Policy in Practice

Local Government Association

COMMISSIONED REPORT

THE IMPACT OF UNIVERSAL CREDIT ON EMPLOYMENT OUTCOMES

METHODOLOGICAL NOTE AND FINDINGS

NOVEMBER 2018

KEY MESSAGES

- Policy in Practice has been commissioned by the Local Government Association (LGA) to investigate the employment effects of Universal Credit. The answer to this question will shape national and local policies, and impact local communities.

- This follows recent reports by the Learning and Work Institute and Policy in Practice which found that low income families were likely to be more than £40 per week worse off by 2020; while mitigating policy measures were taken into account, this research did not take into account employment effects.

- The report presents three alternative methodologies to assess employment effects using local authority data. The most promising approaches compare employment outcomes three months after making a new claim or experiencing a change in circumstances under legacy benefits and Universal Credit.

- Taken together, the three approaches rule out Universal Credit having a large negative impact on employment; there is more evidence to suggest that the employment impact of Universal Credit is positive, albeit small.

- The DWP can and should do more to systematically track employment outcomes on a comparable basis to legacy benefits. Research published by the DWP in September 2017 suggests that Universal Credit increases the employment rate of claimants by three percentage points six months after the claim is made; however, the NAO state that this would not capture the net impact on the employment rate.

- Analysis should be commissioned to systematically compare employment outcomes for people on Universal Credit versus those on legacy benefits. This report shows this is both possible and necessary, given the importance of employment outcomes to the case for Universal Credit.

- Participating local authorities told us that they want Universal Credit to succeed. However, to work for the most vulnerable households they warned that the welfare system could not operate in isolation. The support around Universal Credit needed to be much more flexible and responsive to individual needs. Councils will continue to play a vital role in supporting vulnerable households, and they need the freedom to develop local support tailored to local needs and local resources.

INTRODUCTION

Universal Credit (UC) is the government's flagship welfare reform, combining six of the main means-tested benefits into one single, monthly payment. Its intent, beyond simplifying the administration and payment of benefits, is to better incentivise work. The policy is very much at the heart of the government's anti-poverty strategy, which seeks to promote financial independence by providing better work prospects for individuals, starting with the benefits system.

The roll-out of Universal Credit is progressing rapidly, with 'full-service' Universal Credit on course to be available in every Jobcentre Plus (JCP) area by 2019. With this in mind, and as local councils adapt to these changes, understanding the extent to which the policy is meeting its stated objectives, to increase employment, will be critical to national and local policy-makers.

Policy in Practice has been commissioned by the Local Government Association (LGA) to investigate the employment effects that Universal Credit is having on local communities, with the aim of helping to shape future decisions on the policy.

This builds on previous work commissioned by the LGA in 2017 and carried out by Policy in Practice, The Cumulative Impact of Welfare Reform: A National Picture (available to download here). In this report, Policy in Practice used data from the Family Resources Survey (FRS) to investigate the impact of welfare reforms to date on British households, and to forecast what the picture will look like in the future.

It found that, by 2020, the combined impact of ongoing welfare reforms (such as Universal Credit and the working-age benefits freeze) and broader macroeconomic changes (such as inflation) will leave the average working-age household facing a real income loss of over £40/week. An accompanying report by the Learning and Work Institute, available to download here, looked at how local councils could work more effectively with Jobcentre Plus, target support to households impacted by welfare reforms and use discretionary funds to help people in crisis.

This analysis was based on a static analysis of households, without taking into account any of the dynamic changes to family income that could occur as households adapt to the impact of policies such as Universal Credit. Under Universal Credit, a household may choose to change their circumstances, ideally by moving into work as a consequence of the policy.

To account for this, and to provide a clearer picture of how households are reacting to Universal Credit in practice, this report will look at longitudinal data of households on Universal Credit. Using historical Housing Benefit (HB) and Council Tax Support (CTS) data gathered from three English local authorities, we examine how the employment outcomes of households on Universal Credit differ from those receiving legacy benefits.

The Department for Work and Pensions (DWP) have previously conducted their own analyses on the employment impacts of Universal Credit. In its most recent 2017 update available to download here, it is found that Universal Credit claimants are four percentage points more likely to be in work than households making a claim for Job Seekers Allowance (JSA) six months after the claim is made. However, this analysis is limited to single, unemployed claimants without children (who would claim Job Seekers Allowance under the legacy benefits system).

Evaluation	Date	Sample	Claims	Percentage of Department's forecast caseload	Outcomes
Estimating the early labour market impacts of Universal Credit	Feb 2015	6,000 single unemployed claimants in four pathfinder offices	July 2013 – April 2014	0.07%	Universal Credit claimants five percentage points more likely to work in four months after claim made than matched Jobseeker's Allowance claimants.
Universal Credit: estimating the early labour market impacts: updated analysis	Dec 2015	8,000 single unemployed claimants in 10 pathfinder offices	July 2013 – Sept 2014	0.09%	Universal Credit claimants eight percentage points more likely to work in nine months after claim made than matched Jobseeker's Allowance claimants.
Employment impact analysis update	Sep 2017	27,000 single unemployed claimants in 94 offices	July 2014 – April 2015	0.32%	Universal Credit claimants four percentage points more likely to work in six months after claim made than matched Jobseeker's Allowance claimants.

Source: National Audit Office analysis of the Department for Work & Pensions' published evaluations of the impacts of Universal Credit

The results of early trials of the employment outcomes of those on Universal Credit (National Audit Office)

The National Audit Office recently released a report stating that the DWP will not be able to measure whether it has achieved its stated goal of increasing employment. This is because the positive results in the table above do not capture the net impact on the employment rate. In the same report, the DWP are reported to claim that they cannot scale the methods outlined above because they need a control group of legacy claimants, and these are becoming unavailable as full service rolls out.

A core finding of our research for the LGA is that administrative data can and should be used to provide a reasonable control group of claimants. Our approach can be improved upon with full access to outcomes for the Universal Credit cohort, rather than only those in receipt of council tax support. For this report, we have worked with data from three local authorities that were able to share their data, so our findings on the employment impact of Universal Credit cannot be generalised to the UK as a whole.

However, access to national data would allow the accurate tracking of employment outcomes for many more households on Universal Credit, and tracking those that move from one local area to another would provide a comprehensive and representative analysis of whether Universal Credit is meeting its stated objectives around employment. Given the importance of employment outcomes to the central case behind Universal Credit, we believe that this type of analysis can be completed faster and more systematically than gold standard random controlled trials, and should be considered by DWP to be commissioned at scale.

Local authorities play a broad and holistic role in supporting people. This is particularly true of the significant minority of people who are struggling with Universal Credit. The DWP recognises the importance of local support in helping people to claim Universal Credit, though local organisations believe they have more to contribute. We would like to thank Newcastle City Council, the London Borough of Tower Hamlets and Great Yarmouth Borough Council for participating in this research.

As well as sharing their anonymised administrative data, they also shared with us their vision for local support for people on Universal Credit. This included helping people to find work, find or stay in their home, and helping people with emergency funds and support.

The initial part of this report discusses the methodology, including the datasets used, the complexity of the Universal Credit claims process and how this impacts on determining a correlation between Universal Credit and employment outcomes. Next, the findings from three different approaches to measuring the relationship between Universal Credit and employment outcomes is presented. We conclude with the views of the three participating local authorities of their vision of the role local councils could play.

METHODOLOGY

For this study, Policy in Practice tracked the employment effects of Universal Credit through a longitudinal analysis of households. Specifically, we tracked how the employment rate of Universal Credit claimants changed over time, and compared outcomes against a similar cohort of households on legacy benefits in order to determine whether there is a statistical relationship between Universal Credit and better employment outcomes.

The data

Policy in Practice carried out this analysis using pseudonymised household-level data collected from three English local authorities, namely datasets on households receiving Housing Benefit (HB) and Council Tax Support (CTS). Households that move onto Universal Credit leave Housing Benefit; however, those that continue to claim Council Tax Support are captured. Local authorities have been able to capture more than half of all Universal Credit claimants in full service areas using this approach.

Both datasets are updated monthly and contain detailed information on the households' demographic characteristics, their levels and different types of income (including their Universal Credit award), household characteristics including disability or children and, crucially, information on earnings and employment. Policy in Practice has collected these datasets on a monthly basis from January 2016 (before Universal Credit full-service had been rolled out) up to the latest monthly extract available, for three local authorities.

Claiming Universal Credit

Households can start claiming Universal Credit as new claims, or they can be moved onto Universal Credit due to a change in circumstances that affects their benefits claim. These changes could be:

- Change in employment status, e.g. increase/decrease in working hours beyond 16 hours threshold
- Change in family circumstances, e.g. having a child and claiming Child Tax Credit
- Renewal of tax credits
- Change in health, e.g. outcome of Work Capability Assessment changes
- Moving house and making a claim with new local authority where Universal Credit full-service is available

A full list of the changes in circumstances that would trigger a Universal Credit claim can be found here.

Identifying a treatment and control group

In order to assess the employment impact of Universal Credit, we want to compare employment outcomes for households affected by Universal Credit (the treatment group) to a similar set of households covered by legacy benefits (the control group).

The control group should be as statistically similar to the treatment group as possible. If this were not the case, it would not be possible to attribute any differences in employment observed entirely to Universal Credit. For example, households that moved onto Universal Credit through a qualifying change in circumstances (which will make up a sizeable proportion of Universal Credit claims) cannot be compared to a group of demographically similar households on legacy benefits, as the change in circumstances itself is likely to have a separate impact on employment.

Changing working hours or having a baby, for example, are factors that will have an impact on employment independently of Universal Credit. In such a case, comparing changing employment patterns will be confounding the impact of Universal Credit with that of other factors, such as the change in circumstance.

This report focuses on three approaches that control for this and isolate the employment impact of Universal Credit:

- The first approach identifies statistically accurate treatment and control groups by focusing only on the households that move onto Universal Credit through a qualifying change in circumstances. Employment rates for these households on Universal Credit (the treatment group) are compared to households with the same change before Universal Credit is available, and so claim legacy benefits (the control group).

- The second approach focuses exclusively on households that move onto Universal Credit through making a new claim, for example if someone loses their job. The treatment group is defined simply as households with a new claim for Universal Credit, whilst the control group are households who made a new claim for legacy benefits, because Universal Credit was not available when they claimed.

- The third and final approach presented calculates the employment impact of the Universal Credit regime across all households in the data collected, rather than focusing either on households that have a change in circumstances or on new claims. In this case, the treatment group is defined as living in a postcode where the Universal Credit regime is available, while the control group is defined as living in a postcode where it is not yet available in a given time period. This approach requires people living in a UC postcode to be aware of the intended impact of the Universal Credit regime in order for it to have an impact on employment.

General limitations

Due to the complexity of how a Universal Credit claim is triggered and its phased roll-out across the UK, measuring its employment impact is particularly challenging. The Institute for Fiscal Studies produced a detailed study (available to download here) on the feasibility of evaluating the labour-market impacts of Universal Credit. It concludes that such an evaluation is extremely complex, with the best outlook for evaluation depending upon access to robust longitudinal, household-level data.

While the approach that we have taken does use longitudinal data that sheds light on the dynamic impact of Universal Credit, there are a number of limitations that bear mentioning.

The first is the fact that Universal Credit could have indirect impacts on employment that are hard to measure. It is possible, for example, that Universal Credit is having an impact on employment not through the regime itself, but because people are dissuaded from claiming Universal Credit altogether and instead choose to work. In other words, Universal Credit will likely have an impact on employment rate beyond its actual claimants.

Secondly, in reality employment outcomes and Universal Credit are likely to be jointly determined. This means that any employment effect that we are able to measure may not be purely down to Universal Credit, but rather also be determined by existing employment patterns. It is difficult to isolate the impact that Universal Credit has on employment, as in practice it is likely that some of this impact (or specifically, the type of Universal Credit claimants) will have been determined by existing employment patterns.

One way of accounting for this would be to control for local variations of employment rates. However, the data required to do this – month by month employment rate changes by local authority – is not easily comparable, and not factored into the approaches here. A rising employment rate over the period, as has generally been the case, would dampen any indication of a positive impact from Universal Credit, since people moved onto Universal Credit later, as the overall employment rate was rising.

Thirdly, as we can only observe a household on Universal Credit if they claim Council Tax Reduction, in order to draw conclusions over all households receiving Universal Credit we assume that Universal Credit does not itself have an impact on the likelihood of claiming CTR. Anecdotal evidence from local authorities suggests that take up of CTR is lower among Universal Credit claimants, even when a household is eligible. This may mean that

households on Universal Credit but not claiming CTR have different characteristics which we are unable to control for. The DWP have complete data on Universal Credit claimants, so would not face this limitation.

Lastly, we are looking at only a small sample of households across a few local authorities, to show that it is possible to assess the employment effect in a low cost, systematic way. Access to nationwide data would allow for an assessment that could be generalised to the UK as a whole, and better track employment outcomes for people moving from one local authority to another.

In spite of these limitations, the question over the effectiveness of Universal Credit is too big to be ignored. It is better to base any discussion on the available evidence.
The aim of this research is to initiate a conversation across local and national government on the value of longitudinal data in helping local policy-makers to track the impact of Universal Credit and other policies on their communities.

FINDINGS FROM DATA ANALYSIS

Approach 1: Universal Credit claims made through qualifying changes in circumstances

This approach compares employment outcomes for households that moved onto Universal Credit from the legacy benefits system through one of the qualifying changes in circumstances, against households that have the same change in circumstances before Universal Credit full service had rolled out. A key assumption made here is that these changes in circumstances occur randomly. Claimants are unable to bring them about as a result of considerations about the welfare regime. This means that the only thing distinguishing the two groups is the time in which the claim was made. Table A1 in the Annex compares the two control groups on selected measures and finds them to be broadly similar, making them suitable treatment and control groups.

Approach 1: Universal Credit claims made through qualifying changes in circumstances

No. households in treatment group: 4,477
No. households in control group: 3,339

Scenario A: households dropping out assumed to find work
Coefficient estimate: 0.003 (or an increase in employment rate of 0.3 pp)
95% confidence interval: -0.025, 0.031

Scenario B: households dropping out excluded
Coefficient estimate: 0.009 (or an increase in employment rate of 0.9 pp)
95% confidence interval: -0.019, 0.037

See Annex for further detail

For the households seeing one of the qualifying changes in circumstances that could be observed in the data collected (see Annex for detail), we tracked how the employment rate changed three months after the triggering change in circumstance, for both treatment and control groups. Using a difference-in-difference regression, we calculated the impact of Universal Credit on employment 3 months after the change in circumstances.

Because not all households appear in the data three months after the change in circumstance, we have to make assumptions about why they leave the data. In Scenario A, we assume that the households drop out of the data because they find work and therefore stop claiming, while in Scenario B we assume the households

simply moved elsewhere and we do not know their employment status, so that we exclude these from the analysis. The reality is likely to be somewhere in between these two figures.

In scenario B, a coefficient estimate of 0.009 is found. This means that households having a change in circumstances and claiming Universal Credit have an employment rate that is 0.9 percentage points higher than that for households having a change of circumstances and claiming legacy benefits. In scenario A, households having a change in circumstances and claiming Universal Credit have an employment rate that is 0.3 percentage points higher than that for households having a change of circumstances and claiming legacy benefits.

Under this approach, it cannot be concluded that Universal Credit has a significant impact on employment outcomes either way. However, due to the confidence intervals calculated under each scenario, in this approach it is possible to rule out that Universal Credit will have a strong, negative impact on employment rates.

Approach 2: New claims before and after Universal Credit full-service

A Universal Credit claim may not always be a claimant migrating from legacy benefits due to a change in circumstances. It could be a new claim by someone that has just lost their job or has moved into the area, which happens to be at a time when Universal Credit full-service is available. This approach focuses on new claimants' employment outcomes compared to the old welfare system but does not consider households who move onto Universal Credit from legacy benefits.

The treatment group in this case is defined as households making a new Universal Credit claim once Universal Credit is available to all residents in the local authority. The control group are households making a new claim before Universal Credit full-service is available anywhere in the authority i.e. a claim that would be Universal Credit but for the timing. The treatment group is made up of 970 households, and the control group of 2,291 households.

We exclude new claims for legacy benefits between May 2016 and March 2017 in areas where Universal Credit was not available, because the anticipation of the Universal Credit regime could affect the results. Further work could look at ways of including households in this period (when Universal Credit full service is only partially rolled out) in order to increase the sample size.

Table A2 in the Annex shows compares the two control groups on selected measures and finds them to be broadly similar, making them suitable treatment and control groups.

Approach 2: New Universal Credit claims only

No. households in treatment group: 970
No. households in control group: 2,291

Scenario A: households dropping out assumed to find work
Coefficient estimate: 0.075 (or an increase in employment rate of 7.5 pp)
95% confidence interval: 0.026, 0.124

Scenario B: households dropping out excluded
Coefficient estimate: 0.022 (or an increase in employment rate of 2.2 pp)
95% confidence interval: -0.030, 0.073

See Annex for further detail

We compared the employment rates of both groups three months after their initial claim, relative to their initial employment rate. As in approach 1, we calculated two separate scenarios: under scenario A we assumed that any households that dropped out of the dataset after three months did so because they found work (so were included in the analysis), and in scenario B we excluded these. For each, we used a difference-in-difference analysis to compare outcomes between the treatment and the control group.

In scenario A, it was found that Universal Credit increases the employment rate of new claimants by 7.5 percentage points, 3 months after their initial claim, compared to the legacy benefit system. This is largely explained by the fact that the starting employment rate for households that drop out in the treatment group (those on UC) is lower than that for drop-outs in the control group, so assuming that these households all find work translates into a more positive employment impact for the treatment group. In scenario B, where the assumption is that none of the households leaving the dataset find work, Universal Credit increases the employment rate of new claimants by 2.2 percentage points.

Under this approach, we find some evidence that Universal Credit has a positive impact on employment; however, it cannot be ruled out that the effect may be slightly negative.

Approach 3: Differentiating households by Jobcentre Plus area to define treatment and control groups

This approach does not focus on either claims for Universal Credit through a change in circumstances or new claims. Instead, it looks at the impact of the Universal Credit regime by comparing the employment rates of areas served by different Jobcentre Plus (JCP), each rolling out full-service Universal Credit at different points, within the same local authority.

In many cases, households within a particular local authority will be able to claim Universal Credit at different points, depending on the JCP serving their postcode. Figure 2 shows what the Universal Credit roll-out for a local authority may look like, with each JCP offering full-service Universal Credit at three different points in time: T1, T2 and T3.

	TIME			
	Pre-Universal Credit	T1	T2	T3
JCP A		Treatment 1	Control 2	Control 3
JCP B		Control 1	Treatment 2	Control 3
JCP C		Control 1	Control 2	Treatment 3

Fig 1: Definition of treatment and control group according to Universal Credit roll-out schedule by JCP

In this approach, the treatment group is defined as households living in an area where the local JCP has begun to offer full-service Universal Credit, in any of T1, T2 or T3. The control group is defined as the households living in an area where the local JCP did not begin offering full-service Universal Credit at that point, in any of T1, T2 or T3. For every time point, any change in the employment rate relative to the pre-Universal Credit era is calculated for both treatment and control group.

Any difference in the change between treatment and control group's employment rates can be attributed to the impact of Universal Credit, assuming that, in the absence of Universal Credit, employment rates in every group would follow the same trend (the common trend assumption). This, a standard 'difference in difference' correlation, is done three times (once for each of T1, T2 and T3) and averaged.

An implication of the common trend assumption is that the Universal Credit full-service regime is assumed to have an impact on the behaviour of all claimants living within it, whether on Universal Credit or legacy benefits. The impact of Universal Credit on residents served by JCPa, for example, will only be felt in T1. In T2 and T3, any change in employment rate observed is assumed to be external to Universal Credit. This is a necessary assumption in order to enable an accurate comparison between treatment and control groups at T2 and T3. However, in reality, Universal Credit is likely to have a gradual as well as an immediate impact.

It should also be noted that this approach can only be taken in the cases where more than one JCP serves households within a local authority, with each beginning to offer full-service Universal Credit at three different points in time. This was the case for one of the three local authorities that shared data with Policy in Practice.

Approach 3: Comparing employment rates across JCP areas

The households in the treatment group are all households living in postcodes where UC full service is live at a particular point, while those in the control group are households living in a postcode where Universal Credit is not available at that same point.

Coefficient estimate: 0.007 (or an increase in employment rate of 0.7 pp)
95% confidence interval: 0.002, 0.013

Under this approach, it is found that employment rates are on average 0.7 percentage points higher when Universal Credit full-service is available, compared to when it is not. The confidence intervals given above suggest that it is possible to rule out Universal Credit having a negative impact on employment rates. Using this approach, it can be concluded that Universal Credit is likely to have a small positive impact on employment rates.

WHAT ROLE CAN LOCAL AUTHORITIES PLAY IN SUPPORTING BETTER EMPLOYMENT OUTCOMES FOR UNIVERSAL CREDIT CLAIMANTS?

The analysis in this report is based on administrative data held by local authorities and updated every month.

We asked those local authorities that shared their data as part of this study to tell us:

- What they were doing to support their residents as they moved onto Universal Credit
- What could be improved within Universal Credit
- The ideal role for local authorities once Universal Credit is fully rolled out.

Local policy-makers could take a similar approach to the one presented here to evaluate the impact of Universal Credit, and interventions to support their residents, in a systematic way.

"My priority is to support our low income households and those affected by Universal Credit. The support currently funded by the Government for Universal Credit claimants is far too narrowly focused and restrictive and is leaving many of our residents facing hardship and worsening conditions.

"We need Universal Credit to be far more responsive to an individual's needs and to be funded properly, not being used as an opportunity for cuts. Taking a more outcome-focused approach would ensure that claimants are properly supported to make and maintain their claim and as a result improve their employment prospects."

Mayor John Biggs, London Borough of Tower Hamlets

"The welfare system doesn't operate in isolation, many of the people in receipt of benefits rely upon other forms of local support, and many have higher needs. We aim to proactively help vulnerable residents and those at risk of homelessness or destitution where neither the welfare state, nor the local employment market fully meets their needs.

The analysis of Universal Credit would benefit from some segmentation of which households struggle to find work more than others. The Council can use this information to better understand the causes of the risks of homelessness and destitution which facilitates better decision making about the most cost-effective use of our limited resources. It also will help to support our good partnership working with Jobcentre Plus to help to raise the aspirations of people who are some distance from work, and align our support to the conditionality placed upon them."

Neil Munslow, Service Manager, Active Inclusion, Newcastle City Council

"Councils want to see Universal Credit succeed in its ambitions to have a positive impact on employment and provide better outcomes for our residents. Great Yarmouth council supports the rollout of Universal Credit by ensuring partners regularly meet, leading the multi-agency forum with Jobcentre Plus, Welfare Rights and Debt Advisors and continued engagement with local landlords.

Local Authorities continue to play a vital role in supporting residents. Our customer service teams help those struggling to make and manage Universal Credit claims, and people will still turn to their local authority when they need help and advice."

Miranda Lee, Head of Customer Services, Great Yarmouth Borough Council

CONCLUSION

Evaluating the employment impact of Universal Credit is an essential question for local and national policymakers. Increasing employment has always been a key part of the rationale for introducing Universal Credit.

This paper shows that by analysing longitudinal administrative data on Universal Credit claimants, it is possible to track the employment effects of Universal Credit.

The complexity of how a Universal Credit claim is triggered, the staggered rollout of the regime and the difficulty in isolating the impact of the regime itself from other factors makes it difficult to assess the impact using the small sample of three English local authorities presented here. However, we have established three potential approaches which could be scaled and refined, and are likely to be definitive if applied at a national level.

- The first approach compares the employment outcomes of households that move onto Universal Credit through a change in circumstances against households that had the same change in circumstances before Universal Credit full-service was available. It rules out a strongly negative impact of Universal Credit on employment rates, but it cannot be concluded whether it has an impact either positive or negative.
- The second approach compares employment outcomes of households making a claim before Universal Credit full-service was available anywhere to those of households making a claim after it was rolled out. This approach finds some evidence of Universal Credit having a positive impact on employment; however, it cannot be ruled out that the true effect would be slightly negative.
- The third approach differentiates households by the JCP regime available, and compares employment rates before and after Universal Credit full-service became available. This approach finds that Universal Credit is likely to have a small positive impact on employment rates.

Taken together, the three approaches present a mixed picture. All three approaches rule out Universal Credit having a large negative impact on employment, and approaches 1 and 3 also rule out a large positive impact. Overall, there is evidence to suggest that the impact of Universal Credit is positive, albeit small. A larger sample size may make it possible to compare outcomes for more households, determine what the true impact of Universal Credit is on employment rates (if at all) and determine the impact that improved work incentives can have.

The National Audit Office recently released a report stating that the DWP will not be able to measure whether it has achieved its stated goal of increasing employment. This is because while the research published so far assess the employment outcomes for people on Universal Credit compared with a similar group of people on legacy benefits, it does not capture the net impact on the overall employment rate. In the same report, the DWP are reported to claim that they cannot scale the methods outlined above because they need a control group of legacy claimants, and these are becoming unavailable as full service rolls out. However, the DWP have access to historical data on housing benefit claims and other benefits, so we believe this should be possible.

A core finding of our research for the LGA is that local authority data can be used to provide a control group of claimants. This can be improved upon with full access to the Universal Credit cohort, rather than only those in receipt of council tax support. National data would allow the accurate tracking of employment outcomes as people move into and out of boroughs; collecting data from further back in time would have allowed us to include two additional local authority areas in the sample that rolled out earlier than in 2016, as we would have had a control group of claimants on legacy benefits.

Given the importance of employment outcomes to the central case behind Universal Credit, we believe that this type of analysis should be carried out or commissioned by DWP systematically and at scale.

ANNEX

Approach 1

This approach compares employment outcomes for households that moved onto Universal Credit from the legacy benefits system through one of the qualifying changes in circumstances, against households that have the same change in circumstances before Universal Credit full service had rolled out.

Defining treatment/control group

In this approach, the treatment group is defined as any household in receipt of Universal Credit that has had any of the following changes in circumstances:

Changes in family circumstances

- Being in receipt of either Income Support, income-based Jobseekers Allowance, income-based Employment and Support Allowance, and becoming responsible for a first child
- Lone parent in receipt of Income Support whose youngest child turns 5
- Lone parent in receipt of Income Support becoming a couple
- Couple on income-based Jobseekers Allowance with child under the age of 5 becoming a lone parent
- Couple on Tax Credits separating and making separate claims

Changes in carer status

- Becoming a carer and satisfying Carer's Allowance rules
- Being in receipt of Income Support and no longer being a carer

The control group is households in receipt of legacy benefits that had the same changes in circumstances, and are therefore "would-be" Universal Credit households if they had claimed when it was available.

The above are the changes in circumstances that can be accurately observed within the datasets used. Other qualifying changes, such as moving between Employment Support Allowance groups, moving area or taking up a tenancy cannot be observed within the Council Tax data that is used to identify Universal Credit claimants. A change in employment status (either starting to work or increasing the number of working hours) can also trigger a new Universal Credit claim, and they can be observed within the data.

However, households experiencing this change were not included within the treatment or control groups. This is because a change in employment status like this is less likely to be exogenous (occur randomly) – households could well change their working hours in anticipation of Universal Credit, rather than as a result of the policy itself. Including these households in the treatment and control groups would mean that any impact observed is not solely the impact of Universal Credit, but also of people reacting to the expectation of Universal Credit.

The treatment group is made up of 4,477 households, while the control group has 3,339 households. In both cases, the employment rate is measured at the time when each household experienced the change in circumstances, and again three months later. Any difference in how much employment rates change for each group in that period can be attributed to the impact of Universal Credit. In other words, this is a difference-in-difference regression.

Statistical similarity of the treatment and control group

The following table compares the treatment and control groups for Newcastle and Tower Hamlets on a number of selected measures, in order to gauge how similar the two groups are.

NEWCASTLE CC		
MEASURE	TREATMENT GROUP	CONTROL GROUP
Average number of children in household	1.2	1.3
Average number of adults in household	1.7	1.6
Claimant gender (M:F)	32:68	28:72
Average claimant age	40	41
Average employment rate in months before change in circumstances	18%	20%
LB TOWER HAMLETS		
MEASURE	TREATMENT GROUP	CONTROL GROUP
Average number of children in household	1.7	1.7
Average number of adults in household	1.9	2.1
Claimant gender (M:F)	19:81	40:60
Average claimant age	41	42
Average employment rate in months before change in circumstances	21%	35%

Table A1: Comparison of treatment and control groups on selected measures

Defining the two different scenarios

In both the treatment and control group, a number of households leave the dataset within the 3 months. In the treatment group, the number reduces from 4,477 to 3,859 (an attrition rate of 13.8%). In the control group, the number reduces from 3,338 to 2,830 (an attrition rate of 15.2). As we do not know what happens to these households with certainty, we have calculated the employment impact of Universal Credit under two different scenarios.

In Scenario A, we assume that the households that leave the dataset did so because they found work, and therefore lost eligibility for Council Tax Support. In this case, it is found that Universal Credit increases the employment rate by 0.3 percentage points after 3 months. The standard error for this estimate is 0.1 percentage points.

In Scenario B, we exclude the households that dropped out of the data set. This time, we find a coefficient estimate between Universal Credit and employment of 0.009, or Universal Credit being responsible for an increase in the employment rate by 0.9 percentage points after 3 months. The standard error for this estimate is 0.1 percentage points.

Approach 2

This approach focuses on new claimants' employment outcomes compared to the old welfare system, but does not consider households who move onto Universal Credit from legacy benefits.

Defining treatment / control group

In this approach, the treatment group is defined as households that make a new Universal Credit claim, whilst the control group are households making a new claim before Universal Credit full-service became available in the area. Assuming that making a new claim at either of these points is equally random and not influenced by any further factors, these can be considered statistically similar, and therefore suitable, groups.

Statistical similarity of the treatment and control group

The following table compares the treatment and control groups for Newcastle and Tower Hamlets on a number of selected measures, in order to gauge how similar the two groups are.

NEWCASTLE CC		
Measure	Treatment group	**Control group**
Average number of children in household	0.6	0.8
Average number of adults in household	1.2	1.4
Claimant gender (M:F)	48:52	51:49
Average claimant age	37	38
LB TOWER HAMLETS		
Measure	Treatment group	**Control group**
Average number of children in household	0.6	0.7
Average number of adults in household	1.4	1.4
Claimant gender (M:F)	48:52	61:39
Average claimant age	37	37

Table A2: Comparison of treatment and control groups on selected measures

Defining the two different scenarios

The treatment group contains 970 households, and the control group 2,291. For both groups, we measure the employment rate at the point when the new claim was made, and compare this to the employment rate 3 months later.

In both the treatment and control group, a significant number of households had left the dataset by the third month (190 in the treatment group, 457 in the control group). Households may leave the dataset for a number of reasons: they may move to another part of the country, or they may find work with earnings sufficient to no longer need housing benefit or council tax support. We cannot distinguish these reasons of attrition from data, and so will examine two scenarios.

In Scenario A, we assume that all households that left the dataset did so due to finding employment and losing eligibility for benefits. In this case, we find a coefficient estimate of 0.075, or Universal Credit increasing the employment rate of new claimants by 7.5 percentage points after 3 months, compared to the old system. The standard error is 2.5 percentage points.

In Scenario B we exclude these households from our analysis, as we do not know with certainty what happened to them. Effectively this assumes households leaving the data are as likely as those who stay in the data to move into work. In this scenario, we found a coefficient estimate of 0.022, meaning that Universal Credit is responsible for an increase in the employment rate of 2.2 percentage points after 3 months. The standard error is 2.6 percentage points.

Approach 3

This approach focuses the impact of the Universal Credit regime, by comparing the employment rates in areas served by different Jobcentre Plus (JCP) offices as Universal Credit rolls out at different points in time, within the same local authority.

Defining treatment / control group

The control group is defined as the households living in an area where the local JCP did not begin offering full-service Universal Credit at that point, in any of T1, T2 or T3. Figure 1 shows what the Universal Credit roll-out for a local authority may look like, with each JCP offering full-service Universal Credit at three different points in time: T1, T2 and T3.

	TIME			
	Pre-Universal Credit	T1	T2	T3
JCP A		Treatment 1	Control 2	Control 3
JCP B		Control 1	Treatment 2	Control 3
JCP C		Control 1	Control 2	Treatment 3

Fig 1: Definition of treatment and control group according to Universal Credit roll-out schedule by JCP

Defining the two different scenarios

Any difference in the change between treatment and control group's employment rates can be attributed to the impact of Universal Credit, assuming that, in the absence of Universal Credit, employment rates in every group would follow the same trend (the common trend assumption). This, a standard 'difference in difference' correlation, is done three times (once for each of T1, T2 and T3) and averaged. In this approach we compare employment rates in areas where Universal Credit full service is available, compared to where it is not.

ABOUT POLICY IN PRACTICE

Government policy is complex, confusing and difficult to navigate. It tends to focus on the impact of individual policies in isolation, rather than the overall impact it has on each individual citizen.

Policy in Practice is a policy-led software and analytics business founded by one of the architects of Universal Credit. We help people toward independence by making government policy and the benefit system easier to understand and navigate.

Our policy engine models over 4,000 pieces of legislation, updated in real-time, across four government departments. This helps people to understand the combined impact of policy changes on them, and they can identify the choices they can make to become better off, and to lead more fulfilling lives.

We help over 150 local organisations, and over 10,000 people each day to navigate the benefit system, to take control steps toward independence. We have built an analytics platform that tracks the living standards and the changing lives of over a million low-income households over the past two years.

Our analysis shows how each individual household is affected by all policy changes, now and in the future. Our work has had an impact on national policy, and is helping local authorities to target resources, meet their statutory obligations and spend money more effectively. A scientific approach to data visualisation drills down from national analysis to individual households, and links into engaging, tailored support to help people to take control and become better off.

We believe that administrative data is the future of social policy analysis, and can help the public sector to deliver more with less. We look forward to working with you to make this vision a reality.

FURTHER INFORMATION

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