in the early post-intervention period.

Across the first and second financial years, KBOP participants were, on average, 2.8 percentage points and 3.4 percentage points more likely to be employed at least once compared to the control group ($p = 0.15$ and $p = 0.10$, respectively). These effects are positive but do not reach conventional levels of statistical significance.

Sustained employment outcomes show similar patterns. KBOP participants were, on average, 3.5 percentage points more likely to record one month of employment following programme start ($p = 0.10$), 2.5% percentage points more likely to sustain employment for two consecutive months ($p = 0.23$), and 2.1 percentage points more likely to achieve three consecutive months of employment ($p = 0.29$). For six consecutive months, the average difference was 0.9 percentage points, which was not statistically significant ($p = 0.63$).

[25] Refer to Main Figure 1 for an overview of the KBOP implementation stages.

In the first year post-intervention, KBOP participants spent on average 73 days in employment compared to 71 days for the comparison group, a marginal difference of 2 days, which was not statistically significant ($p = 0.70$). Over the full two-year follow-up period, both groups recorded nearly identical total employment duration (147 days vs. 146 days).

Similarly, total earnings from paid employment, adjusted for inflation, showed no significant differences. In the first year post-intervention, average earnings among KBOP participants were £2,962, compared to £2,822 in the control group, a non-significant difference of £140 ($p = 0.68$). In the second year, KBOP participants earned less on average (£3,221 vs. £3,271), a difference of -£50 ($p = 0.90$).

Across the two-year follow-up period, no statistically significant differences were observed in HB receipt between KBOP participants and their matched counterparts. While point estimates suggested a modest reduction in HB take-up among KBOP participants in the later months, none of these differences were statistically significant at conventional levels. Similarly, the proportion of participants avoiding HB receipt for three, six, twelve or eighteen consecutive months post-intervention was comparable between groups, with no effects reaching statistical significance.

The KBOP intervention was associated with a consistent and statistically significant reduction in reliance on UCHE over the full two-year follow-up period. On average, the share of KBOP participants receiving UCHE was 5 to 10 percentage points lower than among matched controls, with the largest differences, ranging from 8 to 10 percentage points, emerging between months eight and thirteen. All effects were statistically significant at the 95% confidence level or higher, providing strong evidence of a sustained programme impact.

KBOP participants were also more likely to sustain periods of non-reliance on UCHE. Compared to the control group, they were 6 percentage points more likely to avoid UCHE for at least three consecutive months ($p < 0.01$), with the gap increasing by 8 percentage points and 9 percentage points, at six and twelve months respectively. By eighteen months, the difference remained sizable at nearly 7 percentage points ($p < 0.01$), suggesting a durable reduction in benefit dependence.

When examining sustained UCHE non-receipt combined with no subsequent HB take-up, KBOP participants consistently outperformed the comparison group by 6 to 7 percentage points across all durations from three to eighteen months. All differences were statistically significant at the 99% confidence level or higher, highlighting a robust and lasting reduction in reliance on housing-related benefits.

Detailed PSM results are presented in **Appendix E**.

### *July 2022 cut-off date*

Early findings from the July 2022 KBOP cohort suggest positive, though modest, impacts on employment outcomes over the one-year follow-up window. KBOP participants were, on average, 1.6 percentage points more likely to sustain pre-intervention employment or begin a new employment spell within the first six months of programme entry compared to the control group (5.3% vs. 3.6%), though this difference did not reach statistical significance ($p = 0.25$). Between months seven to twelve, the direction of the effect reversed slightly, with the control group marginally more likely to enter employment, but again the difference was small and not significant (–0.8 percentage points, $p = 0.53$).

Additionally, in the one year post-intervention, 35.5% of KBOP participants recorded employment activity, compared to 31.6% of controls; a difference of 3.9 percentage points ($p = 0.17$). While this points to a moderate improvement, the effect is not statistically significant at conventional thresholds.

Sustained employment measures showed a similar pattern. KBOP participants were between 3 to 4 percentage points more likely than their matched pre-KBOP counterparts to maintain employment for one, two, three, or six consecutive months, with p-values ranging from 0.21 to 0.37. Though directionally positive, these effects were not statistically significant.

On average, KBOP participants worked 7 more days in the first year than those in the comparison group (92 vs. 85 days), and earned approximately £283 more in real annual income (£3,593 vs. £3,310). However, neither of these differences reached statistical significance ($p = 0.39$ and $p = 0.56$, respectively).

In terms of housing-related outcomes, the KBOP intervention was associated with a consistent and statistically significant reduction in monthly UCHE receipt over the twelve-month follow-up period. These monthly trends were mirrored in longer-term outcomes: KBOP participants were significantly more likely to sustain periods of UCHE non-reliance, with the share avoiding UCHE for three, six, and twelve consecutive months ranging from 6 to 10 percentage points higher than among matched controls (p-values between 0.01 and < 0.01). When extending this definition to include no subsequent HB take-up after UCHE disengagement, the results remained robust. KBOP participants were 7 to 8 percentage points more likely than controls to sustain UCHE non-receipt for three, six, and twelve consecutive months with no HB claims thereafter (p-values ranging from 0.02 to < 0.01).

Monthly HB receipt patterns were broadly similar between groups, with no statistically significant differences observed at any point (all p-values > 0.30). Sustained non-reliance on HB was also comparable between KBOP participants and

matched controls. In fact, the proportion of participants avoiding HB for three, six, or twelve consecutive months was slightly lower in the treatment group (by 0.3 percentage points, 0.5 percentage points and 2.2 percentage points respectively) though none of these differences reached statistical significance (p-values ranging from 0.48 to 0.90).

Detailed PSM results are presented in **Appendix E**.

Overall, the robustness analysis provides support of the main findings and highlights how the timing and maturity of KBOP implementation influenced participant outcomes. The March 2021 cohort, comprising 1,364 individuals tracked over a full two-year period, experienced significantly higher rates of job entry within the first six months, along with consistent reductions in UCHE receipt throughout the follow-up window. These effects extended to more stringent measures of sustained disengagement from housing-related benefits, including combined non-receipt of UCHE and HB, suggesting a durable shift away from benefit dependency. In contrast, the July 2022 cohort, which included 781 individuals tracked for only one year, showed directionally positive but more modest employment impacts. While no statistically significant differences in HB outcomes were observed under either specification, the reduction in UCHE reliance remained a consistent area of strength. It is important to note that the smaller sample size and shorter follow-up period in the July 2022 cohort likely limited statistical power, which should be taken into account when interpreting the relative effect sizes.

### 4.4.3. Rosenbaum Bounds[26]

Rosenbaum Bounds assess how strongly an unobserved confounder would have to influence both treatment assignment and outcomes to undermine the observed treatment effect. These bounds were applied across all outcome measures to evaluate the sensitivity of estimated effects to hidden bias.

Overall, results show that the KBOP intervention had statistically robust and credible effects on employment participation in the two years post-intervention, with significance persisting even under moderate assumptions of hidden bias. Sustained short-term employment (one, two and up to three consecutive months) also showed resilience to low levels of unmeasured confounding, though effects weakened over longer durations. In contrast, estimated effects on total days in employment and earnings were not statistically significant under the assumption of no hidden bias and deteriorated further as sensitivity parameters increased, indicating limited robustness.

In terms of the housing-related outcomes, the robustness analysis suggests that the KBOP intervention contributed to reduced reliance on housing benefits, particularly in the later stages of follow-up period. Statistically credible reductions in monthly UCHE receipt emerged from month eight onward, while reductions in Housing Benefit claims became increasingly robust from month sixteen to twenty-four. Short-term disengagement from UCHE, with or without subsequent HB receipt, was also statistically significant and moderately robust. However, sustained non-reliance over longer durations (twelve – eighteen months) showed limited robustness, indicating greater sensitivity to unmeasured confounding. Full Rosenbaum bounds results are presented in **Appendix E**.

[26] Detailed Rosenbaum bounds results can be found in Appendix E of this report.

## 4.5. Sub-group Analysis

Sub-group analysis was undertaken to understand the heterogeneity of results by different participant characteristics. Sub-groups were selected based on discussions with KBOP and known factors influencing labour market outcomes. Sub-group analyses were therefore undertaken by demographic characteristics, employment history and benefit claim history.[27] Specifically, treatment effects were estimated separately for younger (aged 18–35) and relatively older (aged 36–65) individuals, with the age threshold reflecting the sample's median age. Results were also disaggregated by sex (male / female), and by employment status (employed at any point / unemployed throughout) in the year prior to the intervention.

Further sub-groups focused on benefit claim histories, distinguishing individuals with and without a history of Universal Credit (UC), Housing Benefit (HB), or mobility and daily living support benefits (Disability Living Allowance - DLA / Personal Independence Payment - PIP) claims in the two years before the intervention. Additional analysis considered outcomes for those who continued to claim UC throughout the follow-up period.

These checks aimed to assess whether the intervention's effects were consistent across different groups and to identify any variation in impact linked to pre-existing characteristics.

The detailed results of the sub-group analyses for a two-year tracking window are provided in **Appendix G**, while key findings, per outcome variable, are discussed in the subsequent sub-sections.

[27] "History" refers to relevant claims or employment recorded in the two years preceding the intervention start.

### 4.5.1. Employment-related outcomes

#### *Time to work*

In the first six months following programme entry, KBOP participants were, on average, more likely to retain pre-existing employment or begin a new job compared to their matched pre-KBOP counterparts. This effect was particularly pronounced within specific subgroups. Among participants aged 36–65, those in the KBOP group were 3 percentage points more likely to be employed than their matched pre-KBOP peers ($p = 0.02$). Female KBOP participants were 5 percentage points more likely to be in employment relative to matched females in the control group ($p = 0.01$). Employment likelihood was also 4 percentage points higher among KBOP participants with sustained UC claims during follow-up ($p = 0.02$), and 5 percentage points higher among those without a history of DLA or PIP receipt, compared to their respective matched counterparts ($p = 0.04$).

Delayed employment entry outcomes, between months seven to twelve, were observed in fewer subgroups; participants aged 36–65 were on average 3 percentage points more likely to enter employment than their matched peers ($p = 0.05$), while those who had experienced a full year of unemployment prior to the intervention were also, on average, 3 percentage points more likely to transition into work ($p = 0.07$).

#### *Employment in the year*

Participants aged 36–65 were, on average, 7 percentage points more likely to be in employment during the first year following the intervention ($p = 0.02$), and 8 percentage points more likely in the second year ($p = 0.01$), compared to their matched pre-KBOP counterparts - effects that were statistically significant at the 95% and 99% confidence levels, respectively.

Similarly, individuals with sustained UC claims were significantly more likely to be in employment by an average of 6 percentage points in the first year ($p = 0.09$), and 9% in the second year ($p = 0.02$), relative to their matched control group counterparts.

KBOP participants with no history of HB claims were also 7 percentage points more likely to be employed across both years, with effects significant at the 90% confidence level. A comparable pattern was observed among those with a history of DLA or PIP receipt, who were, on average, 7 percentage points more likely to be in employment in both years post-intervention, with results significant at the 95% and 90% confidence levels, respectively.

Finally, individuals who had been unemployed for a full year prior to the intervention were, on average, 4 percentage points more likely to be in employment during the

first year (p = 0.03) and 6 percentage points more likely during the second year (p = 0.02), compared to their matched counterparts.

### *Sustained employment*

KBOP participants aged 35–65 were significantly more likely to sustain employment over time, compared to matched pre-KBOP individuals. On average, they were 7 percentage points more likely to remain in work for at least two (p = 0.02) and three consecutive months (p = 0.02), and 6 percentage points more likely to maintain employment for six consecutive months (p = 0.05).

Participants with a sustained UC claim throughout the follow-up period also experienced marked improvements. They were, on average, 8 percentage points more likely to sustain employment for two consecutive months (p = 0.04) and 6 percentage points more likely to sustained employment for three consecutive months (p = 0.10).

Individuals who had experienced a full year of unemployment prior to the intervention similarly benefitted from the KBOP support model. They were, on average, 5 percentage points more likely to sustain work for at least two consecutive months (p = 0.03), and 6 percentage points more likely to do so for three consecutive months (p = 0.01). A positive effect of 4 percentage points was also observed at the six-month threshold (p = 0.08).

KBOP participants with a history of claiming mobility and daily living support benefits (DLA or PIP) also demonstrated consistent improvements across all employment durations. Compared to their matched counterparts, they were on average 7 percentage points more likely to sustain employment for at least two months (p = 0.03), 7 percentage points more likely for three months (p = 0.03), and 7 percentage points more likely to remain in work for six months (p = 0.08).

Taken together, these results highlight the KBOP intervention's potential to support sustained employment among groups traditionally facing greater labour market disadvantage. Notably, older working-age adults, long-term unemployed individuals, those with ongoing UC claims, and participants with health-related benefit histories all recorded statistically significant gains in job retention over two, three, and six-month durations. These findings suggest that the KBOP model not only promoted initial job entry but also helped participants remain in work over time, particularly among those with more complex employment barriers.

### *Days in employment*

KBOP participants who had been unemployed throughout the first year prior to the intervention worked, on average, approximately 7 additional days in the first year

following programme entry (p = 0.08) and around 19 additional days over the full two-year follow-up period (p = 0.05), with these effects reaching significance at the 90% and 95% confidence levels, respectively.

No statistically significant differences were observed between KBOP and pre-KBOP participants for total days in employment across any other sub-group at conventional significance thresholds (p ≤ 0.10).

### *Earnings from paid employment*

When disaggregated by subgroup, the KBOP intervention was associated with modest but generally positive effects on earnings. Participants aged 36–65 saw the most consistent improvements; on average, their annual earnings were £610 higher in the first year and £782 higher in the second year post-intervention, relative to matched pre-KBOP participants. Those with no prior HB history earned, on average, £767 more in the second year. The largest gains were observed among individuals who had not been unemployed in the year prior to programme entry, with earnings that were, on average, £2,698 higher in the first year and £3,405 higher in the second year, although these treatment effects were not statistically significant.

By contrast, some groups saw little to no earnings improvement. Younger adults aged 18–35 experienced lower earnings in the second year – on average, £676 less than their matched counterparts. Participants with a history of HB receipt showed no notable change in earnings, and among those with a history of receiving mobility and daily living support benefits (PIP or DLA), earnings were £516 higher on average in the first year, but this difference was not statistically significant.

Overall, while most estimated treatment effects on earnings were not significant at conventional levels (p ≤ 0.10), the direction of impact was broadly positive and most pronounced among older adults and those with a more stable employment or benefit history.

### 4.5.2. Housing-related outcomes

#### *Monthly HB receipts*

For HB receipt, the results do not reveal a consistent pattern. The direction of the effects varied, with some sub-groups and time periods showing marginally positive impacts and others showing negative impacts. However, none of these differences reached statistical significance at conventional levels ($p \leq 0.10$). This indicates that, overall, there is no robust evidence to suggest that KBOP participation significantly influences monthly HB receipt across the subgroups analysed.

#### *Sustained non-reliance on HB receipt*

Similarly, when assessing sustained non-reliance on HB receipts, no systematic or consistent effect of KBOP participation was detected across most subgroups. The analysis showed mixed results, with both positive and negative effects depending on the specific month and group examined.

A significant difference emerged only at the eighteen-month point among KBOP participants without a history of claiming DLA or PIP. On average, they were 5 percentage points less likely to remain off Housing Benefit compared to matched pre-KBOP counterparts, with the result approaching significance at the 90% confidence level ($p = 0.09$).

#### *Monthly UCHE receipts*

Participants aged 18–35 exhibited significant reductions in their reliance on the UCHE across nearly the entire follow-up period. On average, they were between 5 to 12 percentage points less likely to receive UCHE from month one through month twenty, with effects consistently statistically significant at the 95% and 99% confidence levels. Similarly, those aged 35–65 experienced meaningful reductions in UCHE claims, particularly during months one through thirteen, during which the probability of receipt was, on average, 7 to 9 percentage points lower compared to their matched counterparts.

Gender-disaggregated analysis further underscores these findings. Male participants were, on average, 6-9 percentage points less likely to claim UCHE during months eight through thirteen. Among female participants, the effect was both stronger and more persistent: from month three through month twenty-three, the share of KBOP participants claiming UCHE was on average between 7 and 16 percentage points lower than in the comparison group, with significance at both the 95% and 99% confidence levels.

Among individuals with sustained UC claims, KBOP participation was associated with broad and consistent reductions in UCHE use. These participants were, on average, 6-10 percentage points less likely to rely on housing-related support across months

one to twenty-two. These effects were statistically significant at the 99% or 95% confidence levels. Those with a history of UC receipt also demonstrated substantial decreases, with reductions of 8 to 14 percentage points across all twenty-four months, all of which were statistically significant at the 99% or 95% confidence level.

Finally, participants without a history of claiming mobility and daily living support benefits (DLA or PIP) also benefited from the intervention. Between months three and sixteen, they were, on average, 3 to 13 percentage points less likely to receive UCHE than their matched peers, with statistically significant reductions observed throughout this period.

### *Sustained non-reliance on UCHE receipt*

Participants aged 18–35 were, on average, 7 to 12 percentage points more likely to sustain non-reliance on the UCHE across all durations analysed. These results were statistically significant and point to the programme's effectiveness among younger adults. A similarly strong pattern emerged for participants aged 35–65, who were 7 to 10 percentage points more likely to remain off UCHE, reflecting a sustained medium-term effect of the KBOP intervention.

Gender-disaggregated results showed that women consistently benefited from the programme. On average, female participants were 8 to 14 percentage points more likely to not receive UCHE for six, twelve and eighteen consecutive months, with effects significant at the 95% and 99% confidence levels. Among male participants, a statistically significant effect was observed only at the twelve-month duration, where the likelihood of non-reliance on UCHE was 9 percentage points higher compared to matched controls ($p = 0.04$).

Participants with sustained UC claims saw consistently positive outcomes. Across all timeframes, they were 7 to 12 percentage points more likely to sustain UCHE non-receipt, with effects robust at both the 95% and 99% confidence levels. Those with a history of UC receipt also demonstrated strong improvements, being 9 to 13 percentage points more likely to avoid UCHE, with all effects statistically significant at the 99% level.

Among participants with a history of HB receipt, effects were more modest but still positive. They were, on average, 7 percentage points more likely to avoid UCHE at both the six- and twelve-month durations, although statistical significance was marginal ($p = 0.06$ and $p = 0.09$, respectively). By contrast, participants with no history of HB receipt experienced stronger effects: they were 10 to 12 percentage points more likely to remain off UCHE over six, twelve, and eighteen months, with consistently high levels of statistical confidence ($p \leq 0.05$).

Finally, participants without a history of claiming mobility and daily living support benefits (DLA or PIP) also benefited from KBOP support. These individuals were, on average, 5 to 11 percentage points more likely to sustain non-reliance on UCHE across all observed durations, with significance ranging from the 90% to 99% confidence levels.

### *Sustained non-reliance on UCHE receipt and no HB thereafter*

When disaggregated by age, both the share of relatively younger and older treated participants who sustained UCHE non-receipt and subsequently avoided HB claims was higher by approximately 1 to 4 percentage points compared to their matched counterparts. However, these effects did not reach statistical significance at conventional confidence levels.

A similar pattern emerges when disaggregated by sex; both the share of treated male and treated female participants were more likely to sustain UCHE non-receipt and subsequently avoid HB claims compared to their matched counterparts. However, these effects were not statistically significant.

Outcomes were particularly strong for participants with sustained UC claims. This group was, on average, between 4 to 9 percentage points more likely to sustain UCHE non-receipt and subsequently avoid HB claims, compared to the control group. The effects were statistically significant for the three-, six-, and twelve-month durations ($p \leq 0.05$), with the largest difference of 9.2 percentage points observed at three months ($p = 0.01$).

Participants with a history of UC receipt also experienced improvements, being 7 to 10 percentage points more likely to remain off UCHE and HB, with high levels of statistical confidence (95% and 99%).

## 4.6. Discussion and Conclusion

Overall, the impact evaluation demonstrates that the KBOP intervention was associated with increased labour market engagement among participants. Several indicators point to significant improvements in employment activity within the two-year period following programme initiation, specifically among participants who received holistic, personalised support through the fully implemented KBOP model from July 2021 onwards:

- KBOP participants were more likely to either sustain pre-intervention employment or initiate a new employment spell within the first six months.

- KBOP participants were more likely to be active in the labour market in the first and second year post-intervention compared to pre-KBOP participants.
- The intervention also appears to have contributed to more sustained labour market engagement for up to six consecutive months.

- The sociodemographic subgroups that appeared to benefit most from the KBOP intervention in terms of labour market outcomes were individuals aged 35–65, those with a history of claiming mobility and daily living support benefits (DLA or PIP), and individuals who were unemployed in the year prior to the intervention. These subgroups are typically among those furthest from the labour market, suggesting that the KBOP intervention was particularly effective in supporting re-engagement among individuals facing entrenched barriers to employment. Notably, the older cohort of KBOP participants was the only subgroup to record a statistically significant increase in total days worked over the full two-year follow-up period.

In terms of housing-related outcomes, we observe the following key outcomes:

- The main model's findings indicate that, over time, across both the pre-KBOP and the KBOP cohorts, there is an increasing trend in UCHE receipts, alongside a decreasing trend in HB receipts. This likely reflects natural migrations, where claimants of legacy benefits transitioned to UC benefits upon a change in circumstances (DWP, 2022).

- The observed increase in UC's Housing Element receipt over time among the treatment group, and potentially the control group, may be partially attributed to improved benefit take-up among individuals who were previously eligible but not claiming. According to discussions with the KBOP delivery team, the intervention provided targeted support to help

participants navigate the benefits system, including identifying and accessing entitlements such as UCHE.[28]

- Individuals who received KBOP's support service were more likely to stop receiving UCHE following programme entry for continuous periods of time, extending up to eighteen consecutive months. Statistically significant trends for this reduction hold for multiple demographic subgroups including both age groups (18 – 35 and 35 – 65, female participants, individuals with a history of receiving UC, individuals with and without a history of receiving HB, individuals without a history of claiming mobility and daily living support benefits).

- Based on the main model's findings, KBOP participants were, on average, 6% to 8% more likely than their matched pre-KBOP counterparts to stop receiving the Universal Credit housing element (UCHE) for up to 18 consecutive months and not claim HB during the remaining follow-up period. This sustained disengagement from UC's housing support was statistically significant at the 99% confidence level. When disaggregated by subgroup, this outcome was statistically significant only among participants with a history of UC receipt, and only within the first six months post-intervention.

Variation in outcomes across subgroups suggests that the effects of the KBOP intervention are not uniform but instead shaped by the complex and varied needs of participants. This heterogeneity reflects the programme's broad eligibility criteria, which encompassed individuals experiencing multiple and overlapping forms of disadvantage, as well as a wide range of personal circumstances, challenges and aspirations. As such, the KBOP cohort does not conform to a single, easily generalisable profile. In the context of a person-led support model, where individuals engage with services in ways that reflect their unique priorities and lived experiences, it is expected, and indeed appropriate, that no single intervention will generate uniform results. Variation in outcomes across subgroups is therefore both inherent and anticipated.

This diversity, while central to the programme's ethos, presents important methodological considerations. In particular, it poses challenges for identifying a meaningful "average" treatment effect that captures the breadth of participant experiences. These challenges are further compounded by small sample sizes within

[28] This finding does not imply that individuals who received support to navigate the housing benefits system and subsequently began claiming benefits were also those who exited the system more quickly. For insights into differential patterns of benefit reliance and disengagement, refer to subgroup analyses disaggregated by individuals with and without a history of HB or UC receipt during the two years preceding the intervention. Note that the absence of a recorded history of benefit receipt does not necessarily indicate that an individual has never received the benefit. Rather, it reflects that no receipt was recorded during the two-year period preceding the intervention.

certain socioeconomic subgroups,[29] which reduce statistical power and increase uncertainty around subgroup-specific estimates.

This analysis was subject to several important constraints which should be considered when interpreting the results:

- This study does not explicitly account for broader time-varying factors, such as the impacts of the COVID-19 pandemic or macroeconomic shifts, which may have independently influenced participant outcomes. As such, comparisons between the pre-KBOP and KBOP cohorts inherently reflect differences not only in support models but also in the broader labour market and policy environment, including the pre- versus post-pandemic context. More advanced causal identification strategies, such as difference-in-differences approach, could not be implemented due to data access limitations, software constraints and the compressed timeframe for analysis during the research team's secondment to the DWP Employment Data Lab.[30] However, to help mitigate the confounding effects of the pandemic, the analysis was restricted to individuals who entered the KBOP programme after the lifting of national COVID-19 restrictions in England on 19th July 2021.[31]

- Although we observe increased engagement with the labour market amongst KBOP participants, the results do not indicate a statistically significant effect on their earnings in the first two years post-intervention. This could be due to measurement limitations associated with the variable; RAPID provides earnings on an annual basis, which precludes finer-grained analysis of earnings progression or transitions into higher-paying roles. In addition, the misalignment between individual programme start dates and financial year reporting may have diluted any short- to medium-term changes in income. For instance, earnings captured in FY 2020/21 could reflect labour market activity that occurred well beyond the initial intervention window.

- The RAPID dataset only permitted outcome tracking up to the 2023/24 financial year. As a result, the research team was unable to observe participants over a full three-year post-intervention period, constraining the ability to assess the longer-term impacts of the KBOP programme.

Taken together, the evidence indicates that the person-centred, asset-based support model delivered through KBOP in Kirklees yielded more promising outcomes for individuals facing multiple disadvantages compared to the previous floating support service. Participants receiving KBOP support showed a gradual but

[29] Refer to **Appendix G** for further details.
[30] While the pre-analysis plan outlined additional identification strategies to be tested (e.g. difference-in-differences and construction of an administrative control group within the same time period), PSM was adopted as the main analysis given data access issues and time constraints on the analysis.
[31] Refer to **Section 3.1** for further details.

meaningful increase in labour market engagement, particularly in initiating and sustaining employment, as well as greater non-reliance on housing-related benefits.

Future analysis would benefit from access to more granular employment-related data in order to explore participants' employment spells in more detail. The Employment Characteristics Dataset, for example, which enables monthly tracking and a more detailed understanding of earnings dynamics would facilitate more precise analysis of employment sectors in which they find employment, and income progression. In terms of benefits use, future work should explore participants' UC receipt, and whether changes in overall UC reliance drive the reduced UCHE receipts we observe. Given the complexity of the benefits system and changes to national housing benefits policy over time, further analysis is required to fully understand these treatment effects and to disentangle the underlying drivers.

# 5. Cost-Effectiveness Analysis

## 5.1. Methodology

A cost effectiveness analysis (CEA) is adopted to enable the comparison of costs and effects under KBOP and pre-KBOP, given that impacts are in both monetary units (earnings) and non-monetary units (time in employment, receipt of housing-related benefits) (HM Treasury, 2020).

The general approach to the CEA is based on HM Treasury (2020) and HM Treasury (2022), as well as other sources[32] given that CEA is not often used in this context. Steps undertaken are outlined below:

1. **Define treatment and control group:** refer to **Section 3.1** for further details on the KBOP intervention timeline. Given the need to attribute pre-KBOP and KBOP costs to their corresponding effects, the CEA defines the pre-KBOP (control) group as pre-September 2019 and the KBOP (treatment) group as post September 2019.
2. **Define perspective of analysis:** the CEA is undertaken from the perspective of the government commissioner aiming to maximise impact on employment and housing outcomes within its budget constraint due to data availability (Dhaliwal et al., 2013).
3. **Define time horizon of analysis:** the period April 2015/16 to April 2024/25 was selected based on data availability and key milestones.
4. **Define and estimate costs:** a cost assessment framework is developed to identify costs and determine the approach for data collation (further details in **Section 5.1.1**).
5. **Estimate impacts:** effects under KBOP and pre-KBOP are estimated based on annual aggregated estimates for the above time period from DWP administrative data.
6. **Undertake CEA:** the CEA is undertaken at the aggregate per person level, where aggregate costs per person are compared to aggregate effects per person. This is due to the need to align costs and effects data and account for the different number of participants in KBOP and pre-KBOP. Based on this, the incremental cost effectiveness ratio (ICER) is estimated.
7. **Undertake sensitivity analysis:** sensitivity estimates on different cost and effect scenarios are undertaken.

[32] For example, Dhaliwal, Duflo, Glennerster, and Tulloch (2013); Levin and Belfield (2015); NSW Treasury (2023); World Health Organisation (2003).

### 5.1.1. Cost Assessment Framework

To identify costs and determine the approach for data collation, a cost assessment framework is developed (**Main Table 7**). Costs are classified according to activity type, where three categories are identified: (1) intervention / program costs; (2) transaction costs, defined as government costs involved in finding/selecting vendors, negotiating contract terms, monitoring performance and ensuring delivery meets specifications (Williamson, 1996); and (3) other costs which seek to capture any additional costs. These cost categories were tested with Kirklees Council and DCMS to ensure that all relevant costs had been included.

Intervention / program costs reflect the costs of service provision. For pre-KBOP, data was collated from contracts provided by Kirklees Council dating back to April 2015/16. For KBOP, data was collated from LCF end of grant reconciliation forms and commissioner payments from TNLCF. Semi-structured interviews were undertaken with Kirklees Council and DCMS to estimate transaction costs and other costs.

**Table 7: Cost-Assessment Framework**

| Cost category: by activity | Definition | Data collation approach | |
|---|---|---|---|
| | | Pre-KBOP | KBOP |
| Intervention / program costs | Cost of service provision | Contract value | LCF end of grant final reconciliation forms, commissioner payments from TNLCF |
| Transaction costs | Comprises:[33]<br>1. Pre-commissioning (ex ante): costs associated with pre-contract signing search and information, contract set-up, negotiation<br>2. Post commissioning (ex post): costs associated with governance, monitoring, evaluation and enforcement | Semi-structured interviews: Kirklees Council | Semi-structured interviews: Kirklees Council and DCMS |
| Other costs | For example, IT and overheads | Semi-structured interviews: Kirklees Council | Semi-structured interviews: Kirklees Council and DCMS |

*Main Table 7: Cost assessment framework*

[33] The definition of transaction costs is based on Williamson (1996). Key activities are further broken down into these categories by Petersen, Baekkeskov, Potoski, and Brown (2019).

### 5.1.2. Key assumptions

The base year of the analysis is 2024. The CEA is undertaken from April 2015/16 to April 2025/25 based on data availability, key milestones and implementation.

Transaction costs required key assumptions to be adopted. Based on semi-structured interviews with Kirklees Council, it was reported that staff costs associated with transaction cost activities are fixed costs and are unlikely to differ according to the number of contracts. This is based on several pre-KBOP contracts merging during various years over the pre-KBOP period, which reduced the total number of contracts yet staffing remain unchanged. For DCMS transaction costs, KBOP is one of 29 projects in the LCF so staff costs associated with transaction cost activities were undertaken for the LCF as a whole, rather than at the individual project level. Based on a semi-structured interview with DCMS, the assumption adopted is that each LCF project represents an equally proportionate amount of DCMS staff time. Therefore, KBOP transaction costs accounts for one divided by the total number of LCF projects. Sensitivity analysis is undertaken to test this assumption.

Impact estimates are only available in the DWP administrative data for the KBOP treatment group from April 2021-23. While 6 years of impact estimates are available for pre-KBOP, the years April 2017-19 were selected due to sample size, timing and exposure to intervention considerations. Sensitivity analysis using different years for the pre-KBOP impact estimates is undertaken.

Key assumptions are summarised outlined in **Main Table 8**.

**Table 8: Key assumptions**

| Key assumptions | Input | Source/notes |
|---|---|---|
| Base year | 2024 | |
| Time period<br>• Start date period<br>• End date period | <br>• 6 Apr 15 – 5 Apr 16<br>• 6 Apr 24 – 5 Apr 25 | Based on data availability, key milestones and implementation dates |
| KBOP implementation | 1 Sep 19 | |
| Consumer Price Index | Various | Refer to Office for National Statistics (2025) |
| Kirklees Council transaction costs | Staff costs are fixed | Kirklees Council |
| DCMS transaction costs | KBOP accounts for 1/total number of LCF projects | DCMS |
| Impact estimates | Pre-KBOP impacts: Apr 17-19<br>KBOP impacts: Apr 21-23 | Based on data availability, sample size and exposure to intervention considerations |

***Main Table 8:*** *Key assumptions – summary*

## 5.2. Costs

### 5.2.1. Annual costs: pre-KBOP

Annual costs for pre-KBOP are outlined in **Main Table 9**, noting that KBOP implementation commenced on the 1st of September 2019, so costs in the period April 2019-20 are not incurred for the full financial year.

Intervention/service costs incurred by Kirklees Council reduced over time due to the merging of contracts which enabled efficiencies to be realised. Based on semi-structured interviews, the following staffing involved in transaction cost activities are estimated:

- 1 Full Time Equivalent (FTE) Commissioning Manager (grade 14): approximately 50% of time
- 1 FTE Contract Manager (grade 13): approximately 60% of time
- 2.46 FTE Contract Officers (grade 11): approximately 60% of time.

Based on these staffing levels across the pre-KBOP period, transaction costs are estimated using the mid-point of salary estimates in Kirklees Council (2025), amounting to £90,015 – £99,512 during a full financial year.

Overall, total pre-KBOP costs reduce over time from £4.4m to £3.4m (excluding the partial financial year of April 2019-20), driven by the merging of contracts.

**Table 9: Annual costs – pre-KBOP**

| Financial year | Apr 15/16 | Apr 16/17 | Apr 17/18 | Apr 18/19 | Apr 19/20 |
|---|---|---|---|---|---|
| **Intervention/service costs** | | | | | |
| Community Links | 301,173 | 301,173 | 301,173 | 286,109 | 120,385 |
| Connect Housing | 379,965 | 379,965 | 355,476 | 280,648 | 118,087 |
| Foundation Housing | 820,746 | 820,746 | 718,434 | 615,560 | 259,006 |
| Fusion Housing | 1,336,192 | 1,336,192 | 1,336,192 | 1,002,144 | 421,667 |
| Home Group | 425,000 | 344,100 | 344,100 | 344,100 | 144,785 |
| Horton Housing Association | 556,662 | 556,662 | 556,662 | 417,497 | 175,668 |
| Making Space | 35,007 | 35,007 | 35,007 | 35,007 | 14,730 |
| Richmond Fellowship | 271,322 | 271,322 | 237,500 | 203,491 | 85,622 |
| Pennine Domestic Violence Group | 138,368 | 138,368 | 112,216 | 91,950 | 43,676 |
| Total | 4,264,434 | 4,183,534 | 3,996,759 | 3,276,505 | 1,383,626 |
| ***Transaction costs*** | | | | | |
| Kirklees Council | 90,015 | 93,076 | 96,240 | 99,512 | 41,444 |
| **TOTAL PRE-KBOP COSTS** | 4,354,449 | 4,276,610 | 4,093,000 | 3,376,018 | 1,425,070 |

***Main Table 9:*** *Annual costs - pre-KBOP*

### Annual costs: KBOP

Annual costs for KBOP are outlined in **Main Table 10**, noting that while KBOP commenced on the 1st of September 2019, set-up of the LCF occurred in the four years preceding this.

Overall, total annual KBOP costs are £4.7m to £6.1m once fully implemented. In comparison to pre-KBOP:

- *Commissioner payments*: there are now commissioner payments from both local and central government, with local government paying for the majority of total outcomes (70%) compared to central government (30%).

- *Kirklees Council's transaction costs*: staffing levels associated with transaction cost activities changed when KBOP was implemented and is estimated to comprise:
    - 1 FTE Contract Manager (grade 13), approximately 50% of time;
    - 1.67 FTE Contract Officers (grade 11), approximately 80% of time; and
    - 1 FTE Senior Contracts Manager (grade 15), approximately 10% of time.

  Based on the approach described in **Section 5.2.1**, transaction costs are estimated to be £78,389 – £89,606 during a full financial year. In addition to these recurrent staff costs, Kirklees Council also incurred set-up and business case development costs prior to KBOP implementation totalling £50,196.

- *New cost categories*: there are three new cost categories:
    - IT costs comprising an initial licence fee and a recurrent annual licence fee;
    - DCMS transaction costs which are estimated based on a semi-structured interview with DCMS and subsequent information provided on staffing levels; and
    - Evaluation costs incorporating a process and impact evaluation of KBOP. Note that as KBOP was selected as a case study site for the LCF, it has involved a comprehensive process and impact evaluation. While these costs have been adopted in the main analysis, sensitivity analysis is undertaken testing the effect of lower evaluation costs given that future SOPs may not require such a comprehensive evaluation.

| Table 10: Annual costs - KBOP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Financial year** | **Apr 15/16** | **Apr 16/17** | **Apr 17/18** | **Apr 18/19** | **Apr 19/20** | **Apr 20/21** | **Apr 21/22** | **Apr 22/23** | **Apr 23/24** | **Apr 24/25** |
| ***Intervention/service costs*** | | | | | | | | | | |
| Commissioner payments | - | - | - | - | 397,500 | 4,537,508 | 5,430,600 | 6,282,674 | 5,905,515 | - |
| IT costs | - | - | - | - | 40,700 | 12,246 | 16,981 | 17,660 | 18,367 | 19,101 |
| Total intervention/service costs | - | - | - | - | 438,200 | 4,549,754 | 5,447,581 | 6,300,334 | 5,923,882 | 19,101 |
| ***Transaction costs*** | | | | | | | | | | |
| Kirklees Council | - | - | - | 50,196 | 45,066 | 78,389 | 81,054 | 83,810 | 86,660 | 89,606 |
| DCMS & evaluation costs | 3,415 | 7,020 | 20,002 | 68,170 | 46,368 | 71,728 | 65,202 | 70,824 | 77,664 | 236,600 |
| Total transaction costs | 3,415 | 7,020 | 20,002 | 118,366 | 91,434 | 150,117 | 146,256 | 154,634 | 164,323 | 326,206 |
| **TOTAL KBOP COSTS** | **3,415** | **7,020** | **20,002** | **118,366** | **529,634** | **4,699,871** | **5,593,837** | **6,454,968** | **6,088,205** | **345,307** |

***Main Table 10:*** *Annual costs - KBOP*

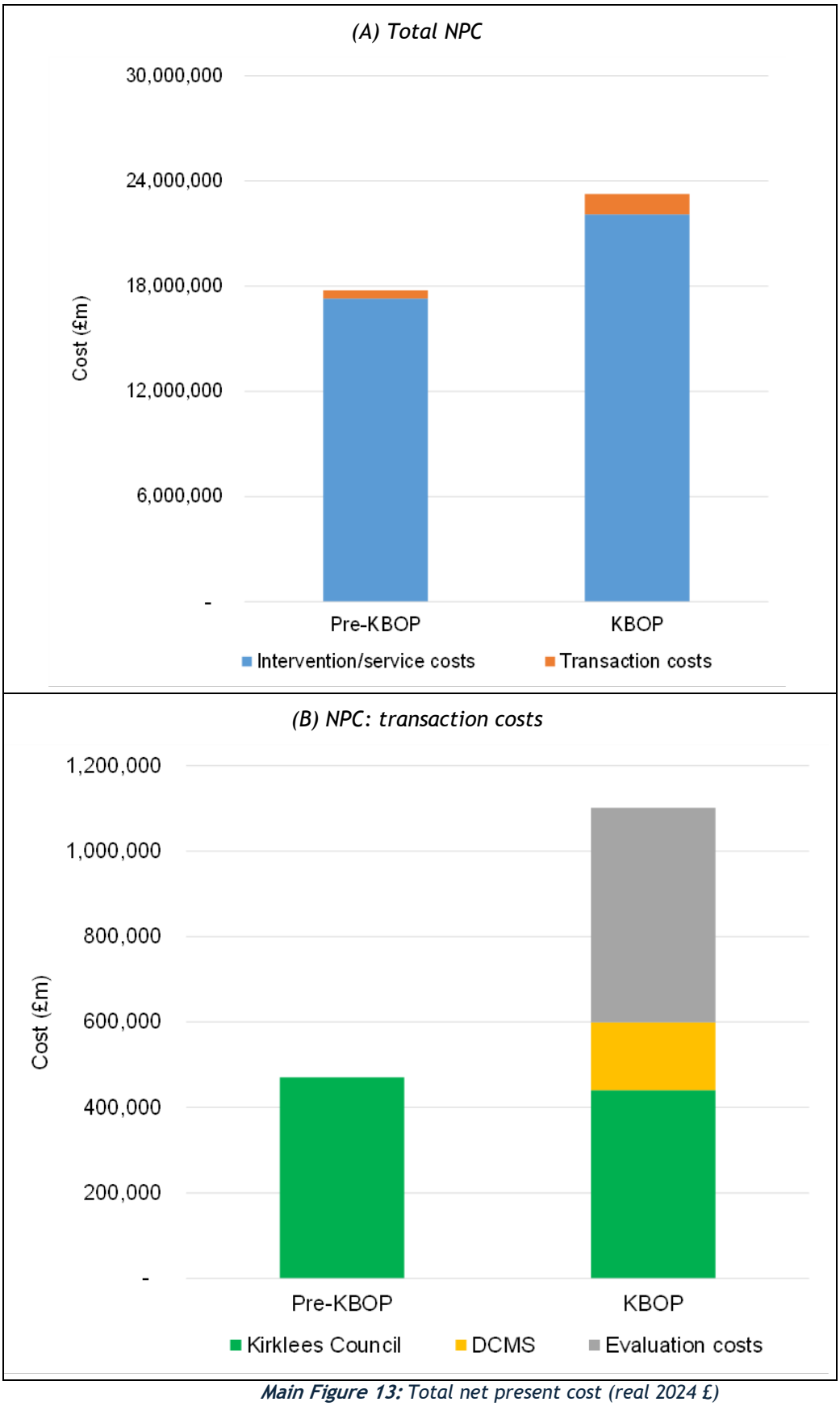
### 5.2.2. Net present costs

Total net present cost (NPC) for KBOP (£23.3m) is higher than pre-KBOP (£17.8m), as illustrated in **Main Figure 13** (Panel A).[34] This may be attributed to KBOP incorporating additional outcomes beyond employment and housing (e.g. wellbeing, substance misuse, mental health, education) compared to pre-KBOP which focused on housing. When costs are considered as a percentage of total NPC, intervention / service costs are higher under pre-KBOP (97%) compared to KBOP (95%), while transaction costs were lower under pre-KBOP (3%) compared to KBOP (5%).

However, given that KBOP had a higher number of participants than pre-KBOP, NPC per person was lower (£3,236 compared to £4,856).[35]

**Main Figure 13** (Panel B) presents the NPC of transaction costs by category. It shows that NPC of transaction costs are greater for KBOP (£1.1m) than pre-KBOP (£471k). This is driven by new cost categories (DCMS transaction costs, evaluation costs). However, Kirklees Council had lower transaction costs under KBOP despite new set-up and development costs, which was driven by changes in staffing.

[34] Net present costs are reported in real 2024 £.
[35] This is based on a total of 7,185 placements. Refer to **Section 3.2** for further details. For pre-KBOP, the total number of participants was not available. Kirklees Council reported that services were operating at full capacity, so NPC per person is based on this (conservative) assumption.




***Main Figure 13:*** *Total net present cost (real 2024 £)*

## 5.3. Effects

### 5.3.1. Pre-KBOP effects

Annual aggregate effects are outlined in **Main Table 11** for pre-KBOP participants that were able to be identified in DWP administrative records. The main analysis considers effects during the period April 2017-19 for the pre-KBOP group.[36] During this period, earnings per person, number of months in employment per person, and number of months on housing-related benefits increased.

**Table 11: Aggregate pre-KBOP outcomes per year**

| Financial year | Apr 17/18 | Apr 18/19 | Apr 19/20 | Apr 20/21 |
|---|---|---|---|---|
| ***Earnings*** | | | | |
| Earnings (real 2024 £) | 117,348 | 811,782 | 1,904,500 | 3,870,639 |
| No. of obs with earnings >0 | 25 | 122 | 132 | 352 |
| Earnings per person | 4,694 | 6,654 | 14,428 | 10,996 |
| ***Time in employment (no. of months)*** | | | | |
| No. of months in employment | 179 | 1,037 | 2,121 | 3,601 |
| No. of obs with no. of months in work >0 | 26 | 128 | 244 | 374 |
| No. of months in employment per person | 7 | 8 | 9 | 10 |
| ***Housing Benefit (HB) or Universal Credit Housing Element (UCHE) (no. of months)*** | | | | |
| No. of months on HB or UCHE | 674 | 3,186 | 8,314 | 14,900 |
| No. of obs with at least 1 month of receipt | 85 | 389 | 943 | 1,607 |
| No. of months on HB or UCHE per person | 14 | 16 | 18 | 19 |
| No. of obs | 97 | 375 | 928 | 1,676 |

Notes: Results have not been displayed for the periods Apr 15/16 and Apr 16/17 due to small samples and DWP's statistical disclosure policy.

*Main Table 11: Pre-KBOP effects - aggregate, by year*

[36] This is due to sample size, timing and exposure to intervention considerations. Refer to **Section 5.2.1** for further details.

### 5.3.2. KBOP effects

Annual aggregate effects are outlined in **Main Table 10** for KBOP participants. Compared to pre-KBOP, more participants were able to be identified in DWP administrative data.[37] It shows that earnings per person, number of months in employment per person, and number of months on housing-related benefits increased from April 2021/22 to April 2023/24.

**Table 12: Aggregate pre-KBOP outcomes per year**

| Financial year | Apr 21/22 | Apr 22/23 | Apr 23/24 |
|---|---|---|---|
| ***Earnings*** | | | |
| Earnings (real 2024 £) | 2,102,160 | 5,771,706 | 8,404,353 |
| No. of obs with earnings >0 | 233 | 609 | 779 |
| Earnings per person | 9,022 | 9,477 | 10,789 |
| ***Time in employment (no. of months)*** | | | |
| No. of months in employment | 2,023 | 5,704 | 7,828 |
| No. of obs with no. of months in work >0 | 243 | 650 | 859 |
| No. of months in employment per person | 8.3 | 8.8 | 9.1 |
| ***Housing Benefit (HB) or Universal Credit Housing Element (UCHE) (no. of months)*** | | | |
| No. of months on HB or UCHE | 5,391 | 13,795 | 21,570 |
| No. of obs with at least 1 month of receipt | 639 | 1,649 | 2,344 |
| No. of months on HB or UCHE per person | 7.2 | 7.4 | 7.8 |
| No. of obs | 746 | 1,865 | 2,776 |

Notes: Estimates for Apr 24/25 are not available.

*Main Table 12: KBOP effects – aggregate, by year*

[37] The lower number of pre-KBOP participants identified in DWP administrative data in comparison to KBOP is noted as a limitation in **Section 0.**

## 5.4. Results

The results of the CEA and incremental cost effectiveness ratio (ICER) for each of the three outcome measures is presented in **Main Table 13**. Overall, KBOP is less costly and more effective than pre-KBOP across all outcomes, i.e.

- For every additional £1 of earnings per person, KBOP costs £0.46 per person less than pre-KBOP;
- For every additional month of employment per person, KBOP costs £639 per person less than pre-KBOP;
- For every additional reduction in month on housing-related benefits (HB or UCHE), KBOP costs £510 per person less.

**Table 13: Incremental Cost-Effectiveness Ratio (ICER) for Key Outcomes**

| Outcome | ICER |
|---|---|
| Earnings per person | -0.46 |
| Number of months in employment per person | -639 |
| Reduction in number of months on HB or UCHE | -510 |

***Main Table 13:*** *Results – incremental cost effectiveness ratio (ICER)*

Broader to the outcomes reported above, a greater proportion of individuals were employed under KBOP (33%) compared to pre-KBOP (29%).[38] While this is not necessarily reflected in earnings,[39] for KBOP it is an important part of the PTS approach in supporting individuals' first steps into employment to enable longer-term independence.

[38] This represents the mean proportion of individuals employed across the 3-year impact period.
[39] This may occur because an individual self-identifies as self-employed but may not submit a self-assessment tax return reporting their earnings, or an individual enrolled in a company's Pay As You Earn (PAYE) scheme may be recorded as part of the scheme but may not necessarily be working for that company at that given time and receiving earnings.

## 5.5. Sensitivity Analysis

A range of different cost and effect scenarios are tested to explore the sensitivity of the ICER to a change in the key assumptions. Scenarios are outlined in **Main Table 14**. All cost scenarios kept the KBOP commissioner payments the same. However, they tested different scenarios of when implementation costs are incurred, lower evaluation costs and lower DCMS transaction costs. These scenarios were selected on the basis of the likelihood of lower future costs due to learnings and efficiencies generated[40]. Compared to the NPC per person of £4,856 in the main analysis, these scenarios ranged from £3,136 – £3,207. The effect scenario considers the sensitivity of the ICER if aggregated annual estimates were instead used for April 2018-2020.

**Table 14: Sensitivity analysis - scenarios**

| Scenario | | NPC / NPV per person |
|---|---|---|
| ***Cost scenarios*** | | |
| 1a | All commissioner payments, late implementation costs (2020 onwards) | £3,207 |
| 1b | All commissioner payments, late implementation costs (2020 onwards), 30% of evaluation costs | £3,158 |
| 2a | All commissioner payments, late implementation costs (2021 onwards) | £3,192 |
| 2b | All commissioner payments, late implementation costs (2021 onwards), 30% of evaluation costs | £3,143 |
| 3 | All commissioner payments, late implementation costs (2021 onwards), KBOP DCMS transaction costs 1/100 of total LCF costs | £3,136 |
| ***Effect scenarios*** | | |
| 4 | Pre-KBOP impact estimates taken from April 2018-2020 | |
| | • Earnings per person | £32,078 |
| | • Number of months in employment per person | 26 |
| | • Reduction in housing-related benefits per person | 4.6 |

***Main Table 14:*** *Sensitivity analysis - scenarios*

[40] It was also reported during the semi-structured interview with DCMS that KBOP required less staff time on transaction cost activities compared to other projects.

The sensitivity analysis results are presented in **Main Table 15**. In comparison to the main ICER estimates from the previous section, ICERs under the cost scenarios made KBOP more cost effective. Under the effect scenario, the ICER under KBOP was less cost effective driving the upper ICER range estimates. However, this scenario is a conservative estimate and was not adopted for the main analysis due to timing and exposure to intervention considerations. Appendix I also considers the effect of using the impact estimates from the PSM analysis,[41] which shows that KBOP is more cost effective relative to pre-KBOP across all outcome measures.

**Table 15: Sensitivity analysis - results**

| Outcome | ICER: main estimate | Sensitivity analysis: ICER range |
|---|---|---|
| Earnings per person | -0.46 | [-0.49, 0.58] |
| Number of months in employment per person | -639 | [-678, 7,745] |
| Reduction in number of months on HB or UCHE | -510 | [-541, -402] |

***Main Table 15:*** *Sensitivity analysis - results*

[41] An advantage of using the PSM impact estimates is that it accounts for differences in participant characteristics across the control and treatment groups. However, it was not used in the CEA main model due to the majority of the control group sample in the PSM analysis comprising KBOP pre-PTS participants (rather than pre-September 2019 participants), which we sought to separate from pre-KBOP costs.

## 5.6. Discussion and Conclusion

The results show that KBOP is less costly and more effective than pre-KBOP. This is driven by a greater number of participants and improved effects under KBOP relative to pre-KBOP across all outcomes. This is also in spite of KBOP's higher transaction costs.

However, in addition to the three outcome measures around employment and housing considered in the analysis, KBOP also focused on a number of additional outcomes such as wellbeing, substance misuse, mental health and education. These outcomes were not captured in the analysis but contributed to the overall cost. In contrast, pre-KBOP's core focus was on delivering general housing-related support, and did not explicitly set out to support employment, wellbeing or education. Despite the housing focus of pre-KBOP, KBOP is less costly and more effective across housing outcomes which may be due to the holistic and strength-based approach that was introduced.

This analysis is associated with a number of limitations:

- The analysis does not include the full sample of pre-KBOP participants due to the limited information that was able to be shared by pre-KBOP service providers. This limited the ability to identify participants in the DWP administrative data and track their outcomes over time. As a result, the sample size of the pre-KBOP group is significantly smaller than the KBOP group. While the analysis attempts to account for this by considering the results at the per person level, it is unclear how sensitive the pre-KBOP effects are to outliers.
- The impacts are only considered for three years due to data availability for KBOP participants. Most recent data for KBOP from the current financial year (April 2024/25) was not available during the time of analysis, but would have helped to increase the outcomes tracking window.
- The analysis does not account for the difference in economic and labour market conditions during the different time periods. It also does not account for differences in participant characteristics across the pre-KBOP and KBOP groups.[42]
- The analysis estimates the ICER from the aggregated cost and has not attempted to estimate the proportion of intervention/service costs attributable to each outcome.

[42] As discussed, the CEA is based on aggregated impacts rather than the PSM impact estimates which would have controlled for differences in participant characteristics.

# 6. Conclusion

This study sought to evaluate whether the KBOP intervention, an asset-based, personalised and flexible support model delivered under a SOP arrangement, led to improved outcomes for Kirklees residents facing complex and overlapping disadvantage, compared to the legacy model of housing support services previously commissioned by Kirklees Council.

The first research question explored **the effect of the KBOP intervention on the time in employment, earnings from paid employment and the use of housing-related benefits of participants**, relative to participants who received the pre-KBOP conventional housing support services.

- **Time in employment**: our findings indicate that KBOP participants experienced stronger labour market engagement over the two-year follow-up period relative to their matched counterparts. Specifically, they were significantly more likely to sustain or begin employment within the first six months of the programme, remain active in the labour market across both the first- and second-years post-intervention, and sustain employment for periods of up to six consecutive months. Subgroup analysis suggests that relatively older individuals, those with a history of receiving disability-related benefits, and the long-term unemployed benefited the most from the KBOP intervention. These groups typically face persistent challenges to labour market participation, indicating that the intervention was particularly effective in reaching individuals with more complex support needs.
- **Earnings:** KBOP participants reported higher average earnings in both post-intervention years, earning £518 more in the first year and £402 more in the second year, on average, than their pre-KBOP counterparts. However, these differences were not statistically significant. Similar patterns emerged when disaggregating the data by demographic and socioeconomic subgroups.
- **Housing-related outcomes:** KBOP participants were significantly more likely to sustain non-receipt of the UCHE for up to 18 consecutive months. Additionally, the model model's results indicate that the participants who exited UCHE, did not go back to claiming HB, which suggests that they did not return to supported or temporary accommodation during the eighteen-month follow-up. This sustained non-reliance appears particularly driven by individuals with a history of UC receipt, with effects most pronounced within the first six months post-intervention. While no statistically significant differences were observed in HB receipt alone between the treatment and comparison groups, this may reflect broader structural changes to housing support entitlements over time. Further investigation is warranted to

disentangle programme impacts from ongoing policy shifts within the benefits system.

The second question examined **whether delivering personalised support through a SOP-backed model is cost effective compared to the traditional fee-for-service arrangements**.

- **Costs:** our findings show that while the total net present cost of KBOP was higher than the pre-KBOP model, this reflects the inclusion of additional cost categories, such as programme set-up, evaluation, central government coordination and digital infrastructure. Importantly, because KBOP reached a larger number of participants, the cost per person under KBOP was approximately 33% lower than under the pre-KBOP model.
- **Effects:** when comparing outcomes, KBOP participants experienced higher cumulative earnings over the three year period, spent more time in employment and relied less on housing-related benefits. A greater proportion were also in work at some point during the follow-up period, in line with the programme's emphasis on supporting early and sustained steps into employment.
- **Incremental cost effectiveness ratio (ICER):** the ICER suggests that KBOP achieved these improved outcomes at a lower marginal cost: for every additional £1 in earnings, the programme cost £0.46 less; each additional month in employment cost £639 less; and each avoided month on housing support cost £510 less than under the fee-for-service model. These findings support that KBOP delivered better outcomes at lower unit cost.

It is also important to note that the SOP-backed KBOP model targeted a broader set of outcomes than its predecessor, including improvements in wellbeing, mental health, alcohol and/or substance misuse recovery as well as education - areas not explicitly addressed or measured in the conventional support service model. Despite the housing focus of pre-KBOP, KBOP is less costly and more effective across housing outcomes which may be due to the holistic and strength-based approach that was introduced.

Overall, the findings indicate that the SOP when paired with an asset-based, person-centred approach to support delivery, can lead to earlier steps into employment and more sustained engagement with the labour market, alongside reduced reliance on housing-related benefits. Compared to the legacy fee-for-service model, the KBOP intervention delivered better results at a lower cost per participant. These findings should be taken into account when considering the economic case for scaling outcomes-based partnerships, as they provide transferable insights for other local

areas and departments seeking to implement more effective, person-centred models of support for the people furthest from the labour market

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# Appendix A: Overview of Key Variables

## A.1 Outcome variables

| Key Outcome Variables | | | | | |
|---|---|---|---|---|---|
| **Variable name** | **Description** | **Explanation** | **Dataset** | **Value type** | **Timeframe** |
| **Time in Employment** | | | | | |
| SPELL DAYS P1YR WORK | Approximate total days in employment in the 1st financial year after the intervention's start. | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data. Calculated as: $\text{N months in employment} \times (362 \div 12)$ | RAPID | Integer | 1 year post-intervention |
| SPELL DAYS P2YR WORK | Approximate total days in employment in the 2nd financial year after their intervention start. | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data. Calculated as: $\text{N months in employment} \times (362 \div 12)$ | RAPID | Integer | 2 years post-intervention |
| SPELL TIME TO WORK 1-6 | Proportion of individuals who retained pre-intervention employment or recorded a new employment spell within 1–6 months after their intervention start | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data | RAPID | Binary | First 6 months post-intervention |

| | | | | | |
|---|---|---|---|---|---|
| SPELL TIME TO WORK 7-12 | Proportion of individuals who recorded a new employment spell within 7 to 12 months after their intervention start | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data | RAPID | Binary | First 7-12 months post-intervention |
| Work first year | Proportion of individuals who recorded an employment spell at any point in the 12 months after their intervention start | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data | RAPID | Binary | 1 year post-intervention |
| Work second year | Proportion of individuals who recorded an employment spell at any point in the 24 months after their intervention start | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data | RAPID | Binary | 2 years post-intervention |
| Sustained employment [1, 2, 3, 6] months after start | Proportion of individuals who recorded an employment for at least 1, 2, 3, or 6 months within the 2 years after their intervention start | Derived from monthly employment During The Month (DTM) indicators originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract, and self-employment During The Month (DTM) indicators compiled from the HMRC Self Assessment (SA) extract, GMS Tax Credit data, and Universal Credit (UC) data | RAPID | Binary | 1, 2, 3, or 6 months within the 2 years post-intervention |
| **Earnings from Paid Employment** | | | | | |
| ANN EARNINGS AMT YRP1 adjusted | Total amount of gross pay (net of private pension contributions) from all employments in the 1st financial year after the | Originally sourced from Pay As You Earn (PAYE) - HMRC 56NZ P14 extracts | RAPID | Integer | 1 year post-intervention |

| | | | | | |
|---|---|---|---|---|---|
| | intervention's start. Expressed in real 2024 GBP | | | | |
| ANN EARNINGS AMT YRP2 adjusted | Total amount of gross pay (net of private pension contributions) from all employments in the 2nd financial year after the intervention's start. Expressed in real 2024 GBP | Originally sourced from Pay As You Earn (PAYE) - HMRC 56NZ P14 extracts | RAPID | Integer | 2 years post-intervention |
| **Housing support benefit receipts** | | | | | |
| UCHE receipt p [0-24] | Proportion of individuals who receive UCHE benefit from the intervention month (p0) through 24 months post-intervention | Derived from monthly During The Month (DTM) benefit receipt indicators | UC | Binary | 2 years post-intervention |
| HB receipt p [0-24] | Proportion of individuals who receive HB benefit from the intervention month (p0) through 24 months post-intervention | Derived from monthly During The Month (DTM) benefit receipt indicators | SHBE | Binary | 2 years post-intervention |
| Sustained non-reliance on UCHE receipts for [3, 6, 12, 18] months after intervention start | Proportion of individuals who did not receive UCHE benefit for at least 3, 6, 12 or 18 consecutive months within 2 years after their intervention start | Derived from monthly During The Month (DTM) benefit receipt indicators | UC | Binary | 3, 6, 12 or 18 months within the 2 years post-intervention |
| Sustained non-reliance on HB receipts for [3, 6, 12, 18] months after intervention start | Proportion of individuals who did not receive HB benefit for at least 3, 6, 12 or 18 consecutive months within 2 years after their intervention start | Derived from monthly During The Month (DTM) benefit receipt indicators | SHBE | Binary | 3, 6, 12 or 18 months within the 2 years post-intervention |
| Sustained non-reliance on UCHE receipts for [3, 6, 12, 18] months after intervention start and no HB receipt after | Proportion of individuals with at least 3, 6, 12 or 18 consecutive months without UCHE receipt, followed by no HB receipt for the remainder of the 24-month period after their intervention start | Derived from monthly During The Month (DTM) benefit receipt indicators | UC and SHBE | Binary | 3, 6, 12 or 18 months within the 2 years post-intervention |

***Table 1:*** *Description of outcome variables used for Propensity Score Matching (PSM)*

## A.2 Matching variables

**Matching Variables**

| Variable name | Description | Explanation | Dataset | Value type | Timeframe |
|---|---|---|---|---|---|
| | | **Demographics** | | | |
| CHAR AGE | Age | Age at the intervention start date, in years. Originally sourced from DWP Customer Information System (CIS) extracts | RAPID | Integer | Intervention start date |
| CHAR AGE SQ | Age squared | Derived from age at the intervention start date, in years. Originally sourced from DWP Customer Information System (CIS) extracts | RAPID | Integer | Intervention start date |
| CHAR SEX | Sex of the individual; 1 is male and 0 is female) | Originally sourced from DWP Customer Information System (CIS) extracts | RAPID | Binary | Intervention start date |
| CHAR CHILDREN | Indicator of where an individual has dependent children | Based on whether the individual receives Child Tax Credit, Child Benefit – Parent, Maternity Allowance or Child Disability Payment at the first month of their intervention start | RAPID | Binary | Intervention start month |
| | | **History of benefit receipt** | | | |
| SPELL HIST HB | Flag indicating if there is history of Housing Benefit receipt in the two years prior to intervention start | Originally sourced from Single Housing Benefit (SHBE) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST CHB PARENT | Flag indicating if there is history of Child Benefit – Parent receipt in the two years prior to intervention start | Originally sourced from HMRC Child Benefit (CHB) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST WTC | Flag indicating if there is history of Working Tax Credit receipt in the two years prior to intervention start | Originally sourced from HRMC Working Tax Credits (WTC) - Work and Pension Longitudinal Study (WPLS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST CTC | Flag indicating if there is history of Child Tax Credit receipt in the two years prior to intervention start | Originally sourced from HRMC Child Tax Credits (CTC) - Work and Pension Longitudinal Study (WPLS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST ESA | Flag indicating if there is history of Employment and Support Allowance receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST JSA | Flag indicating if there is history of Jobseeker's Allowance receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |

| | | | | | |
|---|---|---|---|---|---|
| SPELL HIST IB | Flag indicating if there is history of Incapacity Benefit receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST ICA | Flag indicating if there is history of Invalid Care Support receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST IS | Flag indicating if there is history of Income Support receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST PIB | Flag indicating if there is history of Passported Incapacity Benefit receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST BB | Flag indicating if there is history of Bereavement Benefit receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST BSP | Flag indicating if there is history of Bereavement Support Payment receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST SDA | Flag indicating if there is history of Severe Disablement Allowance receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST WB | Flag indicating if there is history of Widow's Benefit receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST UC | Flag indicating if there is history of Universal Credit receipt in the two years prior to intervention start | Originally sourced from DWP Universal Credit (UC) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST EMPLOYMENT | Flag indicating if there is history employment in the two years prior to intervention start | Originally sourced from the Pay As You Earn (PAYE) - HMRC 56NZ P14 extract | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST DLA | Flag indicating if there is history of Disability Living Allowance receipt in the two years prior to intervention start | Originally sourced from DWP Generalised Matching Service Benefit Data (GMS) extracts | RAPID | Binary | 2 years pre-intervention |
| SPELL HIST PIP | Flag indicating if there is history of Personal Independence Payment receipt in the two years prior to intervention start | Originally sourced from DWP Personal Independence Payment extracts | RAPID | Binary | 2 years pre-intervention |
| PIT SANC HIST | Flag indicating if there is a recorded sanction in the two years prior to intervention start | Derieved from DWP and HMRC benefit extracts (see above) | RAPID | Binary | 2 years pre-intervention |

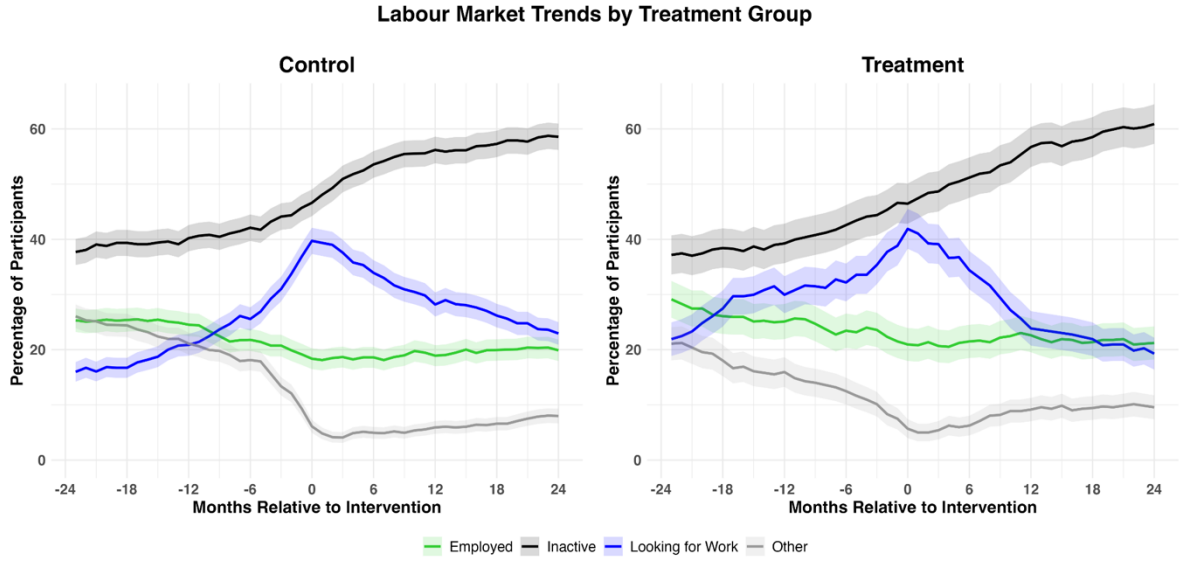
| | | | | | |
|---|---|---|---|---|---|
| **Past involvement in DWP interventions** | | | | | |
| PIT INT HIST | Participation in a DWP intervention or programme in the two years prior to intervention start | Originally sourced from DWP interventions datasets (e.g., European Social Fund dataset) | RAPID | Binary | 2 years pre-intervention |
| PIT INT START | Participation in a DWP intervention or programme at the intervention start | Originally sourced from DWP interventions datasets (e.g., European Social Fund dataset) | RAPID | Binary | 2 years pre-intervention |
| PIT REF START | Referral to, but not participation, in a DWP intervention in the two years prior to intervention start | Originally sourced from DWP interventions datasets (e.g., European Social Fund dataset) | RAPID | Binary | 2 years pre-intervention |
| **Labour market status[43] history** | | | | | |
| SPELL WORK m [24 - 1] | Monthly indicator of employment or self-employment status during the 24-month pre-intervention period | Flagged if an individual has an active employment or self-employment record. Determined by During The Month (DTM) conditionality in Universal Credit (UC) | RAPID | Binary | 2 years pre-intervention |
| SPELL LFW m [24 - 1] | Monthly indicator of 'looking for work' labour market status during the 24-month pre-intervention period | Flagged if an individual has an active Jobseeker's Allowance (JSA) record or an active Universal Credit (UC) record where their conditionality regime is either searching for work or working – with requirements | RAPID | Binary | 2 years pre-intervention |
| SPELL Inactive m [24 - 1] | Monthly indicator of inactive labour market status during the 24-month pre-intervention period | Flagged if an individual has active an Employment Support Allowance (ESA) record or an active UC record where their conditionality group is either no work requirements, preparing for work, or planning for work | RAPID | Binary | 2 years pre-intervention |
| SPELL OTHER m [24 - 1] | Monthly indicator of other labour market status during the 24-month pre-intervention period | Flagged if an individual does not fall under any of the above labour market categories | RAPID | Binary | 2 years pre-intervention |

***Table 2:*** *Description of matching variables used for Propensity Score Matching (PSM)*

[43] Refer to Table 3.1 in the *Employment Data Lab: Methodology report* (Department for Work and Pensions, 2025) for further details about the definitions of each labour market category.

# Appendix B: Descriptive Statistics

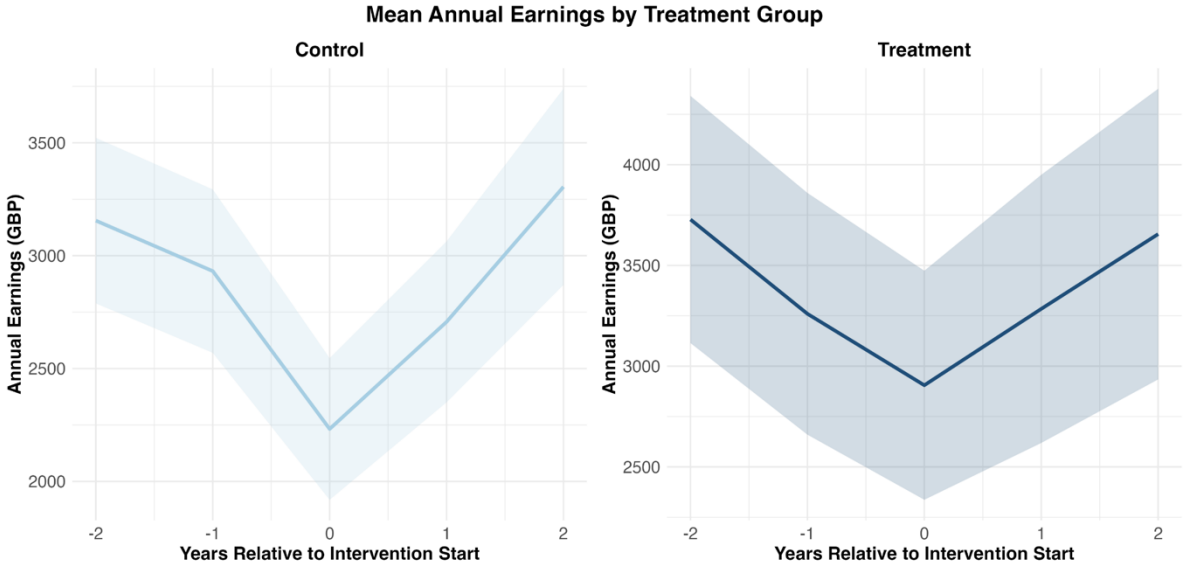
## B.1 Labour market status trends




Source: Registration And Population Interaction Database (RAPID), DWP

***Figure 1:*** *Trends in labour market status for unmatched control and treatment groups from 24 months before to 24 months after intervention. Lines represent the estimated proportion of participants in each labour market category; shaded areas denote 95% confidence intervals.*

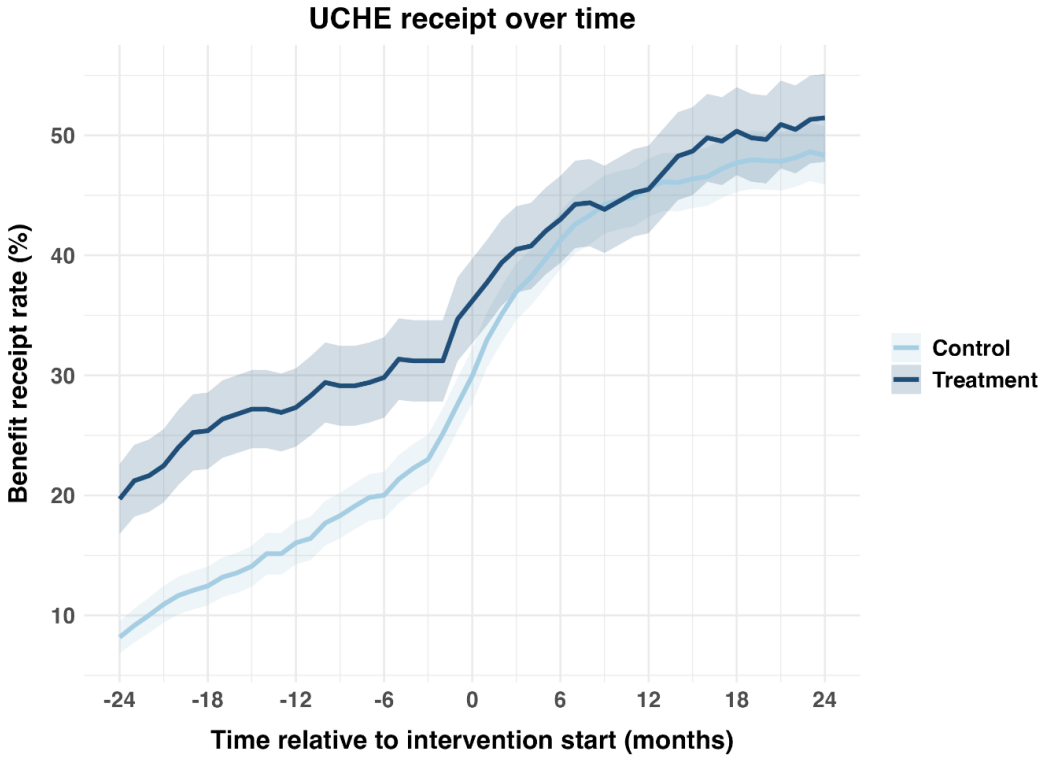
## B.2 Earnings trends




Source: Registration And Population Interaction Database (RAPID), DWP

***Figure 2:*** *Mean annual earnings (real 2024 GBP) for unmatched control and treatment groups from two years before to two years after the intervention start. Lines represent average earnings; shaded areas indicate 95% confidence intervals.*

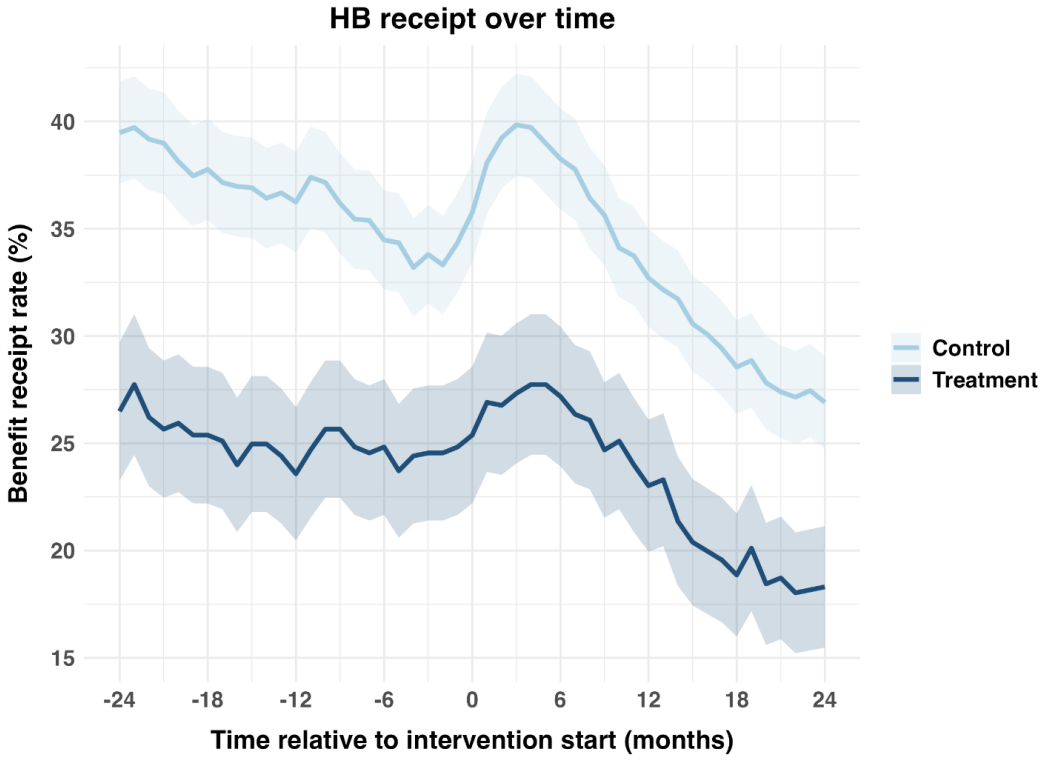
## B.3 UCHE receipt trends




*Source: Registration And Population Interaction Database (RAPID), DWP*

***Figure 3:*** *Proportion of participants receiving UCHE by month for unmatched control and treatment groups, from 24 months before to 24 months after the intervention. Lines show benefit receipt rates for the treatment and control groups; shaded areas represent 95% confidence intervals.*

## B.4 HB receipt trends




*Source: Registration And Population Interaction Database (RAPID), DWP*

***Figure 4:*** *Proportion of participants receiving HB by month for unmatched control and treatment groups, from 24 months before to 24 months after the intervention. Lines show benefit receipt rates for the treatment and control groups; shaded areas represent 95%*

# Appendix C: Covariate Balance Assessment

## C.1 Benefits and DWP interventions history

**Covariate Balance Assessment Pre- and Post- Matching – Benefits and DWP interventions history**

| | Unmatched Sample | | | Matched Sample | | | | |
|---|---|---|---|---|---|---|---|---|
| Variable | Control Mean | Treatment Mean | % Bias | Control Mean | Treatment Mean | % Bias | Matched t-statistic | Matched p-value |
| Age | 36.59 | 35.88 | -5.84 | 36.80 | 35.99 | -6.70 | -1.26 | 0.21 |
| Age squared | 1486.05 | 1432.16 | -5.70 | 1499.45 | 1440.94 | -6.19 | -1.16 | 0.25 |
| Presence of children | 10.82% | 6.10% | -16.99 | 6.29% | 6.23% | -0.22 | -0.05 | 0.96 |
| Sex (1 = male, 0 = female) | 51.99% | 47.71% | -8.57 | 46.77% | 48.02% | 2.50 | 0.47 | 0.64 |
| History of Housing Benefit receipt | 62.49% | 43.97% | -37.77 | 45.28% | 44.90% | -0.77 | -0.14 | 0.89 |
| History of Child Benefit – Parent receipt | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of Working Tax Credit receipt | 9.36% | 5.27% | -15.75 | 4.82% | 5.38% | 2.15 | 0.48 | 0.63 |
| History of Child Tax Credit receipt | 21.44% | 11.65% | -26.57 | 11.84% | 11.90% | 0.16 | 0.03 | 0.97 |
| History of Jobseeker's Allowance receipt | 8.92% | 2.22% | -29.52 | 2.42% | 2.27% | -0.67 | -0.19 | 0.85 |
| History of Bereavement Benefit receipt | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of Bereavement Support Payment receipt | 0.25% | 0.42% | 2.82 | 0.25% | 0.28% | 0.66 | 0.14 | 0.89 |
| History of Employment status | 36.62% | 39.11% | 5.13 | 37.04% | 38.95% | 3.94 | 0.74 | 0.46 |
| History of Employment and Support Allowance receipt | 34.03% | 19.69% | -32.76 | 20.07% | 20.11% | 0.10 | 0.02 | 0.98 |
| History of Incapacity Benefit receipt | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of Invalid Care Support receipt | 6.83% | 7.21% | 1.49 | 6.73% | 7.22% | 1.93 | 0.36 | 0.72 |
| History of Income Support receipt | 9.42% | 4.02% | -21.69 | 4.32% | 4.11% | -0.83 | -0.19 | 0.85 |
| History of Passported Incapacity Benefit receipt | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of Severe Disablement Allowance receipt | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| History of Universal Credit receipt | 57.18% | 74.62% | 37.41% | 73.70% | 74.08% | 0.82% | 0.16 | 0.87 |
| History of Widow's Benefit receipt | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of sanctions | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of presence on/referral to a DWP intervention | 3.04% | 7.77% | 21.03 | 5.61% | 7.51% | 8.41 | 1.44 | 0.15 |
| History of presence on DWP intervention | 1.90% | 7.77% | 27.61 | 6.19% | 6.52% | 1.52 | 0.25 | 0.80 |
| History of referral to a DWP intervention | 0.00% | 0.00% | . | 0.00% | 0.00% | . | . | . |
| History of Personal Independence Payment receipt | 23.78% | 23.99% | 0.50 | 24.57% | 23.94% | -1.47 | -0.28 | 0.78 |
| History of Disability Living Allowance receipt | 7.40% | 2.36% | -23.56 | 2.50% | 2.27% | -1.08 | -0.29 | 0.78 |

***Table 3:*** *Covariate balance assessment before and after Propensity Score Matching (PSM) for benefits receipt history and participation in DWP interventions in the historic period.*

## C.2 Labour market participation history: Looking for Work status

**Covariate Balance Assessment Pre- and Post- Matching - Looking for Work status**

| Variable | Unmatched Sample | | | Matched Sample | | | | |
|---|---|---|---|---|---|---|---|---|
| | Control Mean | Treatment Mean | % Bias | Control Mean | Treatment Mean | % Bias | Matched t-statistic | Matched p-value |
| Looking for work 24 months before the intervention | 13.22% | 20.25% | 18.91% | 19.52% | 20.25% | 1.97 | 0.34 | 0.73 |
| Looking for work 21 months before the intervention | 14.29% | 23.30% | 23.19 | 22.92% | 22.95% | 0.08 | 0.01 | 0.99 |
| Looking for work 18 months before the intervention | 14.99% | 27.46% | 30.84 | 26.07% | 27.20% | 2.80 | 0.48 | 0.63 |
| Looking for work 15 months before the intervention | 17.20% | 29.96% | 30.37 | 28.07% | 29.32% | 2.97 | 0.52 | 0.60 |
| Looking for work 12 months before the intervention | 19.35% | 29.96% | 24.78 | 28.34% | 29.32% | 2.30 | 0.41 | 0.68 |
| Looking for work 9 months before the intervention | 22.33% | 31.48% | 20.75 | 28.57% | 30.74% | 4.91 | 0.89 | 0.37 |
| Looking for work 6 months before the intervention | 24.54% | 32.18% | 16.99 | 29.95% | 31.44% | 3.32 | 0.61 | 0.54 |
| Looking for work three months before the intervention | 30.11% | 35.37% | 11.22 | 33.13% | 34.84% | 3.66 | 0.68 | 0.50 |
| Looking for work 2 months before the intervention | 32.89% | 37.73% | 10.12 | 36.34% | 37.25% | 1.91 | 0.36 | 0.72 |
| Looking for work 1 month before the intervention | 35.80% | 38.83% | 6.27 | 37.85% | 38.39% | 1.10 | 0.21 | 0.84 |

***Table 4:*** *Covariate balance assessment before and after Propensity Score Matching (PSM) for Looking for Work labour market status in the historic period.*

## C.3 Labour market participation history: Inactive status

**Covariate Balance Assessment Pre- and Post- Matching for Inactive status**

| | Unmatched Sample | | | Matched Sample | | | | |
|---|---|---|---|---|---|---|---|---|
| **Variable** | **Control Mean** | **Treatment Mean** | **% Bias** | **Control Mean** | **Treatment Mean** | **% Bias** | **Matched t-statistic** | **Matched p-value** |
| Inactive 24 months before the intervention | 38.46% | 36.20% | -4.67 | 38.80% | 36.12% | -5.55% | -1.04 | 0.30 |
| Inactive 21 months before the intervention | 39.72% | 37.03% | -5.53 | 38.89% | 37.11% | -3.66 | -0.69 | 0.49 |
| Inactive 18 months before the intervention | 40.10% | 38.42% | -3.44 | 40.00% | 38.39% | -3.31 | -0.62 | 0.53 |
| Inactive 15 months before the intervention | 40.10% | 38.70% | -2.87 | 40.55% | 38.81% | -3.56 | -0.67 | 0.50 |
| Inactive 12 months before the intervention | 40.80% | 39.25% | -3.15 | 40.77% | 39.38% | -2.84 | -0.53 | 0.59 |
| Inactive 9 months before the intervention | 41.05% | 40.78% | -0.56 | 43.54% | 40.93% | -5.30 | -0.99 | 0.32 |
| Inactive 6 months before the intervention | 42.57% | 42.58% | 0.02 | 44.57% | 42.78% | -3.63 | -0.68 | 0.50 |
| Inactive three months before the intervention | 44.59% | 44.38% | -0.42 | 46.23% | 44.48% | -3.53 | -0.66 | 0.51 |
| Inactive 2 months before the intervention | 44.85% | 45.35% | 1.02 | 46.50% | 45.47% | -2.08 | -0.39 | 0.70 |
| Inactive 2 month before the intervention | 46.24% | 46.60% | 0.73 | 47.21% | 46.74% | -0.94 | -0.18 | 0.86 |

***Table 5:*** *Covariate balance assessment before and after Propensity Score Matching (PSM) for Inactive labour market status in the historic period.*

## C.4 Labour market participation history: In Work status

**Covariate Balance Assessment Pre- and Post- Matching for In Work status**

| Variable | Unmatched Sample | | | Matched Sample | | | | |
|---|---|---|---|---|---|---|---|---|
| | Control Mean | Treatment Mean | % Bias | Control Mean | Treatment Mean | % Bias | Matched t-statistic | Matched p-value |
| In work 24 months before the intervention | 25.49% | 28.57% | 6.94 | 27.16% | 28.61% | 3.27 | 0.61 | 0.54 |
| In work 21 months before the intervention | 25.11% | 27.46% | 5.34 | 26.21% | 27.34% | 2.55 | 0.48 | 0.63 |
| In work 18 months before the intervention | 25.24% | 26.07% | 1.92 | 25.47% | 26.06% | 1.35 | 0.25 | 0.80 |
| In work 15 months before the intervention | 25.43% | 25.10% | -0.74 | 24.89% | 25.35% | 1.06 | 0.20 | 0.84 |
| In work 12 months before the intervention | 24.35% | 25.10% | 1.74 | 26.13% | 25.50% | -1.46 | -0.27 | 0.79 |
| In work 9 months before the intervention | 22.39% | 24.69% | 5.41 | 24.90% | 24.79% | -0.27% | -0.05 | 0.96 |
| In work 6 months before the intervention | 21.32% | 23.44% | 5.10 | 25.01% | 23.51% | -3.58 | -0.65 | 0.51 |
| In work three months before the intervention | 20.24% | 23.58% | 8.07 | 24.19% | 23.37% | -1.98 | -0.36 | 0.72 |
| In work 2 months before the intervention | 19.54% | 22.33% | 6.85 | 21.96% | 22.10% | 0.35 | 0.06 | 0.95 |
| In work 1 month before the intervention | 18.91% | 21.50% | 6.44 | 21.20% | 21.25% | 0.12 | 0.02 | 0.98 |

***Table 6:*** *Covariate balance assessment before and after Propensity Score Matching (PSM) for In Work labour market status in the historic period.*

## C.5 Labour market participation history: Other status

| Covariate Balance Assessment Pre- and Post- Matching for Other status | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Unmatched Sample | | | Matched Sample | | | | |
| Variable | Control Mean | Treatment Mean | % Bias | Control Mean | Treatment Mean | % Bias | Matched t-statistic | Matched p-value |
| In none of the above labour market categories 24 months before the intervention | 26.82% | 22.75 | -9.44% | 20.75% | 22.66% | 4.42 | 0.87 | 0.38 |
| In none of the above labour market categories 21 months before the intervention | 25.74% | 20.39 | -12.73% | 19.45% | 20.68% | 2.91 | 0.57 | 0.57 |
| In none of the above labour market categories 18 months before the intervention | 24.92% | 18.03 | -16.83% | 17.71% | 18.41% | 1.71 | 0.34 | 0.73 |
| In none of the above labour market categories 15 months before the intervention | 22.77% | 16.09 | -16.94% | 15.91% | 16.43% | 1.32 | 0.27 | 0.79 |
| In none of the above labour market categories 12 months before the intervention | 21.70% | 15.95 | -14.73% | 14.88% | 16.15% | 3.24 | 0.66 | 0.51 |
| In none of the above labour market categories 9 months before the intervention | 20.24% | 14.01 | -16.59% | 13.95% | 14.31% | 0.94 | 0.19 | 0.85 |
| In none of the above labour market categories 6 months before the intervention | 18.60% | 12.48 | -16.93% | 12.20% | 12.75% | 1.53 | 0.31 | 0.75 |
| In none of the above labour market categories three months before the intervention | 13.66% | 10.12 | -10.94% | 10.52% | 10.34% | -0.57 | -0.11 | 0.91 |
| In none of the above labour market categories 2 months before the intervention | 12.33% | 8.32 | -13.21% | 8.90% | 8.50% | -1.32 | -0.27 | 0.79 |
| In none of the above labour market categories 1 months before the intervention | 9.55% | 7.49 | -7.38% | 8.36% | 7.65% | -2.56 | -0.49 | 0.62 |

***Table 7:*** *Covariate balance assessment before and after Propensity Score Matching (PSM) for Other labour market status in the historic period.*

# Appendix D: Main Model Results

## D.1 Time to Work

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 7.90% | 4.90% | 3.00 | 0.30 | 5.80 | 0.03** |
| SPELL TIME TO WORK 7-12 | 5.10% | 4.40% | 0.70 | -1.60 | 3.00 | 0.54 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 8:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.2 Work in the first two years post intervention

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 32.40% | 27.50% | 4.90 | -0.20 | 10.00 | 0.06* |
| Work second year | 38.20% | 32.00% | 6.20 | 0.90 | 11.60 | 0.02** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 9:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.3 Sustained employment

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI -Upper Bound (ppt) | P-value |
| Employment 1 month after start | 39.10% | 32.80% | 6.30 | 1.00 | 11.70 | 0.02** |
| Sustained employment 2 months after start | 36.10% | 31.00% | 5.10 | -0.20 | 10.40 | 0.06* |
| Sustained employment 3 months after start | 33.90% | 29.20% | 4.70 | -0.50 | 9.90 | 0.08* |
| Sustained employment 6 months after start | 27.62% | 24.82% | 2.80 | -2.10 | 7.69 | 0.26 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 10:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## D.4 Days in Employment

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 78 | 73 | 5 | -9 | 20 | 0.48 |
| SPELL DAYS P2YR WORK | 155 | 148 | 7 | -21 | 35 | 0.65 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 11:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## D.5 Earnings from paid employment

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £ 3,256.56 | £ 2,717.48 | £ 539.09 | -£392.16 | £ 1,470.33 | 0.26 |
| ANN EARNINGS AMT YRP2 adjusted | £ 3,605.89 | £ 3,218.97 | £ 386.92 | -£677.44 | £ 1,451.28 | 0.48 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 12:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.6 Monthly UCHE receipts

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 35.80% | 41.00% | -5.20 | -10.40 | 0.10 | 0.05** |
| SPELL_UCHE_p1 | 37.50% | 43.40% | -5.90 | -11.20 | -0.50 | 0.03** |
| SPELL_UCHE_p2 | 39.20% | 44.80% | -5.60 | -11.00 | -0.20 | 0.04** |
| SPELL_UCHE_p3 | 40.20% | 46.40% | -6.10 | -11.60 | -0.70 | 0.02** |
| SPELL_UCHE_p4 | 40.50% | 48.00% | -7.50 | -12.90 | -2.00 | 0.01*** |
| SPELL_UCHE_p5 | 41.80% | 49.30% | -7.50 | -13.00 | -2.00 | 0.01*** |
| SPELL_UCHE_p6 | 42.80% | 50.90% | -8.10 | -13.60 | -2.60 | 0.00*** |
| SPELL_UCHE_p7 | 44.20% | 52.20% | -8.00 | -13.50 | -2.40 | 0.01*** |
| SPELL_UCHE_p8 | 44.30% | 53.60% | -9.20 | -14.80 | -3.70 | 0.00*** |
| SPELL_UCHE_p9 | 43.80% | 54.10% | -10.40 | -15.90 | -4.80 | 0.00*** |
| SPELL_UCHE_p10 | 44.60% | 54.30% | -9.70 | -15.30 | -4.20 | 0.00*** |
| SPELL_UCHE_p11 | 45.30% | 55.60% | -10.20 | -15.80 | -4.70 | 0.00*** |
| SPELL_UCHE_p12 | 45.60% | 55.80% | -10.20 | -15.80 | -4.60 | 0.00*** |
| SPELL_UCHE_p13 | 47.00% | 47.00% | 56.60 | -9.60 | -15.20 | -4.00% |
| SPELL_UCHE_p14 | 48.40% | 48.40% | 56.20 | -7.80 | -13.40 | -2.20% |
| SPELL_UCHE_p15 | 48.90% | 48.90% | 56.10 | -7.20 | -12.80 | -1.60% |
| SPELL_UCHE_p16 | 49.90% | 49.90% | 55.90 | -6.00 | -11.60 | -0.50% |
| SPELL_UCHE_p17 | 49.60% | 49.60% | 56.10 | -6.50 | -12.10 | -0.90% |
| SPELL_UCHE_p18 | 50.30% | 50.30% | 56.10 | -5.90 | -11.50 | -0.30% |
| SPELL_UCHE_p19 | 49.70% | 49.70% | 56.50 | -6.80 | -12.40 | -1.20% |
| SPELL_UCHE_p20 | 49.60% | 49.60% | 56.50 | -6.90 | -12.50 | -1.30% |
| SPELL_UCHE_p21 | 50.90% | 50.90% | 56.60 | -5.80 | -11.30 | -0.20% |
| SPELL_UCHE_p22 | 50.60% | 50.60% | 56.70 | -6.10 | -11.70 | -0.50% |
| SPELL_UCHE_p23 | 51.40% | 51.40% | 57.10 | -5.70 | -11.30 | -0.10% |
| SPELL_UCHE_p24 | 51.60% | 51.60% | 57.40 | -5.80 | -11.40 | -0.20% |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 13:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.7 Sustained non-reliance on UCHE receipt

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 68.56% | 62.58% | 5.98 | 0.85 | 11.10 | 0.02** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 63.60% | 55.43% | 8.17 | 2.81 | 13.53 | 0.003** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 53.68% | 43.99% | 9.69 | 4.11 | 15.27 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 45.18% | 38.41% | 6.78 | 1.19 | 12.37 | 0.01*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 14:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.8 Sustained non-reliance on UCHE receipt and no HB after

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 41.78% | 34.44% | 7.35 | 1.91 | 12.79 | 0.01*** |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 38.10% | 30.29% | 7.81 | 2.49 | 13.13 | 0.00*** |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 32.86% | 24.82% | 8.04 | 2.96 | 13.12 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 26.91% | 20.76% | 6.15 | 1.38 | 10.93 | 0.01*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 15:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.9 Monthly HB receipts

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 25.80% | 25.90% | -0.20 | -5.30 | 5.00 | 0.95 |
| SPELL_HB_p1 | 27.50% | 27.40% | 0.10 | -5.10 | 5.40 | 0.96 |
| SPELL_HB_p2 | 27.30% | 28.30% | -0.90 | -6.20 | 4.40 | 0.73 |
| SPELL_HB_p3 | 27.90% | 29.50% | -1.60 | -6.90 | 3.70 | 0.55 |
| SPELL_HB_p4 | 28.30% | 30.30% | -1.90 | -7.20 | 3.40 | 0.48 |
| SPELL_HB_p5 | 28.20% | 29.70% | -1.50 | -6.80 | 3.80 | 0.58 |
| SPELL_HB_p6 | 27.80% | 28.70% | -0.90 | -6.20 | 4.30 | 0.73 |
| SPELL_HB_p7 | 26.90% | 27.30% | -0.40 | -5.60 | 4.80 | 0.89 |
| SPELL_HB_p8 | 26.60% | 26.50% | 0.20 | -5.00 | 5.40 | 0.95 |
| SPELL_HB_p9 | 25.20% | 24.80% | 0.50 | -4.70 | 5.60 | 0.86 |
| SPELL_HB_p10 | 25.60% | 23.90% | 1.70 | -3.40 | 6.80 | 0.51 |
| SPELL_HB_p11 | 24.50% | 23.70% | 0.90 | -4.20 | 5.90 | 0.74 |
| SPELL_HB_p12 | 23.40% | 22.80% | 0.60 | -4.40 | 5.60 | 0.81 |
| SPELL_HB_p13 | 23.70% | 21.70% | 1.90 | -3.10 | 6.90 | 0.45 |
| SPELL_HB_p14 | 21.70% | 21.60% | 0.00 | -4.90 | 5.00 | 0.99 |
| SPELL_HB_p15 | 20.70% | 20.90% | -0.20 | -5.10 | 4.70 | 0.93 |
| SPELL_HB_p16 | 20.30% | 20.60% | -0.40 | -5.20 | 4.50 | 0.9 |
| SPELL_HB_p17 | 19.80% | 20.20% | -0.40 | -5.20 | 4.40 | 0.87 |
| SPELL_HB_p18 | 19.10% | 19.30% | -0.20 | -5.00 | 4.60 | 0.93 |
| SPELL_HB_p19 | 20.40% | 19.00% | 1.40 | -3.50 | 6.20 | 0.58 |
| SPELL_HB_p20 | 18.70% | 19.20% | -0.50 | -5.20 | 4.30 | 0.85 |
| SPELL_HB_p21 | 19.00% | 18.90% | 0.10 | -4.60 | 4.90 | 0.96 |
| SPELL_HB_p22 | 18.30% | 19.00% | -0.70 | -5.40 | 4.00 | 0.78 |
| SPELL_HB_p23 | 18.40% | 18.40% | 0.10 | -4.70 | 4.80 | 0.98 |
| SPELL_HB_p24 | 18.60% | 18.20% | 0.30 | -4.40 | 5.00 | 0.89 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 16:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## D.10 Sustained non-reliance on HB receipt

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 85.69% | 85.06% | 0.64 | -3.77 | 5.05 | 0.78 |
| Sustained non-reliance on HB for 6 months after intervention start | 82.72% | 82.65% | 0.07 | -4.56 | 4.70 | 0.98 |
| Sustained non-reliance on HB for 12 months after intervention start | 74.08% | 75.25% | -1.17 | -6.32 | 3.98 | 0.66 |
| Sustained non-reliance on HB for 18 months after intervention start | 65.16% | 67.33% | -2.17 | -7.62 | 3.28 | 0.43 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

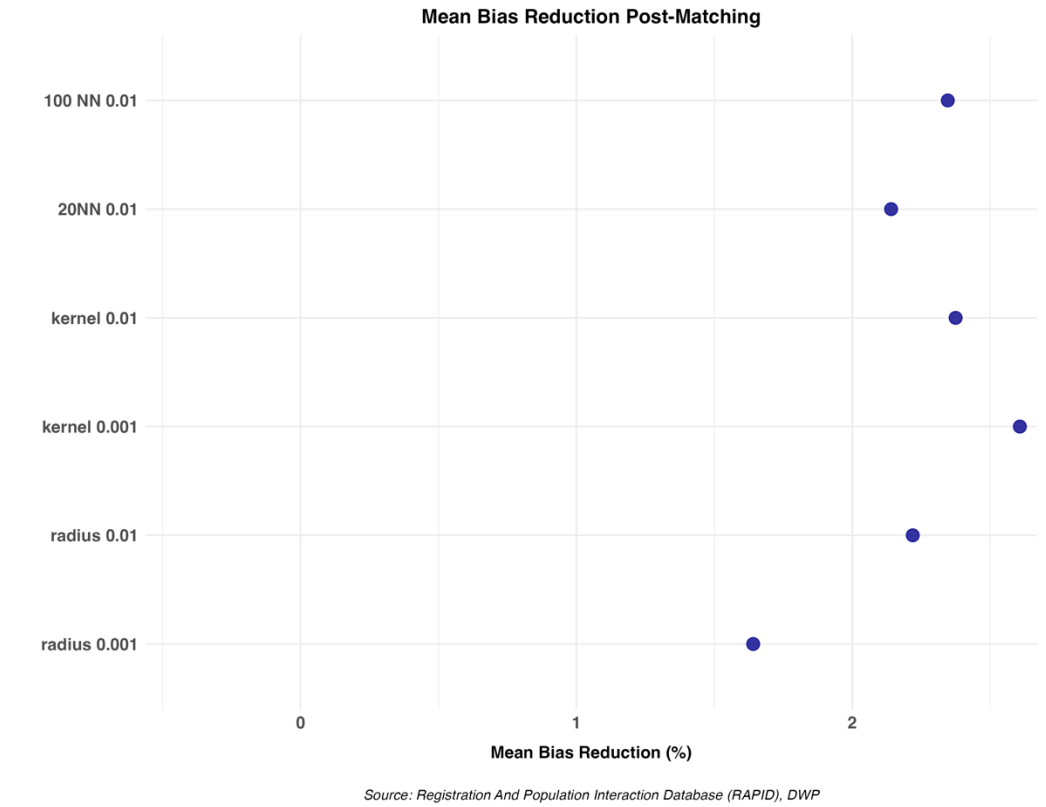
***Table 17:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

# Appendix E: Robustness and Sensitivity Testing

## E.1 Varying Matching Estimator

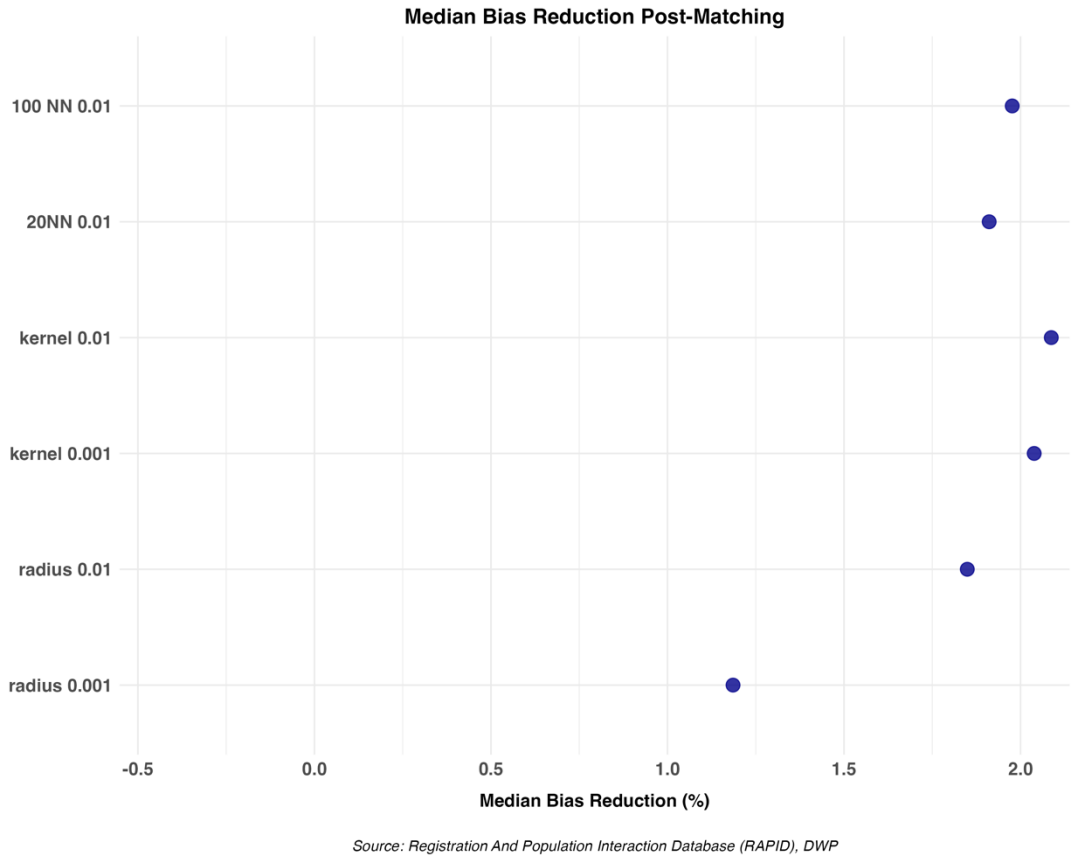
| Comparison of Balance Diagnostics Across Alternative Matching Estimators | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Matching estimator** | **Mean Bias Reduction Post-Matching** | **Median Bias Reduction Post-Matching** | **Rubin's B** | **Rubin's R** | **Variance** | **Skewness** | **Kurtosis** | **Off support treatment group individuals** | **Off support control group individuals** | **Total N** |
| 100 NN 0.01 caliper | 2.22 | 1.78 | 15.6805 | 1.00 | 2.84 | 0.61 | 2.28 | 17 | 0 | 2,728 |
| 20NN 0.01 caliper | 2.12 | 1.80 | 16.6663 | 1.01 | 2.74 | 0.76 | 2.69 | 17 | 0 | 2,728 |
| kernel 0.01 caliper | 2.15 | 1.55 | 16.4491 | 1.07 | 3.12 | 0.60 | 2.17 | 1 | 0 | 2,760 |
| kernel 0.001 caliper | 3.28 | 2.99 | 21.8959 | 1.03 | 5.65 | 0.45 | 2.19 | 1 | 0 | 2,760 |
| radius 0.01 caliper | 2.20 | 1.83 | 15.7281 | 1.01 | 2.89 | 0.61 | 2.26 | 17 | 0 | 2,728 |
| radius 0.001 caliper | 3.43 | 2.97 | 18.9220 | 0.77 | 3.71 | 0.07 | 2.10 | 136 | 0 | 2,490 |

***Table 18:*** *Balance diagnostics across alternative matching estimators used in the main Propensity Score Matching model*



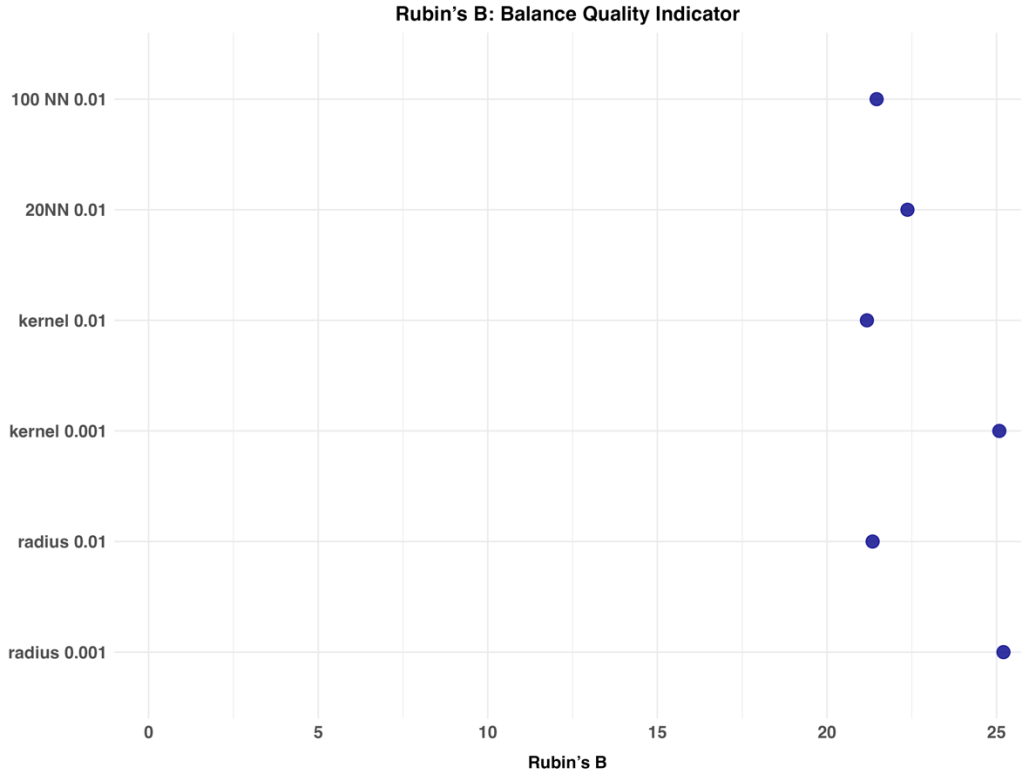

*Source: Registration And Population Interaction Database (RAPID), DWP*

***Figure 5:*** *Mean bias reduction (%) across different matching estimators post-matching*



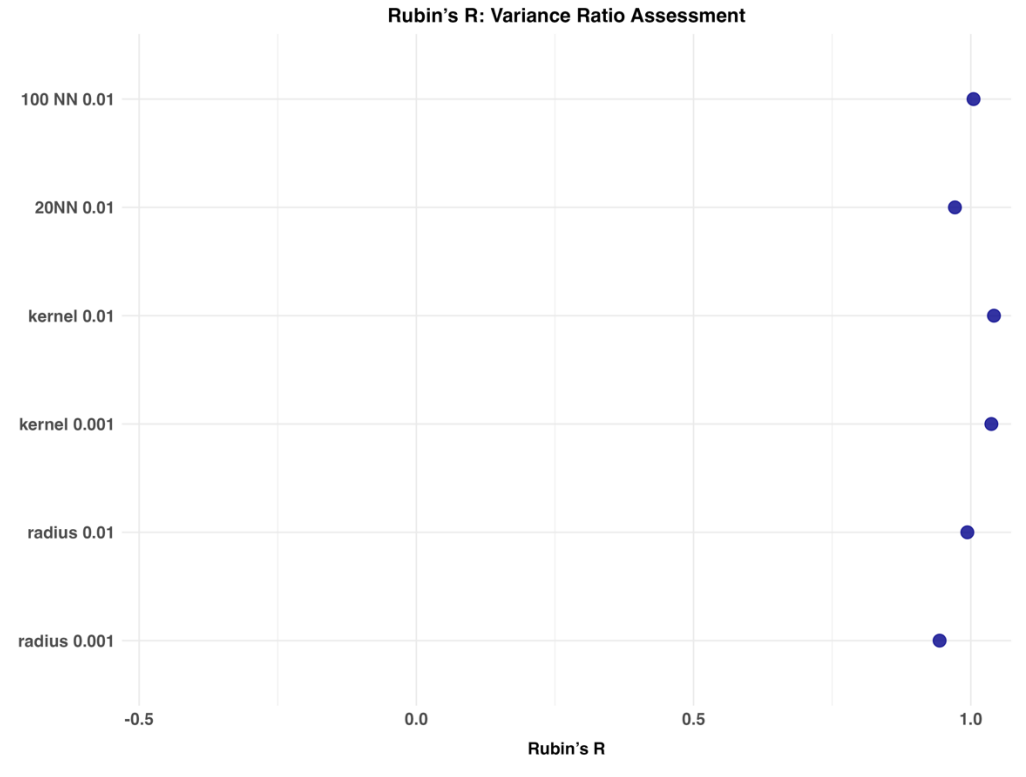

*Source: Registration And Population Interaction Database (RAPID), DWP*

***Figure 6:*** *Median bias reduction (%) across different matching estimators post-matching*



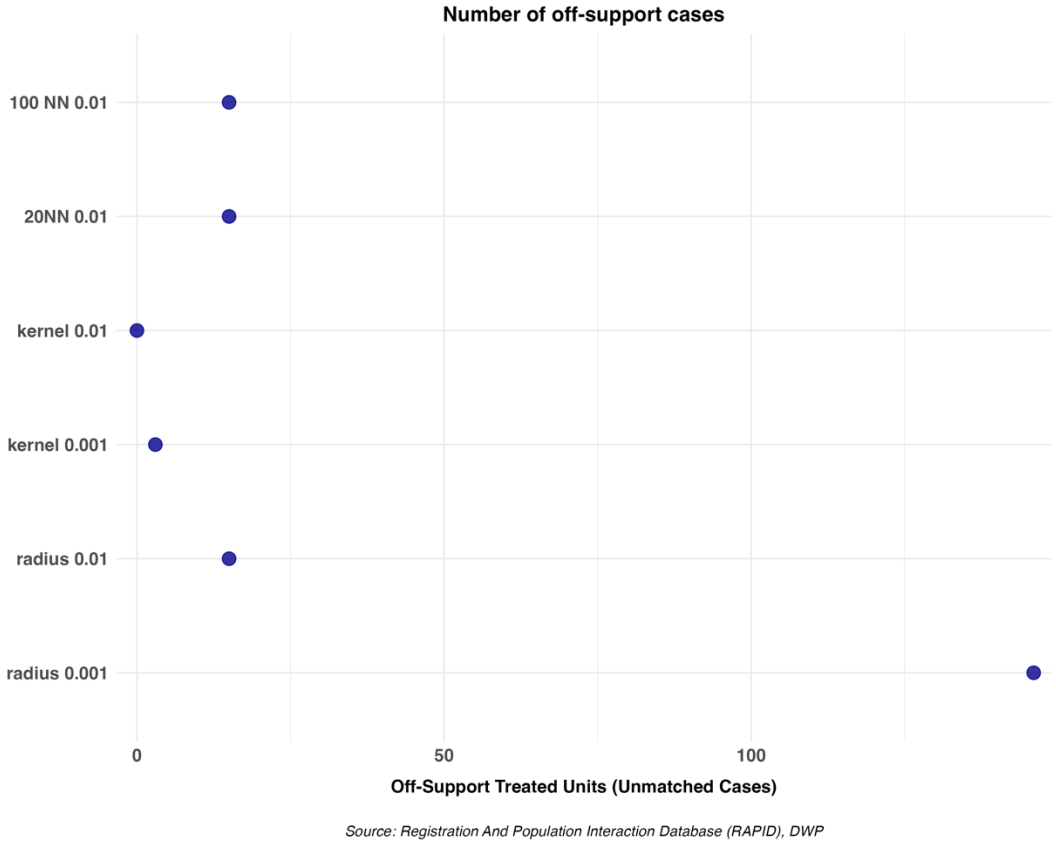

Source: Registration And Population Interaction Database (RAPID), DWP

***Figure 7:*** *Rubin's B values indicating overall covariate balance quality across different matching estimators*



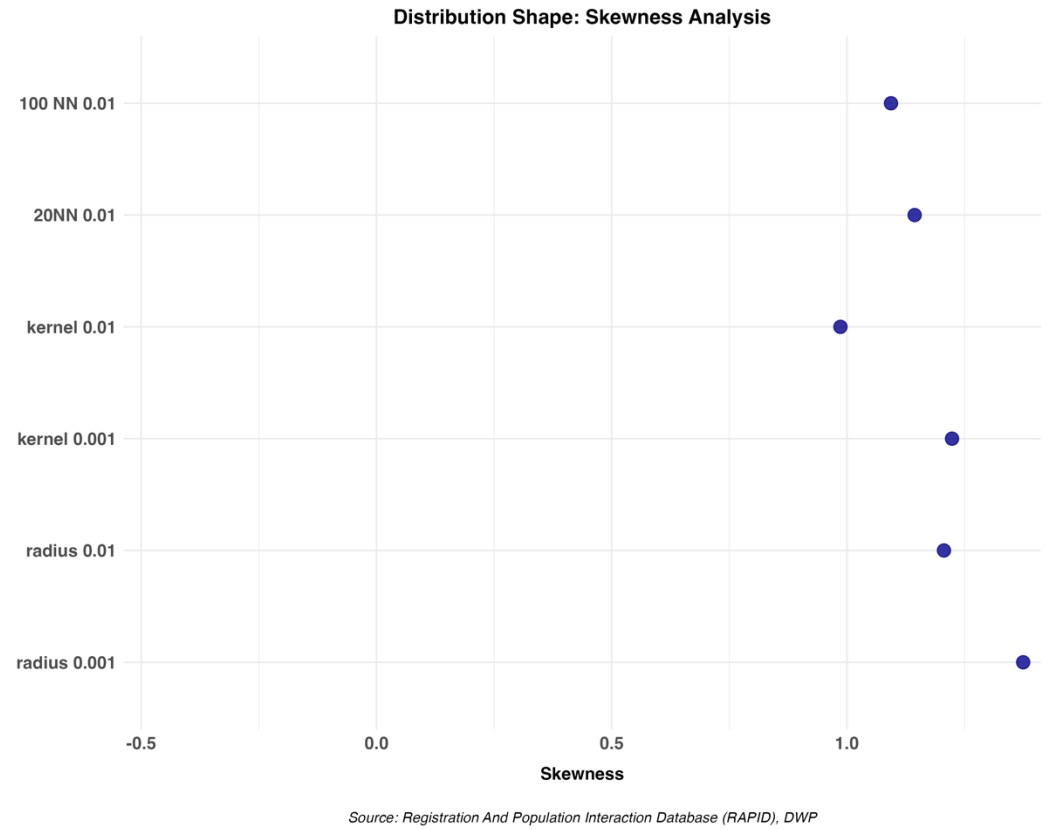

Source: Registration And Population Interaction Database (RAPID), DWP

***Figure 8:*** *Rubin's R values reflecting variance ratio between treatment and control groups for each matching method*



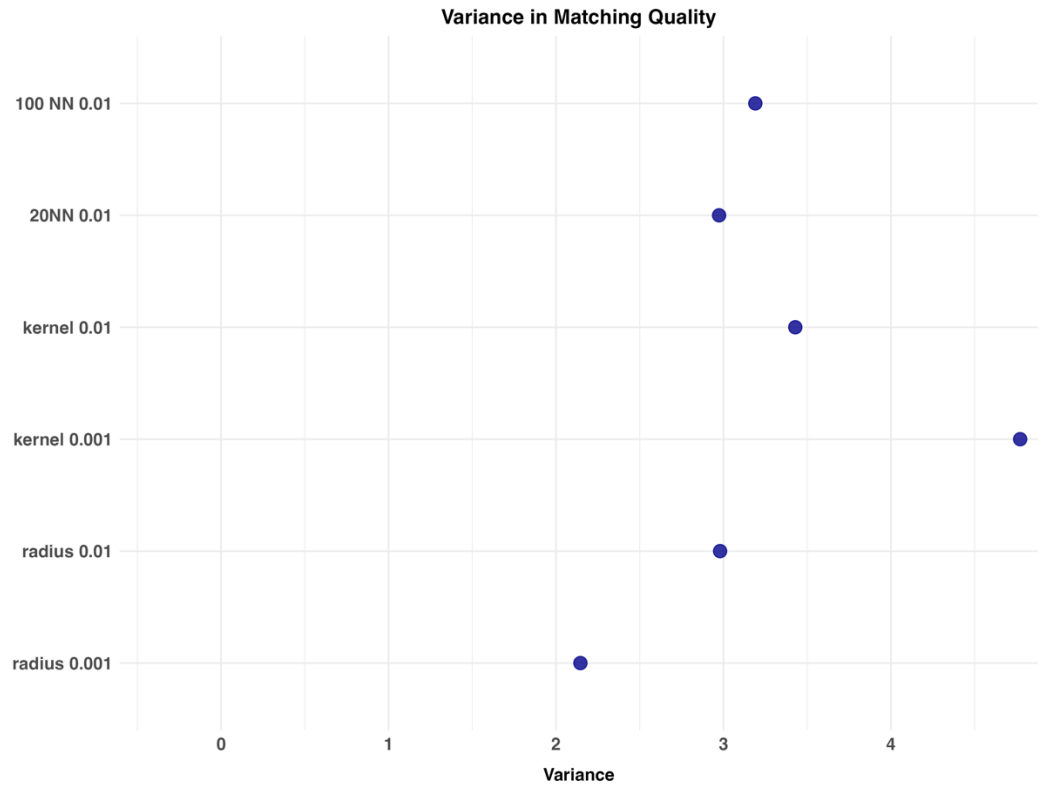

*Source: Registration And Population Interaction Database (RAPID), DWP*

***Figure 9:*** *Number of unmatched treated cases for each matching estimator specification*



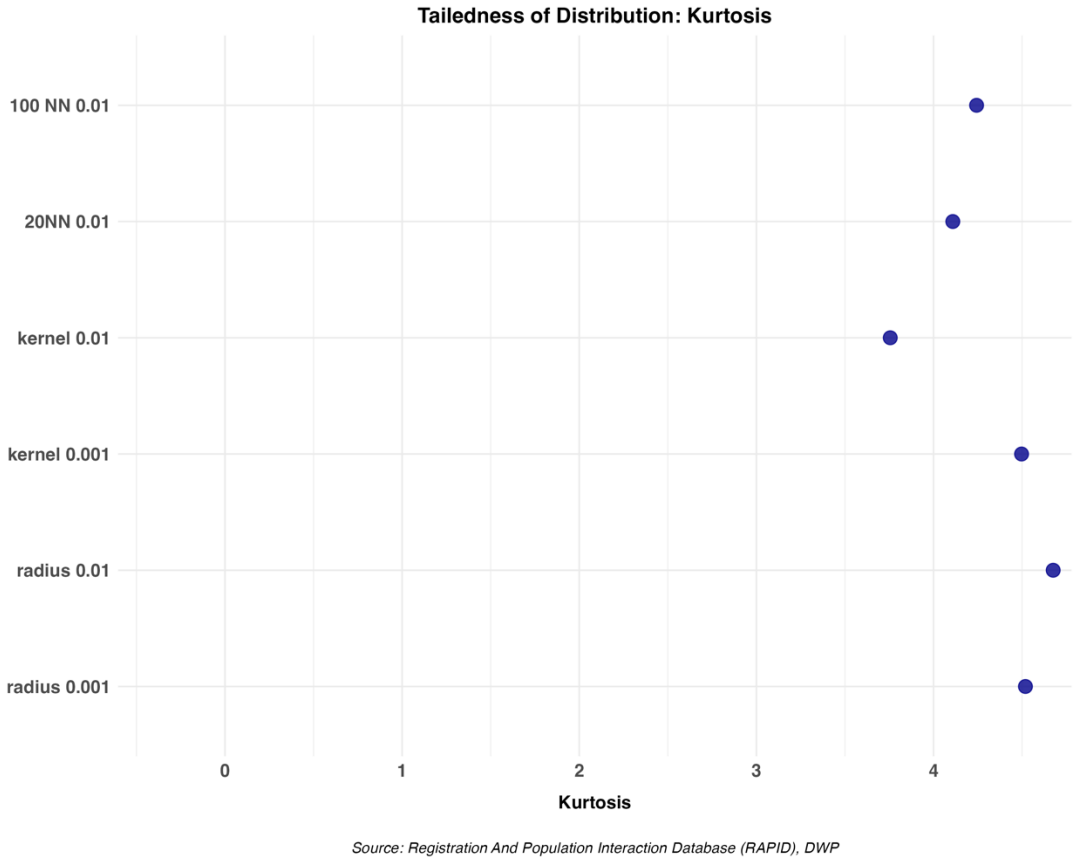

*Source: Registration And Population Interaction Database (RAPID), DWP*

***Figure 10:*** *Skewness of the covariate distribution post-matching for each estimator*




Source: Registration And Population Interaction Database (RAPID), DWP

***Figure 11:*** *Skewness of the covariate distribution post-matching for each estimator.*




Source: Registration And Population Interaction Database (RAPID), DWP

***Figure 12:*** *Variance in covariate distributions after matching under different estimation method*

## E.2 Rosenbaum Bounds

### *Earnings from paid employment*

There is not strong evidence of a statistically robust effect of the intervention on annual earnings. In both the first and second years following the intervention, estimated differences in earnings between KBOP participants and the comparison group did not reach statistical significance under the baseline assumption of no hidden bias (Γ = 1.00; p = 0.15 and p = 0.33, respectively). Moreover, as Γ increased, the significance levels continued to deteriorate, indicating that the observed earnings effects are highly sensitive to even minimal levels of unobserved confounding. While the direction of the estimates is positive, suggesting a potential income benefit, the lack of statistical robustness means these findings should be interpreted with caution.

| Annual earnings (GBP) in first year post-intervention | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.1471 | 0.1471 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.1656 | 0.1300 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.1853 | 0.1145 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.2062 | 0.1005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.2282 | 0.0879 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.2512 | 0.0766 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.2752 | 0.0666 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.3000 | 0.0576 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.3255 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.3516 | 0.0428 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.3782 | 0.0367 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.4051 | 0.0314 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.4323 | 0.0267 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.4595 | 0.0227 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.4866 | 0.0193 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.5136 | 0.0163 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.5403 | 0.0137 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.5666 | 0.0115 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.5923 | 0.0097 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.6175 | 0.0081 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.6420 | 0.0067 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.6657 | 0.0056 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.6886 | 0.0047 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.7106 | 0.0039 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.7317 | 0.0032 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.7518 | 0.0026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 19:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on annual earnings in real 2024 GBP in the first-year post-intervention.*

| Annual earnings (GBP) in second year post-intervention | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.3283 | 0.3283 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.3566 | 0.3009 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.3854 | 0.2749 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.4146 | 0.2503 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.4440 | 0.2271 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.4734 | 0.2053 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.5027 | 0.1850 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.5317 | 0.1662 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.5602 | 0.1489 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.5882 | 0.1329 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.6155 | 0.1182 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.6420 | 0.1049 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.6676 | 0.0928 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.6922 | 0.0818 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.7158 | 0.0719 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.7383 | 0.0631 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.7596 | 0.0552 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.7799 | 0.0481 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.7989 | 0.0418 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.8168 | 0.0363 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.8335 | 0.0314 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.8491 | 0.0271 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.8635 | 0.0233 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.8769 | 0.0200 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.8893 | 0.0171 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.9006 | 0.0146 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 20:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on annual earnings in real 2024 GBP in the 2nd year post-intervention.*

### *Days in employment*

The analysis of total days in employment does not indicate a statistically robust effect of the intervention. In both the first year (p = 0.28) and across the full two-year follow-up period (p = 0.23), the estimated differences between KBOP participants and the comparison group were not statistically significant under the assumption of no hidden bias (Γ = 1.00). As sensitivity to unobserved confounding increased (i.e., as Γ rose), significance levels declined further, suggesting that any observed effects are highly vulnerable to bias from unmeasured variables.

| Total days in employment in first year post-intervention | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.2806 | 0.2806 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.3081 | 0.2545 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.3363 | 0.2298 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.3652 | 0.2068 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.3946 | 0.1855 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.4243 | 0.1657 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.4542 | 0.1475 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.4841 | 0.1308 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.5137 | 0.1156 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.5430 | 0.1019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.5718 | 0.0894 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.6000 | 0.0783 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.6275 | 0.0683 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.6540 | 0.0594 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.6796 | 0.0514 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.7042 | 0.0445 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.7277 | 0.0383 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.7500 | 0.0329 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.7711 | 0.0282 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.7910 | 0.0241 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.8098 | 0.0205 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.8273 | 0.0174 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.8436 | 0.0147 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.8588 | 0.0125 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.8728 | 0.0105 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.8857 | 0.0088 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 21:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on total days in employment in the first-year post- intervention.*

| Total days in employment across two-year follow-up period post-intervention | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.2333 | 0.2333 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.2603 | 0.2079 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.2885 | 0.1845 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.3178 | 0.1629 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.3479 | 0.1433 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.3788 | 0.1255 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.4102 | 0.1094 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.4418 | 0.0950 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.4735 | 0.0821 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.5051 | 0.0707 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.5363 | 0.0607 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.5671 | 0.0518 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.5972 | 0.0441 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.6264 | 0.0374 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.6548 | 0.0316 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.6820 | 0.0266 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.7081 | 0.0223 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.7329 | 0.0187 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.7564 | 0.0155 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.7786 | 0.0129 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.7994 | 0.0107 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.8188 | 0.0088 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.8368 | 0.0072 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.8536 | 0.0059 | 0.0000 | 0.0000 | 0.0000 | 15.0000 |
| 1.24 | 0.8690 | 0.0049 | 0.0000 | 0.0000 | 0.0000 | 15.0000 |
| 1.25 | 0.8831 | 0.0040 | 0.0000 | 0.0000 | 0.0000 | 15.0000 |

***Table 22:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on total days in employment across the two-year follow-up period post- intervention.*

### *Work in the first two years post intervention*

The KBOP intervention had a statistically robust effect on participants' likelihood of engaging in paid employment. In the first-year post-intervention, the probability of having least one employment spell was statistically significant under the assumption of no hidden bias (Γ = 1.00, p = 0.05) and remained robust to moderate levels of unobserved confounding, maintaining significance up to Γ ≈ 1.25 (p = 0.00).

In the second-year post-intervention, the effect size remained both statistically significant (p = 0.01 at Γ = 1.00) and highly robust to hidden bias, with significance persisting until Γ = 1.17 (p = 0.00). These findings indicate that KBOP participants were more likely to engage in some form of paid employment in both the years following their involvement in the programme, relative to their matched pre-KBOP counterparts, and that this effect is unlikely to be driven by unmeasured differences between groups.

**Record of an employment spell at any point in the 12 months after their intervention start**

| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
|---|---|---|---|---|---|---|
| 1.00 | 0.0512 | 0.0512 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0594 | 0.0440 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0684 | 0.0377 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0784 | 0.0321 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0893 | 0.0273 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.1012 | 0.0232 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.1140 | 0.0196 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.1278 | 0.0165 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.1426 | 0.0139 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.1584 | 0.0117 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.1751 | 0.0098 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1927 | 0.0081 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.2112 | 0.0068 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.2304 | 0.0056 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.2505 | 0.0047 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.2712 | 0.0039 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.2926 | 0.0032 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.3145 | 0.0026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.3369 | 0.0021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.3597 | 0.0018 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.3828 | 0.0014 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.4061 | 0.0012 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.4296 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.4531 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.4766 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.5000 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 23:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on the proportion of individuals who recorded an employment spell at any point in the 12 months post-intervention.*

| Record of an employment spell at any point in the 24 months after their intervention start | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0073 | 0.0073 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0090 | 0.0059 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0110 | 0.0047 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0134 | 0.0038 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0163 | 0.0030 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0195 | 0.0024 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.0233 | 0.0019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.0276 | 0.0015 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.0325 | 0.0012 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.0380 | 0.0009 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.0442 | 0.0007 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.0511 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.0588 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.0673 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.0766 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.0868 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.0978 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.1098 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.1226 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.1363 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.1509 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.1663 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.1826 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.1997 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.2176 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.2362 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 24:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on the proportion of individuals who recorded an employment spell at any point in the 24 months post-intervention.*

### *Time to work*

The sensitivity analysis suggests that the intervention had limited impact on sustaining pre-intervention employment or finding new employment in the short term. For employment within the first 6 months post-intervention, the effect was not statistically significant at Γ = 1.00 (p = 0.15), and robustness declined as Γ increased.

The outcome measuring the share of individuals entering new employment between months seven and twelve was statistically significant at the 10% level (p = 0.09 at Γ = 1.00), though the effect attenuated with modest increases in unmeasured confounding.

**Sustainment of pre-intervention employment or record of a new employment spell within 1-6 months after their intervention start**

| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
|---|---|---|---|---|---|---|
| 1.00 | 0.1548 | 0.1548 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.1643 | 0.1457 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.1741 | 0.1370 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.1841 | 0.1287 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.1944 | 0.1209 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.2049 | 0.1134 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.2156 | 0.1064 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.2266 | 0.0997 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.2377 | 0.0934 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.2490 | 0.0875 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.2605 | 0.0819 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.2721 | 0.0766 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.2839 | 0.0716 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.2958 | 0.0669 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.3079 | 0.0625 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.3200 | 0.0583 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.3322 | 0.0544 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.3444 | 0.0507 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.3568 | 0.0473 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.3691 | 0.0440 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.3815 | 0.0410 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.3940 | 0.0382 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.4064 | 0.0355 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.4188 | 0.0330 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.4312 | 0.0307 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.4435 | 0.0285 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 25:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on the proportion of individuals who retained their pre-intervention employment or recorded a new employment spell within 1-6 months post- intervention.*

| Record of a new employment spell within 7-12 months after their intervention start | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0946 | 0.0946 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.1005 | 0.0890 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.1066 | 0.0837 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.1128 | 0.0786 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.1193 | 0.0739 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.1259 | 0.0694 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.1327 | 0.0651 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.1397 | 0.0611 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.1469 | 0.0573 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.1542 | 0.0538 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.1617 | 0.0504 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1694 | 0.0472 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.1772 | 0.0442 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.1851 | 0.0414 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.1932 | 0.0388 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.2014 | 0.0363 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.2098 | 0.0340 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.2183 | 0.0318 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.2268 | 0.0297 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.2355 | 0.0278 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.2443 | 0.0259 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.2532 | 0.0242 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.2622 | 0.0226 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.2713 | 0.0211 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.2804 | 0.0197 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.2896 | 0.0184 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 26:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on the proportion of individuals who recorded a new employment spell within 7-12 months post- intervention.*

### *Sustained employment*

The analysis of sustained employment outcomes indicates that shorter-duration effects remain statistically significant under modest assumptions about unobserved confounding. The one-month outcome was significant under no hidden bias (Γ = 1.00, p = 0.01) and retained significance up to Γ ≈ 1.09. Similarly, the two-month and three-month outcomes remained significant up to Γ ≈ 1.10 (p = 0.00) and Γ ≈ 1.08 (p = 0.01), respectively, reflecting resilience to moderate levels of unmeasured confounding. In contrast, the six-month outcome, while initially significant at the 10% level (Γ = 1.00, p = 0.13), did not retain statistical significance beyond small increases in Γ, suggesting that longer-term employment retention is more sensitive to potential hidden bias.

| Employment record for 1 month | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0064 | 0.0064 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0079 | 0.0051 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0097 | 0.0041 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0119 | 0.0032 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0144 | 0.0026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0174 | 0.0020 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.0208 | 0.0016 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.0248 | 0.0013 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.0293 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.0344 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.0402 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.0467 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.0539 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.0619 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.0707 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.0803 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.0908 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.1022 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.1144 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.1276 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.1416 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.1565 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.1723 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.1889 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.2063 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.2245 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 27:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on employment for 1 month within the two-year follow-up period post- intervention.*

| Sustained employment for 2 months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0298 | 0.0298 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0354 | 0.0250 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0417 | 0.0209 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0488 | 0.0174 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0568 | 0.0144 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0657 | 0.0119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.0755 | 0.0098 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.0863 | 0.0081 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.0981 | 0.0066 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.1109 | 0.0054 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.1247 | 0.0044 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1395 | 0.0036 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.1553 | 0.0029 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.1721 | 0.0023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.1898 | 0.0019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.2085 | 0.0015 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.2280 | 0.0012 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.2483 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.2694 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.2911 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.3134 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.3362 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.3595 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.3830 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.4068 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.4308 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 28:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained employment for 2 consecutive months within the two-year follow-up period post- intervention.*

| Sustained employment for three months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0439 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| 1.01 | 0.0514 | 0.0373 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0598 | 0.0316 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0692 | 0.0267 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0795 | 0.0224 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0908 | 0.0188 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.1031 | 0.0157 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.1165 | 0.0131 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.1309 | 0.0109 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.1464 | 0.0090 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.1629 | 0.0074 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1803 | 0.0061 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.1987 | 0.0050 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.2180 | 0.0041 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.2382 | 0.0034 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.2592 | 0.0027 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.2809 | 0.0022 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.3032 | 0.0018 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.3260 | 0.0015 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.3494 | 0.0012 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.3731 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.3971 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.4213 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.4456 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.4699 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.4941 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 29:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained employment for 3 consecutive months within the two-year follow-up period post- intervention.*

| Sustained employment for 6 months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.13 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.01 | 0.15 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.02 | 0.17 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.03 | 0.19 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.04 | 0.20 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.05 | 0.22 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.06 | 0.25 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.07 | 0.27 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.08 | 0.29 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.09 | 0.31 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.10 | 0.34 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.11 | 0.36 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.12 | 0.38 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.13 | 0.41 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.14 | 0.43 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.15 | 0.46 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.16 | 0.48 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.17 | 0.51 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.18 | 0.53 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.19 | 0.56 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.20 | 0.58 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.21 | 0.60 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.22 | 0.63 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.23 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.24 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.25 | 0.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

***Table 30:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained employment for 6 consecutive months within the two-year follow-up period post- intervention.*

### *Monthly HB receipt*

The analysis of monthly HB receipt following programme entry shows that estimated treatment effects were more sensitive to unobserved confounding in the early follow-up period, while effects in later months demonstrated greater resistance to potential hidden bias. Between months one to four, observed differences between the treatment and comparison groups remained statistically significant only under limited assumptions about unmeasured confounders (e.g. Γ ≈ 1.05, 90% confidence). From months sixteen to twenty-four, however, the reduction in HB receipt among KBOP participants proved more robust. For example, in month twenty, the effect remained significant at the 90% confidence level up to Γ ≈ 1.16. In months twenty-two and twenty-three, results were statistically significant at the 99% confidence level under no hidden bias (Γ = 1.00) and remained significant at the 90% confidence level up to Γ ≈ 1.19. These findings suggest that while early effects may be more vulnerable to unmeasured factors, the intervention's impact on reducing HB reliance is more robust and credible later in the follow-up period.

| Spell HB p1 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.182 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.164 | 0.201 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.147 | 0.222 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.131 | 0.243 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.117 | 0.265 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.104 | 0.288 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.092 | 0.312 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.082 | 0.336 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.072 | 0.360 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.064 | 0.385 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.056 | 0.410 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.049 | 0.436 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.043 | 0.461 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.037 | 0.486 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.032 | 0.511 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.028 | 0.536 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.024 | 0.561 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.021 | 0.585 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.018 | 0.608 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.015 | 0.631 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.013 | 0.654 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.011 | 0.675 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.010 | 0.696 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.008 | 0.716 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.007 | 0.736 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.006 | 0.754 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 31:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 1 month post- intervention.*

| Spell HB p2 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.130 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.116 | 0.146 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.103 | 0.162 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.091 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.080 | 0.198 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.070 | 0.218 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.062 | 0.238 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.054 | 0.259 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.047 | 0.281 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.041 | 0.304 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.036 | 0.327 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.031 | 0.350 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.027 | 0.374 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.023 | 0.398 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.020 | 0.422 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.017 | 0.447 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.014 | 0.471 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.012 | 0.495 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.011 | 0.519 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.009 | 0.543 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.008 | 0.566 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.006 | 0.589 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.005 | 0.612 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.005 | 0.634 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.004 | 0.655 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.003 | 0.676 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 32:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 2 months post- intervention*

| Spell HB p3 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.106 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.093 | 0.120 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.082 | 0.135 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.072 | 0.150 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.063 | 0.167 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.055 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.048 | 0.204 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.041 | 0.223 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.036 | 0.244 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.031 | 0.265 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.026 | 0.287 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.023 | 0.310 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.019 | 0.333 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.016 | 0.356 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.014 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.012 | 0.404 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.010 | 0.428 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.009 | 0.453 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.007 | 0.477 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.006 | 0.501 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.005 | 0.525 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.004 | 0.549 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.004 | 0.572 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.003 | 0.595 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.002 | 0.617 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.002 | 0.639 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 33:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt three months post- intervention*

| Spell HB p4 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.094 | 0.094 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.083 | 0.107 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.072 | 0.121 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.063 | 0.136 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.055 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.048 | 0.168 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.041 | 0.186 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.036 | 0.204 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.031 | 0.224 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.026 | 0.244 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.022 | 0.265 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.019 | 0.287 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.016 | 0.310 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.014 | 0.333 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.012 | 0.356 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.010 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.008 | 0.404 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.007 | 0.428 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.006 | 0.452 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.005 | 0.476 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.004 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.003 | 0.524 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.003 | 0.547 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.002 | 0.571 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.002 | 0.593 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.002 | 0.616 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 34:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 4 months post-intervention*

| Spell HB p5 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.108 | 0.108 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.095 | 0.122 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.084 | 0.137 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.073 | 0.154 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.064 | 0.171 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.056 | 0.189 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.048 | 0.208 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.042 | 0.228 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.036 | 0.249 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.031 | 0.271 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.027 | 0.293 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.023 | 0.316 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.020 | 0.340 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.017 | 0.364 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.014 | 0.388 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.012 | 0.413 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.010 | 0.437 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.009 | 0.462 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.007 | 0.486 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.006 | 0.511 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.005 | 0.535 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.004 | 0.559 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.004 | 0.582 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.003 | 0.605 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.002 | 0.628 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.002 | 0.649 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 35:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 5 months post-intervention*

| Spell HB p6 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.267 | 0.267 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.244 | 0.291 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.222 | 0.316 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.201 | 0.341 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.182 | 0.367 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.165 | 0.394 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.148 | 0.420 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.133 | 0.447 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.119 | 0.473 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.106 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.095 | 0.526 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.084 | 0.552 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.074 | 0.578 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.066 | 0.603 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.058 | 0.627 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.051 | 0.651 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.045 | 0.673 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.039 | 0.696 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.034 | 0.717 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.030 | 0.737 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.026 | 0.756 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.022 | 0.775 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.019 | 0.792 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.017 | 0.809 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.014 | 0.824 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.012 | 0.839 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 36:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 6 months post-intervention*

| Spell HB p7 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.312 | 0.312 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.288 | 0.338 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.264 | 0.364 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.242 | 0.391 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.221 | 0.418 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.201 | 0.444 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.182 | 0.471 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.165 | 0.498 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.149 | 0.525 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.134 | 0.551 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.121 | 0.577 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.108 | 0.602 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.097 | 0.626 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.086 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.077 | 0.673 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.068 | 0.695 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.060 | 0.717 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.053 | 0.737 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.047 | 0.757 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.041 | 0.775 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.036 | 0.793 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.032 | 0.809 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.028 | 0.825 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.024 | 0.840 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.021 | 0.853 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.018 | 0.866 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 37:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 7 months post-intervention*

| Spell HB p8 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.362 | 0.362 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.336 | 0.389 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.311 | 0.416 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.287 | 0.443 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.264 | 0.470 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.242 | 0.497 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.222 | 0.524 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.203 | 0.550 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.184 | 0.576 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.168 | 0.602 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.152 | 0.627 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.137 | 0.651 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.124 | 0.674 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.111 | 0.696 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.100 | 0.718 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.089 | 0.738 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.080 | 0.758 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.071 | 0.776 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.063 | 0.794 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.056 | 0.811 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.050 | 0.826 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.044 | 0.841 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.039 | 0.855 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.034 | 0.868 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.030 | 0.880 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.026 | 0.891 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 38:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 8 months post-intervention*

| Spell HB p9 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.238 | 0.238 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.217 | 0.260 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.197 | 0.282 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.178 | 0.306 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.161 | 0.330 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.145 | 0.355 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.131 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.117 | 0.405 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.105 | 0.430 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.094 | 0.456 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.083 | 0.481 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.074 | 0.506 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.066 | 0.531 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.058 | 0.556 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.051 | 0.580 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.045 | 0.604 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.040 | 0.627 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.035 | 0.649 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.030 | 0.671 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.026 | 0.692 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.023 | 0.713 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.020 | 0.732 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.017 | 0.751 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.015 | 0.768 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.013 | 0.785 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.011 | 0.801 | 0.000 | 0.000 | 0.000 | 0.000 |

**Table 39:** Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 9 months post-intervention

| Spell HB p10 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.385 | 0.385 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.411 | 0.359 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.437 | 0.334 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.463 | 0.310 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.490 | 0.287 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.516 | 0.266 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.541 | 0.245 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.567 | 0.225 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.592 | 0.207 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.616 | 0.189 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.639 | 0.173 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.662 | 0.157 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.684 | 0.143 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.705 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.726 | 0.117 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.745 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.764 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.782 | 0.086 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.798 | 0.077 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.814 | 0.069 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.829 | 0.062 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.843 | 0.055 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.856 | 0.049 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.868 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.880 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.891 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 40:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 10 months post-intervention*

| Spell HB p12[44] | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.470 | 0.470 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.495 | 0.444 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.521 | 0.418 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.546 | 0.394 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.571 | 0.370 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.596 | 0.346 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.620 | 0.324 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.643 | 0.302 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.665 | 0.281 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.687 | 0.261 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.708 | 0.242 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.728 | 0.224 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.747 | 0.207 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.765 | 0.190 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.783 | 0.175 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.799 | 0.161 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.815 | 0.147 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.829 | 0.135 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.843 | 0.123 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.856 | 0.112 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.868 | 0.102 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.879 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.890 | 0.084 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.900 | 0.076 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.909 | 0.069 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.917 | 0.062 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 41:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 12 months post-intervention*

[44] The Rosenbaum bounds analysis for Housing Benefit (HB) receipt at 11 months post-intervention did not converge, and the corresponding estimate is therefore not reported.

| Spell HB p13 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.409 | 0.409 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.435 | 0.384 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.460 | 0.360 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.486 | 0.336 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.511 | 0.314 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.536 | 0.292 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.560 | 0.271 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.584 | 0.251 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.608 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.631 | 0.214 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.653 | 0.197 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.675 | 0.181 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.696 | 0.166 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.716 | 0.152 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.735 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.753 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.771 | 0.115 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.787 | 0.104 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.803 | 0.094 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.818 | 0.085 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.832 | 0.077 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.846 | 0.070 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.858 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.870 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.881 | 0.051 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.891 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 42:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 1three months post-intervention*

| Spell HB p14 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.196 | 0.196 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.179 | 0.214 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.163 | 0.233 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.148 | 0.253 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.134 | 0.273 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.121 | 0.293 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.109 | 0.315 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.098 | 0.336 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.088 | 0.358 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.079 | 0.381 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.071 | 0.403 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.063 | 0.426 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.056 | 0.448 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.050 | 0.471 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.045 | 0.494 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.039 | 0.516 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.035 | 0.538 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.031 | 0.560 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.027 | 0.581 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.024 | 0.602 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.021 | 0.623 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.018 | 0.643 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.016 | 0.662 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.014 | 0.681 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.012 | 0.699 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.891 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 43:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 14 months post-intervention*

| Spell HB p15 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.131 | 0.131 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.118 | 0.145 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.107 | 0.159 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.096 | 0.175 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.086 | 0.190 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.077 | 0.207 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.069 | 0.224 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.061 | 0.242 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.055 | 0.261 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.048 | 0.280 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.043 | 0.299 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.038 | 0.319 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.034 | 0.339 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.030 | 0.360 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.026 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.023 | 0.401 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.020 | 0.422 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.018 | 0.443 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.015 | 0.464 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.013 | 0.485 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.012 | 0.506 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.010 | 0.526 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.009 | 0.547 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.008 | 0.567 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.007 | 0.587 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.006 | 0.606 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 44:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 15 months post-intervention*

| Spell HB p16 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.058 | 0.058 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.051 | 0.066 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.045 | 0.074 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.039 | 0.083 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.034 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.030 | 0.104 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.026 | 0.115 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.023 | 0.127 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.020 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.017 | 0.153 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.015 | 0.167 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.013 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.011 | 0.197 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.009 | 0.213 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.008 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.007 | 0.247 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.006 | 0.264 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.005 | 0.282 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.004 | 0.301 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.004 | 0.320 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.003 | 0.339 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.003 | 0.358 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.002 | 0.378 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.002 | 0.397 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.002 | 0.417 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.001 | 0.437 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 45:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 16 months post-intervention*

| Spell HB p17 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.075 | 0.075 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.066 | 0.084 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.059 | 0.094 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.052 | 0.104 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.046 | 0.116 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.040 | 0.128 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.035 | 0.141 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.031 | 0.154 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.027 | 0.168 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.024 | 0.183 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.021 | 0.198 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.018 | 0.214 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.016 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.014 | 0.248 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.012 | 0.266 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.010 | 0.284 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.009 | 0.302 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.008 | 0.321 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.007 | 0.340 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.006 | 0.360 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.005 | 0.379 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.004 | 0.399 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.004 | 0.419 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.003 | 0.439 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.003 | 0.459 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.002 | 0.479 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 46:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 17 months post-intervention*

| Spell HB p18 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.044 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.038 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.034 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.029 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.026 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.022 | 0.079 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.019 | 0.088 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.017 | 0.098 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.015 | 0.108 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.013 | 0.119 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.011 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.009 | 0.142 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.008 | 0.155 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.007 | 0.168 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.006 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.005 | 0.197 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.004 | 0.212 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.004 | 0.227 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.003 | 0.243 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.003 | 0.259 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.002 | 0.276 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.002 | 0.293 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.002 | 0.311 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.001 | 0.329 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.347 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.001 | 0.365 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 47:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 18 months post-intervention*

| Spell HB p19 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.111 | 0.111 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.100 | 0.123 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.090 | 0.136 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.080 | 0.149 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.072 | 0.164 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.064 | 0.178 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.057 | 0.194 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.051 | 0.210 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.045 | 0.227 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.040 | 0.244 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.035 | 0.262 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.031 | 0.281 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.027 | 0.299 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.024 | 0.319 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.021 | 0.338 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.019 | 0.358 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.016 | 0.378 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.014 | 0.398 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.012 | 0.418 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.011 | 0.438 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.009 | 0.459 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.008 | 0.479 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.007 | 0.499 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.006 | 0.519 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.005 | 0.538 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.005 | 0.558 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 48:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 19 months post-intervention*

| Spell HB p20 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.026 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.022 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.019 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.017 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.014 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.012 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.011 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.009 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.008 | 0.070 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.007 | 0.078 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.006 | 0.087 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.005 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.004 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.003 | 0.116 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.003 | 0.127 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.002 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.002 | 0.150 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.002 | 0.163 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.176 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.189 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.203 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.218 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.001 | 0.233 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.001 | 0.249 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.265 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.281 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 49:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 20 months post-intervention*

| Spell HB p21 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.044 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.038 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.034 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.029 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.026 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.022 | 0.079 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.019 | 0.088 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.017 | 0.098 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.015 | 0.108 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.013 | 0.119 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.011 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.009 | 0.142 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.008 | 0.155 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.007 | 0.168 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.006 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.005 | 0.197 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.004 | 0.212 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.004 | 0.227 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.003 | 0.243 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.003 | 0.259 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.002 | 0.276 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.002 | 0.293 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.002 | 0.311 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.001 | 0.329 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.347 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.001 | 0.365 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 50:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 20 months post-intervention*

| Spell HB p22 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.015 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.013 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.011 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.009 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.008 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.007 | 0.040 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.006 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.005 | 0.051 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.004 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.003 | 0.064 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.003 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.002 | 0.079 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.002 | 0.087 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.002 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.001 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.001 | 0.115 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.001 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.137 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.148 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.161 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.000 | 0.173 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.000 | 0.186 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.214 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.229 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 51:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 22 months post-intervention*

| Spell HB p23 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.015 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.013 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.011 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.009 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.008 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.007 | 0.040 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.006 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.005 | 0.051 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.004 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.003 | 0.064 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.003 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.002 | 0.079 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.002 | 0.087 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.002 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.001 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.001 | 0.115 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.001 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.137 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.148 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.161 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.000 | 0.173 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.000 | 0.186 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.214 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.229 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 52:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 23 months post-intervention*

| Spell HB p24 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.021 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.018 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.016 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.013 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.011 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.010 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.008 | 0.047 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.007 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.006 | 0.059 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.005 | 0.066 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.004 | 0.073 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.004 | 0.081 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.003 | 0.090 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.003 | 0.099 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.002 | 0.109 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.002 | 0.119 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.002 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.001 | 0.141 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.153 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.166 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.178 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.192 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.001 | 0.206 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.220 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.235 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 53:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on HB receipt 24 months post-intervention*

### *Sustained non-reliance on HB receipt*

The intervention's effect on HB non-reliance was not robust. Across three, six and twelve-month outcomes, significance was not maintained beyond Γ = 1.00, except for a marginal effect at twelve months (Γ = 1.01, $p < 0.10$), indicating high sensitivity to even minimal unobserved bias.

**Sustained non-reliance on HB receipt for 3 consecutive months**

| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
|---|---|---|---|---|---|---|
| 1.00 | 0.279 | 0.279 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.305 | 0.254 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.332 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.359 | 0.208 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.387 | 0.187 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.416 | 0.168 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.444 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.473 | 0.134 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.501 | 0.119 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.529 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.557 | 0.094 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.584 | 0.083 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.611 | 0.073 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.637 | 0.064 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.662 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.686 | 0.048 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.709 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.731 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.752 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.772 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.791 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.809 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.826 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.841 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.856 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.869 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 54:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Housing Benefit (HB) for at least 3 consecutive months within the two-year follow-up period post- intervention.*

| Sustained non-reliance on HB receipt for 6 consecutive months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.126 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.142 | 0.110 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.161 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.180 | 0.084 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.200 | 0.073 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.222 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.245 | 0.054 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.268 | 0.047 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.293 | 0.040 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.318 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.344 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.371 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.397 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.424 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.452 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.479 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.506 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.532 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.559 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.585 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.610 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.635 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.659 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.682 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.704 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.725 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 55:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Housing Benefit (HB) for at least 6 consecutive months within the two-year follow-up period post- intervention.*

| Sustained non-reliance on HB receipt for 12 consecutive months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.083 | 0.083 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.096 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.110 | 0.061 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.125 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.141 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.159 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.178 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.198 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.219 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.241 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.264 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.288 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.313 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.338 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.364 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.390 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.417 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.443 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.470 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.497 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.523 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.549 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.575 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.600 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.624 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.648 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 56:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Housing Benefit (HB) for at least 12 consecutive months within the two-year follow-up period post- intervention*

| Sustained non-reliance on HB receipt for 18 consecutive months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.354 | 0.354 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.384 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.414 | 0.297 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.445 | 0.270 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.476 | 0.245 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.506 | 0.222 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.536 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.566 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.595 | 0.161 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.623 | 0.143 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.651 | 0.128 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.677 | 0.113 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.702 | 0.100 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.727 | 0.088 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.750 | 0.077 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.771 | 0.067 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.792 | 0.059 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.811 | 0.051 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.829 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.845 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.861 | 0.033 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.875 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.888 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.900 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.911 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.921 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 57:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Housing Benefit (HB) for at least 18 consecutive months within the two-year follow-up period post-intervention*

### *Monthly UC receipt*

The analysis of monthly UCHE receipt post-intervention indicates limited impact in the short term, with more pronounced effects emerging from the mid-point of the follow-up period. No significant differences were detected in months one to four. From month five onward, robustness effects began to surface, with significance maintained up to Γ ≈ 1.02 (p = 0.09). More sustained effects were observed between months eight and twelve, particularly at month nine, which remained significant up to Γ ≈ 1.07 (p = 0.05) and up to Γ ≈ 1.14 at the 10% level. Effects in months ten to twelve held significance up to Γ ≈ 1.08–1.09, while month thirteen showed only marginal robustness. These results suggest a delayed but potentially meaningful reduction in UCHE reliance for some participants during the second half of the follow-up period.

| Spell UCHE p1 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.218 | 0.218 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.196 | 0.242 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.176 | 0.266 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.157 | 0.291 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.140 | 0.317 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.124 | 0.344 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.110 | 0.371 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.097 | 0.399 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.085 | 0.427 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.074 | 0.455 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.065 | 0.483 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.057 | 0.511 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.049 | 0.538 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.042 | 0.565 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.037 | 0.592 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.032 | 0.618 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.027 | 0.643 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.023 | 0.667 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.020 | 0.691 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.017 | 0.713 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.014 | 0.735 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.012 | 0.755 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.010 | 0.775 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.009 | 0.793 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.007 | 0.811 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.006 | 0.827 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 58:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 1 month post-intervention*

| Spell UCHE p2 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.225 | 0.225 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.202 | 0.249 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.181 | 0.275 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.161 | 0.301 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.143 | 0.328 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.126 | 0.356 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.111 | 0.384 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.098 | 0.413 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.086 | 0.442 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.075 | 0.471 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.065 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.056 | 0.529 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.049 | 0.557 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.042 | 0.584 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.036 | 0.611 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.031 | 0.638 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.026 | 0.663 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.022 | 0.688 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.019 | 0.711 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.016 | 0.734 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.014 | 0.755 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.011 | 0.775 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.010 | 0.794 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.008 | 0.812 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.007 | 0.829 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.006 | 0.845 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 59:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 2 months post-intervention*

| Spell UCHE p3 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.308 | 0.308 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.281 | 0.336 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.255 | 0.365 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.230 | 0.395 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.208 | 0.425 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.186 | 0.455 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.167 | 0.485 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.149 | 0.515 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.132 | 0.544 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.117 | 0.573 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.103 | 0.602 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.091 | 0.629 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.080 | 0.656 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.070 | 0.681 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.061 | 0.706 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.053 | 0.730 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.046 | 0.752 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.040 | 0.773 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.034 | 0.793 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.029 | 0.812 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.025 | 0.829 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.021 | 0.845 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.018 | 0.861 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.015 | 0.875 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.013 | 0.887 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.011 | 0.899 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 60:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt three months post-intervention*

| Spell UCHE p4 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.174 | 0.174 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.154 | 0.195 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.136 | 0.217 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.120 | 0.241 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.105 | 0.266 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.092 | 0.291 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.080 | 0.318 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.069 | 0.345 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.060 | 0.372 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.052 | 0.401 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.044 | 0.429 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.038 | 0.457 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.032 | 0.486 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.028 | 0.514 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.023 | 0.542 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.020 | 0.570 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.017 | 0.596 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.014 | 0.623 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.012 | 0.648 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.010 | 0.673 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.008 | 0.697 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.007 | 0.719 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.006 | 0.741 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.005 | 0.762 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.004 | 0.781 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.003 | 0.800 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 61:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 4 months post-intervention*

| Spell UCHE p5 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.068 | 0.068 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.058 | 0.080 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.050 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.042 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.036 | 0.121 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.030 | 0.137 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.025 | 0.154 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.021 | 0.173 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.017 | 0.192 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.014 | 0.213 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.012 | 0.235 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.010 | 0.258 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.008 | 0.282 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.007 | 0.307 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.005 | 0.332 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.004 | 0.358 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.004 | 0.384 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.003 | 0.411 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.002 | 0.437 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.002 | 0.464 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.002 | 0.491 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.518 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.001 | 0.544 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.001 | 0.570 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.595 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.620 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 62:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 5 months post-intervention*

| Spell UCHE p6 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.108 | 0.108 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.094 | 0.124 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.081 | 0.141 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.070 | 0.160 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.060 | 0.179 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.051 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.044 | 0.222 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.037 | 0.246 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.031 | 0.270 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.027 | 0.295 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.022 | 0.321 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.019 | 0.347 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.016 | 0.375 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.013 | 0.402 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.011 | 0.430 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.009 | 0.458 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.007 | 0.485 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.006 | 0.513 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.005 | 0.540 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.004 | 0.567 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.003 | 0.594 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.003 | 0.619 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.002 | 0.644 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.002 | 0.669 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.692 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.001 | 0.714 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 63:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 6 months post-intervention*

| Spell UCHE p7 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.070 | 0.070 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.060 | 0.081 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.051 | 0.094 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.043 | 0.108 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.036 | 0.123 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.030 | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.026 | 0.158 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.021 | 0.177 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.018 | 0.197 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.015 | 0.218 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.012 | 0.241 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.010 | 0.264 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.008 | 0.288 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.007 | 0.313 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.005 | 0.339 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.004 | 0.365 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.004 | 0.392 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.003 | 0.419 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.002 | 0.446 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.002 | 0.473 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.002 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.527 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.001 | 0.553 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.001 | 0.579 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.605 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.629 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 64:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 7 months post-intervention*

| Spell UCHE p8 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.048 | 0.048 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.040 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.034 | 0.066 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.028 | 0.077 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.024 | 0.089 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.020 | 0.102 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.016 | 0.116 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.013 | 0.132 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.011 | 0.149 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.009 | 0.167 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.007 | 0.186 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.006 | 0.206 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.005 | 0.227 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.004 | 0.249 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.003 | 0.273 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.003 | 0.296 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.002 | 0.321 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.002 | 0.346 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.372 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.398 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.424 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.450 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.001 | 0.477 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.503 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.529 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.555 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 65:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 8 months post-intervention*

| Spell UCHE p9 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.014 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.011 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.009 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.007 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.006 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.005 | 0.048 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.004 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.003 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.002 | 0.075 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.002 | 0.086 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.002 | 0.098 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.001 | 0.111 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.001 | 0.125 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.001 | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.001 | 0.156 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.000 | 0.173 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.000 | 0.191 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.000 | 0.210 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.000 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.000 | 0.272 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.000 | 0.294 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.317 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.340 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.363 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 66:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 9 months post-intervention*

| Spell UCHE p10 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.039 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.033 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.027 | 0.054 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.023 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.019 | 0.073 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.016 | 0.084 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.013 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.011 | 0.110 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.009 | 0.124 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.007 | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.006 | 0.156 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.005 | 0.174 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.004 | 0.193 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.003 | 0.213 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.002 | 0.234 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.002 | 0.255 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.002 | 0.278 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.001 | 0.301 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.349 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.374 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.399 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.000 | 0.424 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.449 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.475 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 67:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 10 months post-intervention*

| Spell UCHE p11 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.035 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.029 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.024 | 0.049 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.020 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.017 | 0.066 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.014 | 0.077 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.011 | 0.088 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.009 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.008 | 0.115 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.006 | 0.129 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.005 | 0.145 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.004 | 0.162 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.003 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.003 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.002 | 0.220 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.002 | 0.241 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.001 | 0.263 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.001 | 0.285 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.309 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.333 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.357 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.000 | 0.382 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.000 | 0.407 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.433 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.458 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.483 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 68:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 11 months post-intervention*

| Spell UCHE p12 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.041 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.035 | 0.049 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.029 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.024 | 0.067 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.020 | 0.078 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.017 | 0.090 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.014 | 0.103 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.011 | 0.117 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.009 | 0.132 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.007 | 0.148 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.006 | 0.166 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.005 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.004 | 0.205 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.003 | 0.225 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.003 | 0.247 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.002 | 0.270 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.002 | 0.293 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.001 | 0.317 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.001 | 0.342 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.001 | 0.367 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.001 | 0.393 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.001 | 0.419 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.000 | 0.445 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.000 | 0.471 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.000 | 0.496 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.000 | 0.522 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 69:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 12 months post-intervention*

| Spell UCHE p13 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.110 | 0.110 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.096 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.083 | 0.143 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.071 | 0.162 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.061 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.052 | 0.204 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.044 | 0.226 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.038 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.032 | 0.274 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.027 | 0.300 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.022 | 0.326 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.019 | 0.353 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.016 | 0.381 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.013 | 0.409 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.011 | 0.437 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.009 | 0.465 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.007 | 0.493 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.006 | 0.521 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.005 | 0.548 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.004 | 0.575 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.003 | 0.602 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.003 | 0.627 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.002 | 0.652 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.002 | 0.677 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.001 | 0.700 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.001 | 0.722 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 70:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 1three months post-intervention*

| Spell UCHE p14 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.231 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.207 | 0.256 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.185 | 0.283 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.164 | 0.310 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.146 | 0.339 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.128 | 0.368 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.113 | 0.397 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.099 | 0.427 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.086 | 0.457 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.075 | 0.487 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.065 | 0.516 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.056 | 0.546 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.048 | 0.574 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.041 | 0.603 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.035 | 0.630 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.030 | 0.657 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.026 | 0.682 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.022 | 0.707 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.018 | 0.730 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.015 | 0.752 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.013 | 0.773 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.011 | 0.793 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.009 | 0.812 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.008 | 0.829 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.006 | 0.846 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.005 | 0.861 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 71:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 14 months post-intervention*

| Spell UCHE p15 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.312 | 0.312 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.284 | 0.341 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.257 | 0.371 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.232 | 0.401 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.209 | 0.432 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.187 | 0.463 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.167 | 0.494 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.149 | 0.524 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.132 | 0.554 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.116 | 0.584 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.102 | 0.613 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.090 | 0.641 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.078 | 0.668 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.068 | 0.694 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.059 | 0.718 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.051 | 0.742 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.044 | 0.764 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.038 | 0.785 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.033 | 0.805 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.028 | 0.823 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.024 | 0.840 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.020 | 0.856 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.017 | 0.871 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.014 | 0.885 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.012 | 0.897 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.010 | 0.908 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 72:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 15 months post-intervention*

| Spell UCHE p17[45] | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.427 | 0.427 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.395 | 0.459 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.365 | 0.491 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.335 | 0.522 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.307 | 0.554 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.280 | 0.584 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.255 | 0.614 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.231 | 0.643 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.209 | 0.671 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.188 | 0.697 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.168 | 0.723 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.150 | 0.747 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.134 | 0.770 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.119 | 0.791 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.105 | 0.811 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.093 | 0.830 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.082 | 0.847 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.072 | 0.863 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.063 | 0.878 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.055 | 0.891 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.047 | 0.903 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.041 | 0.914 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.035 | 0.924 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.031 | 0.934 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.026 | 0.942 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.022 | 0.949 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 73:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 17 months post-intervention*

[45] The Rosenbaum bounds analysis for Universal Credit Housing Benefit (UCHE) receipt at 16 months post-intervention did not converge, and the corresponding estimate is therefore not reported.

| Spell UCHE p18 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.427 | 0.427 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.459 | 0.396 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.491 | 0.365 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.523 | 0.335 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.554 | 0.307 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.585 | 0.280 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.615 | 0.255 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.644 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.672 | 0.208 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.699 | 0.187 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.724 | 0.168 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.748 | 0.150 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.771 | 0.133 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.793 | 0.118 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.813 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.831 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.848 | 0.081 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.864 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.879 | 0.062 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.892 | 0.054 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.904 | 0.047 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.915 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.925 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.934 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.943 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.950 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 74:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 18 months post-intervention*

| Spell UCHE p19 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.476 | 0.476 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.443 | 0.508 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.412 | 0.540 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.381 | 0.571 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.352 | 0.602 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.323 | 0.631 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.296 | 0.660 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.270 | 0.688 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.246 | 0.714 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.223 | 0.739 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.201 | 0.763 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.181 | 0.785 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.162 | 0.805 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.145 | 0.825 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.129 | 0.843 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.115 | 0.859 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.102 | 0.874 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.090 | 0.888 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.079 | 0.901 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.070 | 0.912 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.061 | 0.923 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.053 | 0.932 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.046 | 0.941 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.040 | 0.948 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.035 | 0.955 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.030 | 0.961 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 75:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 19 months post-intervention*

| Spell UCHE p20 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.476 | 0.476 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.508 | 0.443 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.540 | 0.412 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.572 | 0.381 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.603 | 0.351 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.633 | 0.322 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.662 | 0.295 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.689 | 0.269 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.716 | 0.244 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.741 | 0.221 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.765 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.787 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.808 | 0.161 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.827 | 0.144 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.845 | 0.128 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.861 | 0.113 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.876 | 0.100 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.890 | 0.089 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.903 | 0.078 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.914 | 0.068 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.924 | 0.060 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.934 | 0.052 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.942 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.949 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.956 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.962 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 76:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 20 months post-intervention*

| Spell UCHE p21 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.357 | 0.357 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.388 | 0.327 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.419 | 0.299 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.450 | 0.271 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.482 | 0.246 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.513 | 0.222 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.544 | 0.199 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.574 | 0.179 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.604 | 0.159 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.633 | 0.142 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.660 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.687 | 0.111 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.713 | 0.098 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.737 | 0.086 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.760 | 0.075 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.782 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.802 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.821 | 0.049 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.839 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.855 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.870 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.884 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.897 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.908 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.919 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.928 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 77:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 21 months post-intervention*

| Spell UCHE p22 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.289 | 0.289 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.317 | 0.262 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.346 | 0.237 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.375 | 0.213 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.405 | 0.191 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.435 | 0.171 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.466 | 0.152 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.496 | 0.135 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.526 | 0.119 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.555 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.584 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.612 | 0.081 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.640 | 0.070 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.666 | 0.061 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.692 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.716 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.739 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.761 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.782 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.802 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.820 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.837 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.853 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.868 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.881 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.894 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 78:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 22 months post-intervention*

| Spell UCHE p23 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.228 | 0.228 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.252 | 0.204 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.278 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.305 | 0.162 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.333 | 0.144 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.361 | 0.127 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.390 | 0.112 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.419 | 0.098 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.449 | 0.086 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.478 | 0.075 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.507 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.536 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.564 | 0.049 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.592 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.620 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.646 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.671 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.696 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.719 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.742 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.763 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.783 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.802 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.820 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.836 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.852 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 79:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 23 months post-intervention*

| Spell UCHE p24 | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.249 | 0.249 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.275 | 0.224 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.302 | 0.201 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.330 | 0.179 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.359 | 0.160 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.389 | 0.141 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.418 | 0.125 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.448 | 0.110 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.478 | 0.096 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.508 | 0.084 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.537 | 0.073 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.566 | 0.064 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.595 | 0.055 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.623 | 0.047 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.649 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.675 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.700 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.724 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.746 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.768 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.788 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.807 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.825 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.841 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.857 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.871 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 80:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on UC receipt 24 months post-intervention*

### *Sustained non-reliance on UCHE receipt*

For UCHE non-reliance, modest short-term robustness was observed. The three-month effect remained significant up to Γ = 1.04 ($p < 0.10$), but effects over six, twelve and eighteen months did not retain significance beyond Γ = 1.00, suggesting vulnerability to confounding over longer periods.

**Sustained non-reliance on UCHE receipt for 3 consecutive months**

| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
|---|---|---|---|---|---|---|
| 1.00 | 0.074 | 0.074 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.082 | 0.066 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.090 | 0.060 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.099 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.109 | 0.048 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.119 | 0.043 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.130 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.141 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.153 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.165 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.178 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.191 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.205 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.219 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.233 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.248 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.264 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.279 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.295 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.311 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.328 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.344 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.361 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.378 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.395 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.412 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 81:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 3 consecutive months within the two-year follow-up period post- intervention*

| Sustained non-reliance on UCHE receipt for 6 consecutive months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.135 | 0.135 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.148 | 0.123 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.162 | 0.111 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.177 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.192 | 0.091 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.207 | 0.082 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.224 | 0.074 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.241 | 0.067 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.258 | 0.060 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.276 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.294 | 0.048 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.313 | 0.043 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.331 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.351 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.370 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.389 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.409 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.429 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.448 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.468 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.488 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.507 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.526 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.545 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.564 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.583 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 82:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 6 consecutive months within the two-year follow-up period post- intervention*

| Sustained non-reliance on UCHE receipt for 12 consecutive months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.442 | 0.442 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.469 | 0.415 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.496 | 0.389 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.523 | 0.364 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.549 | 0.339 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.575 | 0.315 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.600 | 0.293 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.625 | 0.271 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.649 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.672 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.694 | 0.212 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.716 | 0.194 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.736 | 0.178 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.756 | 0.162 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.774 | 0.148 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.792 | 0.135 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.808 | 0.122 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.824 | 0.111 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.839 | 0.100 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.853 | 0.090 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.865 | 0.081 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.877 | 0.073 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.889 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.899 | 0.058 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.908 | 0.052 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.917 | 0.047 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 83:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 12 consecutive months within the two-year follow-up period post- intervention*

| Sustained non-reliance on UCHE receipt for 18 consecutive months | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.398 | 0.398 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.01 | 0.368 | 0.428 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.02 | 0.340 | 0.458 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.03 | 0.313 | 0.488 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.04 | 0.287 | 0.517 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.05 | 0.262 | 0.547 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.06 | 0.239 | 0.575 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.07 | 0.217 | 0.604 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.08 | 0.197 | 0.631 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.09 | 0.178 | 0.657 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.10 | 0.160 | 0.683 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.11 | 0.143 | 0.707 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.12 | 0.128 | 0.731 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.13 | 0.114 | 0.753 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.14 | 0.102 | 0.774 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.15 | 0.090 | 0.794 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.16 | 0.080 | 0.812 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.17 | 0.070 | 0.830 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.18 | 0.062 | 0.846 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.19 | 0.054 | 0.861 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.20 | 0.048 | 0.875 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.21 | 0.042 | 0.887 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.22 | 0.036 | 0.899 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.23 | 0.031 | 0.910 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.24 | 0.027 | 0.919 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.25 | 0.024 | 0.928 | 0.000 | 0.000 | 0.000 | 0.000 |

***Table 84:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 12 consecutive months within the two-year follow-up period post- intervention*

### *Sustained non-reliance on UCHE receipt and no HB thereafter*

Outcomes for UCHE non-reliance with no subsequent HB receipt were statistically significant over shorter durations, withstanding potential unobserved confounding up to $\Gamma \approx 1.09$ for both the three-month ($p < 0.05$) and six-month ($p < 0.01$) indicators. However, the twelve-month result was only stable up to $\Gamma \approx 1.04$, and the eighteen-month effect did not reach statistical significance even under the baseline assumption ($\Gamma = 1.00$). This pattern indicates that while short-term disengagement from housing-related benefits may be plausibly attributed to the intervention, longer-term effects appear more vulnerable to hidden bias and should be interpreted cautiously.

| Sustained non-reliance on UCHE receipt for three months and no HB thereafter | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0164 | 0.0164 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0201 | 0.0134 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0243 | 0.0108 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0293 | 0.0087 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0349 | 0.0070 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0414 | 0.0056 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.0488 | 0.0045 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.0570 | 0.0036 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.0663 | 0.0028 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.0765 | 0.0022 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.0878 | 0.0018 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1002 | 0.0014 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.1136 | 0.0011 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.1282 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.1438 | 0.0007 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.1606 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.1784 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.1972 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.2170 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.2377 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.2593 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.2816 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.3046 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.3282 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.3524 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.3769 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 85:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 3 consecutive months during the two-years post-intervention follow-up period, with no subsequent receipt of Housing Benefit (HB) for the remainder of the follow-up duration.*

| Sustained non-reliance on UCHE receipt for 6 months and no HB thereafter | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0119 | 0.0119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0146 | 0.0097 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0178 | 0.0078 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0215 | 0.0063 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0258 | 0.0051 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0307 | 0.0040 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.0363 | 0.0032 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.0426 | 0.0026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.0498 | 0.0020 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.0577 | 0.0016 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.0666 | 0.0013 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.0764 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.0871 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.0988 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.1115 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.1251 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.1398 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.1554 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.1720 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.1896 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.2080 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.2273 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.2474 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.2682 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.2896 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.3117 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 86:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 6 consecutive months during the two-years post-intervention follow-up*

| Sustained non-reliance on UCHE receipt for 12 months and no HB thereafter | | | | | | |
|---|---|---|---|---|---|---|
| **Gamma** | **sig+** | **sig-** | **t-hat+** | **t-hat-** | **CI+** | **CI-** |
| 1.00 | 0.0203 | 0.0203 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0242 | 0.0168 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0288 | 0.0140 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0340 | 0.0115 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0399 | 0.0095 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.0465 | 0.0078 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.0539 | 0.0064 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.0621 | 0.0052 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.0711 | 0.0042 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.0810 | 0.0034 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.0919 | 0.0028 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1036 | 0.0022 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.1163 | 0.0018 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.1299 | 0.0015 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.1444 | 0.0012 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.1598 | 0.0009 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.1761 | 0.0007 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.1933 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.2113 | 0.0005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.2301 | 0.0004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.2496 | 0.0003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.2698 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.2906 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.3119 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.3337 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.3559 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 87:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 12 consecutive months during the two-years post-intervention follow-up*

| Sustained non-reliance on UCHE receipt for 18 months and no HB thereafter | | | | | | |
|---|---|---|---|---|---|---|
| Gamma | sig+ | sig- | t-hat+ | t-hat- | CI+ | CI- |
| 1.00 | 0.0532 | 0.0532 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.01 | 0.0614 | 0.0460 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.02 | 0.0703 | 0.0396 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.03 | 0.0802 | 0.0340 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.04 | 0.0909 | 0.0291 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.05 | 0.1026 | 0.0249 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.06 | 0.1151 | 0.0212 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.07 | 0.1286 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.08 | 0.1430 | 0.0152 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.09 | 0.1583 | 0.0129 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.10 | 0.1744 | 0.0109 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.11 | 0.1914 | 0.0091 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.12 | 0.2092 | 0.0077 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.13 | 0.2278 | 0.0064 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.14 | 0.2471 | 0.0054 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.15 | 0.2670 | 0.0045 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.16 | 0.2876 | 0.0037 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.17 | 0.3087 | 0.0031 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.18 | 0.3302 | 0.0026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.19 | 0.3521 | 0.0021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.20 | 0.3744 | 0.0017 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.21 | 0.3968 | 0.0014 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.22 | 0.4194 | 0.0012 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.23 | 0.4421 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.24 | 0.4648 | 0.0008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1.25 | 0.4875 | 0.0006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

***Table 88:*** *Results of Rosenbaum bounds sensitivity analysis assessing the robustness of the treatment effect on sustained non-reliance on Universal Credit Housing Element (UCHE) for at least 18 consecutive months during the two-years post-intervention follow-up*

# Appendix F: Alternative Cut-off Dates

## F.1 Treatment group cut-off on March 1st, 2021

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 1,638 | 1,638 |
| Treated | 17 | 1,364 | 1,381 |
| TOTAL | 17 | 3,002 | 3,019 |

***Table 89:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 7.04% | 4.94% | 2.10 | 0.07 | 4.13 | 0.04** |
| SPELL TIME TO WORK 7-12 | 4.55% | 3.94% | 0.61 | -1.13 | 2.34 | 0.49 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 90:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 29.69% | 26.87% | 2.82 | -1.03 | 6.67 | 0.15 |
| Work second year | 35.12% | 31.70% | 3.42 | -0.63 | 7.46 | 0.10* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 91:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 35.92% | 32.48% | 3.45 | -0.62 | 7.51 | 0.10* |
| Sustained employment 2 months after start | 33.50% | 31.03% | 2.48 | -1.53 | 6.49 | 0.23 |
| Sustained employment 3 months after start | 31.38% | 29.26% | 2.12 | -1.83 | 6.06 | 0.29 |
| Sustained employment 6 months after start | 25.66% | 24.74% | 0.92 | -2.79 | 4.63 | 0.63 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 92:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 73 | 71 | 2 | -9 | 13 | 0.70 |
| SPELL DAYS P2YR WORK | 147 | 146 | 0 | -21 | 22 | 0.97 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 93:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £ 2,962.05 | £ 2,822.38 | £ 139.67 | -£ 532.55 | £ 811.89 | 0.68 |
| ANN EARNINGS AMT YRP2 adjusted | £ 3,220.65 | £ 3,270.67 | -£ 50.02 | -£ 832.34 | £ 732.29 | 0.90 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 94:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 34.09% | 39.27% | -5.18 | -9.18 | -1.18 | 0.01*** |
| SPELL_UCHE_p1 | 35.26% | 42.53% | -7.27 | -11.35 | -3.19 | 0.00*** |
| SPELL_UCHE_p2 | 37.61% | 44.06% | -6.45 | -10.59 | -2.31 | 0.00*** |
| SPELL_UCHE_p3 | 39.22% | 45.65% | -6.43 | -10.61 | -2.25 | 0.00*** |
| SPELL_UCHE_p4 | 39.37% | 47.06% | -7.69 | -11.89 | -3.50 | 0.00*** |
| SPELL_UCHE_p5 | 39.96% | 48.29% | -8.34 | -12.55 | -4.12 | 0.00*** |
| SPELL_UCHE_p6 | 40.76% | 49.68% | -8.92 | -13.15 | -4.68 | 0.00*** |
| SPELL_UCHE_p7 | 41.72% | 51.10% | -9.39 | -13.63 | -5.14 | 0.00*** |
| SPELL_UCHE_p8 | 42.08% | 52.10% | -10.01 | -14.27 | -5.76 | 0.00*** |
| SPELL_UCHE_p9 | 42.52% | 52.51% | -9.99 | -14.25 | -5.72 | 0.00*** |
| SPELL_UCHE_p10 | 43.77% | 52.49% | -8.72 | -12.99 | -4.44 | 0.00*** |
| SPELL_UCHE_p11 | 44.43% | 53.35% | -8.92 | -13.20 | -4.64 | 0.00*** |
| SPELL_UCHE_p12 | 44.94% | 53.56% | -8.62 | -12.90 | -4.34 | 0.00*** |
| SPELL_UCHE_p13 | 45.89% | 54.32% | -8.43 | -12.72 | -4.14 | 0.00*** |
| SPELL_UCHE_p14 | 47.36% | 53.76% | -6.40 | -10.69 | -2.11 | 0.00*** |
| SPELL_UCHE_p15 | 47.65% | 53.96% | -6.31 | -10.60 | -2.01 | 0.00*** |
| SPELL_UCHE_p16 | 48.09% | 53.98% | -5.89 | -10.18 | -1.59 | 0.01*** |
| SPELL_UCHE_p17 | 47.80% | 54.36% | -6.56 | -10.85 | -2.26 | 0.00*** |
| SPELL_UCHE_p18 | 48.39% | 54.38% | -5.99 | -10.29 | -1.69 | 0.01*** |
| SPELL_UCHE_p19 | 48.68% | 54.60% | -5.92 | -10.21 | -1.62 | 0.01*** |
| SPELL_UCHE_p20 | 48.75% | 54.31% | -5.56 | -9.86 | -1.26 | 0.01*** |
| SPELL_UCHE_p21 | 49.41% | 54.52% | -5.11 | -9.41 | -0.81 | 0.02** |
| SPELL_UCHE_p22 | 49.19% | 54.64% | -5.44 | -9.74 | -1.14 | 0.01*** |
| SPELL_UCHE_p23 | 49.41% | 55.10% | -5.69 | -9.99 | -1.39 | 0.01*** |
| SPELL_UCHE_p24 | 49.78% | 54.74% | -4.96 | -9.26 | -0.66 | 0.02** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 95:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 69.65% | 63.65% | 6.00 | 2.08 | 9.92 | 0.00*** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 64.96% | 56.90% | 8.06 | 3.95 | 12.17 | 0.00*** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 54.91% | 46.05% | 8.86 | 4.58 | 13.15 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 46.77% | 39.99% | 6.79 | 2.49 | 11.08 | 0.00*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 96:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 42.60% | 35.12% | 7.48 | 3.31 | 11.65 | 0.00*** |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 38.71% | 31.37% | 7.34 | 3.27 | 11.41 | 0.00*** |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 33.06% | 25.65% | 7.41 | 3.54 | 11.28 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 27.71% | 21.28% | 6.44 | 2.79 | 10.08 | 0.00*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 97:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 25.95% | 26.75% | -0.79 | -4.79 | 3.20 | 0.70 |
| SPELL_HB_p1 | 28.23% | 27.83% | 0.40 | -3.67 | 4.46 | 0.85 |
| SPELL_HB_p2 | 29.11% | 29.41% | -0.31 | -4.39 | 3.78 | 0.88 |
| SPELL_HB_p3 | 29.33% | 30.19% | -0.87 | -4.97 | 3.23 | 0.68 |
| SPELL_HB_p4 | 29.18% | 30.71% | -1.53 | -5.63 | 2.57 | 0.46 |
| SPELL_HB_p5 | 29.18% | 29.86% | -0.68 | -4.77 | 3.40 | 0.74 |
| SPELL_HB_p6 | 28.74% | 29.30% | -0.57 | -4.64 | 3.51 | 0.79 |
| SPELL_HB_p7 | 27.79% | 27.87% | -0.09 | -4.13 | 3.96 | 0.97 |
| SPELL_HB_p8 | 27.57% | 27.00% | 0.57 | -3.45 | 4.59 | 0.78 |
| SPELL_HB_p9 | 27.05% | 25.85% | 1.20 | -2.80 | 5.21 | 0.56 |
| SPELL_HB_p10 | 26.83% | 24.60% | 2.24 | -1.73 | 6.21 | 0.27 |
| SPELL_HB_p11 | 25.15% | 24.62% | 0.53 | -3.41 | 4.47 | 0.79 |
| SPELL_HB_p12 | 24.27% | 23.68% | 0.59 | -3.31 | 4.48 | 0.77 |
| SPELL_HB_p13 | 24.12% | 23.00% | 1.12 | -2.77 | 5.00 | 0.57 |
| SPELL_HB_p14 | 23.31% | 22.73% | 0.58 | -3.28 | 4.44 | 0.77 |
| SPELL_HB_p15 | 22.43% | 21.89% | 0.55 | -3.27 | 4.37 | 0.78 |
| SPELL_HB_p16 | 21.70% | 21.65% | 0.05 | -3.74 | 3.85 | 0.98 |
| SPELL_HB_p17 | 21.26% | 21.16% | 0.10 | -3.66 | 3.87 | 0.96 |
| SPELL_HB_p18 | 20.89% | 20.20% | 0.69 | -3.05 | 4.43 | 0.72 |
| SPELL_HB_p19 | 21.11% | 20.54% | 0.58 | -3.17 | 4.33 | 0.76 |
| SPELL_HB_p20 | 20.09% | 19.85% | 0.23 | -3.47 | 3.94 | 0.90 |
| SPELL_HB_p21 | 19.72% | 19.56% | 0.17 | -3.52 | 3.85 | 0.93 |
| SPELL_HB_p22 | 19.13% | 19.57% | -0.43 | -4.10 | 3.23 | 0.82 |
| SPELL_HB_p23 | 19.13% | 19.63% | -0.50 | -4.17 | 3.18 | 0.79 |
| SPELL_HB_p24 | 19.57% | 19.31% | 0.27 | -3.40 | 3.94 | 0.89 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 98:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 85.70% | 84.20% | 1.51 | -1.90 | 4.92 | 0.39 |
| Sustained non-reliance on HB for 6 months after intervention start | 82.40% | 81.92% | 0.48 | -3.10 | 4.07 | 0.79 |
| Sustained non-reliance on HB for 12 months after intervention start | 72.80% | 74.05% | -1.25 | -5.25 | 2.74 | 0.54 |
| Sustained non-reliance on HB for 18 months after intervention start | 63.93% | 66.52% | -2.59 | -6.80 | 1.61 | 0.23 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 99:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## F.2 Treatment group cut-off on July 1st, 2022 (one-year follow-up period)

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 1,581 | 1,581 |
| Treated | 60 | 781 | 841 |
| TOTAL | 60 | 2,362 | 2,422 |

***Table 100:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 5.25% | 3.63% | 1.62 | -1.12 | 4.35 | 0.25 |
| SPELL TIME TO WORK 7-12 | 3.59% | 4.34% | -0.76 | -3.14 | 1.62 | 0.53 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 101:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 35.47% | 31.57% | 3.90 | -1.71 | 9.50 | 0.17 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 102:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 36.49% | 32.97% | 3.52 | -2.14 | 9.18 | 0.22 |
| Sustained employment 2 months after start | 34.19% | 30.62% | 3.57 | -1.99 | 9.13 | 0.21 |
| Sustained employment 3 months after start | 31.88% | 29.03% | 2.85 | -2.59 | 8.29 | 0.30 |
| Sustained employment 6 months after start | 25.61% | 23.30% | 2.31 | -2.69 | 7.32 | 0.37 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 103:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 92 | 85 | 7 | -9 | 24 | 0.39 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 104:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £ 3,592.59 | £ 3,309.60 | £ 282.99 | -£ 677.76 | £ 1,243.74 | 0.56 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 105:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI – Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 35.98% | 41.10% | -5.12 | -10.86 | 0.63 | 0.08* |
| SPELL_UCHE_p1 | 37.00% | 44.03% | -7.03 | -12.89 | -1.17 | 0.02** |
| SPELL_UCHE_p2 | 38.28% | 45.07% | -6.78 | -12.72 | -0.85 | 0.03** |
| SPELL_UCHE_p3 | 39.69% | 46.88% | -7.19 | -13.18 | -1.20 | 0.02** |
| SPELL_UCHE_p4 | 40.72% | 47.70% | -6.99 | -13.01 | -0.96 | 0.02** |
| SPELL_UCHE_p5 | 42.64% | 48.76% | -6.12 | -12.19 | -0.05 | 0.05** |
| SPELL_UCHE_p6 | 43.66% | 51.01% | -7.35 | -13.45 | -1.24 | 0.02** |
| SPELL_UCHE_p7 | 45.07% | 52.48% | -7.41 | -13.53 | -1.28 | 0.02** |
| SPELL_UCHE_p8 | 45.84% | 55.45% | -9.61 | -15.75 | -3.47 | 0.00*** |
| SPELL_UCHE_p9 | 46.22% | 57.03% | -10.81 | -16.96 | -4.66 | 0.00*** |
| SPELL_UCHE_p10 | 46.73% | 57.80% | -11.07 | -17.22 | -4.91 | 0.00*** |
| SPELL_UCHE_p11 | 47.63% | 58.97% | -11.34 | -17.50 | -5.18 | 0.00*** |
| SPELL_UCHE_p12 | 47.50% | 57.55% | -10.04 | -16.21 | -3.88 | 0.00*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 106:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 65.56% | 58.18% | 7.38 | 1.57 | 13.18 | 0.01*** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 57.75% | 51.30% | 6.44 | 0.38 | 12.51 | 0.04** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 47.38% | 37.28% | 10.09 | 3.91 | 16.28 | 0.00*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 107:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 39.05% | 31.90% | 7.15 | 1.39 | 12.92 | 0.02** |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 35.21% | 27.86% | 7.35 | 1.78 | 12.92 | 0.01*** |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 28.94% | 20.59% | 8.34 | 3.15 | 13.54 | 0.00*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 108:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 19.08% | 21.60% | -2.52 | -8.14 | 3.09 | 0.38 |
| SPELL_HB_p1 | 21.90% | 21.98% | -0.08 | -5.82 | 5.66 | 0.98 |
| SPELL_HB_p2 | 23.56% | 24.34% | -0.78 | -6.58 | 5.02 | 0.79 |
| SPELL_HB_p3 | 25.22% | 25.58% | -0.36 | -6.21 | 5.49 | 0.90 |
| SPELL_HB_p4 | 25.74% | 26.00% | -0.26 | -6.12 | 5.60 | 0.93 |
| SPELL_HB_p5 | 24.58% | 25.62% | -1.04 | -6.86 | 4.79 | 0.73 |
| SPELL_HB_p6 | 25.61% | 25.70% | -0.09 | -5.92 | 5.74 | 0.97 |
| SPELL_HB_p7 | 24.58% | 24.16% | 0.42 | -5.37 | 6.22 | 0.89 |
| SPELL_HB_p8 | 23.56% | 23.26% | 0.30 | -5.44 | 6.04 | 0.92 |
| SPELL_HB_p9 | 22.54% | 20.95% | 1.59 | -4.11 | 7.28 | 0.58 |
| SPELL_HB_p10 | 22.28% | 20.08% | 2.20 | -3.45 | 7.85 | 0.44 |
| SPELL_HB_p11 | 21.38% | 19.57% | 1.82 | -3.80 | 7.43 | 0.53 |
| SPELL_HB_p12 | 20.74% | 18.94% | 1.81 | -3.76 | 7.37 | 0.52 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 109:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 84.25% | 84.58% | -0.33 | -5.65 | 4.99 | 0.90 |
| Sustained non-reliance on HB for 6 months after intervention start | 75.80% | 76.25% | -0.45 | -6.22 | 5.33 | 0.88 |
| Sustained non-reliance on HB for 12 months after intervention start | 63.38% | 65.58% | -2.20 | -8.32 | 3.91 | 0.48 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 110:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

# Appendix G: Subgroup analysis

## G.1 Aged <= 35[46] and >=18 cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 821 | 821 |
| Treated | 21 | 361 | 382 |
| TOTAL | 21 | 1,182 | 1,203 |

***Table 111:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 8.86% | 6.31% | 2.56 | -2.37 | 7.48 | 0.31 |
| SPELL TIME TO WORK 7-12 | 5.82% | 9.50% | -3.68 | -7.88 | 0.51 | 0.09* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 112:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 36.57% | 36.13% | 0.44 | -8.07 | 8.94 | 0.92 |
| Work second year | 44.60% | 43.02% | 1.58 | -7.19 | 10.35 | 0.72 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 113:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

[46] ibid

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI -Upper Bound (ppt) | P-value |
| Employment 1 month after start | 46.26% | 44.42% | 1.84 | -6.95 | 10.63 | 0.68 |
| Sustained employment 2 months after start | 41.83% | 40.88% | 0.94 | -7.79 | 9.68 | 0.83 |
| Sustained employment 3 months after start | 39.06% | 39.57% | -0.52 | -9.19 | 8.15 | 0.91 |
| Sustained employment 6 months after start | 31.58% | 33.50% | -1.93 | -10.24 | 6.39 | 0.65 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 114:** PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 89 | 91 | -2 | -27 | 23 | 0.89 |
| SPELL DAYS P2YR WORK | 181 | 195 | -14 | -62 | 34 | 0.57 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 115:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £3,553.71 | £3,282.82 | £270.88 | -£1,059.46 | £1,601.22 | 0.69 |
| ANN EARNINGS AMT YRP2 adjusted | £3,780.21 | £4,456.69 | -£676.48 | -£2,198.13 | £845.18 | 0.38 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 116:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 37.95% | 43.90% | -5.95 | -14.24 | 2.34 | 0.16 |
| SPELL_UCHE_p1 | 38.50% | 45.69% | -7.19 | -15.65 | 1.27 | 0.10* |
| SPELL_UCHE_p2 | 39.89% | 47.03% | -7.14 | -15.70 | 1.42 | 0.10* |
| SPELL_UCHE_p3 | 39.89% | 48.58% | -8.69 | -17.31 | -0.07 | 0.05** |
| SPELL_UCHE_p4 | 40.72% | 51.69% | -10.97 | -19.65 | -2.28 | 0.01*** |
| SPELL_UCHE_p5 | 42.11% | 52.34% | -10.24 | -18.98 | -1.50 | 0.02** |
| SPELL_UCHE_p6 | 43.49% | 53.91% | -10.41 | -19.19 | -1.64 | 0.02** |
| SPELL_UCHE_p7 | 45.71% | 54.96% | -9.25 | -18.06 | -0.45 | 0.04** |
| SPELL_UCHE_p8 | 45.71% | 56.48% | -10.77 | -19.58 | -1.96 | 0.02** |
| SPELL_UCHE_p9 | 45.43% | 57.42% | -11.99 | -20.81 | -3.18 | 0.01*** |
| SPELL_UCHE_p10 | 45.98% | 57.03% | -11.04 | -19.86 | -2.22 | 0.01*** |
| SPELL_UCHE_p11 | 47.09% | 59.01% | -11.91 | -20.74 | -3.09 | 0.01*** |
| SPELL_UCHE_p12 | 47.09% | 59.35% | -12.26 | -21.08 | -3.43 | 0.01*** |
| SPELL_UCHE_p13 | 48.48% | 60.33% | -11.86 | -20.68 | -3.03 | 0.01*** |
| SPELL_UCHE_p14 | 50.42% | 59.75% | -9.34 | -18.16 | -0.51 | 0.04** |
| SPELL_UCHE_p15 | 50.97% | 60.27% | -9.30 | -18.12 | -0.47 | 0.04** |
| SPELL_UCHE_p16 | 52.35% | 60.52% | -8.17 | -16.99 | 0.65 | 0.07* |
| SPELL_UCHE_p17 | 52.63% | 59.57% | -6.93 | -15.75 | 1.88 | 0.12 |
| SPELL_UCHE_p18 | 53.19% | 59.80% | -6.61 | -15.42 | 2.19 | 0.14 |
| SPELL_UCHE_p19 | 52.35% | 59.90% | -7.55 | -16.35 | 1.26 | 0.09* |
| SPELL_UCHE_p20 | 51.80% | 59.43% | -7.63 | -16.44 | 1.18 | 0.09* |
| SPELL_UCHE_p21 | 53.46% | 59.21% | -5.75 | -14.55 | 3.06 | 0.20 |
| SPELL_UCHE_p22 | 52.63% | 59.26% | -6.63 | -15.43 | 2.17 | 0.14 |
| SPELL_UCHE_p23 | 53.46% | 60.20% | -6.73 | -15.53 | 2.06 | 0.13 |
| SPELL_UCHE_p24 | 53.74% | 59.51% | -5.77 | -14.57 | 3.02 | 0.20 |

Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$

***Table 117:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 68.14% | 61.54% | 6.60 | -1.45 | 14.66 | 0.11 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 63.71% | 53.52% | 10.20 | 1.68 | 18.71 | 0.02** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 52.63% | 40.25% | 12.38 | 3.56 | 21.20 | 0.01*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 42.11% | 33.74% | 8.36 | -0.32 | 17.05 | 0.06* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 118:** PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 31.86% | 29.59% | 2.27 | -6.19 | 10.72 | 0.60 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 26.87% | 24.67% | 2.20 | -5.87 | 10.27 | 0.59 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 20.78% | 17.25% | 3.53 | -3.83 | 10.89 | 0.35 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 13.57% | 12.65% | 0.92 | -5.50 | 7.35 | 0.78 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 119:** PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 19.94% | 21.21% | -1.26 | -9.00 | 6.48 | 0.75 |
| SPELL_HB_p1 | 20.50% | 21.15% | -0.65 | -8.52 | 7.21 | 0.87 |
| SPELL_HB_p2 | 21.88% | 22.16% | -0.27 | -8.22 | 7.67 | 0.95 |
| SPELL_HB_p3 | 22.71% | 23.51% | -0.80 | -8.80 | 7.20 | 0.84 |
| SPELL_HB_p4 | 22.44% | 24.90% | -2.46 | -10.48 | 5.57 | 0.55 |
| SPELL_HB_p5 | 22.44% | 24.96% | -2.52 | -10.54 | 5.49 | 0.54 |
| SPELL_HB_p6 | 21.88% | 22.90% | -1.02 | -8.95 | 6.91 | 0.80 |
| SPELL_HB_p7 | 21.05% | 21.95% | -0.90 | -8.78 | 6.99 | 0.82 |
| SPELL_HB_p8 | 20.78% | 21.95% | -1.18 | -8.98 | 6.63 | 0.77 |
| SPELL_HB_p9 | 19.11% | 19.55% | -0.44 | -8.12 | 7.25 | 0.91 |
| SPELL_HB_p10 | 19.39% | 19.47% | -0.08 | -7.65 | 7.49 | 0.98 |
| SPELL_HB_p11 | 18.01% | 19.83% | -1.82 | -9.33 | 5.68 | 0.63 |
| SPELL_HB_p12 | 16.62% | 19.89% | -3.27 | -10.66 | 4.13 | 0.39 |
| SPELL_HB_p13 | 17.73% | 17.25% | 0.48 | -6.88 | 7.84 | 0.90 |
| SPELL_HB_p14 | 16.07% | 16.51% | -0.44 | -7.68 | 6.79 | 0.90 |
| SPELL_HB_p15 | 15.24% | 15.54% | -0.31 | -7.35 | 6.74 | 0.93 |
| SPELL_HB_p16 | 14.40% | 14.98% | -0.58 | -7.51 | 6.36 | 0.87 |
| SPELL_HB_p17 | 13.02% | 13.82% | -0.80 | -7.58 | 5.98 | 0.82 |
| SPELL_HB_p18 | 12.47% | 13.66% | -1.19 | -7.88 | 5.50 | 0.73 |
| SPELL_HB_p19 | 13.30% | 13.37% | -0.08 | -6.81 | 6.66 | 0.98 |
| SPELL_HB_p20 | 11.63% | 13.31% | -1.68 | -8.22 | 4.87 | 0.62 |
| SPELL_HB_p21 | 12.47% | 12.42% | 0.05 | -6.50 | 6.59 | 0.99 |
| SPELL_HB_p22 | 11.91% | 12.24% | -0.32 | -6.79 | 6.14 | 0.92 |
| SPELL_HB_p23 | 11.91% | 12.36% | -0.45 | -6.95 | 6.04 | 0.89 |
| SPELL_HB_p24 | 12.47% | 12.89% | -0.43 | -6.94 | 6.09 | 0.90 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 120:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 92.52% | 90.40% | 2.12 | -3.61 | 7.86 | 0.47 |
| Sustained non-reliance on HB for 6 months after intervention start | 89.75% | 88.26% | 1.49 | -4.80 | 7.78 | 0.64 |
| Sustained non-reliance on HB for 12 months after intervention start | 79.78% | 78.76% | 1.02 | -6.66 | 8.71 | 0.79 |
| Sustained non-reliance on HB for 18 months after intervention start | 70.36% | 70.94% | -0.58 | -8.96 | 7.81 | 0.89 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 121:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-value*

## G.2 Aged <= 65 and > 35[47] cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 759 | 759 |
| Treated | 20 | 319 | 339 |
| TOTAL | 20 | 1,078 | 1,098 |

***Table 122****: Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 5.64% | 2.24% | 3.41 | 0.44 | 6.37 | 0.02** |
| SPELL TIME TO WORK 7-12 | 4.08% | 1.47% | 2.61 | 0.05 | 5.16 | 0.05** |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 123:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

[47] 35 years of age is the median (P50) of the age distribution of the KBOP participants cohort.

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 26.33% | 18.96% | 7.37 | 1.19 | 13.55 | 0.02** |
| Work second year | 30.09% | 21.83% | 8.26 | 1.76 | 14.77 | 0.01*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 124:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI -Upper Bound (ppt) | P-value |
| Employment 1 month after start | 30.41% | 22.35% | 8.06 | 1.52 | 14.60 | 0.02** |
| Sustained employment 2 months after start | 28.84% | 21.39% | 7.45 | 1.02 | 13.89 | 0.02** |
| Sustained employment 3 months after start | 27.27% | 19.79% | 7.48 | 1.19 | 13.77 | 0.02** |
| Sustained employment 6 months after start | 22.88% | 16.89% | 6.00 | 0.09 | 11.90 | 0.05** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 125:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 64 | 51 | 13 | -5 | 31 | 0.16 |
| SPELL DAYS P2YR WORK | 126 | 100 | 26 | -8 | 61 | 0.13 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 126:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £2,488.19 | £1,878.34 | £609.85 | -£574.76 | £1,794.45 | 0.31 |
| ANN EARNINGS AMT YRP2 adjusted | £2,985.70 | £2,203.19 | £782.51 | -£558.95 | £2,123.97 | 0.25 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 127:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 31.66% | 39.92% | -8.26 | -15.21 | -1.31 | 0.02 |
| SPELL_UCHE_p1 | 34.80% | 43.07% | -8.28 | -15.39 | -1.16 | 0.02 |
| SPELL_UCHE_p2 | 36.99% | 44.51% | -7.52 | -14.73 | -0.31 | 0.04 |
| SPELL_UCHE_p3 | 38.87% | 45.49% | -6.62 | -13.90 | 0.66 | 0.07 |
| SPELL_UCHE_p4 | 38.56% | 45.72% | -7.16 | -14.45 | 0.12 | 0.05 |
| SPELL_UCHE_p5 | 39.81% | 46.38% | -6.57 | -13.89 | 0.75 | 0.08 |
| SPELL_UCHE_p6 | 40.75% | 47.22% | -6.47 | -13.83 | 0.90 | 0.09 |
| SPELL_UCHE_p7 | 41.07% | 48.72% | -7.66 | -15.06 | -0.26 | 0.04 |
| SPELL_UCHE_p8 | 41.69% | 49.19% | -7.49 | -14.92 | -0.07 | 0.05 |
| SPELL_UCHE_p9 | 40.44% | 49.37% | -8.93 | -16.34 | -1.53 | 0.02 |
| SPELL_UCHE_p10 | 40.75% | 48.81% | -8.06 | -15.47 | -0.65 | 0.03 |
| SPELL_UCHE_p11 | 41.07% | 49.24% | -8.18 | -15.60 | -0.75 | 0.03 |
| SPELL_UCHE_p12 | 41.69% | 49.31% | -7.61 | -15.05 | -0.18 | 0.04 |
| SPELL_UCHE_p13 | 42.95% | 49.59% | -6.64 | -14.10 | 0.82 | 0.08 |
| SPELL_UCHE_p14 | 43.57% | 49.64% | -6.07 | -13.53 | 1.40 | 0.11 |
| SPELL_UCHE_p15 | 43.89% | 49.27% | -5.39 | -12.86 | 2.09 | 0.16 |
| SPELL_UCHE_p16 | 44.51% | 49.48% | -4.96 | -12.44 | 2.52 | 0.19 |
| SPELL_UCHE_p17 | 43.57% | 49.33% | -5.75 | -13.23 | 1.72 | 0.13 |
| SPELL_UCHE_p18 | 44.51% | 49.59% | -5.08 | -12.56 | 2.41 | 0.18 |
| SPELL_UCHE_p19 | 44.83% | 49.74% | -4.91 | -12.40 | 2.58 | 0.20 |
| SPELL_UCHE_p20 | 45.14% | 49.21% | -4.07 | -11.55 | 3.42 | 0.29 |
| SPELL_UCHE_p21 | 46.08% | 49.19% | -3.10 | -10.60 | 4.39 | 0.42 |
| SPELL_UCHE_p22 | 46.39% | 49.31% | -2.92 | -10.42 | 4.58 | 0.45 |
| SPELL_UCHE_p23 | 46.71% | 49.37% | -2.66 | -10.16 | 4.84 | 0.49 |
| SPELL_UCHE_p24 | 47.02% | 49.65% | -2.63 | -10.14 | 4.87 | 0.49 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 128:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 70.53% | 60.57% | 9.96 | 3.12 | 16.80 | 0.00 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 65.20% | 56.88% | 8.32 | 1.18 | 15.46 | 0.02 |
| Sustained non-reliance on UCHE for 12 months after intervention start | 57.37% | 50.71% | 6.65 | -0.79 | 14.10 | 0.08 |
| Sustained non-reliance on UCHE for 18 months after intervention start | 50.78% | 46.51% | 4.27 | -3.28 | 11.83 | 0.27 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 129:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 46.08% | 42.13% | 3.96 | -3.61 | 11.52 | 0.31 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 42.95% | 38.59% | 4.35 | -3.18 | 11.89 | 0.26 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 37.62% | 34.26% | 3.36 | -4.08 | 10.79 | 0.38 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 30.41% | 30.94% | -0.54 | -7.74 | 6.67 | 0.88 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 130:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 34.17% | 32.43% | 1.74 | -5.60 | 9.07 | 0.64 |
| SPELL_HB_p1 | 36.68% | 32.92% | 3.75 | -3.66 | 11.17 | 0.32 |
| SPELL_HB_p2 | 34.80% | 34.54% | 0.26 | -7.13 | 7.64 | 0.95 |
| SPELL_HB_p3 | 35.11% | 33.52% | 1.59 | -5.80 | 8.98 | 0.67 |
| SPELL_HB_p4 | 36.36% | 33.60% | 2.76 | -4.66 | 10.18 | 0.47 |
| SPELL_HB_p5 | 36.36% | 32.67% | 3.69 | -3.72 | 11.10 | 0.33 |
| SPELL_HB_p6 | 36.05% | 33.28% | 2.77 | -4.63 | 10.17 | 0.46 |
| SPELL_HB_p7 | 35.11% | 31.79% | 3.32 | -4.05 | 10.69 | 0.38 |
| SPELL_HB_p8 | 35.11% | 30.75% | 4.36 | -2.99 | 11.72 | 0.24 |
| SPELL_HB_p9 | 33.86% | 29.79% | 4.06 | -3.24 | 11.37 | 0.28 |
| SPELL_HB_p10 | 34.17% | 28.96% | 5.21 | -2.10 | 12.51 | 0.16 |
| SPELL_HB_p11 | 33.54% | 28.71% | 4.83 | -2.46 | 12.11 | 0.19 |
| SPELL_HB_p12 | 32.60% | 27.93% | 4.67 | -2.56 | 11.90 | 0.21 |
| SPELL_HB_p13 | 32.29% | 28.13% | 4.15 | -3.07 | 11.38 | 0.26 |
| SPELL_HB_p14 | 29.78% | 28.24% | 1.55 | -5.60 | 8.69 | 0.67 |
| SPELL_HB_p15 | 28.53% | 27.95% | 0.57 | -6.52 | 7.66 | 0.87 |
| SPELL_HB_p16 | 28.21% | 27.99% | 0.22 | -6.86 | 7.30 | 0.95 |
| SPELL_HB_p17 | 29.15% | 27.72% | 1.43 | -5.67 | 8.54 | 0.69 |
| SPELL_HB_p18 | 28.21% | 26.49% | 1.72 | -5.33 | 8.77 | 0.63 |
| SPELL_HB_p19 | 29.15% | 26.84% | 2.31 | -4.78 | 9.41 | 0.52 |
| SPELL_HB_p20 | 27.27% | 26.11% | 1.17 | -5.83 | 8.17 | 0.74 |
| SPELL_HB_p21 | 26.33% | 26.06% | 0.27 | -6.69 | 7.23 | 0.94 |
| SPELL_HB_p22 | 25.39% | 26.82% | -1.43 | -8.36 | 5.50 | 0.69 |
| SPELL_HB_p23 | 26.02% | 26.74% | -0.72 | -7.68 | 6.24 | 0.84 |
| SPELL_HB_p24 | 26.02% | 26.08% | -0.07 | -7.01 | 6.88 | 0.99 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 131:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 76.80% | 76.71% | 0.09 | -6.66 | 6.83 | 0.98 |
| Sustained non-reliance on HB for 6 months after intervention start | 73.35% | 75.44% | -2.08 | -9.02 | 4.86 | 0.56 |
| Sustained non-reliance on HB for 12 months after intervention start | 65.83% | 69.82% | -3.99 | -11.30 | 3.33 | 0.29 |
| Sustained non-reliance on HB for 18 months after intervention start | 57.99% | 63.83% | -5.84 | -13.36 | 1.69 | 0.13 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 132:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## G.3 Female cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 759 | 759 |
| Treated | 18 | 359 | 377 |
| TOTAL | 18 | 1,118 | 1,136 |

***Table 133:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 8.08% | 3.36% | 4.72 | 0.93 | 8.50 | 0.01*** |
| SPELL TIME TO WORK 7-12 | 5.01% | 5.79% | -0.77 | -4.01 | 2.47 | 0.64 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 134:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 31.20% | 26.53% | 4.67 | -2.71 | 12.05 | 0.22 |
| Work second year | 37.33% | 32.89% | 4.44 | -3.31 | 12.20 | 0.26 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 135:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI -Upper Bound (ppt) | P-value |
| Employment 1 month after start | 38.44% | 34.87% | 3.57 | -4.23 | 11.38 | 0.37 |
| Sustained employment 2 months after start | 35.65% | 31.22% | 4.44 | -3.27 | 12.14 | 0.26 |
| Sustained employment 3 months after start | 33.70% | 28.88% | 4.82 | -2.77 | 12.41 | 0.21 |
| Sustained employment 6 months after start | 26.74% | 24.29% | 2.45 | -4.72 | 9.62 | 0.50 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 136:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 75 | 68 | 7 | -15 | 28 | 0.54 |
| SPELL DAYS P2YR WORK | 151 | 142 | 9 | -33 | 50 | 0.68 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 137:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £2,410.93 | £2,170.50 | £240.42 | -£834.22 | £1,315.07 | 0.66 |
| ANN EARNINGS AMT YRP2 adjusted | £2,873.36 | £2,765.80 | £107.56 | -£1,151.18 | £1,366.30 | 0.87 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 138:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 42.90% | 46.25% | -3.36 | -11.13 | 4.42 | 0.40 |
| SPELL_UCHE_p1 | 44.01% | 50.37% | -6.36 | -14.26 | 1.55 | 0.11 |
| SPELL_UCHE_p2 | 45.40% | 51.42% | -6.02 | -13.98 | 1.95 | 0.14 |
| SPELL_UCHE_p3 | 45.96% | 54.63% | -8.67 | -16.67 | -0.67 | 0.03** |
| SPELL_UCHE_p4 | 45.40% | 56.99% | -11.58 | -19.60 | -3.56 | 0.00*** |
| SPELL_UCHE_p5 | 46.52% | 59.91% | -13.39 | -21.43 | -5.35 | 0.00*** |
| SPELL_UCHE_p6 | 48.19% | 61.87% | -13.68 | -21.74 | -5.62 | 0.00*** |
| SPELL_UCHE_p7 | 49.58% | 62.16% | -12.58 | -20.64 | -4.52 | 0.00*** |
| SPELL_UCHE_p8 | 49.03% | 64.63% | -15.60 | -23.66 | -7.54 | 0.00*** |
| SPELL_UCHE_p9 | 50.14% | 65.79% | -15.65 | -23.71 | -7.59 | 0.00*** |
| SPELL_UCHE_p10 | 50.97% | 64.96% | -13.99 | -22.05 | -5.93 | 0.00*** |
| SPELL_UCHE_p11 | 50.97% | 64.97% | -13.99 | -22.05 | -5.93 | 0.00*** |
| SPELL_UCHE_p12 | 51.25% | 64.33% | -13.08 | -21.13 | -5.02 | 0.00*** |
| SPELL_UCHE_p13 | 53.20% | 65.03% | -11.82 | -19.87 | -3.78 | 0.00*** |
| SPELL_UCHE_p14 | 55.15% | 64.58% | -9.42 | -17.46 | -1.39 | 0.02** |
| SPELL_UCHE_p15 | 55.71% | 64.46% | -8.75 | -16.78 | -0.73 | 0.03** |
| SPELL_UCHE_p16 | 55.99% | 64.09% | -8.10 | -16.12 | -0.08 | 0.05** |
| SPELL_UCHE_p17 | 55.99% | 64.26% | -8.28 | -16.29 | -0.26 | 0.04** |
| SPELL_UCHE_p18 | 57.38% | 64.72% | -7.34 | -15.32 | 0.65 | 0.07* |
| SPELL_UCHE_p19 | 56.82% | 64.68% | -7.86 | -15.85 | 0.13 | 0.05** |
| SPELL_UCHE_p20 | 56.27% | 64.78% | -8.51 | -16.50 | -0.51 | 0.04** |
| SPELL_UCHE_p21 | 57.66% | 64.86% | -7.20 | -15.18 | 0.78 | 0.08* |
| SPELL_UCHE_p22 | 57.10% | 65.01% | -7.91 | -15.89 | 0.07 | 0.05** |
| SPELL_UCHE_p23 | 58.77% | 65.17% | -6.40 | -14.36 | 1.56 | 0.11 |
| SPELL_UCHE_p24 | 59.05% | 64.77% | -5.71 | -13.67 | 2.25 | 0.16 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 139:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 61.84% | 53.88% | 7.96 | 0.21 | 15.70 | 0.04** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 57.66% | 44.03% | 13.63 | 5.66 | 21.60 | 0.00*** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 47.63% | 34.82% | 12.81 | 4.76 | 20.86 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 40.39% | 29.91% | 10.48 | 2.58 | 18.37 | 0.01*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 140:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 33.15% | 30.13% | 3.01 | -4.82 | 10.85 | 0.45 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 30.64% | 26.70% | 3.94 | -3.74 | 11.61 | 0.31 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 25.35% | 21.33% | 4.02 | -3.28 | 11.32 | 0.28 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 20.33% | 18.20% | 2.13 | -4.72 | 8.98 | 0.54 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 141:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 26.46% | 27.27% | -0.81 | -8.26 | 6.65 | 0.83 |
| SPELL_HB_p1 | 26.46% | 27.02% | -0.56 | -8.02 | 6.90 | 0.88 |
| SPELL_HB_p2 | 26.74% | 26.36% | 0.38 | -7.08 | 7.83 | 0.92 |
| SPELL_HB_p3 | 26.46% | 27.09% | -0.63 | -8.03 | 6.78 | 0.87 |
| SPELL_HB_p4 | 25.63% | 27.10% | -1.47 | -8.85 | 5.90 | 0.70 |
| SPELL_HB_p5 | 26.18% | 26.64% | -0.46 | -7.85 | 6.93 | 0.90 |
| SPELL_HB_p6 | 26.74% | 25.45% | 1.29 | -6.11 | 8.70 | 0.73 |
| SPELL_HB_p7 | 26.18% | 23.20% | 2.99 | -4.37 | 10.34 | 0.43 |
| SPELL_HB_p8 | 25.63% | 22.33% | 3.30 | -3.98 | 10.58 | 0.37 |
| SPELL_HB_p9 | 24.79% | 20.85% | 3.95 | -3.27 | 11.16 | 0.28 |
| SPELL_HB_p10 | 25.63% | 19.38% | 6.25 | -0.91 | 13.41 | 0.09 |
| SPELL_HB_p11 | 24.23% | 20.34% | 3.89 | -3.21 | 11.00 | 0.28 |
| SPELL_HB_p12 | 23.40% | 19.27% | 4.13 | -2.90 | 11.16 | 0.25 |
| SPELL_HB_p13 | 23.96% | 19.55% | 4.41 | -2.64 | 11.46 | 0.22 |
| SPELL_HB_p14 | 21.45% | 19.75% | 1.70 | -5.25 | 8.66 | 0.63 |
| SPELL_HB_p15 | 20.61% | 19.02% | 1.60 | -5.29 | 8.48 | 0.65 |
| SPELL_HB_p16 | 20.61% | 19.49% | 1.13 | -5.77 | 8.02 | 0.75 |
| SPELL_HB_p17 | 20.33% | 19.54% | 0.80 | -6.04 | 7.63 | 0.82 |
| SPELL_HB_p18 | 19.22% | 18.51% | 0.71 | -6.04 | 7.46 | 0.84 |
| SPELL_HB_p19 | 20.06% | 18.71% | 1.34 | -5.46 | 8.14 | 0.70 |
| SPELL_HB_p20 | 18.38% | 18.43% | -0.05 | -6.70 | 6.60 | 0.99 |
| SPELL_HB_p21 | 18.94% | 17.82% | 1.12 | -5.53 | 7.77 | 0.74 |
| SPELL_HB_p22 | 18.11% | 18.16% | -0.05 | -6.64 | 6.54 | 0.99 |
| SPELL_HB_p23 | 18.11% | 16.98% | 1.12 | -5.45 | 7.69 | 0.74 |
| SPELL_HB_p24 | 18.11% | 16.69% | 1.42 | -5.12 | 7.95 | 0.67 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 142:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for 3 months after intervention start | 85.52% | 86.07% | -0.56 | -6.71 | 5.60 | 0.86 |
| Sustained non-reliance on HB for 6 months after intervention start | 82.73% | 84.28% | -1.55 | -8.00 | 4.91 | 0.64 |
| Sustained non-reliance on HB for 12 months after intervention start | 74.93% | 78.52% | -3.59 | -10.81 | 3.63 | 0.33 |
| Sustained non-reliance on HB for 18 months after intervention start | 66.57% | 72.10% | -5.52 | -13.22 | 2.18 | 0.16 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 143:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.3 Male cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 822 | 822 |
| Treated | 32 | 312 | 344 |
| TOTAL | 32 | 1,134 | 1,166 |

***Table 144:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 6.73% | 6.67% | 0.06 | -3.93 | 4.06 | 0.98 |
| SPELL TIME TO WORK 7-12 | 4.81% | 4.25% | 0.56 | -2.88 | 3.99 | 0.75 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 145:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 31.73% | 29.45% | 2.28 | -5.05 | 9.61 | 0.54 |
| Work second year | 37.50% | 34.88% | 2.62 | -5.06 | 10.30 | 0.50 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 146:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI -Upper Bound (ppt) | P-value |
| Employment 1 month after start | 38.46% | 35.04% | 3.42 | -4.28 | 11.13 | 0.38 |
| Sustained employment 2 months after start | 34.62% | 34.50% | 0.12 | -7.47 | 7.70 | 0.98 |
| Sustained employment 3 months after start | 32.69% | 32.11% | 0.58 | -6.90 | 8.06 | 0.88 |
| Sustained employment 6 months after start | 27.24% | 26.24% | 1.00 | -6.01 | 8.01 | 0.78 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 147:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 78 | 77 | 2 | -19 | 23 | 0.88 |
| SPELL DAYS P2YR WORK | 156 | 156 | 0 | -40 | 41 | 1.00 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 148:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £4,215.06 | £3,392.77 | £822.29 | -£824.20 | £2,468.78 | 0.33 |
| ANN EARNINGS AMT YRP2 adjusted | £4,507.06 | £4,102.84 | £404.22 | -£1,441.76 | £2,250.20 | 0.67 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 149:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 27.56% | 32.28% | -4.72 | -11.96 | 2.52 | 0.20 |
| SPELL_UCHE_p1 | 30.45% | 36.43% | -5.98 | -13.42 | 1.47 | 0.12 |
| SPELL_UCHE_p2 | 32.37% | 37.80% | -5.43 | -13.02 | 2.16 | 0.16 |
| SPELL_UCHE_p3 | 33.97% | 37.63% | -3.66 | -11.34 | 4.02 | 0.35 |
| SPELL_UCHE_p4 | 34.29% | 38.67% | -4.37 | -12.07 | 3.33 | 0.27 |
| SPELL_UCHE_p5 | 35.26% | 39.17% | -3.91 | -11.66 | 3.83 | 0.32 |
| SPELL_UCHE_p6 | 35.26% | 39.56% | -4.30 | -12.08 | 3.47 | 0.28 |
| SPELL_UCHE_p7 | 35.90% | 42.20% | -6.31 | -14.15 | 1.54 | 0.12 |
| SPELL_UCHE_p8 | 36.86% | 44.11% | -7.25 | -15.13 | 0.63 | 0.07* |
| SPELL_UCHE_p9 | 34.62% | 44.50% | -9.89 | -17.72 | -2.05 | 0.01*** |
| SPELL_UCHE_p10 | 35.58% | 44.62% | -9.05 | -16.93 | -1.17 | 0.02** |
| SPELL_UCHE_p11 | 37.18% | 45.84% | -8.66 | -16.59 | -0.73 | 0.03** |
| SPELL_UCHE_p12 | 37.82% | 46.41% | -8.59 | -16.54 | -0.63 | 0.03** |
| SPELL_UCHE_p13 | 38.46% | 46.88% | -8.42 | -16.39 | -0.44 | 0.04** |
| SPELL_UCHE_p14 | 39.42% | 45.29% | -5.87 | -13.86 | 2.12 | 0.15 |
| SPELL_UCHE_p15 | 39.42% | 45.32% | -5.90 | -13.89 | 2.09 | 0.15 |
| SPELL_UCHE_p16 | 41.03% | 45.31% | -4.28 | -12.29 | 3.73 | 0.30 |
| SPELL_UCHE_p17 | 40.38% | 46.06% | -5.68 | -13.70 | 2.34 | 0.17 |
| SPELL_UCHE_p18 | 41.03% | 45.76% | -4.73 | -12.75 | 3.29 | 0.25 |
| SPELL_UCHE_p19 | 40.71% | 46.06% | -5.35 | -13.38 | 2.67 | 0.19 |
| SPELL_UCHE_p20 | 41.03% | 45.60% | -4.58 | -12.60 | 3.44 | 0.26 |
| SPELL_UCHE_p21 | 42.31% | 45.24% | -2.93 | -10.95 | 5.09 | 0.47 |
| SPELL_UCHE_p22 | 42.63% | 45.32% | -2.69 | -10.73 | 5.34 | 0.51 |
| SPELL_UCHE_p23 | 42.63% | 46.53% | -3.90 | -11.95 | 4.15 | 0.34 |
| SPELL_UCHE_p24 | 42.63% | 46.11% | -3.48 | -11.52 | 4.56 | 0.40 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 150:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 75.64% | 72.05% | 3.59 | -3.34 | 10.53 | 0.31 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 71.15% | 65.64% | 5.52 | -1.84 | 12.87 | 0.14 |
| Sustained non-reliance on UCHE for 12 months after intervention start | 62.18% | 53.64% | 8.54 | 0.59 | 16.50 | 0.04** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 52.88% | 48.26% | 4.63 | -3.53 | 12.78 | 0.27 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 151:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 44.23% | 39.23% | 5.00 | -3.16 | 13.16 | 0.23 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 38.78% | 34.92% | 3.86 | -4.19 | 11.90 | 0.35 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 32.69% | 29.46% | 3.23 | -4.54 | 10.99 | 0.42 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 23.40% | 23.65% | -0.25 | -7.55 | 7.04 | 0.95 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 152:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 26.60% | 27.59% | -0.98 | -8.57 | 6.60 | 0.80 |
| SPELL_HB_p1 | 29.81% | 28.77% | 1.03 | -6.76 | 8.82 | 0.79 |
| SPELL_HB_p2 | 29.49% | 31.22% | -1.73 | -9.56 | 6.09 | 0.66 |
| SPELL_HB_p3 | 30.45% | 33.46% | -3.02 | -10.89 | 4.86 | 0.45 |
| SPELL_HB_p4 | 33.01% | 33.27% | -0.26 | -8.21 | 7.69 | 0.95 |
| SPELL_HB_p5 | 31.41% | 34.18% | -2.77 | -10.67 | 5.12 | 0.49 |
| SPELL_HB_p6 | 30.45% | 32.31% | -1.87 | -9.71 | 5.98 | 0.64 |
| SPELL_HB_p7 | 29.81% | 31.49% | -1.69 | -9.51 | 6.14 | 0.67 |
| SPELL_HB_p8 | 29.49% | 30.91% | -1.43 | -9.22 | 6.36 | 0.72 |
| SPELL_HB_p9 | 27.56% | 29.68% | -2.11 | -9.82 | 5.59 | 0.59 |
| SPELL_HB_p10 | 27.88% | 26.76% | 1.12 | -6.57 | 8.81 | 0.78 |
| SPELL_HB_p11 | 26.60% | 27.54% | -0.93 | -8.56 | 6.70 | 0.81 |
| SPELL_HB_p12 | 24.68% | 25.97% | -1.29 | -8.81 | 6.24 | 0.74 |
| SPELL_HB_p13 | 25.00% | 24.72% | 0.28 | -7.23 | 7.79 | 0.94 |
| SPELL_HB_p14 | 23.40% | 24.74% | -1.34 | -8.75 | 6.08 | 0.72 |
| SPELL_HB_p15 | 21.79% | 23.37% | -1.57 | -8.87 | 5.72 | 0.67 |
| SPELL_HB_p16 | 20.51% | 22.75% | -2.24 | -9.45 | 4.98 | 0.54 |
| SPELL_HB_p17 | 20.19% | 22.08% | -1.89 | -9.05 | 5.28 | 0.61 |
| SPELL_HB_p18 | 19.87% | 21.43% | -1.56 | -8.67 | 5.55 | 0.67 |
| SPELL_HB_p19 | 21.47% | 21.74% | -0.26 | -7.47 | 6.95 | 0.94 |
| SPELL_HB_p20 | 18.91% | 21.84% | -2.93 | -9.97 | 4.12 | 0.42 |
| SPELL_HB_p21 | 18.91% | 21.85% | -2.94 | -9.97 | 4.10 | 0.41 |
| SPELL_HB_p22 | 18.27% | 22.30% | -4.03 | -11.04 | 2.98 | 0.26 |
| SPELL_HB_p23 | 18.91% | 22.25% | -3.34 | -10.41 | 3.74 | 0.35 |
| SPELL_HB_p24 | 19.23% | 22.20% | -2.97 | -10.04 | 4.11 | 0.41 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 153:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 84.62% | 81.64% | 2.98 | -3.67 | 9.62 | 0.38 |
| Sustained non-reliance on HB for 6 months after intervention start | 81.41% | 80.09% | 1.32 | -5.65 | 8.29 | 0.71 |
| Sustained non-reliance on HB for 12 months after intervention start | 72.44% | 71.35% | 1.08 | -6.61 | 8.77 | 0.78 |
| Sustained non-reliance on HB for 18 months after intervention start | 62.18% | 61.75% | 0.43 | -7.65 | 8.51 | 0.92 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 154:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.4 With history of claiming UC cohort[48]

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 904 | 904 |
| Treated | 17 | 521 | 538 |
| TOTAL | 17 | 1430 | 1,442 |

***Table 155:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 9.40% | 5.97% | 3.44 | -0.33 | 7.20 | 0.07* |
| SPELL TIME TO WORK 7-12 | 5.95% | 3.93% | 2.02 | -1.05 | 5.09 | 0.20 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 156:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 36.28% | 31.20% | 5.04 | -1.39 | 11.47 | 0.12 |
| Work second year | 42.99% | 36.40% | 6.58 | -0.15 | 13.32 | 0.06* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 157:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

[48] The PSM model for the subgroup of individuals with no history of claiming UC prior to the intervention did not converge due to insufficient sample size. As a result, estimates for this group are not reported.

## *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 44.15% | 37.77% | 6.37 | -0.39 | 13.13 | 0.06* |
| Sustained employment 2 months after start | 40.31% | 35.61% | 4.70 | -1.99 | 11.38 | 0.17 |
| Sustained employment 3 months after start | 38.00% | 33.97% | 4.04 | -2.56 | 10.63 | 0.23 |
| Sustained employment 6 months after start | 30.52% | 29.66% | 0.86 | -5.39 | 7.10 | 0.79 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 158:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 85 | 87 | -1 | -20 | 17 | 0.88 |
| SPELL DAYS P2YR WORK | 172 | 179 | -7 | -42 | 28 | 0.71 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 159:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £3,105.62 | £2,881.34 | £224.28 | -£677.65 | £1,126.21 | 0.63 |
| ANN EARNINGS AMT YRP2 adjusted | £3,594.68 | £3,498.08 | £96.60 | -£1,051.84 | £1,245.05 | 0.87 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 160:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 47.60% | 55.81% | -8.21 | -15.12 | -1.31 | 0.02** |
| SPELL_UCHE_p1 | 48.56% | 57.61% | -9.05 | -15.95 | -2.14 | 0.01*** |
| SPELL_UCHE_p2 | 49.52% | 58.16% | -8.64 | -15.53 | -1.74 | 0.01*** |
| SPELL_UCHE_p3 | 50.48% | 59.51% | -9.03 | -15.91 | -2.14 | 0.01*** |
| SPELL_UCHE_p4 | 50.67% | 61.49% | -10.82 | -17.69 | -3.95 | 0.00*** |
| SPELL_UCHE_p5 | 52.21% | 63.16% | -10.95 | -17.80 | -4.10 | 0.00*** |
| SPELL_UCHE_p6 | 53.36% | 64.66% | -11.30 | -18.13 | -4.47 | 0.00*** |
| SPELL_UCHE_p7 | 55.28% | 66.15% | -10.87 | -17.65 | -4.08 | 0.00*** |
| SPELL_UCHE_p8 | 55.28% | 66.94% | -11.66 | -18.44 | -4.89 | 0.00*** |
| SPELL_UCHE_p9 | 54.32% | 68.05% | -13.73 | -20.49 | -6.97 | 0.00*** |
| SPELL_UCHE_p10 | 54.89% | 67.79% | -12.90 | -19.66 | -6.14 | 0.00*** |
| SPELL_UCHE_p11 | 55.47% | 68.92% | -13.45 | -20.19 | -6.71 | 0.00*** |
| SPELL_UCHE_p12 | 55.85% | 68.78% | -12.93 | -19.66 | -6.19 | 0.00*** |
| SPELL_UCHE_p13 | 56.62% | 69.43% | -12.81 | -19.52 | -6.09 | 0.00*** |
| SPELL_UCHE_p14 | 58.16% | 68.11% | -9.95 | -16.66 | -3.23 | 0.00*** |
| SPELL_UCHE_p15 | 58.35% | 68.18% | -9.83 | -16.54 | -3.12 | 0.00*** |
| SPELL_UCHE_p16 | 59.31% | 67.88% | -8.57 | -15.27 | -1.86 | 0.01*** |
| SPELL_UCHE_p17 | 58.93% | 67.73% | -8.80 | -15.51 | -2.09 | 0.01*** |
| SPELL_UCHE_p18 | 58.93% | 67.55% | -8.62 | -15.33 | -1.92 | 0.01*** |
| SPELL_UCHE_p19 | 58.35% | 67.66% | -9.31 | -16.02 | -2.59 | 0.01*** |
| SPELL_UCHE_p20 | 58.16% | 67.29% | -9.13 | -15.86 | -2.39 | 0.01*** |
| SPELL_UCHE_p21 | 59.12% | 67.55% | -8.43 | -15.16 | -1.69 | 0.01*** |
| SPELL_UCHE_p22 | 58.54% | 67.34% | -8.80 | -15.54 | -2.06 | 0.01*** |
| SPELL_UCHE_p23 | 59.12% | 67.56% | -8.44 | -15.17 | -1.71 | 0.01*** |
| SPELL_UCHE_p24 | 59.31% | 67.21% | -7.90 | -14.64 | -1.16 | 0.02** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 161:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 60.84% | 50.87% | 9.97 | 3.17 | 16.77 | 0.00*** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 55.09% | 43.28% | 11.81 | 4.92 | 18.70 | 0.00*** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 43.19% | 30.48% | 12.71 | 6.00 | 19.42 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 34.36% | 25.29% | 9.06 | 2.66 | 15.46 | 0.01*** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 162:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 21.11% | 16.32% | 4.79 | -0.59 | 10.17 | 0.08* |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 17.08% | 12.59% | 4.49 | -0.32 | 9.30 | 0.07* |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 10.56% | 7.78% | 2.78 | -0.98 | 6.54 | 0.15 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 4.99% | 4.41% | 0.58 | -2.19 | 3.35 | 0.68 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 163:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 13.82% | 13.31% | 0.51 | -4.68 | 5.70 | 0.85 |
| SPELL_HB_p1 | 15.74% | 15.05% | 0.69 | -4.63 | 6.01 | 0.80 |
| SPELL_HB_p2 | 15.74% | 16.58% | -0.84 | -6.22 | 4.54 | 0.76 |
| SPELL_HB_p3 | 16.89% | 18.21% | -1.32 | -6.83 | 4.19 | 0.64 |
| SPELL_HB_p4 | 16.89% | 18.50% | -1.61 | -7.11 | 3.90 | 0.57 |
| SPELL_HB_p5 | 16.89% | 18.29% | -1.40 | -6.90 | 4.09 | 0.62 |
| SPELL_HB_p6 | 16.51% | 17.62% | -1.12 | -6.57 | 4.34 | 0.69 |
| SPELL_HB_p7 | 15.93% | 15.39% | 0.54 | -4.82 | 5.91 | 0.84 |
| SPELL_HB_p8 | 15.74% | 15.09% | 0.65 | -4.63 | 5.93 | 0.81 |
| SPELL_HB_p9 | 14.20% | 13.33% | 0.87 | -4.24 | 5.98 | 0.74 |
| SPELL_HB_p10 | 14.59% | 12.02% | 2.57 | -2.42 | 7.56 | 0.31 |
| SPELL_HB_p11 | 13.82% | 11.98% | 1.84 | -3.07 | 6.75 | 0.46 |
| SPELL_HB_p12 | 12.67% | 11.33% | 1.34 | -3.48 | 6.17 | 0.59 |
| SPELL_HB_p13 | 13.24% | 10.27% | 2.97 | -1.85 | 7.79 | 0.23 |
| SPELL_HB_p14 | 11.32% | 10.23% | 1.10 | -3.60 | 5.79 | 0.65 |
| SPELL_HB_p15 | 10.56% | 9.54% | 1.02 | -3.51 | 5.55 | 0.66 |
| SPELL_HB_p16 | 10.17% | 9.27% | 0.91 | -3.59 | 5.40 | 0.69 |
| SPELL_HB_p17 | 9.40% | 9.21% | 0.20 | -4.19 | 4.58 | 0.93 |
| SPELL_HB_p18 | 9.02% | 8.29% | 0.73 | -3.58 | 5.04 | 0.74 |
| SPELL_HB_p19 | 10.75% | 8.67% | 2.08 | -2.36 | 6.51 | 0.36 |
| SPELL_HB_p20 | 8.83% | 8.15% | 0.68 | -3.48 | 4.83 | 0.75 |
| SPELL_HB_p21 | 9.40% | 7.95% | 1.45 | -2.70 | 5.61 | 0.49 |
| SPELL_HB_p22 | 9.21% | 8.41% | 0.80 | -3.37 | 4.97 | 0.71 |
| SPELL_HB_p23 | 9.21% | 8.27% | 0.94 | -3.27 | 5.15 | 0.66 |
| SPELL_HB_p24 | 9.60% | 8.08% | 1.51 | -2.70 | 5.72 | 0.48 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 164:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 96.55% | 96.15% | 0.39 | -2.53 | 3.31 | 0.79 |
| Sustained non-reliance on HB for 6 months after intervention start | 92.90% | 94.20% | -1.30 | -5.02 | 2.42 | 0.49 |
| Sustained non-reliance on HB for 12 months after intervention start | 83.88% | 86.55% | -2.67 | -7.86 | 2.51 | 0.31 |
| Sustained non-reliance on HB for 18 months after intervention start | 74.66% | 77.51% | -2.85 | -8.92 | 3.23 | 0.36 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 165:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.5 Sustained UC claimants[49] cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 788 | 788 |
| Treated | 11 | 403 | 414 |
| TOTAL | 11 | 1,191 | 1,202 |

***Table 166:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 7.94% | 3.52% | 4.42 | 0.71 | 8.12 | 0.02** |
| SPELL TIME TO WORK 7-12 | 6.45% | 3.65% | 2.80 | -0.59 | 6.19 | 0.11 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 167:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

[49] Individuals claiming UC from month 1 until month 24 post-intervention.

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 31.27% | 25.27% | 5.99 | -1.01 | 13.00 | 0.09* |
| Work second year | 37.97% | 29.34% | 8.62 | 1.17 | 16.08 | 0.02** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 168:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

Sustained employment

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 39.21% | 30.95% | 8.26 | 0.73 | 15.78 | 0.03** |
| Sustained employment 2 months after start | 35.73% | 28.14% | 7.60 | 0.22 | 14.98 | 0.04** |
| Sustained employment 3 months after start | 32.51% | 26.53% | 5.97 | -1.22 | 13.16 | 0.10* |
| Sustained employment 6 months after start | 24.81% | 21.02% | 3.79 | -2.82 | 10.41 | 0.26 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 169:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 68 | 65 | 3 | -16 | 22 | 0.78 |
| SPELL DAYS P2YR WORK | 135 | 129 | 6 | -30 | 42 | 0.74 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 170:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £1,791.29 | £1,681.55 | £109.74 | -£618.81 | £838.30 | 0.77 |
| ANN EARNINGS AMT YRP2 adjusted | £2,311.78 | £2,021.10 | £290.68 | -£699.83 | £1,281.18 | 0.57 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 171:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 54.09% | 62.18% | -8.08 | -16.00 | -0.17 | 0.05** |
| SPELL_UCHE_p1 | 56.58% | 65.15% | -8.57 | -16.43 | -0.72 | 0.03** |
| SPELL_UCHE_p2 | 57.32% | 66.43% | -9.11 | -16.92 | -1.30 | 0.02** |
| SPELL_UCHE_p3 | 58.81% | 67.55% | -8.74 | -16.49 | -0.98 | 0.03** |
| SPELL_UCHE_p4 | 60.55% | 70.39% | -9.85 | -17.52 | -2.18 | 0.01*** |
| SPELL_UCHE_p5 | 62.78% | 72.77% | -9.99 | -17.56 | -2.42 | 0.01*** |
| SPELL_UCHE_p6 | 64.52% | 74.47% | -9.95 | -17.44 | -2.46 | 0.01*** |
| SPELL_UCHE_p7 | 66.50% | 76.22% | -9.72 | -17.10 | -2.35 | 0.01*** |
| SPELL_UCHE_p8 | 67.25% | 77.39% | -10.15 | -17.48 | -2.81 | 0.01*** |
| SPELL_UCHE_p9 | 67.74% | 78.19% | -10.44 | -17.73 | -3.16 | 0.00*** |
| SPELL_UCHE_p10 | 68.98% | 77.98% | -8.99 | -16.24 | -1.75 | 0.01*** |
| SPELL_UCHE_p11 | 70.22% | 78.75% | -8.52 | -15.69 | -1.35 | 0.02** |
| SPELL_UCHE_p12 | 70.22% | 78.89% | -8.66 | -15.82 | -1.50 | 0.02** |
| SPELL_UCHE_p13 | 70.47% | 80.58% | -10.10 | -17.23 | -2.98 | 0.01*** |
| SPELL_UCHE_p14 | 72.46% | 80.42% | -7.97 | -15.01 | -0.93 | 0.03** |
| SPELL_UCHE_p15 | 72.95% | 80.51% | -7.56 | -14.57 | -0.55 | 0.03** |
| SPELL_UCHE_p16 | 73.70% | 80.58% | -6.88 | -13.86 | 0.10 | 0.05** |
| SPELL_UCHE_p17 | 73.70% | 80.35% | -6.66 | -13.64 | 0.33 | 0.06* |
| SPELL_UCHE_p18 | 73.95% | 80.84% | -6.89 | -13.84 | 0.06 | 0.05** |
| SPELL_UCHE_p19 | 73.70% | 81.13% | -7.44 | -14.37 | -0.50 | 0.04** |
| SPELL_UCHE_p20 | 73.70% | 81.08% | -7.38 | -14.33 | -0.44 | 0.04*** |
| SPELL_UCHE_p21 | 74.44% | 80.72% | -6.28 | -13.22 | 0.66 | 0.08* |
| SPELL_UCHE_p22 | 74.44% | 80.56% | -6.12 | -13.05 | 0.81 | 0.08* |
| SPELL_UCHE_p23 | 75.68% | 80.61% | -4.93 | -11.82 | 1.96 | 0.16 |
| SPELL_UCHE_p24 | 75.43% | 80.50% | -5.07 | -11.98 | 1.84 | 0.15 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 172:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 48.64% | 38.08% | 10.56 | 2.65 | 18.47 | 0.01*** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 41.44% | 29.25% | 12.19 | 4.47 | 19.92 | 0.00*** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 29.03% | 19.88% | 9.15 | 2.04 | 16.27 | 0.01*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 23.08% | 16.36% | 6.71 | 0.10 | 13.33 | 0.05** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 173:** PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 26.80% | 17.58% | 9.22 | 2.44 | 16.01 | 0.01*** |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 22.58% | 14.05% | 8.53 | 2.16 | 14.89 | 0.01*** |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 16.87% | 11.05% | 5.82 | 0.05 | 11.59 | 0.05** |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 13.65% | 9.68% | 3.97 | -1.40 | 9.35 | 0.15 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 174:** PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 14.64% | 16.07% | -1.42 | -7.41 | 4.56 | 0.64 |
| SPELL_HB_p1 | 16.38% | 15.93% | 0.45 | -5.76 | 6.67 | 0.89 |
| SPELL_HB_p2 | 15.14% | 17.33% | -2.20 | -8.40 | 4.00 | 0.49 |
| SPELL_HB_p3 | 16.13% | 18.69% | -2.56 | -8.88 | 3.76 | 0.43 |
| SPELL_HB_p4 | 16.63% | 19.77% | -3.14 | -9.52 | 3.23 | 0.33 |
| SPELL_HB_p5 | 17.12% | 19.17% | -2.05 | -8.38 | 4.29 | 0.53 |
| SPELL_HB_p6 | 15.63% | 17.13% | -1.49 | -7.67 | 4.68 | 0.64 |
| SPELL_HB_p7 | 14.64% | 15.79% | -1.15 | -7.21 | 4.90 | 0.71 |
| SPELL_HB_p8 | 15.14% | 15.15% | -0.02 | -6.01 | 5.98 | 1.00 |
| SPELL_HB_p9 | 13.90% | 13.06% | 0.83 | -4.97 | 6.64 | 0.78 |
| SPELL_HB_p10 | 14.64% | 12.28% | 2.36 | -3.40 | 8.11 | 0.42 |
| SPELL_HB_p11 | 14.39% | 12.50% | 1.89 | -3.80 | 7.58 | 0.51 |
| SPELL_HB_p12 | 12.66% | 12.34% | 0.31 | -5.27 | 5.90 | 0.91 |
| SPELL_HB_p13 | 13.40% | 11.80% | 1.60 | -3.97 | 7.18 | 0.57 |
| SPELL_HB_p14 | 11.17% | 10.61% | 0.55 | -4.83 | 5.94 | 0.84 |
| SPELL_HB_p15 | 10.92% | 10.05% | 0.87 | -4.38 | 6.12 | 0.74 |
| SPELL_HB_p16 | 10.17% | 10.04% | 0.14 | -5.06 | 5.34 | 0.96 |
| SPELL_HB_p17 | 9.18% | 9.55% | -0.37 | -5.43 | 4.69 | 0.89 |
| SPELL_HB_p18 | 9.43% | 9.12% | 0.31 | -4.67 | 5.29 | 0.90 |
| SPELL_HB_p19 | 11.41% | 9.59% | 1.82 | -3.35 | 7.00 | 0.49 |
| SPELL_HB_p20 | 9.68% | 8.88% | 0.80 | -4.14 | 5.73 | 0.75 |
| SPELL_HB_p21 | 9.68% | 8.57% | 1.11 | -3.75 | 5.97 | 0.66 |
| SPELL_HB_p22 | 9.68% | 9.18% | 0.50 | -4.43 | 5.43 | 0.84 |
| SPELL_HB_p23 | 9.68% | 8.71% | 0.97 | -4.00 | 5.93 | 0.70 |
| SPELL_HB_p24 | 9.68% | 8.85% | 0.83 | -4.13 | 5.80 | 0.74 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 175:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 96.03% | 95.05% | 0.98 | -2.64 | 4.60 | 0.60 |
| Sustained non-reliance on HB for 6 months after intervention start | 92.31% | 93.14% | -0.83 | -5.30 | 3.64 | 0.72 |
| Sustained non-reliance on HB for 12 months after intervention start | 84.86% | 86.67% | -1.81 | -7.69 | 4.08 | 0.55 |
| Sustained non-reliance on HB for 18 months after intervention start | 75.19% | 77.94% | -2.75 | -9.67 | 4.17 | 0.44 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 176:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.6 With history of claiming HB cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 987 | 987 |
| Treated | 13 | 304 | 317 |
| TOTAL | 13 | 1,291 | 1,304 |

***Table 177:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 5.59% | 5.08% | 0.52 | -2.91 | 3.94 | 0.77 |
| SPELL TIME TO WORK 7-12 | 4.61% | 3.63% | 0.98 | -2.18 | 4.14 | 0.54 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 178:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 20.07% | 20.05% | 0.02 | -6.19 | 6.23 | 0.99 |
| Work second year | 26.64% | 0.00% | 2.31 | -4.52 | 9.14 | 0.51 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 179:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 26.97% | 24.90% | 2.07 | -4.78 | 8.93 | 0.55 |
| Sustained employment 2 months after start | 24.34% | 23.37% | 0.98 | -5.70 | 7.65 | 0.77 |
| Sustained employment 3 months after start | 22.37% | 21.47% | 0.89 | -5.59 | 7.38 | 0.79 |
| Sustained employment 6 months after start | 15.46% | 17.78% | -2.32 | -8.04 | 3.40 | 0.43 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 180:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 42 | 50 | -8 | -24 | 8 | 0.31 |
| SPELL DAYS P2YR WORK | 86 | 103 | -17 | -48 | 13 | 0.26 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 181:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £1,433.74 | £1,442.24 | -£8.50 | -£669.68 | £652.68 | 0.98 |
| ANN EARNINGS AMT YRP2 adjusted | £1,952.88 | £1,883.95 | £68.93 | -£818.15 | £956.01 | 0.88 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 182:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 24.34% | 31.47% | -7.13 | -14.00 | -0.26 | 0.04** |
| SPELL_UCHE_p1 | 26.97% | 32.92% | -5.95 | -13.03 | 1.13 | 0.10* |
| SPELL_UCHE_p2 | 28.95% | 35.56% | -6.62 | -13.82 | 0.59 | 0.07* |
| SPELL_UCHE_p3 | 29.61% | 35.53% | -5.93 | -13.19 | 1.33 | 0.11 |
| SPELL_UCHE_p4 | 29.93% | 36.86% | -6.93 | -14.22 | 0.37 | 0.06* |
| SPELL_UCHE_p5 | 30.26% | 38.49% | -8.23 | -15.58 | -0.87 | 0.03** |
| SPELL_UCHE_p6 | 32.24% | 40.70% | -8.47 | -15.93 | -1.01 | 0.03** |
| SPELL_UCHE_p7 | 32.89% | 42.37% | -9.48 | -16.99 | -1.96 | 0.01*** |
| SPELL_UCHE_p8 | 34.87% | 43.10% | -8.23 | -15.81 | -0.65 | 0.03** |
| SPELL_UCHE_p9 | 35.86% | 43.28% | -7.43 | -15.05 | 0.20 | 0.06* |
| SPELL_UCHE_p10 | 37.83% | 43.32% | -5.49 | -13.16 | 2.19 | 0.16 |
| SPELL_UCHE_p11 | 38.49% | 44.46% | -5.97 | -13.67 | 1.73 | 0.13 |
| SPELL_UCHE_p12 | 38.16% | 45.42% | -7.26 | -14.97 | 0.45 | 0.06* |
| SPELL_UCHE_p13 | 40.13% | 46.52% | -6.39 | -14.14 | 1.36 | 0.11 |
| SPELL_UCHE_p14 | 41.78% | 45.91% | -4.14 | -11.91 | 3.64 | 0.30 |
| SPELL_UCHE_p15 | 42.76% | 45.90% | -3.13 | -10.93 | 4.66 | 0.43 |
| SPELL_UCHE_p16 | 43.42% | 46.14% | -2.72 | -10.52 | 5.09 | 0.50 |
| SPELL_UCHE_p17 | 43.42% | 47.13% | -3.71 | -11.53 | 4.11 | 0.35 |
| SPELL_UCHE_p18 | 44.08% | 47.24% | -3.17 | -10.99 | 4.66 | 0.43 |
| SPELL_UCHE_p19 | 45.07% | 47.22% | -2.16 | -9.99 | 5.68 | 0.59 |
| SPELL_UCHE_p20 | 45.07% | 47.03% | -1.96 | -9.80 | 5.87 | 0.62 |
| SPELL_UCHE_p21 | 46.38% | 47.20% | -0.82 | -8.66 | 7.03 | 0.84 |
| SPELL_UCHE_p22 | 46.38% | 46.87% | -0.48 | -8.33 | 7.37 | 0.90 |
| SPELL_UCHE_p23 | 46.71% | 47.31% | -0.60 | -8.45 | 7.26 | 0.88 |
| SPELL_UCHE_p24 | 47.37% | 46.37% | 1.00 | -6.86 | 8.85 | 0.80 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 183:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 75.66% | 70.45% | 5.21 | -1.59 | 12.00 | 0.13 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 71.71% | 64.87% | 6.84 | -0.34 | 14.03 | 0.06* |
| Sustained non-reliance on UCHE for 12 months after intervention start | 60.86% | 54.18% | 6.67 | -1.05 | 14.40 | 0.09* |
| Sustained non-reliance on UCHE for 18 months after intervention start | 52.96% | 49.17% | 3.79 | -4.09 | 11.66 | 0.35 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 184**: PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 47.04% | 43.94% | 3.10 | -4.78 | 10.98 | 0.44 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 43.75% | 40.14% | 3.61 | -4.24 | 11.46 | 0.37 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 39.14% | 35.68% | 3.46 | -4.27 | 11.19 | 0.38 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 32.57% | 31.79% | 0.78 | -6.72 | 8.28 | 0.84 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 185:** PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 56.25% | 54.93% | 1.32 | -6.50 | 9.14 | 0.74 |
| SPELL_HB_p1 | 56.91% | 54.24% | 2.67 | -5.12 | 10.46 | 0.50 |
| SPELL_HB_p2 | 56.58% | 55.62% | 0.96 | -6.81 | 8.73 | 0.81 |
| SPELL_HB_p3 | 57.89% | 54.58% | 3.31 | -4.45 | 11.07 | 0.40 |
| SPELL_HB_p4 | 58.22% | 56.59% | 1.63 | -6.12 | 9.39 | 0.68 |
| SPELL_HB_p5 | 58.22% | 54.40% | 3.83 | -3.94 | 11.59 | 0.33 |
| SPELL_HB_p6 | 58.55% | 54.14% | 4.41 | -3.36 | 12.18 | 0.27 |
| SPELL_HB_p7 | 56.58% | 52.10% | 4.48 | -3.34 | 12.29 | 0.26 |
| SPELL_HB_p8 | 55.59% | 51.65% | 3.94 | -3.90 | 11.78 | 0.33 |
| SPELL_HB_p9 | 52.63% | 46.41% | 6.22 | -1.66 | 14.09 | 0.12 |
| SPELL_HB_p10 | 51.64% | 44.20% | 7.45 | -0.44 | 15.33 | 0.06 |
| SPELL_HB_p11 | 48.03% | 44.43% | 3.60 | -4.29 | 11.49 | 0.37 |
| SPELL_HB_p12 | 46.05% | 44.63% | 1.42 | -6.45 | 9.30 | 0.72 |
| SPELL_HB_p13 | 46.71% | 44.37% | 2.34 | -5.54 | 10.22 | 0.56 |
| SPELL_HB_p14 | 43.42% | 43.10% | 0.32 | -7.53 | 8.16 | 0.94 |
| SPELL_HB_p15 | 40.79% | 41.92% | -1.13 | -8.94 | 6.68 | 0.78 |
| SPELL_HB_p16 | 39.47% | 42.26% | -2.78 | -10.56 | 5.00 | 0.48 |
| SPELL_HB_p17 | 39.14% | 38.99% | 0.15 | -7.61 | 7.91 | 0.97 |
| SPELL_HB_p18 | 38.16% | 37.50% | 0.66 | -7.07 | 8.39 | 0.87 |
| SPELL_HB_p19 | 38.82% | 37.07% | 1.74 | -6.00 | 9.49 | 0.66 |
| SPELL_HB_p20 | 35.53% | 37.38% | -1.86 | -9.51 | 5.80 | 0.63 |
| SPELL_HB_p21 | 35.20% | 37.08% | -1.88 | -9.52 | 5.76 | 0.63 |
| SPELL_HB_p22 | 33.55% | 38.75% | -5.19 | -12.79 | 2.40 | 0.18 |
| SPELL_HB_p23 | 34.21% | 38.50% | -4.29 | -11.91 | 3.33 | 0.27 |
| SPELL_HB_p24 | 34.21% | 38.15% | -3.94 | -11.54 | 3.67 | 0.31 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 186**: PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 67.76% | 66.42% | 1.35 | -6.16 | 8.85 | 0.73 |
| Sustained non-reliance on HB for 6 months after intervention start | 63.16% | 64.07% | -0.92 | -8.59 | 6.76 | 0.82 |
| Sustained non-reliance on HB for 12 months after intervention start | 50.99% | 53.18% | -2.20 | -10.08 | 5.69 | 0.59 |
| Sustained non-reliance on HB for 18 months after intervention start | 37.50% | 37.91% | -0.41 | -8.06 | 7.24 | 0.92 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 187**: PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.7 Without history of claiming HB cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 593 | 593 |
| Treated | 16 | 388 | 404 |
| TOTAL | 16 | 981 | 997 |

***Table 188:** Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 9.02% | 5.13% | 3.90 | -0.40 | 8.19 | 0.08* |
| SPELL TIME TO WORK 7-12 | 5.41% | 4.04% | 1.37 | -2.31 | 5.06 | 0.46 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 189:** PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 41.49% | 34.11% | 7.38 | -0.98 | 15.74 | 0.08* |
| Work second year | 46.65% | 0.00% | 7.40 | 7.40 | 7.40 | 0.09* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 190:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 48.20% | 40.69% | 7.51 | -1.00 | 16.02 | 0.08* |
| Sustained employment 2 months after start | 44.85% | 38.65% | 6.19 | -2.29 | 14.67 | 0.15 |
| Sustained employment 3 months after start | 42.27% | 37.09% | 5.18 | -3.26 | 13.61 | 0.23 |
| Sustained employment 6 months after start | 36.86% | 31.41% | 5.45 | -2.81 | 13.70 | 0.20 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 191:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 105 | 95 | 10 | -16 | 36 | 0.43 |
| SPELL DAYS P2YR WORK | 208 | 191 | 16 | -34 | 66 | 0.53 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 192:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £4,663.26 | £3,896.09 | £767.17 | -£1,101.59 | £2,635.93 | 0.42 |
| ANN EARNINGS AMT YRP2 adjusted | £4,879.19 | £4,656.33 | £222.85 | -£1,919.08 | £2,364.79 | 0.84 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 193:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 46.13% | 50.59% | -4.46 | -12.72 | 3.81 | 0.29 |
| SPELL_UCHE_p1 | 46.91% | 52.81% | -5.91 | -14.30 | 2.49 | 0.17 |
| SPELL_UCHE_p2 | 48.20% | 54.60% | -6.41 | -14.88 | 2.06 | 0.14 |
| SPELL_UCHE_p3 | 49.23% | 57.30% | -8.07 | -16.59 | 0.44 | 0.06* |
| SPELL_UCHE_p4 | 49.48% | 58.54% | -9.06 | -17.58 | -0.53 | 0.04** |
| SPELL_UCHE_p5 | 51.55% | 60.10% | -8.55 | -17.08 | -0.02 | 0.05** |
| SPELL_UCHE_p6 | 51.80% | 60.74% | -8.94 | -17.47 | -0.41 | 0.04** |
| SPELL_UCHE_p7 | 53.87% | 61.47% | -7.61 | -16.13 | 0.92 | 0.08* |
| SPELL_UCHE_p8 | 52.84% | 63.11% | -10.28 | -18.80 | -1.76 | 0.02** |
| SPELL_UCHE_p9 | 50.77% | 63.54% | -12.77 | -21.29 | -4.24 | 0.00*** |
| SPELL_UCHE_p10 | 50.26% | 63.65% | -13.39 | -21.92 | -4.87 | 0.00*** |
| SPELL_UCHE_p11 | 51.03% | 64.90% | -13.87 | -22.40 | -5.35 | 0.00*** |
| SPELL_UCHE_p12 | 51.55% | 64.24% | -12.69 | -21.22 | -4.17 | 0.00*** |
| SPELL_UCHE_p13 | 52.32% | 64.44% | -12.12 | -20.64 | -3.60 | 0.01*** |
| SPELL_UCHE_p14 | 53.61% | 64.04% | -10.43 | -18.95 | -1.91 | 0.02** |
| SPELL_UCHE_p15 | 53.61% | 64.11% | -10.50 | -19.01 | -1.98 | 0.02** |
| SPELL_UCHE_p16 | 54.90% | 64.04% | -9.14 | -17.65 | -0.63 | 0.04** |
| SPELL_UCHE_p17 | 54.38% | 64.03% | -9.65 | -18.16 | -1.14 | 0.03** |
| SPELL_UCHE_p18 | 55.15% | 63.66% | -8.51 | -17.01 | 0.00 | 0.05** |
| SPELL_UCHE_p19 | 53.35% | 64.19% | -10.84 | -19.34 | -2.33 | 0.01*** |
| SPELL_UCHE_p20 | 53.09% | 64.40% | -11.30 | -19.81 | -2.79 | 0.01*** |
| SPELL_UCHE_p21 | 54.38% | 64.46% | -10.08 | -18.59 | -1.57 | 0.02** |
| SPELL_UCHE_p22 | 53.61% | 63.74% | -10.13 | -18.65 | -1.62 | 0.02** |
| SPELL_UCHE_p23 | 54.64% | 64.23% | -9.59 | -18.08 | -1.09 | 0.03** |
| SPELL_UCHE_p24 | 54.38% | 63.97% | -9.58 | -18.09 | -1.08 | 0.03** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 194:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 62.37% | 52.35% | 10.02 | 1.85 | 18.18 | 0.02** |
| Sustained non-reliance on UCHE for 6 months after intervention start | 56.70% | 44.73% | 11.98 | 3.53 | 20.42 | 0.01*** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 47.42% | 35.65% | 11.78 | 3.25 | 20.30 | 0.01*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 39.18% | 30.65% | 8.52 | 0.18 | 16.87 | 0.05** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 195:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 30.41% | 27.06% | 3.35 | -4.76 | 11.46 | 0.42 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 26.03% | 22.82% | 3.21 | -4.54 | 10.96 | 0.42 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 19.33% | 16.83% | 2.50 | -4.48 | 9.48 | 0.48 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 12.11% | 11.88% | 0.24 | -5.89 | 6.36 | 0.94 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 196:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 1.29% | 4.28% | -2.99 | -6.01 | 0.02 | 0.05** |
| SPELL_HB_p1 | 4.12% | 4.88% | -0.76 | -4.53 | 3.01 | 0.69 |
| SPELL_HB_p2 | 4.12% | 6.04% | -1.92 | -5.89 | 2.05 | 0.34 |
| SPELL_HB_p3 | 4.12% | 7.19% | -3.06 | -7.38 | 1.25 | 0.16 |
| SPELL_HB_p4 | 4.64% | 7.13% | -2.49 | -6.89 | 1.91 | 0.27 |
| SPELL_HB_p5 | 4.64% | 6.15% | -1.51 | -5.82 | 2.79 | 0.49 |
| SPELL_HB_p6 | 3.61% | 5.21% | -1.60 | -5.47 | 2.26 | 0.42 |
| SPELL_HB_p7 | 3.35% | 4.30% | -0.95 | -4.82 | 2.93 | 0.63 |
| SPELL_HB_p8 | 3.87% | 4.32% | -0.46 | -4.24 | 3.32 | 0.81 |
| SPELL_HB_p9 | 3.61% | 4.83% | -1.22 | -5.09 | 2.65 | 0.54 |
| SPELL_HB_p10 | 5.41% | 4.99% | 0.43 | -3.53 | 4.39 | 0.83 |
| SPELL_HB_p11 | 6.19% | 5.22% | 0.96 | -3.16 | 5.08 | 0.65 |
| SPELL_HB_p12 | 5.93% | 4.76% | 1.17 | -2.85 | 5.19 | 0.57 |
| SPELL_HB_p13 | 6.19% | 3.92% | 2.27 | -1.74 | 6.28 | 0.27 |
| SPELL_HB_p14 | 5.15% | 4.46% | 0.70 | -3.35 | 4.74 | 0.74 |
| SPELL_HB_p15 | 5.67% | 4.22% | 1.45 | -2.54 | 5.44 | 0.48 |
| SPELL_HB_p16 | 5.67% | 4.37% | 1.30 | -2.77 | 5.36 | 0.53 |
| SPELL_HB_p17 | 5.41% | 4.22% | 1.19 | -2.81 | 5.19 | 0.56 |
| SPELL_HB_p18 | 4.90% | 4.33% | 0.56 | -3.38 | 4.50 | 0.78 |
| SPELL_HB_p19 | 6.70% | 4.65% | 2.05 | -2.16 | 6.26 | 0.34 |
| SPELL_HB_p20 | 5.93% | 4.20% | 1.73 | -2.25 | 5.71 | 0.39 |
| SPELL_HB_p21 | 6.70% | 3.92% | 2.78 | -1.28 | 6.84 | 0.18 |
| SPELL_HB_p22 | 6.70% | 4.22% | 2.48 | -1.69 | 6.65 | 0.24 |
| SPELL_HB_p23 | 6.44% | 3.90% | 2.55 | -1.56 | 6.66 | 0.22 |
| SPELL_HB_p24 | 6.70% | 3.88% | 2.82 | -1.28 | 6.92 | 0.18 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 197:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 99.48% | 98.01% | 1.47 | -0.66 | 3.60 | 0.18 |
| Sustained non-reliance on HB for 6 months after intervention start | 97.68% | 97.69% | -0.01 | -2.76 | 2.74 | 1.00 |
| Sustained non-reliance on HB for 12 months after intervention start | 92.01% | 94.20% | -2.19 | -6.72 | 2.35 | 0.34 |
| Sustained non-reliance on HB for 18 months after intervention start | 86.60% | 91.79% | -5.19 | -10.72 | 0.34 | 0.07* |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 198:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.8 With history of claiming DLA / PIP cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 436 | 436 |
| Treated | 33 | 147 | 180 |
| TOTAL | 33 | 583 | 616 |

***Table 199:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 2.04% | 0.48% | 1.56 | -1.21 | 4.34 | 0.27 |
| SPELL TIME TO WORK 7-12 | 0.68% | 0.28% | 0.40 | -1.45 | 2.25 | 0.67 |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 200:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 10.20% | 4.11% | 6.09 | -0.38 | 12.56 | 0.06* |
| Work second year | 12.24% | 4.62% | 7.62 | 0.59 | 14.66 | 0.03** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 201:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 12.24% | 5.20% | 7.04 | -0.04 | 14.13 | 0.05** |
| Sustained employment 2 months after start | 11.56% | 4.24% | 7.32 | 0.54 | 14.11 | 0.03** |
| Sustained employment 3 months after start | 11.56% | 4.19% | 7.37 | 0.64 | 14.10 | 0.03** |
| Sustained employment 6 months after start | 8.84% | 3.40% | 5.44 | -0.62 | 11.50 | 0.08* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 202:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 26 | 12 | 14 | -5 | 32 | 0.15 |
| SPELL DAYS P2YR WORK | 49 | 23 | 26 | -9 | 60 | 0.14 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 203:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £598.86 | £459.69 | £139.18 | -£629.00 | £907.35 | 0.72 |
| ANN EARNINGS AMT YRP2 adjusted | £981.59 | £465.68 | £515.91 | -£395.18 | £1,427.00 | 0.27 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 204:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 29.25% | 29.36% | -0.10 | -10.40 | 10.19 | 0.98 |
| SPELL_UCHE_p1 | 31.29% | 32.01% | -0.72 | -11.35 | 9.91 | 0.89 |
| SPELL_UCHE_p2 | 31.97% | 33.90% | -1.93 | -12.70 | 8.85 | 0.73 |
| SPELL_UCHE_p3 | 33.33% | 33.40% | -0.07 | -10.92 | 10.78 | 0.99 |
| SPELL_UCHE_p4 | 33.33% | 34.12% | -0.79 | -11.66 | 10.08 | 0.89 |
| SPELL_UCHE_p5 | 33.33% | 35.01% | -1.68 | -12.54 | 9.19 | 0.76 |
| SPELL_UCHE_p6 | 34.01% | 36.00% | -1.99 | -12.94 | 8.96 | 0.72 |
| SPELL_UCHE_p7 | 33.33% | 37.09% | -3.76 | -14.72 | 7.21 | 0.50 |
| SPELL_UCHE_p8 | 34.01% | 38.25% | -4.23 | -15.28 | 6.81 | 0.45 |
| SPELL_UCHE_p9 | 34.69% | 38.13% | -3.44 | -14.49 | 7.61 | 0.54 |
| SPELL_UCHE_p10 | 33.33% | 37.89% | -4.55 | -15.54 | 6.43 | 0.42 |
| SPELL_UCHE_p11 | 34.01% | 37.88% | -3.87 | -14.93 | 7.19 | 0.49 |
| SPELL_UCHE_p12 | 34.69% | 38.37% | -3.68 | -14.78 | 7.42 | 0.52 |
| SPELL_UCHE_p13 | 35.37% | 38.73% | -3.36 | -14.53 | 7.81 | 0.56 |
| SPELL_UCHE_p14 | 36.73% | 38.98% | -2.24 | -13.47 | 8.98 | 0.70 |
| SPELL_UCHE_p15 | 36.73% | 38.87% | -2.13 | -13.35 | 9.08 | 0.71 |
| SPELL_UCHE_p16 | 38.10% | 39.24% | -1.15 | -12.43 | 10.13 | 0.84 |
| SPELL_UCHE_p17 | 37.41% | 39.89% | -2.47 | -13.78 | 8.83 | 0.67 |
| SPELL_UCHE_p18 | 36.73% | 40.31% | -3.57 | -14.90 | 7.76 | 0.54 |
| SPELL_UCHE_p19 | 35.37% | 40.65% | -5.27 | -16.59 | 6.04 | 0.36 |
| SPELL_UCHE_p20 | 36.05% | 40.50% | -4.44 | -15.78 | 6.90 | 0.44 |
| SPELL_UCHE_p21 | 36.73% | 40.68% | -3.94 | -15.30 | 7.42 | 0.50 |
| SPELL_UCHE_p22 | 36.73% | 40.44% | -3.71 | -15.05 | 7.64 | 0.52 |
| SPELL_UCHE_p23 | 36.73% | 41.72% | -4.98 | -16.33 | 6.36 | 0.39 |
| SPELL_UCHE_p24 | 37.41% | 41.57% | -4.15 | -15.52 | 7.21 | 0.47 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 205:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 74.83% | 69.65% | 5.18 | -4.95 | 15.30 | 0.32 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 70.75% | 66.06% | 4.69 | -5.90 | 15.28 | 0.39 |
| Sustained non-reliance on UCHE for 12 months after intervention start | 63.95% | 61.74% | 2.20 | -8.97 | 13.38 | 0.70 |
| Sustained non-reliance on UCHE for 18 months after intervention start | 59.86% | 57.95% | 1.92 | -9.56 | 13.39 | 0.74 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 206**: PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 57.14% | 56.77% | 0.37 | -11.15 | 11.88 | 0.95 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 55.78% | 56.26% | -0.48 | -12.07 | 11.11 | 0.94 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 52.38% | 53.78% | -1.40 | -13.14 | 10.34 | 0.82 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 46.94% | 51.50% | -4.56 | -16.37 | 7.25 | 0.45 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 207:** PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 48.30% | 52.05% | -3.75 | -15.50 | 8.00 | 0.53 |
| SPELL_HB_p1 | 48.98% | 52.08% | -3.10 | -14.87 | 8.66 | 0.60 |
| SPELL_HB_p2 | 50.34% | 54.01% | -3.67 | -15.35 | 8.02 | 0.54 |
| SPELL_HB_p3 | 51.70% | 51.88% | -0.18 | -11.93 | 11.56 | 0.98 |
| SPELL_HB_p4 | 51.70% | 52.10% | -0.40 | -12.15 | 11.35 | 0.95 |
| SPELL_HB_p5 | 54.42% | 53.45% | 0.97 | -10.77 | 12.72 | 0.87 |
| SPELL_HB_p6 | 51.02% | 52.90% | -1.88 | -13.62 | 9.86 | 0.75 |
| SPELL_HB_p7 | 51.02% | 51.27% | -0.24 | -12.05 | 11.56 | 0.97 |
| SPELL_HB_p8 | 51.70% | 50.37% | 1.33 | -10.48 | 13.13 | 0.83 |
| SPELL_HB_p9 | 50.34% | 50.90% | -0.56 | -12.39 | 11.27 | 0.93 |
| SPELL_HB_p10 | 48.30% | 48.20% | 0.10 | -11.76 | 11.95 | 0.99 |
| SPELL_HB_p11 | 48.98% | 49.75% | -0.77 | -12.62 | 11.08 | 0.90 |
| SPELL_HB_p12 | 48.30% | 48.43% | -0.13 | -11.99 | 11.74 | 0.98 |
| SPELL_HB_p13 | 47.62% | 48.36% | -0.74 | -12.61 | 11.13 | 0.90 |
| SPELL_HB_p14 | 45.58% | 47.91% | -2.33 | -14.18 | 9.53 | 0.70 |
| SPELL_HB_p15 | 42.86% | 47.94% | -5.08 | -16.91 | 6.75 | 0.40 |
| SPELL_HB_p16 | 42.18% | 48.42% | -6.24 | -18.04 | 5.56 | 0.30 |
| SPELL_HB_p17 | 42.86% | 47.56% | -4.70 | -16.54 | 7.13 | 0.44 |
| SPELL_HB_p18 | 42.86% | 47.43% | -4.57 | -16.41 | 7.27 | 0.45 |
| SPELL_HB_p19 | 42.86% | 48.30% | -5.44 | -17.26 | 6.38 | 0.37 |
| SPELL_HB_p20 | 41.50% | 47.67% | -6.17 | -17.99 | 5.64 | 0.31 |
| SPELL_HB_p21 | 40.82% | 48.06% | -7.24 | -19.04 | 4.56 | 0.23 |
| SPELL_HB_p22 | 39.46% | 47.21% | -7.76 | -19.53 | 4.02 | 0.20 |
| SPELL_HB_p23 | 40.14% | 45.60% | -5.47 | -17.26 | 6.33 | 0.36 |
| SPELL_HB_p24 | 40.14% | 45.32% | -5.19 | -16.99 | 6.61 | 0.39 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 208**: PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 60.54% | 56.23% | 4.32 | -7.48 | 16.11 | 0.47 |
| Sustained non-reliance on HB for 6 months after intervention start | 57.14% | 54.07% | 3.07 | -8.78 | 14.93 | 0.61 |
| Sustained non-reliance on HB for 12 months after intervention start | 49.66% | 48.99% | 0.67 | -11.13 | 12.47 | 0.91 |
| Sustained non-reliance on HB for 18 months after intervention start | 43.54% | 44.81% | -1.28 | -12.89 | 10.34 | 0.83 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 209:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.9 Without history of claiming DLA / PIP cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 1,144 | 1,144 |
| Treated | 23 | 518 | 541 |
| TOTAL | 23 | 1,662 | 1,685 |

***Table 210**: Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 9.07% | 7.12% | 1.95 | -1.59 | 5.49 | 0.28 |
| SPELL TIME TO WORK 7-12 | 6.37% | 5.55% | 0.82 | -2.23 | 3.86 | 0.60 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 211:** PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 39.00% | 36.61% | 2.39 | -3.92 | 8.70 | 0.46 |
| Work second year | 45.95% | 0.00% | 2.85 | -3.66 | 9.35 | 0.39 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 212:** PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 47.30% | 43.96% | 3.34 | -3.18 | 9.86 | 0.32 |
| Sustained employment 2 months after start | 43.44% | 42.40% | 1.04 | -5.44 | 7.52 | 0.75 |
| Sustained employment 3 months after start | 40.35% | 39.95% | 0.40 | -6.01 | 6.81 | 0.90 |
| Sustained employment 6 months after start | 33.40% | 35.14% | -1.75 | -7.89 | 4.39 | 0.58 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 213:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 94 | 99 | -6 | -24 | 13 | 0.54 |
| SPELL DAYS P2YR WORK | 188 | 206 | -18 | -53 | 17 | 0.32 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 214:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

## *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £4,047.71 | £4,013.84 | £33.87 | -£1,190.81 | £1,258.54 | 0.96 |
| ANN EARNINGS AMT YRP2 adjusted | £4,489.47 | £4,740.44 | -£250.97 | -£1,657.93 | £1,156.00 | 0.73 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 215:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 37.07% | 40.35% | -3.29 | -9.52 | 2.95 | 0.30 |
| SPELL_UCHE_p1 | 39.00% | 43.53% | -4.54 | -10.89 | 1.81 | 0.16 |
| SPELL_UCHE_p2 | 41.12% | 45.79% | -4.67 | -11.09 | 1.76 | 0.15 |
| SPELL_UCHE_p3 | 41.89% | 48.42% | -6.53 | -13.00 | -0.07 | 0.05** |
| SPELL_UCHE_p4 | 42.28% | 50.15% | -7.87 | -14.36 | -1.38 | 0.02** |
| SPELL_UCHE_p5 | 43.24% | 52.19% | -8.95 | -15.46 | -2.43 | 0.01*** |
| SPELL_UCHE_p6 | 44.40% | 54.06% | -9.66 | -16.20 | -3.12 | 0.00*** |
| SPELL_UCHE_p7 | 46.53% | 55.11% | -8.58 | -15.14 | -2.02 | 0.01*** |
| SPELL_UCHE_p8 | 46.53% | 57.64% | -11.12 | -17.68 | -4.55 | 0.00*** |
| SPELL_UCHE_p9 | 45.37% | 58.54% | -13.17 | -19.73 | -6.61 | 0.00*** |
| SPELL_UCHE_p10 | 46.72% | 59.04% | -12.33 | -18.89 | -5.76 | 0.00*** |
| SPELL_UCHE_p11 | 47.30% | 59.73% | -12.44 | -19.01 | -5.87 | 0.00*** |
| SPELL_UCHE_p12 | 47.10% | 59.28% | -12.18 | -18.75 | -5.61 | 0.00*** |
| SPELL_UCHE_p13 | 48.84% | 59.63% | -10.79 | -17.36 | -4.22 | 0.00*** |
| SPELL_UCHE_p14 | 50.39% | 58.73% | -8.34 | -14.92 | -1.77 | 0.01*** |
| SPELL_UCHE_p15 | 50.97% | 58.13% | -7.16 | -13.74 | -0.59 | 0.03** |
| SPELL_UCHE_p16 | 52.12% | 57.50% | -5.38 | -11.95 | 1.19 | 0.11 |
| SPELL_UCHE_p17 | 51.93% | 57.64% | -5.71 | -12.28 | 0.86 | 0.09* |
| SPELL_UCHE_p18 | 53.09% | 57.30% | -4.21 | -10.77 | 2.36 | 0.21 |
| SPELL_UCHE_p19 | 53.09% | 57.50% | -4.41 | -10.98 | 2.15 | 0.19 |
| SPELL_UCHE_p20 | 52.51% | 57.35% | -4.84 | -11.40 | 1.73 | 0.15 |
| SPELL_UCHE_p21 | 53.86% | 58.19% | -4.32 | -10.89 | 2.24 | 0.20 |
| SPELL_UCHE_p22 | 53.28% | 58.36% | -5.08 | -11.64 | 1.49 | 0.13 |
| SPELL_UCHE_p23 | 54.05% | 58.92% | -4.86 | -11.42 | 1.70 | 0.15 |
| SPELL_UCHE_p24 | 54.05% | 58.42% | -4.37 | -10.93 | 2.19 | 0.19 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 216:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 67.37% | 62.35% | 5.02 | -1.08 | 11.12 | 0.11 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 62.74% | 54.24% | 8.50 | 2.14 | 14.87 | 0.01*** |
| Sustained non-reliance on UCHE for 12 months after intervention start | 51.93% | 40.93% | 11.00 | 4.43 | 17.57 | 0.00*** |
| Sustained non-reliance on UCHE for 18 months after intervention start | 42.08% | 34.66% | 7.43 | 0.94 | 13.92 | 0.02** |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 217:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 32.63% | 31.78% | 0.85 | -5.44 | 7.14 | 0.79 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 27.80% | 25.83% | 1.97 | -4.05 | 8.00 | 0.52 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 21.24% | 18.22% | 3.02 | -2.49 | 8.53 | 0.28 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 13.71% | 12.72% | 0.99 | -3.87 | 5.85 | 0.69 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 218:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 20.08% | 19.75% | 0.32 | -5.28 | 5.93 | 0.91 |
| SPELL_HB_p1 | 21.81% | 20.77% | 1.04 | -4.72 | 6.81 | 0.72 |
| SPELL_HB_p2 | 21.62% | 21.46% | 0.16 | -5.63 | 5.96 | 0.96 |
| SPELL_HB_p3 | 21.43% | 23.22% | -1.79 | -7.61 | 4.02 | 0.55 |
| SPELL_HB_p4 | 22.78% | 23.74% | -0.96 | -6.83 | 4.91 | 0.75 |
| SPELL_HB_p5 | 21.81% | 22.55% | -0.73 | -6.54 | 5.08 | 0.81 |
| SPELL_HB_p6 | 22.01% | 20.68% | 1.33 | -4.45 | 7.11 | 0.65 |
| SPELL_HB_p7 | 20.85% | 20.14% | 0.71 | -5.01 | 6.43 | 0.81 |
| SPELL_HB_p8 | 20.27% | 19.14% | 1.13 | -4.50 | 6.76 | 0.69 |
| SPELL_HB_p9 | 19.31% | 17.69% | 1.62 | -3.93 | 7.17 | 0.57 |
| SPELL_HB_p10 | 20.27% | 16.78% | 3.49 | -2.03 | 9.01 | 0.22 |
| SPELL_HB_p11 | 18.92% | 15.63% | 3.28 | -2.14 | 8.71 | 0.24 |
| SPELL_HB_p12 | 17.57% | 15.07% | 2.50 | -2.82 | 7.82 | 0.36 |
| SPELL_HB_p13 | 18.53% | 14.63% | 3.90 | -1.44 | 9.25 | 0.15 |
| SPELL_HB_p14 | 16.22% | 14.65% | 1.57 | -3.65 | 6.79 | 0.56 |
| SPELL_HB_p15 | 15.83% | 13.99% | 1.84 | -3.30 | 6.98 | 0.48 |
| SPELL_HB_p16 | 15.25% | 13.62% | 1.63 | -3.43 | 6.70 | 0.53 |
| SPELL_HB_p17 | 14.48% | 13.23% | 1.25 | -3.75 | 6.24 | 0.62 |
| SPELL_HB_p18 | 13.32% | 12.56% | 0.76 | -4.12 | 5.64 | 0.76 |
| SPELL_HB_p19 | 14.86% | 12.62% | 2.24 | -2.71 | 7.20 | 0.38 |
| SPELL_HB_p20 | 13.13% | 12.20% | 0.93 | -3.86 | 5.72 | 0.70 |
| SPELL_HB_p21 | 13.71% | 11.80% | 1.90 | -2.90 | 6.70 | 0.44 |
| SPELL_HB_p22 | 13.32% | 12.15% | 1.17 | -3.61 | 5.95 | 0.63 |
| SPELL_HB_p23 | 13.32% | 12.05% | 1.27 | -3.54 | 6.07 | 0.61 |
| SPELL_HB_p24 | 13.51% | 11.89% | 1.62 | -3.16 | 6.41 | 0.51 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 219**: PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 91.70% | 91.69% | 0.01 | -4.13 | 4.16 | 0.99 |
| Sustained non-reliance on HB for 6 months after intervention start | 89.00% | 89.50% | -0.51 | -5.06 | 4.04 | 0.83 |
| Sustained non-reliance on HB for 12 months after intervention start | 79.92% | 83.53% | -3.61 | -9.15 | 1.93 | 0.20 |
| Sustained non-reliance on HB for 18 months after intervention start | 69.88% | 75.20% | -5.31 | -11.46 | 0.84 | 0.09* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 220:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.10 Unemployed for 1 full year prior to the intervention start cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 583 | 583 |
| Treated | 14 | 232 | 246 |
| TOTAL | 14 | 815 | 829 |

***Table 221:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 3.02% | 1.15% | 1.87 | -0.77 | 4.51 | 0.17 |
| SPELL TIME TO WORK 7-12 | 4.31% | 1.54% | 2.77 | -0.22 | 5.77 | 0.07* |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 222:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 7.33% | 2.87% | 4.46 | 0.45 | 8.46 | 0.03** |
| Work second year | 11.21% | 5.09% | 6.12 | 1.07 | 11.17 | 0.02** |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 223:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 11.21% | 5.09% | 6.12 | 1.07 | 11.17 | 0.02** |
| Sustained employment 2 months after start | 9.91% | 4.67% | 5.24 | 0.45 | 10.03 | 0.03** |
| Sustained employment 3 months after start | 9.48% | 3.67% | 5.81 | 1.29 | 10.33 | 0.01*** |
| Sustained employment 6 months after start | 6.90% | 3.33% | 3.57 | -0.39 | 7.53 | 0.08* |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 224:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 12 | 5 | 7 | -1 | 15 | 0.08* |
| SPELL DAYS P2YR WORK | 35 | 16 | 19 | 0 | 38 | 0.05** |

*Significance levels are denoted as follows: *** p ≤ 0.01, ** p ≤ 0.05, * p ≤ 0.10*

***Table 225:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £400.03 | £312.75 | £87.28 | -£390.95 | £565.51 | 0.72 |
| ANN EARNINGS AMT YRP2 adjusted | £685.42 | £427.47 | £257.95 | -£379.29 | £895.19 | 0.43 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 226:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 28.45% | 32.85% | -4.40 | -12.46 | 3.66 | 0.28 |
| SPELL_UCHE_p1 | 31.90% | 35.79% | -3.89 | -12.22 | 4.44 | 0.36 |
| SPELL_UCHE_p2 | 33.62% | 36.71% | -3.09 | -11.53 | 5.35 | 0.47 |
| SPELL_UCHE_p3 | 34.91% | 38.18% | -3.27 | -11.80 | 5.26 | 0.45 |
| SPELL_UCHE_p4 | 34.48% | 38.15% | -3.67 | -12.19 | 4.85 | 0.40 |
| SPELL_UCHE_p5 | 35.78% | 39.07% | -3.29 | -11.87 | 5.29 | 0.45 |
| SPELL_UCHE_p6 | 37.07% | 39.69% | -2.62 | -11.26 | 6.02 | 0.55 |
| SPELL_UCHE_p7 | 37.50% | 41.38% | -3.88 | -12.58 | 4.82 | 0.38 |
| SPELL_UCHE_p8 | 37.50% | 41.87% | -4.37 | -13.09 | 4.35 | 0.33 |
| SPELL_UCHE_p9 | 36.64% | 41.84% | -5.21 | -13.91 | 3.49 | 0.24 |
| SPELL_UCHE_p10 | 38.36% | 42.22% | -3.86 | -12.62 | 4.90 | 0.39 |
| SPELL_UCHE_p11 | 38.79% | 42.73% | -3.94 | -12.73 | 4.85 | 0.38 |
| SPELL_UCHE_p12 | 39.66% | 42.75% | -3.09 | -11.90 | 5.72 | 0.49 |
| SPELL_UCHE_p13 | 40.52% | 42.88% | -2.36 | -11.19 | 6.46 | 0.60 |
| SPELL_UCHE_p14 | 41.81% | 43.27% | -1.46 | -10.33 | 7.40 | 0.75 |
| SPELL_UCHE_p15 | 43.10% | 43.56% | -0.45 | -9.34 | 8.44 | 0.92 |
| SPELL_UCHE_p16 | 43.97% | 43.78% | 0.19 | -8.73 | 9.10 | 0.97 |
| SPELL_UCHE_p17 | 43.10% | 43.79% | -0.69 | -9.59 | 8.22 | 0.88 |
| SPELL_UCHE_p18 | 43.10% | 43.43% | -0.32 | -9.23 | 8.58 | 0.94 |
| SPELL_UCHE_p19 | 43.53% | 43.55% | -0.01 | -8.92 | 8.89 | 1.00 |
| SPELL_UCHE_p20 | 43.97% | 43.13% | 0.84 | -8.06 | 9.74 | 0.85 |
| SPELL_UCHE_p21 | 45.26% | 43.31% | 1.95 | -6.98 | 10.87 | 0.67 |
| SPELL_UCHE_p22 | 45.26% | 43.40% | 1.86 | -7.07 | 10.79 | 0.68 |
| SPELL_UCHE_p23 | 45.69% | 43.28% | 2.41 | -6.52 | 11.34 | 0.60 |
| SPELL_UCHE_p24 | 45.69% | 45.27% | 0.42 | -8.50 | 9.35 | 0.93 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 227:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 71.98% | 66.90% | 5.08 | -2.96 | 13.12 | 0.22 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 67.67% | 62.49% | 5.18 | -3.20 | 13.57 | 0.23 |
| Sustained non-reliance on UCHE for 12 months after intervention start | 59.48% | 57.15% | 2.33 | -6.50 | 11.16 | 0.61 |
| Sustained non-reliance on UCHE for 18 months after intervention start | 53.02% | 54.31% | -1.29 | -10.28 | 7.70 | 0.78 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 228:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 49.14% | 44.53% | 4.61 | -4.46 | 13.69 | 0.32 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 45.26% | 42.42% | 2.84 | -6.23 | 11.92 | 0.54 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 41.81% | 39.90% | 1.91 | -7.14 | 10.95 | 0.68 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 34.05% | 37.46% | -3.40 | -12.27 | 5.46 | 0.45 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 229:*** *PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 40.52% | 42.31% | -1.79 | -10.81 | 7.23 | 0.70 |
| SPELL_HB_p1 | 43.53% | 42.29% | 1.25 | -7.82 | 10.32 | 0.79 |
| SPELL_HB_p2 | 41.38% | 44.79% | -3.41 | -12.43 | 5.61 | 0.46 |
| SPELL_HB_p3 | 42.24% | 43.66% | -1.42 | -10.46 | 7.62 | 0.76 |
| SPELL_HB_p4 | 43.10% | 44.57% | -1.47 | -10.52 | 7.59 | 0.75 |
| SPELL_HB_p5 | 43.97% | 44.06% | -0.09 | -9.16 | 8.97 | 0.98 |
| SPELL_HB_p6 | 43.53% | 44.26% | -0.73 | -9.79 | 8.34 | 0.87 |
| SPELL_HB_p7 | 42.24% | 42.30% | -0.06 | -9.11 | 8.99 | 0.99 |
| SPELL_HB_p8 | 42.24% | 41.18% | 1.06 | -7.99 | 10.11 | 0.82 |
| SPELL_HB_p9 | 41.38% | 40.46% | 0.92 | -8.12 | 9.96 | 0.84 |
| SPELL_HB_p10 | 41.38% | 40.42% | 0.96 | -8.08 | 9.99 | 0.84 |
| SPELL_HB_p11 | 40.09% | 40.71% | -0.62 | -9.63 | 8.39 | 0.89 |
| SPELL_HB_p12 | 39.22% | 39.05% | 0.18 | -8.80 | 9.16 | 0.97 |
| SPELL_HB_p13 | 38.79% | 39.60% | -0.80 | -9.78 | 8.17 | 0.86 |
| SPELL_HB_p14 | 36.64% | 38.94% | -2.31 | -11.23 | 6.62 | 0.61 |
| SPELL_HB_p15 | 35.34% | 39.23% | -3.89 | -12.77 | 5.00 | 0.39 |
| SPELL_HB_p16 | 34.91% | 39.30% | -4.38 | -13.26 | 4.49 | 0.33 |
| SPELL_HB_p17 | 35.78% | 38.48% | -2.71 | -11.60 | 6.19 | 0.55 |
| SPELL_HB_p18 | 34.91% | 38.14% | -3.23 | -12.09 | 5.64 | 0.48 |
| SPELL_HB_p19 | 35.78% | 38.53% | -2.75 | -11.64 | 6.14 | 0.54 |
| SPELL_HB_p20 | 33.62% | 35.91% | -2.29 | -11.11 | 6.52 | 0.61 |
| SPELL_HB_p21 | 32.76% | 36.03% | -3.27 | -12.06 | 5.51 | 0.47 |
| SPELL_HB_p22 | 31.47% | 36.83% | -5.36 | -14.10 | 3.37 | 0.23 |
| SPELL_HB_p23 | 32.33% | 35.91% | -3.58 | -12.35 | 5.18 | 0.42 |
| SPELL_HB_p24 | 32.33% | 34.05% | -1.73 | -10.47 | 7.02 | 0.70 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 230:*** *PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for three months after intervention start | 70.26% | 69.46% | 0.80 | -7.83 | 9.43 | 0.86 |
| Sustained non-reliance on HB for 6 months after intervention start | 66.81% | 64.43% | 2.38 | -6.40 | 11.17 | 0.60 |
| Sustained non-reliance on HB for 12 months after intervention start | 59.48% | 58.52% | 0.96 | -8.06 | 9.98 | 0.83 |
| Sustained non-reliance on HB for 18 months after intervention start | 50.43% | 53.20% | -2.77 | -11.86 | 6.32 | 0.55 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 231:*** *PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

## G.11 Not unemployed for 1 full year prior to the intervention start cohort

### *Distribution of Treated and Untreated Individuals by Support Status*

| Cross-Tabulation of Treatment Assignment and Support Status | | | |
|---|---|---|---|
| | Off Support | On Support | TOTAL |
| Untreated | 0 | 169 | 169 |
| Treated | 22 | 71 | 93 |
| TOTAL | 22 | 240 | 262 |

***Table 232:*** *Distribution of treated and untreated individuals by support status post-matching*

### *Time to work*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL TIME TO WORK 1-6 | 11.27% | 3.26% | 8.01 | -0.85 | 16.87 | 0.08* |
| SPELL TIME TO WORK 7-12 | 4.23% | 1.46% | 2.76 | -3.42 | 8.95 | 0.38 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 233:*** *PSM impact estimates on time to work in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Work in the first two years post intervention*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Work first year | 71.83% | 65.57% | 6.26 | -8.92 | 21.44 | 0.42 |
| Work second year | 76.06% | 67.61% | 8.45 | -6.13 | 23.03 | 0.26 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 234:*** *PSM impact estimates on employment activity in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Employment 1 month after start | 77.46% | 68.71% | 8.75 | -5.52 | 23.03 | 0.23 |
| Sustained employment 2 months after start | 74.65% | 67.61% | 7.04 | -7.68 | 21.76 | 0.35 |
| Sustained employment 3 months after start | 69.01% | 66.42% | 2.59 | -12.71 | 17.90 | 0.74 |
| Sustained employment 6 months after start | 60.56% | 54.29% | 6.27 | -9.76 | 22.30 | 0.44 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 235:*** *PSM impact estimates on sustained employment outcomes for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Days in employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| SPELL DAYS P1YR WORK | 187 | 175 | 112 | -41 | 64 | 0.66 |
| SPELL DAYS P2YR WORK | 335 | 325 | 11 | -89 | 110 | 0.84 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 236:*** *PSM impact estimates on total days in employment in year 1 and cumulatively in year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Earnings from paid employment*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Mean (Treatment Group) | Mean (Control Group) | Treatment Effect | 95% CI - Lower Bound | 95% CI - Upper Bound | P-value |
| ANN EARNINGS AMT YRP1 adjusted | £9,870.27 | £7,172.62 | £2,697.65 | -£3,128.33 | £8,523.63 | 0.36 |
| ANN EARNINGS AMT YRP2 adjusted | £11,343.10 | £7,938.22 | £3,404.88 | -£3,253.98 | £10,063.73 | 0.32 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 237:*** *PSM impact estimates on real annual earnings (GBP) in year 1 and year 2 post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly UCHE receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_UCHE_p0 | 40.85% | 38.75% | 2.09 | -13.96 | 18.15 | 0.80 |
| SPELL_UCHE_p1 | 45.07% | 42.59% | 2.48 | -13.74 | 18.69 | 0.76 |
| SPELL_UCHE_p2 | 49.30% | 46.21% | 3.08 | -13.23 | 19.39 | 0.71 |
| SPELL_UCHE_p3 | 50.70% | 47.72% | 2.99 | -13.34 | 19.31 | 0.72 |
| SPELL_UCHE_p4 | 49.30% | 49.34% | -0.04 | -16.37 | 16.29 | 1.00 |
| SPELL_UCHE_p5 | 50.70% | 49.93% | 0.77 | -15.56 | 17.10 | 0.93 |
| SPELL_UCHE_p6 | 50.70% | 53.12% | -2.41 | -18.72 | 13.90 | 0.77 |
| SPELL_UCHE_p7 | 52.11% | 54.45% | -2.34 | -18.62 | 13.94 | 0.78 |
| SPELL_UCHE_p8 | 54.93% | 53.77% | 1.16 | -15.09 | 17.40 | 0.89 |
| SPELL_UCHE_p9 | 53.52% | 53.68% | -0.16 | -16.42 | 16.11 | 0.98 |
| SPELL_UCHE_p10 | 50.70% | 52.12% | -1.42 | -17.73 | 14.89 | 0.86 |
| SPELL_UCHE_p11 | 49.30% | 52.12% | -2.83 | -19.14 | 13.48 | 0.73 |
| SPELL_UCHE_p12 | 49.30% | 52.24% | -2.94 | -19.25 | 13.37 | 0.72 |
| SPELL_UCHE_p13 | 52.11% | 53.50% | -1.39 | -17.68 | 14.90 | 0.87 |
| SPELL_UCHE_p14 | 52.11% | 52.67% | -0.56 | -16.86 | 15.75 | 0.95 |
| SPELL_UCHE_p15 | 49.30% | 49.45% | -0.15 | -16.48 | 16.17 | 0.99 |
| SPELL_UCHE_p16 | 49.30% | 49.65% | -0.36 | -16.68 | 15.97 | 0.97 |
| SPELL_UCHE_p17 | 47.89% | 49.69% | -1.80 | -18.12 | 14.52 | 0.83 |
| SPELL_UCHE_p18 | 52.11% | 51.01% | 1.10 | -15.21 | 17.41 | 0.89 |
| SPELL_UCHE_p19 | 52.11% | 51.01% | 1.10 | -15.21 | 17.41 | 0.89 |
| SPELL_UCHE_p20 | 52.11% | 50.31% | 1.81 | -14.51 | 18.12 | 0.83 |
| SPELL_UCHE_p21 | 50.70% | 50.31% | 0.40 | -15.93 | 16.72 | 0.96 |
| SPELL_UCHE_p22 | 49.30% | 50.62% | -1.33 | -17.65 | 15.00 | 0.87 |
| SPELL_UCHE_p23 | 47.89% | 52.25% | -4.36 | -20.66 | 11.94 | 0.60 |
| SPELL_UCHE_p24 | 47.89% | 52.88% | -4.99 | -21.29 | 11.30 | 0.55 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 238:*** *PSM impact estimates on monthly UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start | 64.79% | 61.91% | 2.88 | -12.83 | 18.59 | 0.72 |
| Sustained non-reliance on UCHE for 6 months after intervention start | 57.75% | 55.79% | 1.96 | -14.21 | 18.13 | 0.81 |
| Sustained non-reliance on UCHE for 12 months after intervention start | 49.30% | 47.76% | 1.53 | -14.78 | 17.84 | 0.85 |
| Sustained non-reliance on UCHE for 18 months after intervention start | 40.85% | 41.20% | -0.35 | -16.36 | 15.65 | 0.97 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 239**: PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on UCHE receipt and no HB after*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on UCHE for 3 months after intervention start and no HB receipt after | 38.03% | 41.21% | -3.18 | -19.16 | 12.79 | 0.70 |
| Sustained non-reliance on UCHE for 6 months after intervention start and no HB receipt after | 38.03% | 35.50% | 2.53 | -13.24 | 18.29 | 0.75 |
| Sustained non-reliance on UCHE for 12 months after intervention start and no HB receipt after | 26.76% | 25.94% | 0.83 | -13.54 | 15.19 | 0.91 |
| Sustained non-reliance on UCHE for 18 months after intervention start and no HB receipt after | 21.13% | 18.86% | 2.27 | -11.03 | 15.57 | 0.74 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 240**: PSM impact estimates on sustained non-reliance on UCHE receipt for the 24-month period after the intervention start and no HB receipt after, showing mean differences between treatment and control groups with 95% confidence intervals and p-values*

### *Monthly HB receipts*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| SPELL_HB_p0 | 18.31% | 15.07% | 3.24 | -9.40 | 15.89 | 0.61 |
| SPELL_HB_p1 | 21.13% | 14.54% | 6.58 | -6.80 | 19.97 | 0.33 |
| SPELL_HB_p2 | 18.31% | 13.01% | 5.30 | -7.44 | 18.05 | 0.41 |
| SPELL_HB_p3 | 16.90% | 13.48% | 3.42 | -9.13 | 15.97 | 0.59 |
| SPELL_HB_p4 | 18.31% | 13.48% | 4.83 | -7.91 | 17.58 | 0.46 |
| SPELL_HB_p5 | 15.49% | 12.00% | 3.49 | -8.52 | 15.50 | 0.57 |
| SPELL_HB_p6 | 15.49% | 11.54% | 3.95 | -7.94 | 15.85 | 0.51 |
| SPELL_HB_p7 | 14.08% | 12.81% | 1.28 | -10.51 | 13.06 | 0.83 |
| SPELL_HB_p8 | 14.08% | 10.47% | 3.62 | -7.92 | 15.16 | 0.54 |
| SPELL_HB_p9 | 11.27% | 9.44% | 1.83 | -8.93 | 12.59 | 0.74 |
| SPELL_HB_p10 | 12.68% | 9.25% | 3.43 | -7.46 | 14.31 | 0.54 |
| SPELL_HB_p11 | 12.68% | 8.41% | 4.27 | -6.33 | 14.87 | 0.43 |
| SPELL_HB_p12 | 14.08% | 7.41% | 6.68 | -4.03 | 17.39 | 0.22 |
| SPELL_HB_p13 | 14.08% | 7.29% | 6.80 | -3.76 | 17.35 | 0.21 |
| SPELL_HB_p14 | 9.86% | 7.29% | 2.57 | -7.11 | 12.25 | 0.60 |
| SPELL_HB_p15 | 8.45% | 8.56% | -0.11 | -9.63 | 9.42 | 0.98 |
| SPELL_HB_p16 | 8.45% | 11.71% | -3.26 | -13.11 | 6.60 | 0.52 |
| SPELL_HB_p17 | 9.86% | 8.68% | 1.18 | -8.67 | 11.03 | 0.81 |
| SPELL_HB_p18 | 8.45% | 6.62% | 1.83 | -7.34 | 10.99 | 0.70 |
| SPELL_HB_p19 | 11.27% | 8.92% | 2.35 | -8.12 | 12.82 | 0.66 |
| SPELL_HB_p20 | 8.45% | 6.82% | 1.63 | -7.72 | 10.98 | 0.73 |
| SPELL_HB_p21 | 8.45% | 6.82% | 1.63 | -7.72 | 10.98 | 0.73 |
| SPELL_HB_p22 | 8.45% | 10.12% | -1.67 | -11.37 | 8.02 | 0.74 |
| SPELL_HB_p23 | 8.45% | 14.25% | -5.80 | -15.81 | 4.22 | 0.26 |
| SPELL_HB_p24 | 9.86% | 14.76% | -4.91 | -15.23 | 5.42 | 0.35 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 241**: PSM impact estimates on monthly HB receipt post-intervention, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

### *Sustained non-reliance on HB receipt*

| PSM impact estimates | | | | | | |
|---|---|---|---|---|---|---|
| Outcome Variable | Treatment Group (%) | Control Group (%) | Treatment Effect (ppt) | 95% CI - Lower Bound (ppt) | 95% CI - Upper Bound (ppt) | P-value |
| Sustained non-reliance on HB for 3 months after intervention start | 94.37% | 94.98% | -0.61 | -8.60 | 7.37 | 0.88 |
| Sustained non-reliance on HB for 6 months after intervention start | 92.96% | 94.98% | -2.02 | -10.42 | 6.38 | 0.64 |
| Sustained non-reliance on HB for 12 months after intervention start | 84.51% | 91.12% | -6.62 | -17.87 | 4.63 | 0.25 |
| Sustained non-reliance on HB for 18 months after intervention start | 78.87% | 82.50% | -3.63 | -16.92 | 9.67 | 0.59 |

*Significance levels are denoted as follows: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.10$*

***Table 242**: PSM impact estimates on sustained non-reliance on HB receipt for the 24-month period after the intervention start, showing mean differences between treatment and control groups with 95% confidence intervals and p-values.*

# Appendix H: CEA – Interview to Estimate Transaction Costs

## H.1 Data Collection (Interviews)

Interviews were conducted either remotely, using Microsoft Teams, or in person using a digital voice recorder. The majority were carried out as panel interviews, with two or more members of the research team present to support note-taking and to facilitate in-depth exploration through follow-up questions.

The research received ethical approval from the University's Ethics Committee. Prior to participation, individuals either received an information sheet or attended a presentation delivered by the research team, both of which outlined the study's purpose and participation requirements. Informed consent was obtained for every interview.

## H.2 Pre-interview overview

### *Definition of transaction costs (Petersen et al 2019)*

Costs involved in finding/selecting vendors, negotiating contract terms, monitoring performance and ensuring that the delivery of final outcomes meets specifications. It comprises:

1. Ex ante costs (before commissioning)
    - Pre-contract signing search and information costs
    - Contract set-up and negotiation
2. Ex post costs (after commissioning)
    - Monitoring and enforcement

### *Pre-KBOP and KBOP*

A comparison of the key contract features of pre-KBOP and KBOP is provided in Table 243. Tailoring the definition of transaction costs for the pre-KBOP and KBOP is provided in Table 244.

| Comparison of key contract features | | |
|---|---|---|
| **Contract features** | **Pre-KBOP** | **KBOP** |
| **Contract partiers** | Kirklees Council and provider organisations | Kirklees Council and KBOP social prime |
| **Contract management responsibility** | Kirklees Council | Kirklees Council |
| **Payment mechanism** | Monthly advance block payment | Monthly outcomes payment |
| **Key performance indicators** | Service utilisation; throughput; independent living | Accommodation; education, training and employment; health and wellbeing; financial resilience |
| **Auditing** | No pre-defined evidence requirements; spot checks of qualitative evidence (e.g. workbooks) | Pre-defined evidence requirements; Kirklees Council audits every outcome |
| **Contract duration** | Max 2 years | 5 years |

***Table 243:*** *Comparison of key contract features (based on Second Stage Evaluation Report)*

| Definition of transaction costs for the pre-KBOP and KBOP context | | |
|---|---|---|
| **Transaction cost category** | **Example costs** | **Information needed to estimate costs** |
| **Ex ante / before commissioning costs** | | |
| Pre-contract set-up<br>Contract set-up and negotiation | • Development work<br>• Feasibility studies<br>• Business case<br>• Early phase legal costs<br>• Market engagement costs<br>• Legal advice<br>• Financial advice<br>• Procurement costs | • Time period work occurred<br>• No. of employees undertaking function<br>• No. of FTE<br>• Employee costs |
| **Ex post / after commissioning costs** | | |
| Monitoring and enforcement | • Monitoring costs<br>• Evaluation costs<br>• Governance costs | • Time period work occurred<br>• No. of employees undertaking function<br>• No. of FTE<br>• Employee costs |

***Table 244:*** *Definition of transaction costs for the pre-KBOP and KBOP context*

### H.3 Interview questions: pre-KBOP transaction costs

We would like you to think back to the pre-KBOP period (before 2019) where the provision for adults with housing-related support needs in Kirklees was commissioned as a housing floating support service. The floating support service provided flexible packages of support for a specified number of hours per week. Kirklees Council managed the delivery of these services, which was delivered by nine voluntary sector provider organisations. Kirklees Council initially managed 27 individual contracts with providers until the merging of contracts in 2017/18, where the Council managed 15 individual contracts. Auditing included spot checks of qualitative evidence (e.g. workbooks).

*Ex ante costs*

1. Pre-contract set-up

We would like you think about the period prior to contract set-up where you were trying to find and select suitable service providers.

a. Can you provide a brief overview of the major tasks undertaken to search and identify these nine voluntary sector provider organisations? Or if too difficult to recall, could you provide a brief overview of your typical procurement process?
b. We would like to understand the nature of pre-contract set-up activities and whether you would say they are predominantly "fixed" (i.e. activities remain the same no matter how many providers are sought) or "variable" (i.e. activities change based on how many providers are sought)?
c. What time period did pre-contract set-up occur?
d. Can you provide details on the team involved in this:
    i. How many employees undertook this function?
    ii. Units of time: size of FTE / approximately how much time across (b) did this occur?
e. In order to estimate costs, we require annual salaries of the employees undertaking the functions in (c).

    Are you able to provide us with the grade of these employees so we can estimate their salaries from the Local Government Association: (https://www.local.gov.uk/about/who-we-are-and-what-we-do/what-we-spend-and-how-we-spend-it/organisational-information/lga)?

2. Contract set-up and negotiation

We would like you to think about the period where you were setting up the contract with the selected nine service providers.

a. Can you provide a brief overview of the major tasks that were involved in setting up the 27 contracts? Or if too difficult to recall, could you provide an overview of your typical contract set-up/negotiation process?
b. We would like to understand the nature of contract set-up and negotiation activities and whether you would say it is predominantly "fixed" (i.e. activities remain the same no matter how many contracts are set-up) or "variable" (i.e. activities change based on how many contracts are set-up)?
c. What time period did contract set-up and negotiation occur?
d. Can you provide details on the team involved in this:
    a. How many employees undertook this function?
    b. Units of time: size of FTE / approximately how much time across (b) did this occur?
e. In order to estimate costs, we require annual salaries of the employees undertaking the functions in (c).

Are you able to provide us with the grade of these employees so we can estimate their salaries from the Local Government Association: (https://www.local.gov.uk/about/who-we-are-and-what-we-do/what-we-spend-and-how-we-spend-it/organisational-information/lga)?

*Ex post costs*

1. Monitoring and enforcement

We would like you to think about the period after contract set-up with the nine service providers.

a. Can you provide a brief overview of the major tasks that were involved in monitoring and enforcing contracts? Or if too difficult to recall, could you provide an overview of your typical process post contract set-up?
b. We would like to understand the nature of monitoring and enforcement activities and whether you would say they are predominantly "fixed" (i.e. activities remain the same no matter how many contracts there are) or "variable" (i.e. activities change based on how many contracts there are)?
c. What time period did contract monitoring and enforcement occur?
d. Can you provide details on the team involved in this:
    a. How many employees undertook this function?
    b. Units of time: size of FTE / approximately how much time across (b) did this occur?
e. In order to estimate costs, we require annual salaries of the employees undertaking the functions in (c).

Are you able to provide us with the grade of these employees so we can estimate their salaries from the Local Government Association: (https://www.local.gov.uk/about/who-we-are-and-what-we-do/what-we-spend-and-how-we-spend-it/organisational-information/lga)?

f. Was there a reduction in time required for monitoring and enforcement following the merging of contracts in 2017/18?

# Appendix I: CEA – Sensitivity Analysis

## I.1 Sensitivity analysis using PSM impact estimates

| Sensitivity analysis using PSM impact estimates | | | |
|---|---|---|---|
| | **Scenario** | **NPV per person** | **ICER** |
| **Effect scenarios** | | | |
| | **Incremental effect estimates taken from PSM estimates (Section 4.3): one year post intervention start date** | | |
| 5a | • Earnings per person (real 2024 £) | £539 | -3.0 |
| | • Number of months in employment per person | 5.0 | -324 |
| | • Percentage point reduction in housing-related benefits claimed (HB or UCHE) | 9.0 | -180.0 |
| | **Incremental effect estimates taken from PSM estimates (Section 4.3): two years post intervention start date** | | |
| 5b | • Earnings per person (real 2024 £) | £387 | -4.2 |
| | • Number of months in employment per person | 7.0 | -231 |
| | • Percentage point reduction in housing-related benefits claimed (HB or UCHE) | 5.3 | -305.6 |

***Table 245:*** *Sensitivity analysis using PSM impact estimates*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