Job Seeker's Allowance (JSA) benefit sanctions and labour market outcomes in Britain, 2001–2014

Martin Taulbut[*], Daniel F. Mackay[†] and Gerry McCartney[*]

The dominant view among British policy-makers is that benefit sanctions for the unemployed who are claiming the Job Seeker's Allowance (JSA) are effective at increasing flows from unemployment into sustainable employment. This paper tests this theory using aggregate cross-sectional data for Great Britain for the period May 2001 to December 2014. Descriptive analysis found the relationship between sanctions and labour market outcomes was ambiguous, while trends in labour market outcomes were highly correlated with labour market demand. Multivariate SVAR time-series analysis, controlling for labour market demand, found evidence that changes in the threat and use of sanctions had a positive impact on flows into work in the short run but not in the long term, and had no definitive impact on ILO unemployment at all. Interrupted time-series analyses suggest we cannot reject the null hypothesis that the impact of introduction of a new JSA sanctions regime in October 2012 (with higher financial penalties associated with being sanctioned) had no impact on flows into work from JSA. In Britain, intensifying the use of sanctions and introducing harsher penalties associated with being sanctioned has been largely ineffective at increasing flows from JSA into sustainable employment. Given the negative financial and social impacts of sanctions on those affected, and the lack of evidence of a sustained positive impact on employment, the basis for the new sanctions policy is unclear.

1. Introduction

In the UK, there is considerable public and policy interest in the impact of benefit sanctions. As part of its welfare reform agenda, the UK Conservative–Liberal Democrat coalition government (2010–2015) presided over a large increase in the threat and use of benefits sanctions against unemployed people claiming the Job Seeker's Allowance

[*]Public Health Science Directorate, NHS Health Scotland.

[†]Institute of Health and Wellbeing, Public Health and Health Policy, University of Glasgow.

(JSA). It also introduced a new sanctions regime for JSA claimants,[1,2] with higher associated financial penalties, in October 2012. The stated purpose of this approach was to encourage JSA claimants to search harder for employment and to discourage them from leaving work through misconduct or without good cause (DWP, 2012).

The Conservative–Liberal Democrat coalition justified this approach by arguing that increasing conditionality in this way is fairer for taxpayers, improves the efficient matching of unemployment benefit claimants with job opportunities and will improve long-term outcomes for individuals and families. Introducing changes in October 2012, Mark Hoban, then Minister of State for Employment, argued these changes would both boost the speed at which claimants moved off benefits and into work and *'maximises people's chances of finding suitable work and be self-supporting'* (House of Commons General Committee, 2012). His successor Esther McVey, giving evidence to the House of Commons Work and Pensions Select Committee in 2015, reiterated this rationale, stating that *'all the evidence international suggests sanctions do have a positive impact on people getting into work'* (Work and Pensions Select Committee, 2015).

The overall approach to active labour market policy might be described as a 'sanctioning activation' regime (Brussig and Knuth, 2013). This explicitly emphasises rapid returns to the labour market ('work first') as a key measure of success, with strong punitive elements to increase the speed of this re-integration. It is less concerned about whether these jobs are sustainable or improving participants' employability or health (Carter and Whitworth, 2017; Brussig and Knuth, 2013). This strategy has been found to have large positive employment impacts in the short term but has also been associated with lower wage rates and increased flows off benefits but not into work in the long term (OECD, 2005).

Evidence from outside the UK suggests benefit sanctions—and in particular the threat of sanctions—can influence flows off unemployment benefits and into employment (Venn, 2012). Boockmann *et al.* (2014), in a study based on German data, found that sanctioned individuals were more likely to leave benefits for work within six months. A review of the literature on benefits sanctions by the Scottish government also suggested that sanctions can play a role in moving people from benefits into work. However, the same review also cautioned that many of those who were sanctioned and subsequently found work moved into low-paid, temporary employment (Scottish Government, 2013). Several studies have confirmed the finding that it is those who would find it most difficult to move into sustained employment, even in a buoyant economy (including the low skilled, those with health problems and lone parents), who are most likely to be sanctioned (Wu *et al.*, 2006; Watts *et al.* 2014). As Immervoll and Scarpetta (2012) note: *'an assessment of distributional effects is especially relevant when policy measures, such as strict benefit sanctions, are targeted towards highly disadvantaged groups'* (Immervoll and Scarpetta, 2012).

Very few quantitative studies have looked at the labour market impacts of JSA sanctions within the UK. An early exception was Loopstra *et al.* (2015A), who examined

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[1] In December 2012, it also introduced a new sanctions regime for those claiming the Employment Support Allowance (ESA), the main benefit for working-age adults unable to work due to long-term health conditions.

[2] Strictly speaking, the new regime was adopted in Great Britain (Scotland, England and Wales). Northern Ireland delayed introducing many of the elements until 2016. It did not see its sanction rates increase as dramatically as the rest of the UK and, when finally introduced, the maximum period for which sanctions could be applied was 18 months, compared to three years in Great Britain.

the association between sanctions, off-flows into work and employment outcomes in Britain. The authors concluded that an increase in the use of JSA benefit sanctions was associated with a reduction in the claimant count, but not with increased flows into work or reductions in unemployment. The National Audit Office (2016) also noted the scarcity of UK-specific evidence on unemployment benefits sanctions, highlighting that the DWP has not used its own data to evaluate the impact of sanctions and has not supported external work to understand their impact. The NAO's own preliminary analysis found that for JSA claimants being sanctioned was associated with increased flows into employment, but also increased the number of days people spent neither working nor claiming benefits, and that changes to employment were not matched by an equivalent increase in earned income from employment. Both studies suggest that the effectiveness of the October 2012 regime in achieving positive, sustained labour market outcomes is at least contested.

A number of commentators have criticised the approach taken on social justice grounds, and particularly because of the detrimental impact on claimants' health. They have focused on the dramatic rise in sanctions (peaking in October 2013), the inconsistent and arbitrary way in which they have been applied and their immediate consequences to individuals who have been sanctioned and their families (National Audit Office, 2016; HoC, 2015). Wright and Stewart (2016) found evidence that JSA sanctions had led to issues such as extreme financial hardship, debt and reliance on charity, friends and family as well as the triggering or exacerbation of health problems, especially mental health problems, while another study found that increased sanction rates were associated with increased food parcel distribution in the UK, even after adjustment for local availability of food banks (Loopstra *et al.*, 2015B). These problems are compounded by concerns that those who face the most challenging personal circumstances (i.e. lone parents, people with disabilities, the homeless and young people leaving care) are disproportionately more likely to be sanctioned (Scottish Parliament, 2014). From this perspective, a sanctions regime with higher financial penalties results in disproportionate social costs.

The labour market context in which sanctions are applied on individuals also seems to be important. The increase in the sanction rate (from 2010 to 2013) overlapped with a period of first economic stagnation, then recovery; while the changes to the sanctions regime (from 2012) took place during a period of economic recovery. While the most common reason for having a JSA benefit sanction applied on individuals in 2013 in Britain was for 'not actively seeking work' (Webster, 2014), there is some evidence that search intensity for work among the unemployed is pro-cyclical, declining in recession and increasing during recovery (Schwartz, 2014). Smith (2011) also presents some data to show that in the UK, the job-finding rate increased during a period of economic growth following the recession of the early 1990s. It may therefore be that changes in observed labour market outcomes are being driven at least in part by labour market conditions, rather than conditions being imposed on JSA claimants. Any analysis that attempts to separate out the distinct contribution of sanctions should take this into account.

In this context, it seems reasonable to test empirically the claims made about the beneficial impact of the increased use of sanctions (and on strengthening the penalties associated with being sanctioned) on labour market outcomes in Britain. Through an examination of the relationship between trends in the threat and use of sanctions, labour market demand (i.e. the rate of job vacancies per 1,000 working-age

population), flows into work from JSA and unemployment rates in Britain, we aim to answer the following questions:

- What is the impact of changing the rate at which JSA sanctions were threatened and applied and the rate at which JSA leavers find work?
- What is the impact of changing the rate at which JSA sanctions were threatened and applied and the International Labour Organisation (ILO) unemployment rate?
- What was the independent effect of varying the JSA sanction 'threat rate' and 'use rate' on flows off JSA into employment and on ILO unemployment?
- What was the independent effect of the new sanctions regime for JSA (introduced in October 2012) on flows off JSA into employment?

2. Methods

2.1. Data

2.1.1. Sanctions. Monthly JSA sanctions data for the period April 2000 to December 2014 were obtained from DWP Stat-Xplore.[3] Published sanctions data shown include both the total number of JSA claimants who have been referred for a sanction decision (where sanctions are 'threatened') and the total number of JSA claimants who have received an adverse sanction decision (where a sanction has been imposed, less those overturned on review, reconsideration or appeal, which is likely to understate the true sanction rate). Here we express both the referral and adverse decision figures as a rate per 100 JSA claimants per month. To create a consistent time series, these are shown as a rate per 100 of the adjusted claimant count: the published claimant count, plus off-flows into claimants recorded as 'gone onto approved training' or 'transferred to government-supported training'. This was done to adjust for the different way JSA claimants moving into training were counted before and after the introduction of the Work Programme in June 2011. Prior to this date, claimants participating in government-sponsored training programmes were treated as having left the claimant count; after it, they remained on the count.[4] A mean was taken for October to September[5] of each 12-month period for summary descriptive results, to remove some of the noise from the series and improve clarity of presentation. This should not be confused with the annual proportion of JSA claimants sanctioned, which is much higher than the monthly rate (Webster, 2016).

2.1.2. Exits from JSA into work. In theory, the threat and use of sanctions might be expected to act in two ways: by increasing the rate at which people exit JSA (whether they find work or not); and within this group, increasing the proportion who move into work (through increased search intensity). The outcome measure used here combines both aspects.

Exits from the Job Seeker's Allowance (JSA) in Britain come from the claimant count off-flows record, a 100% count of all people leaving the benefit, which includes a record of leaver destinations recorded by the JSA40 form and provides monthly data going back to 1998. The leaver destination of interest here is 'found work'.

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[3] Available at https://sw.stat-xplore.dwp.gov.uk.
[4] Personal communication from Bob Watson, Office for National Statistics, 24 June 2014.
[5] This time period was also chosen because the new sanctions regime was introduced in October.

To create a consistent, comparable time series estimating the proportion of JSA leavers moving into work, it was necessary to exclude four groups from the denominator. Claimants whose reason for leaving JSA was recorded as 'not known' or 'failed to sign' were removed because the share of off-flows in these categories has risen since the beginning of the series. The ONS advice is that many of them are likely to have moved into employment. Claimants whose destination was recorded as 'gone onto approved training' or 'transfer to government-supported training' were also removed from the denominator, due to the changes in how these groups were defined after June 2011 as discussed above. This figure was then applied to the total off-flows per month, to estimate the number of claimants moving into work each month. The estimated result was then expressed as a rate per 100 JSA claimants per month, using the adjusted claimant count described previously.

This approach is likely to overstate exits from JSA into work. Survey evidence from 2011, including the not known/failed to sign group, found a lower proportion of JSA leavers found work (78% vs. 68%) than the estimates used here (Adams *et al.*, 2012). Differences between the two figures might partly be explained by differences in methods of data collection (survey versus administrative data) and partly by recall difficulties (survey respondents were asked to report on their immediate destination after leaving benefits seven to eight months after ending their claim). The true figure is likely to lie somewhere between the two estimates.

2.1.3. ILO unemployment. Evidence on the broader labour market comes from the Labour Force Survey. Here the outcome of interest is ILO unemployment rates as a percentage of the economically active population. Since this is a survey-based measure, independent of the benefits administration system, it will count those who are unemployed whether they are claiming unemployment benefits or not. If job seekers are gaining sustainable employment, it might be expected that if JSA exits increase, ILO unemployment rates will also fall. However, the effect of JSA sanctions on ILO unemployment is likely to be limited by the fact that a large minority of unemployed people (28% to 33% in 2009–10) were not claiming JSA (DWP, 2017), and would therefore have been unaffected directly by the sanctions policy.

2.1.4. Labour market demand. Trends in labour market demand are derived from the ONS vacancy survey and the Labour Force Survey. The former is a monthly telephone survey of 6,000 employers designed to produce representative estimates of the level of vacancies in the UK. The measure of labour market demand is the rate of vacancies, per 1,000 people aged 16–64 years, per month. We use this in preference to the more conventional 'Number of ILO unemployed people per vacancy' to avoid circular logic, since unemployment is included as a labour market outcome.

A list of the variables used in the analyses and their definitions is shown in Table A.

2.2. Analytical approach

2.2.1. SVAR analysis. While the descriptive analysis provides an overview of trends in the threat and use of sanctions series, it does not take into account the interdependencies and relationships between these series and labour market demand, unemployment and off-flows from JSA.

Structural vector auto-regression (SVAR), as described by Lutkepohl and Kratzig (2004), was therefore used to model the interdependencies and dynamics between the outcome variables (threats and application of sanctions per 100 JSA claimants,

Table A. *Variables used in the analyses*

Measure	Definition
Revised claimant count	*JSA claimants plus people leaving JSA for approved training or government-supported training per month*
Sanction threat rate	*Number of JSA claimants referred to be sanctioned per 100 JSA claimants per month*
Sanction use rate	*Number of JSA claimants sanctioned per 100 JSA claimants per month*
Flows into employment from JSA	*Estimated number of people leaving JSA for work per 100 JSA claimants per month*
Labour market demand	*Unfilled vacancies per 1000 working-age adults per month*
ILO unemployment	*People meeting ILO definition of unemployment per 100 people in work or ILO unemployed*

off-flows into employment per 100 JSA claimants, job vacancy rate per 1,000 working-age adults and the ILO unemployment rate) and the policy exposure variables (April 2010 changes, October 2012 changes and the introduction of the Work Programme).

We modelled the impact of the application and threat of sanctions on the other inter-related variables in the system such that: the application or threat of sanctions creates changes in the JSA claimant count, which in turn changes the number of job vacancies (as people take up jobs), which in turn changes the unemployment rate (as people are now in work).

The output from such a model can be voluminous with a large number of coefficients that are not of direct interest; therefore, we calculated orthogonalised cumulative impulse response functions (IRF). These plot the accumulated impact of the response of a series over a certain time period after it has been 'shocked' by another series. For our model this means looking at the accumulated impulse response of off-flows from the JSA register, and of ILO unemployment to shocks in the threats of the use of sanctions and in the actual sanctions applied over a period of 18 months.

Since the labour market is affected by seasonality, many of the variables used exhibit a seasonal pattern. Vacancies and off-flows from JSA into work increase in the Autumn and in the Spring, but show sharp decreases in Winter and in Summer; the threat and use of sanctions follows a similar pattern. For unemployment, this pattern is reversed, with falls in unemployment observed in the Spring and Autumn and increases seen in Winter and Summer.

Preliminary investigation of the data showed a mix of stationary and non-stationary variables, so all variables were differenced once prior to estimation of the SVAR. We used the Hannan-Quinn (H-Q) and AIC statistics to determine the optimal number of lags to include in the model (Hannan and Quinn, 1979; Akaike, 1974). A deterministic trend variable was also included and its appropriateness tested using the AIC statistic. All SVAR analyses were conducted using Stata V 14.1.

The optimal number of lags chosen by the information criteria statistics for the model was seven. Diagnostic tests showed that some residual autocorrelation remained at lag 12, but the model passed all tests of normality of the residuals and satisfied the stability condition (Becketti, 2013).

2.2.2. Interrupted time-series regression. We also calculated the additional impact of exits into work from JSA and changes in ILO unemployment of the introduction

of three policies, using time-series regression with ARIMA errors (Hyndman and Athanasopoulos, 2014). As the data were subject to a number of structural breaks over the period of analysis, we used the automatic outlier detection option in the PROC ARIMA routine in SAS 9.4 to identify the dates of the additive and level shift outliers and incorporated these into the time-series models. The three policies examined were:

- The increase in penalties for missing an appointment with an advisor without good reason (April 2010). The anticipated impact on labour market outcomes of this change is unclear, since attending meetings does not necessarily increase job search intensity or effectiveness.
- The introduction of the Work Programme, which replaced most previous DWP-funded employment support for long-term benefit claimants (June 2011).
- The introduction in October 2012 of 100% loss of unemployment benefits for a minimum period of four weeks and a maximum of three years, as potential penalties for JSA claimants. This might be expected to have a larger effect than the April 2010 changes, given the step-change increase in severity of the financial consequences of being sanctioned it introduced, and the greater scope of JSA claimants affected.

The net impact of these policies was then calculated as the independent step-change impact of each policy, plus the cumulative impact of each policy between its month of introduction and December 2014. As an illustrative example, for the impact of the April 2010 changes, the mid-range estimates were calculated as:

- the one-off step change of 14,089 extra off-flows into work PLUS
- the monthly trend of −1,926 ⋆ 57 (−109,774)

giving a cumulative total of 95,685 fewer flows into work.

3. Results

3.1. Descriptive analysis

Figure 1 shows time trends in the monthly threat and use rates of JSA sanctions, against exit rates from JSA into work rates for working-age adults, alongside our measure of labour market demand. Results are shown as 12-month annualised averages (October–September) to improve clarity of presentation.

Between 2000/01 and 2005/06, the referral rate for JSA sanctions was declining while the adverse decision rate remained stable. Over the same period, exits into employment from JSA declined for all working-age adults, while demand fluctuated at around 16 vacancies per 1,000 working-age adults, a relatively high rate compared to the 2008/09 to 2012/13 period.

There were steep increases in both the threat and use of sanctions between 2005/06 and 2007/08, while demand for labour continued to fluctuate at a relatively high level. This was accompanied by a rise in exits from JSA into work.

Between 2008/09 and 2009/10, demand for labour declined rapidly as the economy moved into recession. Exits from JSA to work also decreased sharply, and both the threat and use of sanctions decreased.
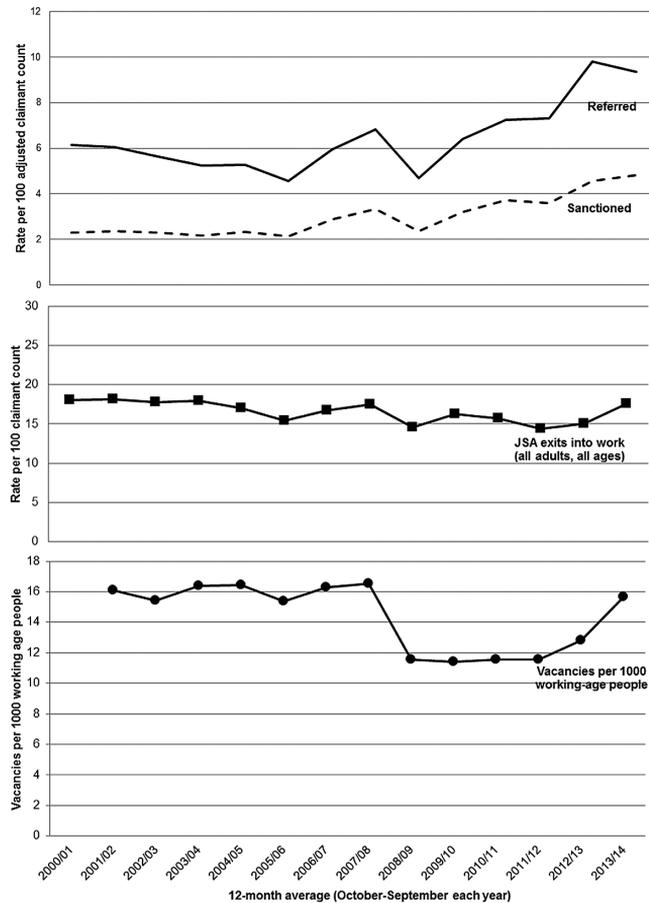
Figure 1. *Annualised monthly threat and use rate of JSA sanctions and flows from JSA into employment: Britain, 2000/01 to 2013/14*

Demand for labour stagnated at a very low level (at around 12 vacancies per 1,000 working-age people) between 2008/09 and 2011/12. During this period, the threat and use of sanctions increased steadily to levels higher than those seen in 2007/08, but exits rates from JSA into employment remained largely unchanged.

Between 2011/12 and 2012/13, there was a dramatic increase in the referrals for and use of JSA sanctions. This coincided with the new regime of penalties associated with conditions for claiming JSA (introduced in October 2012). This was accompanied by a modest increase in exits from JSA to work.

Finally, between 2012/13 and 2013/14, the economy grew; the referral rate for sanctions declined, though the adverse decision rate remained unchanged (and both remained at very high levels). There was a large rise in the exits to work.

Figure 2 presents the same data on sanctions and labour market demand, but this time includes trends in the ILO unemployment rate for working-age adults. The pre-recession period as a whole shows no clear relationship between sanctions and unemployment. It is noticeable that the increased threat and use of sanctions between 2005/06 and 2007/08 was accompanied by no substantial change in ILO unemployment.
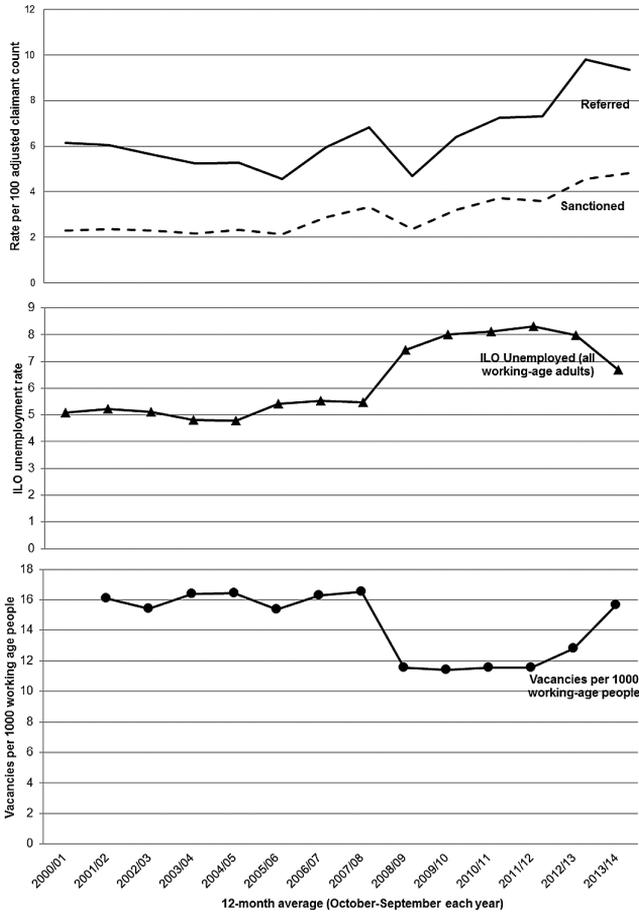
Figure 2. *Annualised monthly threat and use rate of JSA sanctions and ILO unemployment rate: Britain, 2000/01 to 2013/14*

From 2008/09, as the threat and use of sanctions began its upward trajectory, ILO unemployment for all working-age adults continued to increase. It is noticeable that the increased use of sanctions between 2008/09 and 2011/12 had no discernible impact on unemployment, against a backdrop of stagnating demand. Indeed, ILO unemployment only began to fall between 2011/12 and 2012/13, as labour market demand increased. This reduction in unemployment rates accelerated to 2013/14, with steep falls in unemployment accompanied by steep increases in the measure of labour market demand.

3.2. What was the impact of changes in the JSA sanction 'threat rate' and 'use rate' on flows off JSA into employment?

Figure 3 shows the cumulative effect of a one-standard-deviation increase in the JSA sanction 'threat rate' over 18 months. There is evidence of a short-run effect in the first month, but the impact is volatile thereafter and the accumulated effect drops to fluctuate
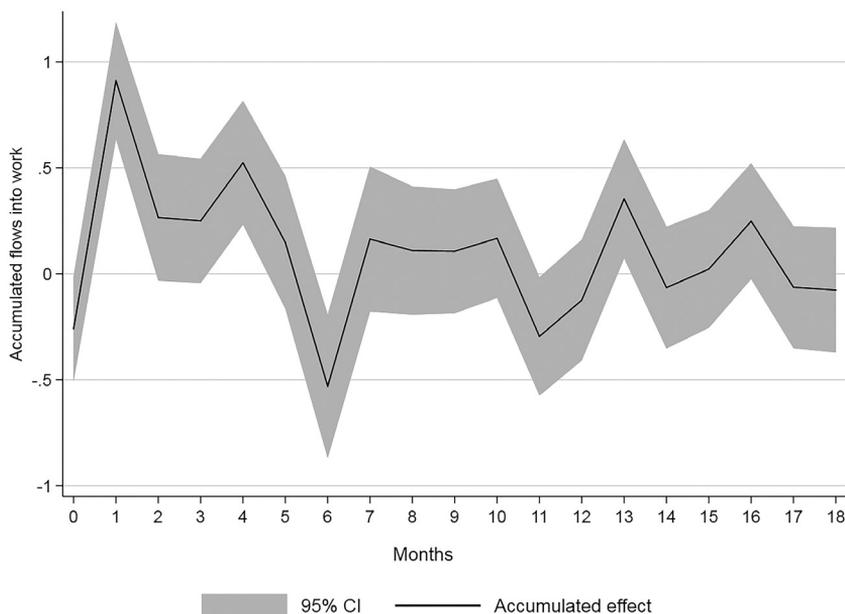
Figure 3. *Accumulated flows into work from JSA from a one standard deviation increase in the threat of sanctions rate (over 18-months)*

around zero around after six months. A one-standard-deviation increase (of 0.57 sanctions per 100 JSA claimants per month) leads to a decrease in off-flows into work of 0.08 people per 100 claimants after 18 months. Similarly, there is almost no impact on off-flows into work after 6 months from increases in the rate at which sanctions are applied, although there is a short-run positive effect (Figure 4). Numerically, an increase of 0.27 sanctions per 100 JSA claimants per month leads to an accumulated impact of 0.013 off-flows per 100 claimants after 18 months. Increasing the rate at which sanctions are threatened or applied increases flows off JSA into work in the very short run, but there is no evidence of a long-term, positive effect on JSA off-flows into work.

3.3. What was the impact of varying the JSA sanction 'threat rate' and 'use rate' on ILO unemployment?

Wide confidence intervals mean that there is little evidence that increasing the sanction threat rate reduces ILO unemployment either in the short or the long run (Figure 5). Similarly, a one-standard-deviation increase in the rate at which sanctions are actually applied does not appear to have any cumulative impact on ILO unemployment rates, either in the short run or the long run (Figure 6). Taken together with the descriptive analysis and the impact on flows of JSA into work described above, this seems to suggest that increasing the threat and use of sanctions may encourage flows off unemployment benefits into work for a few people in the short run but has little impact on the wider labour market.

3.4. What was the effect of the new sanctions regime on flows off JSA into employment?

Table 1 shows the independent impacts of: the introduction of sanctions for failing to attend an Interview at the Job Centre 'without good reason' (April 2010); the
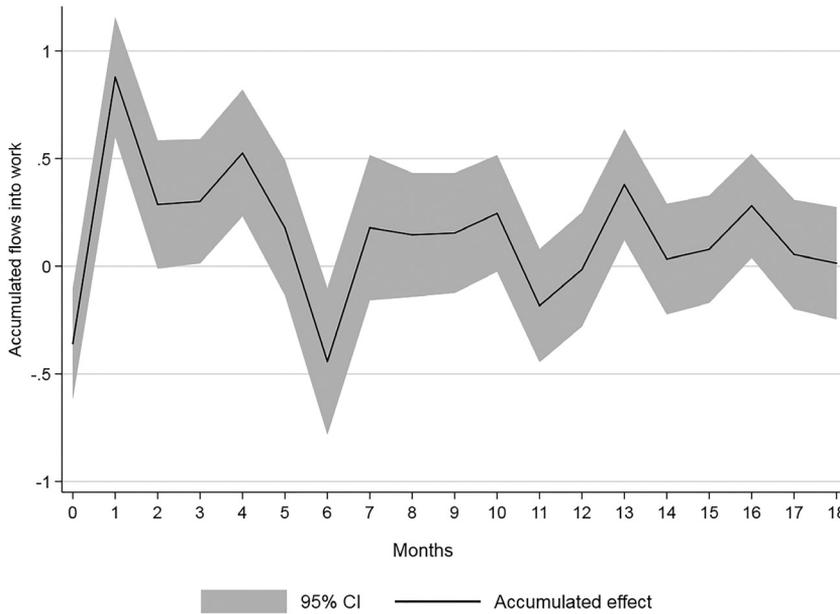
Figure 4. *Accumulated flows into work from JSA from a one-standard deviation increase in the use of sanctions (over 18-months)*
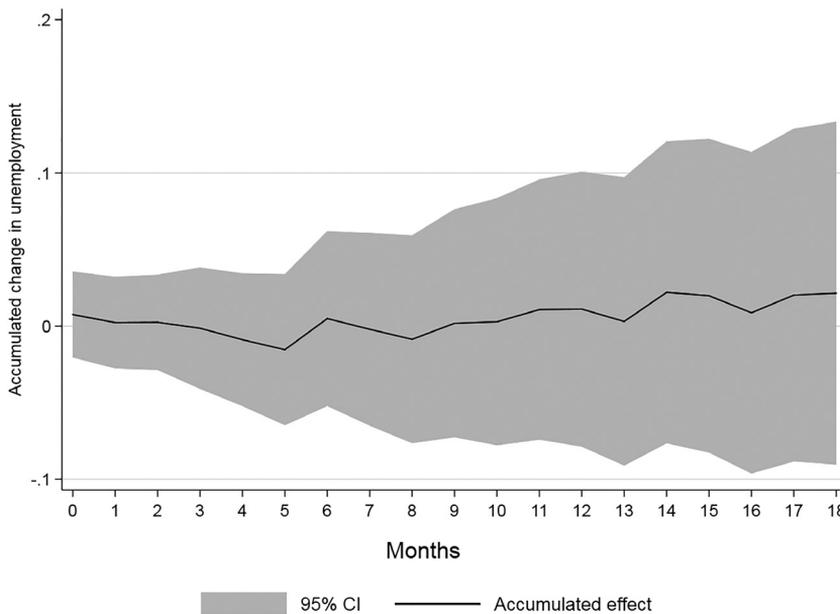

Figure 5. *Accumulated change in ILO unemployment from a one-standard deviation increase in the threat of sanctions (over 18-months)*

introduction of the Work Programme (June 2011); and the introduction of the October 2012 sanctions regime, on off-flows from JSA into work after controlling for three structural breaks in the data.

The impact of the April 2010 changes to the sanctions regime in the short and longer term is uncertain. The October 2012 sanctions have mixed effects with an immediate decrease in people moving into work from JSA, but an uncertain change in the trend.

Table 2 summarises the cumulative effects of the three policies, using the data from Table 1 and the approach described in the methods. The independent impact of all
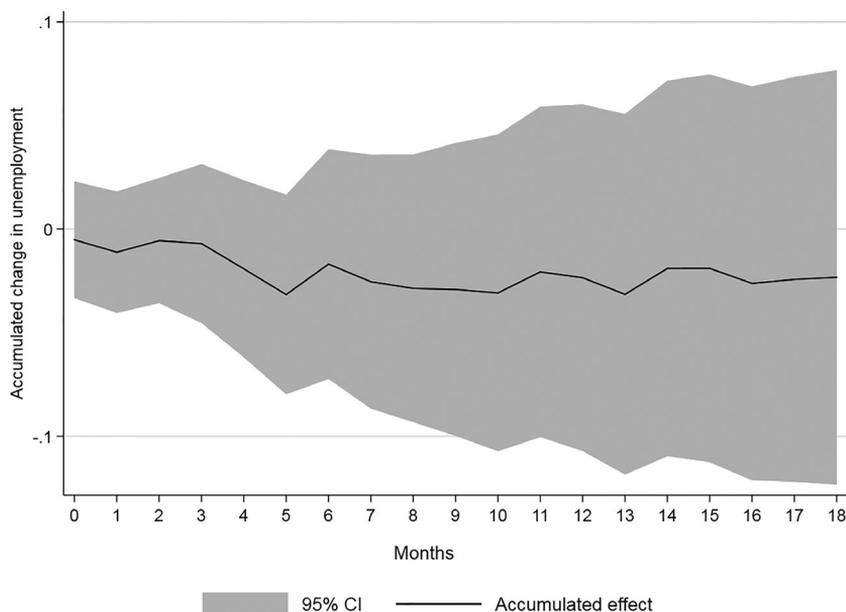

Figure 6. *Accumulated change in ILO unemployment from a one-standard deviation increase in the use of sanctions (over 18-months)*

Table 1. *Interrupted time-series analysis of the independent impact of policy changes on the level and trend of JSA off-flows into employment adjusted for labour market demand and sanctions applied*

	Coefficient (95% CI)	p value
Underlying trend	−170 (−360 to 22)	0.08
April 2010 (STEP)	14,100 (−7,500 to 35,700)	0.20
April 2010 (TREND)	−1,900 (−5,200 to 1,300)	0.24
October 2012 (STEP)	−27,300 (−52,000 to −2,600)	0.03
October 2012 (TREND)	1,990 (−1,500 to 5,500)	0.27
Work Programme (STEP)	10,800 (−20,000 to 41,500)	0.49
Work Programme (TREND)	2,400 (−1,800 to 6,500)	0.26
Number of sanctions applied	1.47 (0.72 to 2.23)	<0.001
Labour market demand	−0.23 (−0.31 to −0.15)	<0.001
Constant	262,800 (204,300 to 321,200)	<0.001

Notes: Time-series regression with ARMA errors: AR(1,3,6,10,12,16) ma(3); results rounded to improve clarity.

three policies is uncertain, and we are unable to reject definitively the null hypothesis for any of them. The April 2010 changes are estimated to have lowered flows off JSA into work by 95,685 (95% CI −302,305 to 110,935). For the Work Programme, the

Table 2. *Net cumulative effect of interventions on flows into employment from JSA to December 2014 (start date of intervention in parentheses)*

	Estimated cumulative number of additional people moving from JSA into employment (95% CI)
April 2010 changes	–95,685 (–302,305 to 110,935)
Work Programme (June 2011)	112,919 (–95,859 to 321,697)
October 2012 changes	26,328 (–93,564 to 146,221)

Source: Authors' calculations from unrounded outputs. Negative numbers suggest intervention reduced the number of people moving from JSA into employment.

mid-range estimate is of an additional 112,919 (95% CI –95,859 to 321,697) people moving into work between June 2011 and December 2014.[6] Finally, we are unable to reject the null hypothesis that the post-October 2012 regime had no impact on flows off JSA into work, given the uncertainty of its small positive impact of 26,328 (–93,564 to 146,221).

4. Discussion

4.1. Implications

Overall, the descriptive analysis suggests the relationship between the threat and use of JSA sanctions and labour market outcomes in Britain remains ambiguous and positive labour market outcomes were highly correlated with labour market demand. In the pre-recession period, there is some evidence that increased threat and use of JSA sanctions was associated with modest increases in exits from JSA to work, but also with increases in ILO unemployment, implying the process was associated with increased labour market 'churn'. During the period of weak labour market demand between 2008/09 and 2011/12, increasing the threat and use of sanctions had little positive impact on either labour market outcome. In terms of timing, improved labour market outcomes (falling ILO unemployment and increased exits from JSA to work) after 2012 could reflect a loosening of fiscal policy and substantial use of quantitative easing (Wren-Lewis, 2015) as much as any welfare reforms.

The SVAR multivariate analysis suggests that changes to the rate at which sanctions are threatened or applied in Britain have a short-term impact on increasing flows into work from JSA, but this effect largely disappears after 6 months. Changing the rate at which JSA sanctions were threatened or applied had no noticeable impact on the ILO unemployment rate, once labour market demand is taken into account. After 18 months, the cumulative impact of increasing the threat or use of sanctions is either negative or close to zero (with wide confidence intervals) for both outcome measures.

Our final piece of analysis, looking at the impact of policy interventions, suggests that the sanctions regime introduced in October 2012 was largely ineffective in increasing flows into work from JSA once other factors are taken into account. We are unable to

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[6] This should be compared with Work Programme official statistics which reported 376,040 job outcomes for JSA claimants to December 2014. This implies that between 14% and 100% (central estimate: 70%) of participants would have gained employment anyway.

reject the null hypothesis that the sanctions policy introduced in October 2012 had no impact on flows off unemployment benefits into work.

To provide some context, Table 3 compares these estimates of extra flows into employment under the post-October 2012 sanctions regime with the actual number of individuals referred for a decision and actually sanctioned (at least once) over the same period. During these 27 months, 925,561 individuals were sanctioned, with a loss of all unemployment benefits for at least four weeks, at least once under the new regime. Although the estimates are indirect, even the most optimistic scenario (that ~146,000 extra people found work because of the negative incentive of being sanctioned) implies that most of those sanctioned (~779,000) simply became poorer.

4.2. Strengths and limitations

This paper is one of the few quantitative studies to test the claims made on the efficacy of sanctions on labour market outcomes in Britain. This is an important strength.

The approach taken here is a pragmatic one, exploiting the available cross-sectional information on sanctions, administrative off-flows and survey-based unemployment and vacancies to its fullest. However, the approach suffers from a number of limitations. Analytically, we have chosen to concentrate on the short-run impacts among the variables, thereby ignoring the possibility of a stable, longer-term relationship within the system. This could be explored in a future analysis with more data.

Ideally our study would replicate the approach used by Arni *et al*. (2013) for Switzerland. They used a very comprehensive administrative dataset with information on claimant destinations after leaving unemployment, plus information on their earnings two years after exit. No equivalent UK dataset yet exists. The sanctions history of JSA leavers is not recorded in the published claimant count data, and administrative data cannot currently be used to track benefit leavers once they find work, even for short periods. While the five-quarter longitudinal Labour Force Survey (LFS) provides some scope for analyses of benefit leavers' economic status over time, the subsample for Job Seeker's Allowance claimants is very small (and again, the LFS contains no information on the threat or use of sanctions). We were unable to factor the impact of the introduction of Universal Credit (UC) into our analysis, since figures on those claiming UC who have been sanctioned were not published until 2017.

A further limitation is the absence of a spatial dimension to our analyses. This could be potentially important, given the literature on geographical differences in labour demand found across Great Britain (Webster, 2005; Theodore, 2007; Taulbut and Robinson, 2015). A number of studies have also highlighted the 'unexplained' variation in sanction rates across Britain (NAO, 2016; Kenway *et al.*, 2015). Future work

Table 3. *The additional number of individuals referred for a sanction decision, actually sanctioned and moving into work (October 2012–December 2014)*

	Number of additional individuals
Individuals referred at least once	1,555,787
Individuals sanctioned at least once	925,561
Extra flows into employment (95% CI)	26,328 (–93,564 to 146,221)

Sources: Table 2; DWP Stat X-plore.

could explore these issues in more depth, investigating the association between labour market outcomes and JSA sanctions at a regional and sub-regional level. Any approach would, however, have to consider what measures of sub-national labour market demand might be appropriate, given that the ONS vacancy survey does not provide results below the UK level.

We also were limited in the population subgroups that we were able to consider, and it is likely that some of these experienced differential impacts or exposures: young adults are an obvious example, but lone parents, adults with disabilities and other groups claiming JSA could also be considered. In a recent paper, Reeves (2017) found that JSA sanction rates were higher in areas with a greater proportion of lone parents and people with disabilities. Investigating any changes in labour market outcomes for these groups, using the same geographies, would be a useful piece of research. Finally, we were unable to consider other outcomes (e.g. earnings, household incomes, mental and physical health) seen after the introduction of the October 2012 sanctions regime. The unintended or less explicit consequences of the policy change should also be better understood. For example, it may be that more advantaged job seekers are leaving benefits for full-time education via temporary employment, while the least advantaged move from benefits to temporary work to unemployment or inactivity but with their financial support now coming from family, friends and charities rather than the State. A number of research projects are currently underway to explore data linkage between DWP administrative datasets and a range of labour market and social outcomes, which could yield more robust analysis in the future.

5. Conclusion

Based on analysis of data for Britain for the period 2001–2014, the increased threat and use of sanctions, including the introduction of the new sanctions regime in October 2012, did not result in sustained improvements in labour market outcomes. This objective might be better served by alternative active labour market policies, such as more substantive commitment to addressing personal circumstances which prevent people from gaining and remaining in employment (such as childcare and health problems) and ensuring a greater supply of job opportunities, especially for the low-skilled and those living in areas of weak labour market demand.

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Appendix 1. SVAR Models

This appendix sets out in more detail the SVAR models we have estimated in our paper. We estimated two SVAR models. Model 1 consisted of the following four endogenous variables: threats of sanctions; JSA claimant count; job vacancies and unemployment. The model was augmented with four exogenous variables: a time trend and the three policy exposure variables 'stricter sanctions', 'tougher sanctions' and 'introduction of the Work Programme'.

The endogenous variables in the second SVAR model consisted of: sanctions applied; JSA claimant count; job vacancies and unemployment. This model was also augmented with the four exogenous variables included in model 1. In standard SVAR matrix notation, model 1 can be written in structural form as:

$$A y_t = \zeta_o + \Gamma_1 y_{t-1} + \Gamma_2 x_t + B\varepsilon_t \tag{1}$$

where:

y = [threats, claimants, vacancies, unemp]'

x = [time, stricter, tougher, workprog]'

$\varepsilon = [\varepsilon_{threats}, \varepsilon_{claimants}, \varepsilon_{vacancies}, \varepsilon_{unemp}]'$

where the matrix A allows us to obtain the contemporaneous effect of the variables on each other. After multiplying through by A^{-1}, we obtain the standard VAR reduced form:

$$Y_t = A^{-1}\zeta_o + A^{-1}\Gamma_1 y_{t-1} + A^{-1}\Gamma_2 x_t + A^{-1}B\varepsilon_t$$

$$Y_t = a_o + A_1 y_{t-1} + A_2 x_t + U_t \tag{2}$$

where $U_t = A^{-1} B\varepsilon_t$

It is a well-established result that the reduced form estimation (equation 2) of the structural form (equation 1) is not identified (Enders, 2010). That is, we cannot get an estimate of all the parameters in (1) using the reduced form (2). However, identification is possible if we apply some restrictions to the model.

To identify our system, we chose to use the popular AB model (of restrictions) of Amisano and Giannini (1997) by imposing restrictions on the A and B matrices. This

ensured that the restrictions complied with our underlying theoretical model of threats and sanctions:

Threats $\rightarrow$ JSA count $\rightarrow$ Vacancies $\rightarrow$ Unemployment

All of the above can also be applied to our second SVAR model that uses *sanctions applied* instead of threats.

Interrupted Time-Series Regression with ARIMA errors

We used interrupted time-series regression with ARIMA errors to estimate the numbers transitioning into employment as a result of the three policy interventions. An ARIMA errors model was preferred over a pure ARMA model, as the coefficients obtained via ARMA errors retain the traditional regression interpretation whilst those of a pure ARMA do not (Hyndman, 2010).

Thus, the form of the model estimated was:

$$\text{Off - flows}_t = C_0 + \sum_{j=1}^{n} b_i x_{it} + u_t$$

where u_t follows an ARIMA structure and X is a vector of covariates.