


ARTICLE

Universal Credit: administrative burdens of automated welfare

Hayley Bennett , Morgan Currie and Lena Podoletz

School of Social and Political Science, University of Edinburgh, Edinburgh, Scotland

Corresponding author: Hayley Bennett; Email: hayley.bennett@ed.ac.uk

(Received 5 April 2023; revised 6 May 2024; accepted 17 May 2024)

Abstract

Since 2010, the UK government has transformed social security administration using digital technology and automated instruments to create and deliver a single working-age benefit known as Universal Credit (UC). Social policy scholars have given much attention to the key policy tenets of UC but engaged less with leading aspects of automated and digital delivery and their relationship to different forms of administrative burdens for UC recipients. This article addresses this empirical and conceptual gap by drawing on administrative burdens literature to analyse empirical data from forty-four interviews with UC recipients. We conclude by highlighting three costs: temporal, financial, and emotional. These costs illustrate the political dimensions of technical features of UC, as they affect accountability procedures and paths to legal entitlements that have bearings on certain claimants' rights.

Keywords: administrative burdens; automation; UK; Universal Credit; social security

Introduction

The UK government has transformed social security administration using digital and automated instruments, and it is not alone; there is a global adoption of computerised welfare systems affecting how governments manage social security (Considine et al., 2022). Advocates believe administering social security through digital interfaces, data sharing, data matching and automation is a necessary advancement 'to reduce administration costs and minimise opportunities for error or fraud' (DWP, 2010; 1; House of Commons 2021). Meanwhile, others argue that a reliance on automated and digitalised welfare increases ethical and legal issues around social rights, user equity, and state monitoring (Eubanks, 2018; Schou & Hjelholt, 2019; Whiteford, 2021). Despite these international developments, there is limited UK social policy research that examines digital technology as a feature of social policy (see Henman, 2022) or empirical research into experiences of automation (Griffiths, 2021). This article responds to Henman's call (2022;

Hayley Bennett and Morgan Currie should be treated as joint lead authors.

© The Author(s), 2024. Published by Cambridge University Press. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

536–537) for social policy scholars to ‘more fully consider the ways in which digital technology through social policy (re-)structures society, treats citizens and service users, and (re-)distributes resources and dis/advantages’.

The limited research into features of automation is perhaps surprising; the UK government’s 2010 commitment to amalgamate six main ‘legacy’ benefits into one working-age benefit to create Universal Credit (UC) influences much social policy scholars’ research in the UK. Legislated in the Welfare Reform Act 2012, the introduction of UC situated the UK as an international frontrunner in automated social security administrative reform (Griffiths, 2021). This reform was due to the Department for Work and Pensions (DWP) creation of a ‘single, integrated benefit’ (DWP, 2010; 52) using enhanced data sharing and automation. Numerous parliamentary inquiries have subsequently scrutinised UC design, and various third sector organisations have raised concerns about adequacy and access (Etherington, 2020; CPAG, 2021). Social policy scholars have extensively examined other key policy tenets of UC, including eligibility, entitlements, conditionality, work incentives, adequacy, and low-income experiences (see Reeves & Loopstra, 2021; Thornton & Iacolla, 2022; Wright & Dwyer, 2022).

Automated and digital delivery components of UC have only recently received detailed attention. For example, De Oliveira’s (2022) research outlines inequalities in access to digital technology to record mandated work commitments, and Summers and Young (2020; 169) argue that UC’s automated payment shifts administrative complexity from the state onto ‘the shoulders of claimants themselves’. Similarly, Griffiths (2021; 13) – who goes much further in her analysis of couples’ experiences of digitalised features – argues that research on the digital dimensions of UC ‘would benefit from a broadening out to include questions of administrative burdens, together with exploration of their wider effects and impacts on claimants’. Other recent and on-going research projects on the technical dimensions of UC include ‘Universal Credit and Automation’ (Griffiths, *et al.*, 2022) and ‘Couples balancing work, money and care under the shifting landscape of Universal Credit’ (Bennett, *et al.*, 2018–2021), while civil society contributes expert policy (Pope 2020) and legal analysis, such as the Child Poverty Action Group’s report on the UC assessment period (Tucker & Norris, 2018) and on the legality of UC design and operation (Mears & Howes, 2023; 5).

This article contributes to this growing body of work on UC digitalisation and automation by utilising the concept of ‘administrative burden’, meaning the difficulties and costs experienced by citizens while accessing public services. Identifying administrative burdens and costs associated with social security administration is a long-standing endeavour. For example, research into the benefits and tax credits systems prior to the introduction of UC reflected concerns about the productivity of the system, state-citizen relations, and the non-take-up of benefits (see Bennett *et al.*, 2009). Similarly, according to Janssens *et al.*, (2021) researchers have long connected this latter issue to the ‘expected, perceived and experienced costs (potential) beneficiaries face when claiming benefits’ (2021; 2). However, the developments of automated welfare create a need to revisit these ideas, especially as, for some, the introduction of UC was a response to the administrative inefficiencies of the legacy benefits (Hansard, 2013) and claims that automation would reduce burdens and costs for claimants.

We structure the article as follows. Starting with a brief description of the technological design of UC, we draw on the administrative burden literature to focus on technical features. While the literature acknowledges that the material dimension of service delivery – such as the design of intake forms or auto-enrolment systems – could ease burdens, (Herd et al., 2013, Brown et al., 2021), there exists limited research about administrative burdens in relation to *technical dimensions* of social security. In the subsequent sections we analyse qualitative interview data from 44 UC recipients interviewed during two related projects during 2022–2023. The article makes two contributions. First, we find that by focussing on UC's automated payment system, we can identify temporal, financial, and emotional costs for some UC recipients, specifically those who combine UC and employment. We draw on existing frameworks relating to administrative burdens and claimant costs and add the incursion of debt and loss of income due to the payment calculations due to administrative and political decisions that underpin UC. Second, we argue that these costs illustrate the political dimensions of technical features as they affect accountability procedures and paths to legal entitlements that have bearings on claimants' rights. This article therefore advances our discussions of administrative burdens and automation, specifically in the context of social security administration.

Universal credit and technological reforms

The political origins of UC are covered in detail elsewhere (see Dwyer & Wright, 2014; Millar & Bennett, 2017), and while we concentrate on the development of UC specifically as a form of automated welfare, the technical and political are often entwined (Henman, 2022). The basis for automating UK benefits is associated with the 2010 Conservative Party commitment to welfare reform in the zeitgeist of austerity (Reeves & Loopstra, 2021). This highly publicised agenda combined a digital transformation strategy (see Cabinet Office, 2017) with extensive spending cuts, substantial reductions to benefit eligibilities and value, and enhanced work-focussed conditionality (Wright & Dwyer, 2022). UC replaced six 'legacy' benefits with a single means-tested benefit and a digitalised and automated administrative process. Key design features included a single household monthly payment presented as a total payment from a single source, compared to the legacy arrangement where it was possible for claimants to apply to different agencies or departments who assessed and administered their benefits somewhat separately.

The DWP's introduction of UC goes beyond simple ideas of administrative modernisation and demonstrates a considerable reform of citizen-state interactions. UC architects proposed significant investment in new technology alongside a reduction in Jobcentre Plus offices to enable '90% of claims to be made online' (Etherington, 2020; 79). The DWP asserted that UC would involve automated decision-making and payment processing to enable applicants to 'go from application to receiving help without any manual intervention' (McKinnon, 2020) stating, 'claim, assessment and award calculations will usually be made automatically so will be quicker and more efficient to process' (DWP, 2010; 34). In practice, UC claimants submit an initial claim online or via a centralised call centre. If approved, they receive an online account and primarily engage with DWP

employees (including but not limited to Jobcentre Plus staff) in their digital account via an online journal. Through the digital account, UC claimants also receive details of their monthly pay, submit change of circumstances (e.g. moving jobs or accommodation), and upload fit notes. The online account also governs the relationship between the DWP and UC recipient through conditionality – whereby entitlements are conditional on whether a person is seeking work for 35 hours a week, with some exceptions for people with caring responsibilities or limited work capability. The DWP can apply a benefit sanction to UC recipients who do not demonstrate acceptable job seeking activity, resulting in a reduced payment or closure of their UC claim, thus creating financial hardship (see Thornton & Iacolla, 2022).

The move towards a more automated system offered some potential advantages to previous processes. According to policy makers, by combining six different benefits into one, UC would simplify the regulations that oversaw various benefits thus making calculation of entitlements more straightforward (Freud, 2021), and also offer a simpler, fairer, more dynamic way to account for claimant incomes. For example, previously tax credit recipients would self-report their changes in earnings, sometimes leading to large discrepancies in self-reported versus actual year-end earnings, creating arrears. UC, on the other hand, derived earnings data directly from HM Revenue and Customs (HMRC), the UK's tax agency, an exchange that DWP believed could reduce inaccurate payments while eliminating the need to self-report (DWP, 2010).

However, the technological development of UC has also been 'complicated' (NAO, 2018; 7) and 'a source of controversy and criticism' (Griffiths, 2021; 2) involving a stop-start approach targeting different groups and localities. The DWP has invested heavily in new IT and project management systems to amalgamate benefits data and processes, share data across organisations (including HMRC), and establish new digital interfaces. By 2013, the DWP had spent £360m via contracts with four private suppliers (HP, Accenture, IBM, and BT) to build the initial trial system for UC ('Pathway'), before bringing more of the development in-house, and writing off a further £140m over five years (Glick, 2014). The government reset the project in 2013 (WPC, 2014) and missed the initial completion date of 2017. The National Audit Office (NAO, 2018) raised numerous concerns noting that the DWP had spent £1.9 billion on UC by 2018 and stating the DWP's claim that this will lead to £8bn of savings was unproven (Bowden, 2018). By 2021, DWP stated the total cost of implementing UC was £3.8 billion (DWP, 2021). At the time of writing (2023) 5.9 million people receive UC, however the DWP has fallen behind planned implementation deadlines, as Employment and Support Allowance claimants will only be moved over via managed migration by the end of 2028. Due to the significant levels of investment and organisational changes to Jobcentre Plus offices, digital systems, working practices, and technology, NAO (2018; 7) believes the DWP has 'no realistic alternative' but to continue with UC for the foreseeable future. It is therefore increasingly important for social policy scholars to deepen our understanding of UC's technological features and advance conceptual approaches to examine them.

We focus on the UC payment, which involves automated instruments and a digital interface (see Table 1). By payment we mean the administrative process of

Table 1. Features of the UC monthly payment system

Feature	Function
Online account	Users log into their online account to see their monthly payment calculation and To Do List and access the online journal
Online journal	Communicate with DWP workers to query payments, log conditionality activities, and schedule job centre meetings.
Monthly assessment period	Each month's payment calculates data points collected during a prior monthly assessment period, a personalized unit of time based on the day a person first applied for UC.
Payment calculation	Calculates monthly payment using claimant's inputted personal data, payroll information from RTI, and deductions for debt recovery.
Minimum standard allowance	The standard allowance is based on claimant's age and relationship status (either single or living with a partner) and other factors such as disability or number of dependents; payments adjusted negatively from the standard allowance depending on monthly earnings and deductions.
Real Time Information	Connects payroll information and tax system to calculate UC monthly payment for working UC recipients. Works on a monthly calculation period.
Debt recovery	Deductions taken at source due to benefit and tax credit overpayments, advance loans, rent arrears, fines and child maintenance, debts owed to third parties.

organising and calculating the amount of money a claimant is entitled to receive. The move to a monthly (in-arrears) payment cycle for all UC recipients is based on a means-tested algorithmic calculation using several variables, including housing, number of dependents, disability status, and earnings made during a prior monthly assessment period. The monthly assessment period is a personalised unit of time based on the day a person applied for the benefit – for instance, if a person applies on March 25, their assessment period will be from the 25th of a given month until the 24th of the next month. At a minimum, UC recipients are entitled to a 'standard allowance' based on their age and partnership status. Additionally, they may also receive assistance for housing, childcare, caring responsibilities, or a disability. For UC recipients who are in-work (excluding the self-employed), the Real Time Information (RTI) system uses payroll information uploaded by employers and the government tax management system (HMRC) to calculate UC 'top-ups'. The online account displays a total monthly payment amount (minus any deductions) to the recipient. (This study does not examine the 'whole month approach' to changes of circumstances, which is also part of the UC algorithmic calculation.)

Conceptualising 'administrative burdens'

The term 'administrative burdens', which often features in social policy and public administration literature, offers the potential to analyse automated delivery tools. However, we note two key points; first there is little research situated in the context of automated welfare and specifically social security. Second, despite the term's

prevalence in academic literature, there is little consensus in definition, conceptualisation, or operationalisation for research analysis.

In their seminal paper, Moynihan *et al.* (2015) define administrative burdens as costs a person faces when accessing a public service. How many burdens there are and how they are distributed among individuals, the authors argue, is a matter of politics, as political actors may shape the uptake and delivery of social services by intentionally designing them in onerous ways that play out along class, gender and racial lines. Administrative burdens are often invisible to the general public, who do not receive these services, so these authors ask how to make these costs more visible and subject to political debate. Moynihan *et al.* (2015) identify three high level costs that constitute administrative burdens. First, *learning costs*, which mean gathering knowledge on the social service. Second, *psychological costs*, including social stigmas, loss of autonomy, effects on self-worth, and feelings of judgment by caseworkers. Finally, *compliance costs*, which entail following rules and procedures, including application paperwork and conditionality.

Subsequent studies have built upon this typology or added theoretical nuance. Baekgaard and Tankink (2022) point out that the three categories can be impossible to separate in actual experience – learning and compliance costs, for instance, overlap when a person is learning how to comply with a rule. Others note additional types of burdens, such as costs in getting administrators to correct errors (Widlak & Peeters, 2020), or financial costs of dealing with corrupt officials (Peeters & Campos, 2021). Peeters (2020) argues that administrative burdens are not always explicitly designed into the system but come about because of unintentional factors, such as state budget tightening or due to training and biases of frontline bureaucrats. Peeters (2020) argues that administrative burdens are not always explicitly designed into the system but come about because of unintentional factors, such as state budget tightening or due to training and biases of frontline bureaucrats.

There are also some similarities with Moynihan *et al.* (2015) in Bennett *et al.*'s (2009), examination of the 'compliance costs' of the UK's former benefits and tax credits system (the 'legacy' context prior to the introduction of UC). Drawing on the economics literature, Bennett *et al.* focus on 'the costs that applicants for, and recipients of benefits and tax credits incur in meeting all the various requirements placed on them by social security and tax credits law and statutory authorities – costs which would not be incurred in the absence of these payments' (2009; 7). The authors also put forward three types of costs: *time*, *money*, and *psychological* costs and state that this conception goes beyond legal requirements and include dealing with change, uncertainty and broader learning about entitlements.

Despite some similarities in the literature, there is a lack of conceptual consensus on a number of factors. First, there is no clear distinction between a 'cost' and a 'burden', and often administrative burden is defined as the composite of various costs (e.g. Moynihan *et al.*, 2015). Second, many studies of administrative burdens appear to conflate the factors causing administrative burdens with the burdens themselves, listing as burdens, for instance, demands for documentation, complex paperwork, payment delays and conditionality (Bielefeld, 2021; Brown *et al.*, 2021; Heinrich *et al.*, 2022). Holler and Tarshish (2022) make an analytical distinction between the burdens – defined as the costs of citizens' interactions with state bureaucrats – versus the factors that trigger these costs (in their study, triggers

include waiting, communication breakdowns, and administrative errors). This distinction is important to note, as observed by Griffiths (2021) and Summers and Young (2020), certain features of a complex social security system may be experienced as a burden or cost by some but not others. Therefore, costs are not consistent features of a system but instead can be variable experiences depending on an array of circumstances (for example, a payment delay will be a psychological burden to many, but not all). Several researchers of administrative burden have focused on individual factors, such as a person's social capital or sense of self-efficacy, which lead to disparities across how burdens are felt by people interacting with state benefit systems (Daigneault & Macé, 2020; Chudnovsky & Peeters, 2021; Madsen & Mikkelsen, 2022).

Finally, very little public administration literature on administrative burdens pays attention to technological shifts and systems change. Much literature on administrative burdens asserts that state factors creating burdens 'include policy design by elected officials and higher-level administrative actors, as well as policy implementation practices of street-level bureaucrats' (Christensen et al. 2020; 128). Halling et al. (2022), echo this point; burdens, they say, are the result of actions by high-level policy actors or the discretion of street-level bureaucrats, as well as an individuals' administrative skills and human capital. We propose that an important originating point can be the technical features of the system, as we explain next.

Technological shifts and systems bureaucracy

Writing in 2002, Bovens and Zouridis described the role of 'systems bureaucracy' as a separate layer of government control; it is the purview of administrators and designers who give policy its material form, distinct from the policy- and street-levels (see also Considine et al., 2022). The authors studied how computerisation brought about standardised data collection for bureaucratic decision-making on matters that affect citizens, such as approving loans applications. More recently Eubanks (2018) carried out seminal research into how governments across the US have adopted automated systems using large datasets to sort and rank welfare recipients. Her study shed light on practices associated with triaging benefits among recipients or using risk verification to flag if citizens need services. Her work inspired subsequent studies on how automated systems subject welfare claimants to surveillance through data sharing or behavioural control and forecasting (Dencik et al., 2022). The focus of these studies varies, from automated systems that make relatively straightforward calculations about eligibility and entitlement and automate data sharing across agencies, to digital IDs and machine learning that detects benefits fraud and risk score individuals.

Scholars have also acknowledged that a systems' technological dimension affects experiences of administrative burdens by citizens. Peeters and Widlak (2018) examine administrative burdens caused by the information architecture of the Dutch civil registry, which formalised bureaucratic processes into steps mostly free of street-level discretion. Others have examined the exclusionary and impersonal complexities of online application forms and self-service approaches (Peeters, 2020; Brown et al., 2021; Holler & Tarshish, 2022). Bielefeld (2021) finds that the Australian 'cashless debit card', imposes a 'technology cost' as part of its compliance

burdens. Other studies have found that technology eases burdens. Herd *et al.* (2013) write that auto-enrolment programmes drawing on existing administrative data to automatically sign-up eligible citizens for benefits shift burdens from citizens onto the state.

These authors all argue that seemingly neutral technical systems reflect and entrench human values, whether intentional political ideologies and policy goals or unintentional oversights that ignore the diverse needs of citizens. Yet whereas these studies mainly focus on enrolment in benefits, we seek to contribute to the literature on UC and administrative burdens by examining how the systems-level design of UC can enact or reproduce burdens experienced by recipients who have ongoing interactions with it. Building on Holler and Tarshish (2022), we distinguish between key technical features of UC's automated payment that act as triggers of costs, noting those that create costs for some but not all. In our discussion, we propose a typology of administrative burdens (temporal, financial and emotional) identified by our participants and which vary from the canonical three (learning, compliance and psychological) but align with those found by Bennett *et al.* (2009). First, however, we describe our study and our findings based on examining three core technical features of the UC system.

Data collection

This research draws on qualitative data collected from two related projects that explore experiences of UC digitalisation and automation in Scotland during 2022–2023. Both projects received ethical approval through the University of Edinburgh School of Social and Political Science Ethics Committee. Interview recordings were professionally transcribed, and the researchers combined and analysed the data using the administrative burdens concepts outlined above, asking what features participants found most burdensome in terms of accessing their entitlement and why.

The study includes 44 UC claimants who are anonymised in the subsequent sections. Eight participants took part in an innovative methods project 'Navigating Digital Welfare' (NDW) which piloted creative, qualitative methods in two neighbourhoods of high deprivation in Edinburgh in May 2022. Participants took part in an interview using an adapted photo elicitation technique (De Oliveira, 2022) whereby respondents could identify aspects of their UC experience which triggered set questions from a semi-structured interview guide. Further information can be found on the Navigating Digital Welfare webpage¹.

The thirty-six other participants took part in the study 'Automating Universal Credit'. Eleven individuals took part in a one-off interview, and a further twenty-five continued to participate in a six-twelve-month longitudinal study involving bi-weekly updates from participants via text or phone calls and an additional exit interview. Interviews for this study lasted approximately forty-five minutes and were carried out at the University of Edinburgh at the offices of non-profit partners, at cafes or online. The research team recruited participants with the help of local charities (food banks and community centres). Some responded to calls for participants in charity newsletters or flyers. Participants in the study are based in

Edinburgh except for five who live in Dundee and one in Glasgow. Twenty of the participants have disabilities, which include mental health difficulties, visual impairment, ADHD, and dyslexia. We gathered information on self-identified gender from thirty-seven participants; twenty-seven of these respondents identify as female, one identifies as non-binary, and nine identify as male. We were able to collect data on their self-identified ethnicity from thirty-six of the participants: seventeen identify as white Scottish, four as white, five as white Polish, three as white British, one as white Spanish, one as Indonesian, one as British Bangladeshi, one as Bangladeshi, one as Portuguese, one as Latin-American, and one as white and Black-Caribbean. Two of the participants were in a homeless situation at the time of the interview. Each participant in the study read and approved quotes and depictions used for their case. Further information on the study's methods can be found on the Automating Universal Credit webpage².

There are two points to briefly note about our methodology and analysis. First, although separately funded projects, we present combined qualitative findings. Our analysis approach somewhat echoes Wright and Patrick (2019), however in our case the two research teams were closely connected, with the PIs connected to both projects (one as an official Co-I, and the other as an advisor and collaborator), had overlapping data collection timelines, and as colleagues were able to engage in on-going discussions of research, policy, and existing research knowledge on UC design for approximately two years. To strengthen the analysis, the researchers chose to combine and co-analyse the transcripts on UC administration from both projects due to the similarities in experiences and insights. Both researchers were closely aware of the content and data collected in each study, and through an iterative analytical process (formally structured and managed by the Automating Universal Credit research fellow), were able to agree co-themes and key findings. Only some of the data from the NDW project (the UC station) was combined for analysis for the issues covered in this article (the rest of the data from this project relate to other social security benefits and agencies). Second, this research took place in Scotland, and while UC is a reserved benefit, since 2016 the Scottish Government has had the power to create minor changes to delivery, which are known as 'Scottish Choices'. The DWP deliver UC Scottish Choices on behalf of the Scottish Government, and at the time of the research there were two in place: Twice-monthly payments (claimants can choose to have their Universal Credit payments paid twice-monthly instead of monthly), and Direct Payments (claimants can choose to have their housing element of Universal Credit paid directly to their landlord by DWP). We did not include Scottish Choices in our analysis of administrative burdens for this article due to limited data. We do however discuss Scottish Choices in a 2022 report (which combines the NDW data with some of the early data from the Automating Universal Credit project)³.

Findings: 'It's very difficult to manage life'

We now illustrate how the automated payment system has the potential to introduce administrative burdens. We organise our anonymised data using two design features of this system that claimants from our study have identified as

burdensome: 1) the dynamic payment calculation and 2) the UC Real Time Information (RTI) data sharing pipeline⁴. As outlined in detail as follows, our analysis shows that UC automation leads to claimants experiencing insufficient information and payment errors. We outline how claimants thus incur various costs in response, which the lack of face-to-face contact with officials can exacerbate.

A dynamic payment calculation

Our research found that the complexity of UC's dynamic payment calculation prevents claimants from anticipating their income each month and, in some cases, understanding if their entitlement is correct. The resulting confusion causes anxiety and affects household budgeting.

UC recipients who are in-work experience a dynamic monthly payment reactive to their earnings in the assessment period prior. Most working participants stated they did not understand their UC income. The limited human involvement in the initial claim process and throughout a claim means that UC recipients did not feel the DWP staff explain the payment calculations clearly (see also CPAG, 2021). Some participants felt frustration and worry while anticipating the amount of their monthly claim, which they can only see in their online account approximately five or six days before the DWP deposits the money into their bank account. The varying amounts of monthly UC income in cases where a claimant's monthly earnings are not stable exacerbates this unease. For these claimants, if they earn more than the pay threshold set by UC, they may not receive any UC income. Jill shared her feelings regarding the constantly fluctuating UC income due to her changing working hours:

It was very frustrating because my hours varied massively because I was a student. Depending on whether I had a lot of essays to do or not, I would get paid more or less [at my work]. (. . .) It was kind of stressful. When you don't know . . . (. . .). It was always a count the dates to see if I'm getting paid by Universal Credit or not.

Hannah, who works part-time at a child contact centre, expressed similar feelings of anxiousness when anticipating her monthly pay:

Just because my anxiety gets the better of me, because I need to know what's happening, because they don't tell you how much you're getting paid until a couple of days before the payment. It's very difficult to manage life because you don't know what Universal Credit are going to get.

Despite receiving a basic breakdown of their payments, claimants still may not understand the reasoning behind the calculations. Deductions, for instance, fall under a section in the breakdown called Debts and Loan Repayments, with no further explanation for these repayments. For this reason, one participant, Alex, did not know why they were subject to £14.12 a month in deductions, even after discussing it with a Jobcentre Plus agent, and told us they could not easily find this information:

Basically no one knows, and if [I] want to find out then it's up to me to spend the morning ringing around people who probably don't know either.

Participants also expressed uncertainty about whether their monthly payment was accurate. For example, Mary took an advanced loan to cover the five weeks claimants must wait before they receive their first UC income payment, and she believed the subsequent deductions were the incorrect amount. She told us she has not received answers to her queries about her payment's accuracy since enrolling in March 2022:

Nobody has physically spoken to me. I once phoned them before and asked them to help me, give me information to let us know that my claim was done properly because I'm unsure if [it] was done properly or not. If I'm receiving what I'm meant to be receiving or if I've put anything wrong in, nobody has contacted me.

Some in our study spent time teaching themselves how the calculation works; their accounts shed light on how people cope with their confusion and may turn to non-DWP sources of information. Two participants (Chris, Ashley) referred to Facebook groups where people post about their UC problems for other claimants to provide advice. Another respondent (Lisa) described how she used online UC calculators provided by independent organisations to estimate her upcoming UC income.

Confusion about how the dynamic payment calculation works can create financial difficulties. For example, Mary (who works in the service industry and receives her salary every two weeks) went into rent arrears as her salary and UC pay periods misalign. UC's monthly assessment period factors in the amount an individual is paid and when, but not the length of time that these wages are compensating for, so recipients may lose their entitlement due to discrepancies between the representation of their monthly earning and the salary period (see also CPAG, 2021; Podoletz & Currie, 2024). For Mary, her bi-monthly salary means that each year there are UC assessment periods when her employer pays her twice, once at the beginning and once at the end, such that her income exceeds the threshold qualifying her for UC. Another participant, Fiona, experiencing a similar misalignment due to being paid four-weekly, did not understand when this overpayment would happen, nor did she understand that she would need to cover her own rent during this month. Her queries to DWP about the matter did not resolve her confusion:

All I got told to do is go onto my journal, go onto payments but see when I go on payments, it says I will receive personally nothing but we pay your rent and that's what I said to the guy. He says you're reading it all wrong there. I said well explain it to me, but nobody has ever explained it to us, nobody has ever called us and when I call them, I get told the same thing. Go onto your journal. I'm like, but I'm not understanding the journal, clearly. Could somebody please speak to me, I've been trying to sort this out from March and now my rent has not been paid and now I'm in arrears.

This claimant described that she visited food banks and borrowed money to get through the month without UC and owed £600 in rent arrears to her housing provider.

The RTI-UC data sharing pipeline

For UC recipients who are in-work, the adjustments to UC income based on monthly earnings happen automatically through a data exchange with the HMRC's RTI system. Employers report their employees' earnings using payroll software to RTI for tax purposes, and the DWP accesses this stream of data daily. UC considers all income that is reported to HMRC or self-reported by the claimant to UC during each monthly assessment period, and the UC payment decreases accordingly. This creates a dynamic payment calculation using reactive month-by-month adjustments based on HMRC's RTI data on monthly earnings. Some participants in our study welcomed this approach as an improvement on the legacy Tax Credit system as described previously, since claimants could go into arrears at end of the tax year from overpayments as their benefit was not adjusted to raises in earnings. For example, Pete said:

I think it's a great idea because compared to tax credit, when you had to give estimate and update them all the time and everything, there was always an issue. (. . .) With Universal Credit I think because the calculation is done every month, if you're actually reacting to the situation that is happening to you right now.

However, the dynamic payment calculation system still introduces errors, and several participants experienced incorrect payments originating from inaccurate earnings reported by HMRC. We found these errors took months to resolve, if they ever were, and some claimants struggled to cover bills during this period.

One participant, Tess, described the substantial time commitment required to identify and correct an error by her employer who had not reported her earnings one month, then compensated by reporting double earnings the next, leading to large and unexpected fluctuations in her UC income. She attempted to resolve the issue by phoning her company's HR and contacting both UC and HMRC but was unable to have her UC pay recalculated to the correct earnings. Following the wrongly reported double earnings, Tess subsequently received a phone enquiry from a DWP worker asking her why her work pay had dropped compared to the month before. She also faced an unexpected period of financial difficulty during this time and applied for emergency aid: 'I got £100 from UC [DWP] so I was really struggling, and I had to apply for a crisis grant [from the Scottish Welfare Fund]'. Tess told us this is the third time she had been 'paid less Universal Credit because of a mistake made by [her] work', and that she felt that there is nothing she could do to rectify the problem.

Another participant who encountered an error – the UC interface showed inaccurately that she had no earnings one month – never discovered where the problem originated. After noticing that she received more UC income than she anticipated, Amy queried the matter with both DWP and her employer, who told

her they had reported earnings correctly. She never received an explanation for the error; she told us this could have caused her difficulties had she not realised the mistake and saved the extra money she received to pay back later.

The DWP provides a dispute resolution process to correct mistakes in earnings reporting. We find the process takes around two months to resolve [this is also the finding of CPAG (2021)]. Individuals therefore spend time correcting errors, contacting their employer and DWP, and waiting for the correction to be resolved. In these cases, claimants are not allowed to evidence their earnings to rectify the mistakes but must wait for the employer and HMRC to correct the data in the RTI pipeline. Amy, for instance, told us DWP would not consider her payslips but advised her to wait for HMRC's data to be updated. Participants sometimes borrowed money or visited foodbanks to get through these periods.

Discussion

We focus on two key issues here. First, we find that the existing administrative burden frameworks using three types of costs remain relevant to the context of automated welfare, but we note the need for modification acknowledging the technical dimension. We argue that administrative burdens create unequal costs, and the characteristics of claimants most affected by these burdens have important implications for the UK's largest social security benefit. Our second argument regards the political dimensions of the technical level. We consider how burdens related to UC's automated features create uneven power dynamics between citizens and the state, reshape modes of accountability and can obscure claimants' access to their legal entitlements. We go through each of these points in turn.

Three burdens

We find that the automated features of the UC payment calculation can trigger three main burdens or costs. In Moynihan et al.'s (2015) framework, learning and compliance offer the reason *why* a cost had to be paid (i.e. a person lost time in order to learn about it or comply with it). However, the emotional costs *are* the cost of dealing with the system (for example, a person suffered anxiety due to having to fill out a difficult form). These costs can overlap, for instance when someone 'pays' emotional and financial costs to comply with the system (see Baekgaard & Tankink 2022). For this reason, we develop the discussion of costs based on the nature of the price paid when dealing with the system – that is, based on what was lost to the person.

First, we utilise Moynihan et al.'s (2015) and Bennett et al.'s (2009) frameworks by categorising both the learning and compliance costs of UC as *temporal costs* that occur when UC errors or confusion over payment demands engagement – time that the claimant could spend more productively on other tasks – or requires long waiting times for error resolution. We find participants taking time to understand the payment or to dispute RTI errors, which the new automated system may accentuate due to the lack of human contact for guidance or resolution. Second, we also identify *financial costs* that arise when features of a system make it difficult for UC recipients to access their full entitlement or when their confusion over pay

causes them to budget incorrectly or go into arrears. We find that Moynihan *et al.*'s typology does not address these financial costs that arise from confusing and burdensome features of a system. We develop the existing understandings by stressing the loss of income and accrual of debts as well as the charges and payments associated with applying for or receiving benefits. Finally, claimants encounter *emotional costs* (related directly to Moynihan *et al.*'s and Bennett *et al.*'s psychological costs) if they feel frustration and feelings of anxiety from uncertainty.

The three costs are complex and interrelated: claimants who cannot or do not want to take the time to dispute an error or understand their payment are less likely to find or resolve inaccuracies, leading to loss of financial entitlement. UC recipients who do not expend time to become highly informed about the system (often through other sources than the DWP) may have misunderstandings about the payment or an inability to question entitlements, leading to increased financial precarity. Claimants who wait long periods for dispute resolution or who find their pay reduced due to errors will experience emotional costs along with temporal and financial ones. While some of these burdens and costs appear to echo previous studies (Bennett *et al.*, 2009; Moynihan *et al.*, 2015) there are features of the automated system which appear to exacerbate the experiences, such as the lack of transparency of the automation processes, communication mechanisms, and limited human interfaces (see also Mears & Howes, 2023).

Costs are unequal across the UC cohort. This is unsurprising as UC merges six legacy benefits that previously supported different groups of citizens with diverse support needs. Our research finds workers whose payments are dynamically adjusted each month are prone to erroneous and unpredictable payments and therefore experience the financial, temporal and emotional costs most (see also Griffiths *et al.*, 2022). This finding is at odds with one of the government's claims that 'the system always incentivises work and that work always pays' (DWP 2015a; 36), yet echoes research into the legacy system that found 'some benefits and tax credits are associated with high compliance costs, in particular those that involve means tests and/or that change frequently' (Bennett *et al.*, 2009; 85). While UC's automated payment may have lessened annual administrative burdens for Tax Credit recipients, our data illustrates how automated features of the system introduce new costs. The inability for working claimants to understand payment processes and amounts, to receive swift fixes for errors, and contact humans capable of amending UC outputs is problematic. Furthermore, we find that the dynamic payment calculation undermines UC's social security function for low-income working people, as precarious work-related income is accompanied by unpredictable UC income.

Why technical systems matter

Social policy scholars have long examined the ways in which policymaking and street-level implementation are political processes, producing inequalities and resource disparities. Do we give enough attention to the technical level in social policy analysis? As Henman (2022; 542) convincingly argues, 'social policy cannot be solely a study of people and institutions, but must recognise the real ways digital (and other) technologies shape and enact social policy and its affects'. The details of

technical design are not apolitical delivery features. Automation and digital reforms can enhance state surveillance and control (Eubanks, 2018; Henman, 2022), with the 'stakes of digital welfare especially high' due to the complex needs of recipients (Considine et al., 2022; 520) and potential to drastically undermine social security systems (Whiteford, 2021).

Analysis of UC's technical features matters; temporal and financial costs are not inconveniences for individual claimants to solve. Instead, they have bearings on claimants' rights; namely, the automated payment reshapes accountability procedures and paths to legal entitlements. For example, the RTI-UC automated data sharing process obscures accountability for two key reasons. First, claimants find it difficult to understand who is required to take action and where the error originated. Because the DWP discount claimant's evidence, claimants must passively wait for HMRC and employers to amend the system. Some never gain an explanation for the causes of errors nor receive rectified payments. The lack of human contact and limited visibility into decision-making and backstage processes limits claimants' ability to ascertain and challenge errors. This is what Henman (2022; 540) describes as 'algorithmic disempowerment', contributing to exacerbating social divisions in welfare. Second, when claimants do report payment errors, DWP staff initiate an internal dispute process, which differs from the main legal avenue available to claimants if they disagree with a decision: the mandatory reconsideration request. Contra mandatory reconsideration, a dispute is 'not provided for in the law' (CPAG 2019; 18) and so lacks a legal framework, set rules and procedural guarantees (e.g. a deadline for responding to a request by a client) that a process set out in a legislative piece would have. Disputes, therefore, leave claimants on a weaker legal footing to resolve.

The automated payment system can also affect claimants' ability to know about and claim their legal entitlements (see also Mears & Howes 2023). The confusion claimants experience with their monthly UC income – for instance, why they have deductions – can prevent them from knowing if the amount is accurate and they have accessed all available benefits. Claimants may know errors happen, but the RTI dispute process, which discounts claimants' evidence, poses a barrier to rectifying these mistakes. In the aforementioned case of Tess, her employer corrected the error adequately for tax purposes, but the correction led to fluctuations in her UC pay and financial insecurity. Tess did not expend time pursuing the issue further.

The DWP could reduce costs experienced by claimants in three key ways. First, by supporting claimants' understanding of their monthly pay by offering a more granular breakdown of their calculation in their online account. Second, by increasing human contact in the system to enable claimants to talk to informed and empowered UC staff who can rectify errors. Third, by creating a faster disputes process that allows claimants to submit evidence of earnings and to enter a mandatory reconsideration request if pay is not adjusted in a timely way. This would require claimant evidence to be valued alongside HMRC data and employer provided information. However, such administrative fixes will not address wider concerns about the limitations of UC, including rising conditionality or low benefit levels (Butler, 2023), nor would they address fundamental limitations to the DWP's algorithmic calculation causing monthly variable payments. Furthermore, limited financial resources, over-stretched public services, and multiple demands on an

individual's time are important factors in how claimants experience administrative burdens associated with automated welfare.

Conclusion

In this article we contribute to advancing how social policy scholars engage with automated welfare and features fundamental to UC. We present a more nuanced discussion of administrative burdens and automated welfare than social policy scholars have attempted to date and demonstrate how they may originate at the systems level of bureaucracy (Bovens & Zouridis, 2002): the layer of technology that citizens interact with to receive a service. We also contribute evidence of a typology of costs felt by claimants: temporal, financial, and emotional costs. We specifically identify how the RTI mechanisms creates costs and administrative burdens for working UC claimants. The technical and administrative minutiae of UC's automated tools function as gatekeepers to social security entitlements and substantially influence experiences of our lowest-income citizens, raising concerns about the suitability of UC as a form of social security.

Acknowledgements. The authors would like to thank research participants, third sector partners, including two community hubs in Edinburgh for their support for the research workshops. Thanks also to Charlotte Zealley and Lena Podoletz (Edinburgh University) for data collection assistance.

Morgan Currie: The support of the Economic and Social Research Council (UK) for the Automating Universal Credit project is gratefully acknowledged. ES/V016709/1.

Hayley Bennett: Navigating Digital Welfare project was helpfully funded by the Edinburgh Futures Institute, Challenge Investment Fund award (no award number).

Competing interests. The authors declare none.

Notes

1 Navigating Digital Welfare: <https://digitalwelfare.sps.ed.ac.uk>.

2 Automating Universal Credit <https://automatinguc.co.uk>.

3 See Bennett *et al.* (2022).

4 Claimants identified a third burdensome feature as the childcare cost reimbursement process, connected to the monthly payment cycle. This feature became the focus of the UK governments' 2023 budget, which may erase the burdens our participants experienced by paying childcare costs upfront rather than in arrears. Because claimants will no longer have up-front childcare costs in future experiences of UC, we focus our findings on burdensome features that persist in the UC design.

References

- Baekgaard, M., & Tankink, T.** (2022). Administrative burden: untangling a bowl of conceptual spaghetti. *Perspectives on Public Management and Governance*, 5(1), 16–21.
- Bennett, F., Brewer, M., & Shaw, J.** (2009). *Understanding the compliance costs of benefits and tax credits*. London: Institute of Fiscal Studies.
- Bennett, H., Currie, M., Zealley, C., & Turner, J.** (2022). Scottish choices Research Report. *Navigating Digital Welfare*. <https://digitalwelfare.sps.ed.ac.uk/sites/digitalwelfare/files/assets/pdf/scottish-choices-report-11.8.22.pdf> [accessed online 6.5.24].
- Bielefeld, S.** (2021). Administrative burden and the cashless debit card: stripping time, autonomy, and dignity from social security recipients. *Australian Journal of Public Administration*, 80(4), 891–911.

- Bovens, M., & Zouridis, S.** (2002). From street-level to system-level bureaucracies: how information and communication technology is transforming administrative discretion and constitutional control. *Public Administration Review*, *62*(2), 174–184.
- Bowden, G.** (2018). Universal Credit's Multiple Failings Exposed In Financial Watchdog's Damning Report, *Huffington Post*, 15 June 2018, https://www.huffingtonpost.co.uk/entry/universal-credit-nao-report_uk_5b229147e4b09d7a3d7b2a6a
- Brown, J. T., Carey, G., & Malbon, E.** (2021). What is in a form? Examining the complexity of application forms and administrative burden. *Australian Journal of Public Administration*, *80*(4), 933–964.
- Butler, P.** (2023). UK benefits fall short of minimum living cost by £140 a month, charities say, *The Guardian*, 26 February 2023, <https://www.theguardian.com/society/2023/feb/26/uk-benefits-fall-short-of-minimum-living-cost-by-140-a-month-charities-say> [accessed 14.03.2023].
- Cabinet Office.** (2017). *Policy Paper: Government Transformation Strategy 2017–2020*, Government Digital Service, <https://www.gov.uk/government/publications/government-transformation-strategy-2017-to-2020/government-transformation-strategy> [accessed 14.03.2023].
- Child Poverty Action Group (CPAG).** (2019) *Computer says 'no'! Stage two: challenging decisions*, <https://cpag.org.uk/policy-and-campaigns/report/computer-says-no-stage-two-challenging-decisions> [accessed 13.03.2023].
- Child Poverty Action Group (CPAG).** (2021). *Universal Credit: what needs to change?*, <https://cpag.org.uk/policy-and-campaigns/briefing/universal-credit-what-needs-change-make-it-fit-children-and-families> [accessed 13.03.2023].
- Christensen, J., Aarøe, L., Baekgaard, M., Herd, P., & Moynihan, D. P.** (2020). Human capital and administrative burden: the role of cognitive resources in citizen-state interactions. *Public Administration Review*, *80*(1), 127–136.
- Chudnovsky, M., & Peeters, R.** (2021). The unequal distribution of administrative burden: a framework and an illustrative case study for understanding variation in people's experience of burdens. *Social Policy & Administration*, *55*(4), 527–542.
- Considine, M., McGann, M., Ball, S., Nguyen, P.** (2022). Can robots understand welfare? Exploring machine bureaucracies in welfare-to-work. *Journal of Social Policy*, *51*(3), 519–534.
- Daigneault, P.-M., & Macé, C.** (2020). Program awareness, administrative burden, and non-take-up of Québec's supplement to the work premium. *International Journal of Public Administration*, *43*(6), 527–539.
- De Oliveira, B.** (2022). A photoelicitation exploration on formally homeless people experience with universal credit: system error and 'the government don't care'. *Journal of Community Psychology*, *50*(5), 2458–2474.
- Dencik, L., Hintz, A., Redden, J., & Treré, E.** (2022). *Data justice*. SAGE.
- Department for Work & Pensions (DWP).** (2010). *Universal Credit: welfare that works*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/48897/universal-credit-full-document.pdf [accessed 14.03.2023].
- Department for Work & Pensions (DWP).** (2015). *Universal credit at work: Spring 2015*. Department for Work and Pensions.
- Department for Work & Pensions (DWP).** (2021). *Universal Credit Business Case: refreshed costs and savings for 2020/21 and 2021/22*. 24 May. <https://committees.parliament.uk/publications/6266/documents/69160/default/> [accessed 14.03.2023].
- Dwyer, P., & Wright, S.** (2014). Universal credit, ubiquitous conditionality and its implications for social citizenship. *Journal of Poverty and Social Justice*, *22*(1), 27–35.
- Etherington, D.** (2020). *Austerity, welfare and work: Exploring politics, geographies and inequalities* (1st ed.). Bristol University Press.
- Eubanks, V.** (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin's Press.
- Freud, D.** (2021). *Clashing agendas: Inside the welfare trap*. London: Nine Elm Books Ltd.
- Glick, B.** (2014). Universal Credit IT suppliers to be left out of new digital system development, *Computer Weekly*. <https://www.computerweekly.com/news/2240212027/Universal-Credit-IT-suppliers-to-be-frozen-out-of-new-digital-system-development> [accessed 14.03.2023].
- Griffiths, R.** (2021). Universal credit and automated decision making: a case of the digital tail wagging the policy dog? *Social Policy and Society*, *23*, 1–18.

- Griffiths, R., Wood, M., Bennett, F., & Millar, J. (2022). Couples Navigating Work, Care and Universal Credit. IPR report, University of Bath. https://www.bath.ac.uk/publications/couples-navigating-work-care-and-universal-credit/attachments/Couples_Navigating_Work_Care_and_Universal_Credit.pdf [accessed 24.11.23].
- Halling, A., Herd, P., & Moynihan, D. (2022). How difficult should it be? Evidence of burden tolerance from a nationally representative sample. *Public Management Review*, 25(11), 2053–2072.
- Hansard. (2013). Minister for Welfare Reform, Lord Freud, *Universal Credit Regulations 2013*, debated on Wednesday 13 February, Vol 743, House of Lords, <https://hansard.parliament.uk/Lords/2013-02-13/debates/13021361000285/UniversalCreditRegulations2013>
- Heinrich, C. J., Camacho, S., Henderson, S. C., Hernández, M., & Joshi, E. (2022). Consequences of administrative burden for social safety nets that support the healthy development of children. *Journal of Policy Analysis and Management*, 41(1), 11–44.
- Henman, P. (2022). Digital social policy: past, present, future. *Journal of Social Policy*, 51(3), 535–550.
- Herd, P., DeLeire, T., Harvey, H., & Moynihan, D. P. (2013). Shifting administrative burden to the state: the case of medicaid take-up. *Public Administration Review*, 73(1), S69–S81.
- HOC. (2021). *Welfare policy in Scotland Second Report of Session 2021-22 Report*, Available at: <https://committees.parliament.uk/publications/6382/documents/70010/default/>
- Holler, R., & Tarshish, N. (2022). Administrative burden in citizen–state encounters: the role of waiting, communication breakdowns and administrative errors. *Social Policy and Society*, 1–18. <https://doi.org/10.1017/S1474746422000355>
- Janssens J, Goedemé T, Ponnet K (2021). The claiming costs scale: a new instrument for measuring the costs potential beneficiaries face when claiming social benefits. *PLoS one*, 16, e0256438.
- Madsen, J. K., & Mikkelsen, K. S. (2022). How salient administrative burden affects job seekers' locus of control and responsibility attribution: evidence from a survey experiment. *International Public Management Journal*, 25(2), 241–260.
- McKinnon, S. (2020). A new digital function for DWP, *DWP Digital*, <https://dwpdigital.blog.gov.uk/2020/09/29/a-new-digital-function-for-dwp/> [accessed 14.03.2023].
- Mears, R., & Howes, S. (2023). *You Reap what you Code. Universal Credit, digitalisation and the rule of law*. CPAG https://cpag.org.uk/sites/default/files/files/policypost/You_Reap_What_You_Code.pdf
- Millar, J., & Bennett, F. (2017). Universal credit: assumptions, contradictions and virtual reality. *Social Policy and Society*, 16(2), 169–182.
- Moynihan, D., Herd, P., & Harvey, H. (2015). Administrative burden: learning, psychological, and compliance costs in citizen-state interactions. *Journal of Public Administration Research and Theory*, 25(1), 43–69.
- National Audit Office (NAO). (2018). *Rolling out universal credit*. National Audit Office.
- Peeters, R. (2020). The political economy of administrative burdens: a theoretical framework for analyzing the organizational origins of administrative burdens. *Administration & Society*, 52(4), 566–592.
- Peeters, R., & Campos, S. A. (2021). Taking the bite out of administrative burdens: how beneficiaries of a Mexican social program ease administrative burdens in street-level interactions. *Governance*, 34(4), 1001–1018.
- Peeters, R., & Widlak, A. (2018). The digital cage: Administrative exclusion through information architecture- The case of the Dutch civil registry's master data management system. *Government Information Quarterly*, 35(2), 175–183.
- Podoletz, L., & Currie, M. (2024). Automating universal credit: a case of temporal punitiveness. *First Monday*, 29(2), 1–17.
- Pope, R. (2020). *Universal Credit: Digital welfare*. <https://pt2.works/files/universal-credit.pdf>
- Reeves, A., & Loopstra, R. (2021). The continuing effects of welfare reform on food bank use in the UK: the roll-out of universal credit. *Journal of Social Policy*, 50(4), 788–808.
- Schou, J., & Hjelholt, M. (2019). Digitalizing the welfare state: citizenship discourses in Danish digitalization strategies from 2002 to 2015. *Critical Policy Studies*, 13(1), 3–22.
- Summers, K., & Young, D. (2020). Universal simplicity? The alleged simplicity of universal credit from administrative and claimant perspectives. *Journal of Poverty and Social Justice*, 28(2), 169–186.
- Thornton, I., & Iacoella, F. (2022). Conditionality and contentment: universal credit and UK welfare benefit recipients' life satisfaction. *Journal of Social Policy*, 53, 280–308.

- Tucker, L., & Norris, D.** (2018). *Rough justice. Problems with monthly assessment of pay and circumstances in universal credit, and what can be done about them.* CPAG.
- Whiteford, P.** (2021). Debt by design: the anatomy of a social policy fiasco – or was it something worse? *Aust J Publ Admin*, **80**, 340–360.
- Widlak, A., & Peeters, R.** (2020). Administrative errors and the burden of correction and consequence: how information technology exacerbates the consequences of bureaucratic mistakes for citizens. *International Journal of Electronic Governance*, **12**(1), 40–56.
- Wright, S., & Dwyer, P.** (2022). In-work universal credit: claimant experiences of conditionality mismatches and counterproductive benefit sanctions. *Journal of Social Policy*, **51**(1), 20–38.
- Wright, S., & Patrick, R.** (2019). Welfare conditionally in lived experience: aggregating qualitative longitudinal research. *Social policy and Society*, **18**(4), 597–613.