



Department
for Work &
Pensions

Day One Support For Young People Trailblazer

A Preliminary Impact Analysis

November 2014

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1. Overview

The *Day One Support for Young People* (DOSfYP) trailblazer was a mandatory programme designed with an aim of assisting young people with limited work history into employment. The scheme operated in two Jobcentre Plus (JCP) Districts, North and South London, with referrals taking place for eight months between November 2012 and July 2013. Under the pilot, the intention was that young people (18-24 year olds) who had not previously completed six months of paid employment since leaving full time education undertook a work experience placement, beginning on or soon after the first day of their claim to Jobseeker's Allowance (JSA). Jobseekers mandated to the scheme were required to carry out 30 hours of work experience each week, for a 13-week period. Claimants were required to 'sign-on' at the JCP throughout their placement in order to continue to receive their benefit. Since it was a mandatory employment programme for those referred, claimants had their benefit sanctioned where they failed to meet the requirements of their DOSfYP placement.

This report describes a quantitative analysis of the DOSfYP trailblazer, estimating its impacts on the average labour market outcomes of young jobseekers. The impact on subsequent benefit and employment rates were estimated using a *difference-in-differences* analysis. This analysis compared outcomes in the DOSfYP pilot districts with those of a non-participating population of jobseekers in neighbouring London districts, considering the difference between the DOSfYP treatment period and the preceding period.

The key impacts of DOSfYP are:

- There was a statistically significant reduction in the 18-24 year old JSA claimant count, estimated at 11 per cent, in the DOSfYP districts during the period of the trailblazer.
- During the period in which DOSfYP was running, JSA inflows for the 18-24 year old age group in the treatment districts fell by 5 per cent relative to the comparison districts.
- DOSfYP has a statistically significant impact on the benefit rate of the target population. At 4 weeks after the start of a claim, the likelihood of a jobseeker in the DOSfYP district being in receipt of JSA decreased by 3.7 percentage points compared to the control districts. The magnitude of this benefit impact decreased, but remained significant beyond 26 weeks.
- DOSfYP also had a short term positive impact on employment rates, with the likelihood of being in employment at 4 weeks from the claim start increasing by 0.8 percentage points for those in the DOSfYP districts. This

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impact was not sustained, falling to zero at 8 weeks from the start of the claim.

- The estimated average 'on-JSA' impact translates approximately into a cumulative 5 days off JSA per individual, over the 26 week tracking period.
- The average 'in-employment' impact translates approximately into an additional 0.5 day in employment per individual over the first 11 weeks following a JSA claim start. After 11 weeks from the claim start, DOSfYP had no significant impact on employment outcomes.
- The impacts presented here are average impacts for the whole population of 18-24 year old job seekers in the DOSfYP districts, of which those actually referred to the programme are a sub-set.

Section 2 provides background and context to the impact assessment, including a quantitative description of the population of DOSfYP participants. The impacts of DOSfYP on labour market outcomes of the target population of young jobseekers are presented in sections 3 and 4.

Alongside this analytical publication, a separate qualitative research report, detailing participant's experiences of DOSfYP, is published.

2. Background

This section provides context for the analysis. Section 2.1 gives a brief overview of the policy background and the design of the programme. Section 2.2 describes the rationale for the present analysis. Section 2.3 gives quantitative description of the participation on the programme from DWP administrative data.

2.1 Overview of DOSfYP trailblazer

The DOSfYP trailblazer operated in the North and South London JCP districts. It ran for eleven months, with an eight month referral period between 26 November 2012 and 26 July 2013. The target group for the trailblazer consisted of 18-24 year olds making a claim for Income Based JSA. Those in receipt of contributions based Jobseeker's Allowance and other benefits were not included.

All young people with less than 6 months work history since leaving full-time education were eligible for DOSfYP. A recommendation for a referral to DOSfYP by a JCP adviser was made where it was considered that the lack of work history was the main barrier to the individual entering employment.

Once formally referred to DOSfYP, claimants were required to begin their placement with the host employer with immediate effect; in practice this was usually within 3 working days. The DOSfYP placements were 13 weeks in duration.

Claimants remained in receipt of JSA throughout and were therefore required to continue to sign for their benefit each fortnight, and to continue to be available for and actively seek employment during the period of their participation. Host employers were expected to provide time for job search and to release participants to attend interviews with employers or at the Jobcentre.

As is the case with the other mandatory programmes, if participants failed to comply with the requirements of the DOSfYP programme their benefit could be sanctioned. JSA sanctions, varying in length between 4 and 13 weeks, were applied if the claimant failed to attend a DOSfYP placement without good cause, gave up a place on the programme, or if the participant was dismissed by the host employer for misconduct.

2.2 Rationale for the impact analysis

There is evidence from employers suggesting one common reason that young people are not offered jobs is their lack of work experience and work related skills (e.g. UKCES Employers Perspectives Survey 2012¹). The DOSfYP trailblazer was designed to test whether providing extra support and work experience from day 1 of young person's claim to JSA helped young people with little or no work history move closer to the labour market and find sustained employment. The overarching aim of this analytical publication is to quantify the impacts of DOSfYP, which will be of use in the design of future mandatory interventions and other schemes aimed at assisting young jobseekers.

DOSfYP is a novel scheme for two reasons: it is the first time that young people have been exclusively targeted for mandation to an employment programme, and it is also the first time that mandatory activity has been used at such an early stage of a JSA claim.

Early findings from other mandatory labour market interventions (e.g. Mandatory Work Activity (MWA)², Work Experience (WE)³) have found that mandating jobseekers to employment programmes can result in measurable and significant impacts on the benefit rates of participants (e.g. MWA resulted in a 5 percentage point decrease in the on-benefit rate at 10 weeks from the claim start; WE resulted in a 6 point decrease at 13 weeks). It appears to be a common feature of many labour market programmes that the impact on the on benefit rate diminishes as the length of time since the programme was attended increases (e.g. early analysis of the MWA benefit impact indicated that this returned to zero by 21 weeks from claim start).

Programmes have also been observed to have an impact on employment, but these are often smaller than the benefit impacts, and are more difficult to estimate robustly (e.g. MWA showed no significant employment impact, whilst WE showed an impact of +8 points at 13 weeks).

¹ <https://www.gov.uk/government/publications/employer-perspectives-survey-2012>

² Early Impacts of Mandatory Work Activity (DWP, 2012, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/222938/early_impacts_mwa.pdf)

³ Early impacts of Work Experience (DWP, 2012 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/222943/early_impacts_of_work_experience.pdf)

By contrast, the 'Support for the Very Long Term Unemployed' trailblazer⁴ showed a more significant employment impact (a maximum increase of 4 points at 37 weeks), as well as more sustained benefit impacts (still showing a of 2 to 3 percentage point reduction at 91 weeks). DOSfYP is of sufficiently different design from previous schemes (by providing work experience from the start of the claim to JSA) that limited inferences from these other impact assessments should be made.

The prior expectation was that DOSfYP would result in a reduction in the 18-24 year-old JSA claimant count. By providing participants with valuable work experience and supported job search, the aim was that DOSfYP would move participants away from a reliance on out-of-work benefits and facilitate their move into paid employment. In this eventuality, the expected impact would be an increase in the off-flow rate of 18-24 year olds from the JSA claimant count. If successful in its aim of moving participants closer to the labour market, there would additionally be increased employment rates seen for those young people.

It was also anticipated that the programme would (i) reduce the likelihood of people making claims to JSA in the first place, due to the *prospect* of a mandatory placement (ii) reduce the likelihood of recent claimants continuing their claim, once they are faced with the reality of referral to a mandatory DOSfYP placement. The first of these effects would be expected to manifest itself in a reduced inflow to JSA, compared to the inflow that would have been observed in the absence of the DOSfYP programme. The second effect would be expected to show up in an increase in the short-term 18-24 year-old JSA off-flow rates.

There were risks in the policy design of mandating all young job seekers with less than six months work history to a programme on day one of their claim. Of the sub-group of job seekers who, in the knowledge of DOSfYP, would either cease their claim to JSA or be less likely make a claim in the first place, it is assumed that some would do so because they were effectively 'job-ready' and would therefore expect to move into employment quickly.

On the other hand some of these 'job-ready' people, who in the absence of DOSfYP might have claimed JSA for just a few weeks, may continue their claim and attend their DOSfYP placement. There is thus potential that individuals get 'locked-in' to receiving benefit for at least the 13 week duration of the programme – longer than they otherwise might. Typically, around 60 percent of 18-24 year old claimants flow off JSA with 13 weeks of claiming.

In light of these expectations, the analysis described in subsequent sections considers the impact on (i) the 18-24 year old JSA claimant count (ii) 18-24 year old inflows to JSA (iii) subsequent 18-24 year old 'on-JSA' rates (iv)

⁴ Support for the very long term unemployed trailblazer (DWP, 2013 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265931/svltu-dec-13-adhoc.pdf)

subsequent 18-24 year old 'in-employment' rates. Assessing the impact of DOSfYP on each of these measures provides information on the overall effectiveness of the DOSfYP trailblazer in meeting its stated aims.

2.3 DOSfYP participants

In this section, DWP administrative data is used to give breakdowns of the participants of DOSfYP, for example by age, gender and ethnicity, to provide knowledge and understanding of the cohort of people that were referred to the programme. All the volumes are rounded to the nearest 10.

2.3.1 DOSfYP referral and start volumes

In the trailblazer period, 26 November 2012 to 26 July 2013 (referred to as the 'DOSfYP period'), there were a total of 11,020 referrals to DOSfYP, split between the North and South London trailblazer districts as shown in Table 1.

	Average 18-24 claimant count in DOSfYP period	Average monthly 18-24 inflow to JSA in DOSfYP period	Total 18-24 inflow to JSA in DOSfYP period	Referrals to DOSfYP	Ratio of referrals to JSA inflows
North London	8,400	2,300	18,100	4,280	0.24
South London	13,300	3,500	28,300	6,740	0.24
Total	21,700	5,800	46,400	11,020	0.24

Table 1 - JSA claimant count, monthly and total JSA inflows (all for the 18-24 age group), and number of referrals to DOSfYP.

The 11,020 DOSfYP referrals resulted in 3448 DOSfYP placement starts, a rate of 31 per cent. The two DOSfYP districts differed, with a rate of 30.2 per cent in North London and 32.0 per cent in South London. The referrals were distributed relatively evenly throughout the eight month referral period of the trailblazer (Table 2).

The trailblazer was designed with the possibility that individuals would be re-referred to DOSfYP if for any reason they did not start, or complete, the scheme on their initial referral. There was no limit to the number of times a claimant could be re-referred.

The 11,020 DOSfYP referrals were received by 8200 individuals i.e. approximately 74 per cent of referrals to the DOSfYP programme were first time referrals and 26 per cent were second or subsequent referrals.

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		North London		South London		Total	
		Referrals	Starts	Referrals	Starts	Total referrals	Total starts
2012	November	150	10	260	20	420	30
	December	620	150	560	220	1,180	360
2013	January	770	240	200	40	970	280
	February	630	170	1,080	330	1,710	500
	March	600	190	1,200	390	1,800	580
	April	470	150	1,000	290	1,470	440
	May	380	130	790	260	1,170	390
	June	280	100	740	240	1,020	330
	July	390	170	900	370	1,280	530
Total		4,290	1,310	6,730	2,160	11,020	3,440

Table 2 – DOSfYP referral and start volumes, by month and JCP district.

Of the 8200 individuals referred to the programme, 2690 (33 per cent) started their first DOSfYP placement. For comparison, 36 per cent of referrals to MWA (also a mandatory programme) resulted in a start. The proportion of referrals to DOSfYP that resulted in a start on a placement was therefore lower than might have been expected, but is seen to be broadly in line with other similar labour market interventions.

The starts and referrals to DOSfYP are shown in a flow chart in Table 3 and in Figure 1.

Referral number	Number of referrals	Starts	Non-starts	Proportion of referred individuals that start
1 st	8200	2690	5510	33%
2 nd	1910	560	1350	29%
3 rd	600	150	450	24%
4th+	310	50	260	17%
Total	11,020	3,450	7,570	31%

Table 3 – DOSfYP referrals and starts by number of start

As expected, those who start a placement are significantly more likely to remain in receipt of JSA in the short term (88 per cent of starters are in receipt of JSA 1 week after referral, compared to 47 per cent of non-starters). This is expected, and suggests that some claimants choose to end their claim to JSA, rather than start a DOSfYP placement.

Of the 5510 who fail to start, 1330 (24 per cent) are re-referred to DOSfYP. By contrast, it is of note that once an individual has started a DOSfYP placement, they are only rarely re-referred to DOSfYP.

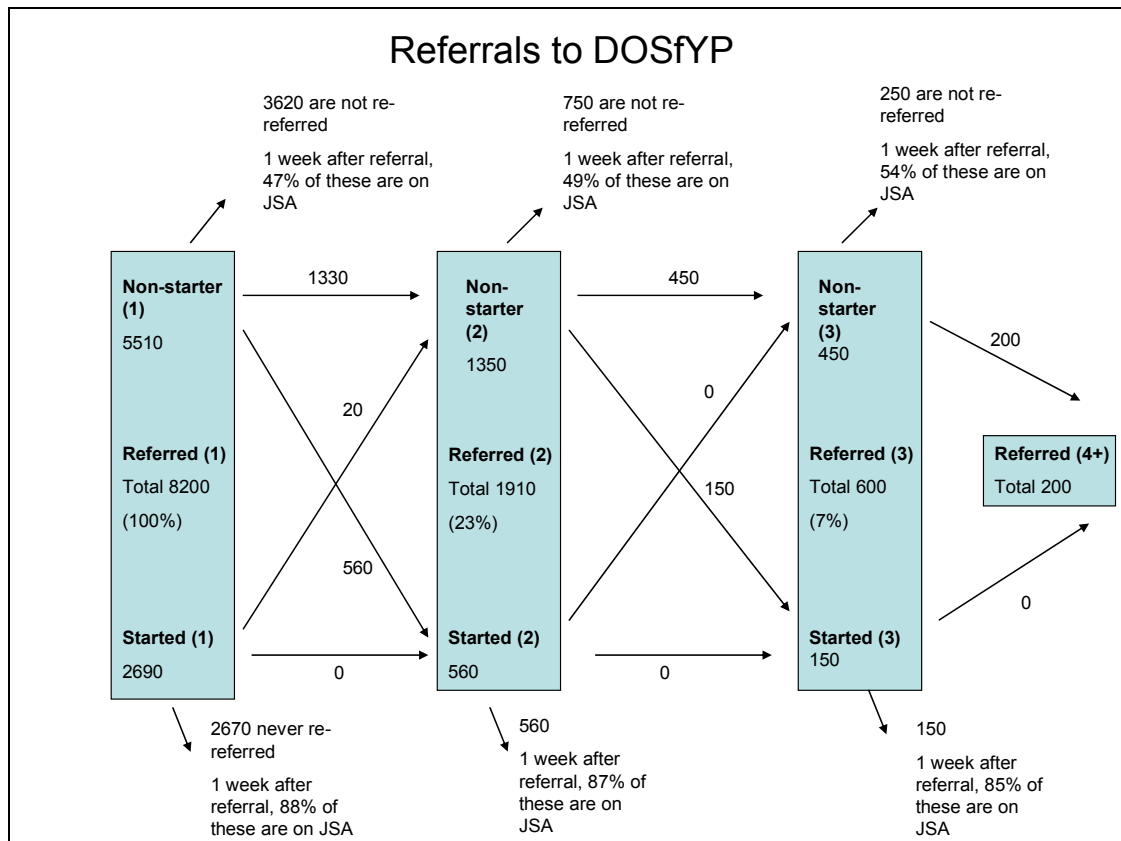


Figure 1 - A flow chart showing DOSfYP referrals and starts, and the number of re-referrals to the programme.

Those individuals who did not initiate a claim to JSA because of the prospect of DOSfYP are by definition not included in the DWP administrative benefit datasets, and thus cannot be quantified directly. We can however assess the magnitude of this group by considering changes to JSA inflow data, described later. Additionally, this group of people has been represented in the primary research described separately.

Finally, it is noted that there is no information available on completion rates of DOSfYP at the current time.

2.3.2 Sanctioning of DOSfYP participants

The DOSfYP policy was designed with the intention that if individuals failed to participate in the scheme, their benefit would be sanctioned.

In total, over the course of the trailblazer there were 1,620 sanctions made for failure to participate in the DOSfYP scheme. This represents 14.6 per cent of the 11,020 referrals to DOSfYP. The 1,620 DOSfYP sanctions were received by 1,290 individuals (i.e., 16 per cent of individuals referred to DOSfYP received a DOSfYP sanction). This compares with a rate of 7 per cent for MWA.

Of the 1,290 individuals who received one or more JSA sanctions for failure to participate in DOSfYP, 1,030 (80 per cent) failed to start a placement on their first referral to DOSfYP. The remaining 260 individuals (20 per cent) had started their first placement prior to being sanctioned. It is clear that the majority of DOSfYP related sanctions were received by individuals who failed to start a placement, rather than for failing to participate in a placement once started.

Of the 5,510 Individuals who did not start a DOSfYP placement on their first referral to the programme, the sub-group of 1,030 individuals that were sanctioned represent approximately 19 per cent. Of these, 80 per cent remained in receipt of benefit 1 week after referral. This is only slightly lower than the 88 per cent 'on-JSA' rate for those that did start a placement, suggesting that claimants that are sanctioned for not starting do not tend to leave JSA significantly faster than if they had started a placement.

There were therefore 4,480 individuals (i.e., 81 percent of non-starters) that did not receive a DOSfYP related sanction, despite not starting their placement. Of these, 1,190 (26 per cent) were re-referred to DOSfYP.

Of the 4,480 non-starters who were not sanctioned, 2160 (48 percent) were still in receipt of JSA at 1 week after their referral and 1510 (34 per cent) at 4 weeks. This is lower than the rate for those sanctioned, and is in line with the overall rate for non-starters discussed in the previous section. Those claimants that do not start their DOSfYP placement and subsequently leave JSA would have been expected to receive a DOSfYP sanction had they remained on benefit.

Finally, it should be noted that in addition to the possibility of having their benefit sanctioned for failure to participate in DOSfYP, individuals can separately receive a benefit sanction for failure to fulfil their JCP commitments of signing for their benefit each fortnight, and being available for and actively seek employment.

2.3.3 Age of DOSfYP participants

As has been seen in Table 1, approximately a quarter of 18-24 year JSA claims in the DOSfYP districts resulted in referral to the DOSfYP trailblazer, suggesting that this was roughly the proportion of young jobseekers that did not have six months of work experience.

However the likelihood of an individual being referred to DOSfYP is age dependent, with younger claimants disproportionately represented in the DOSfYP referral volumes. For example, 18 year olds made-up around 12 per cent of 18-24 JSA inflows in the DOSfYP period, but contributed 25 per cent to DOSfYP referrals. This is unsurprising given the policy intent - the youngest jobseekers have least chance to obtain 6-months of work history and are thus most likely to be referred to DOSfYP. Of the starts to a DOSfYP placement,

73 per cent were in the 18-21 age range. The volume of DOSfYP referrals and starts are shown by age group in Figure 2.

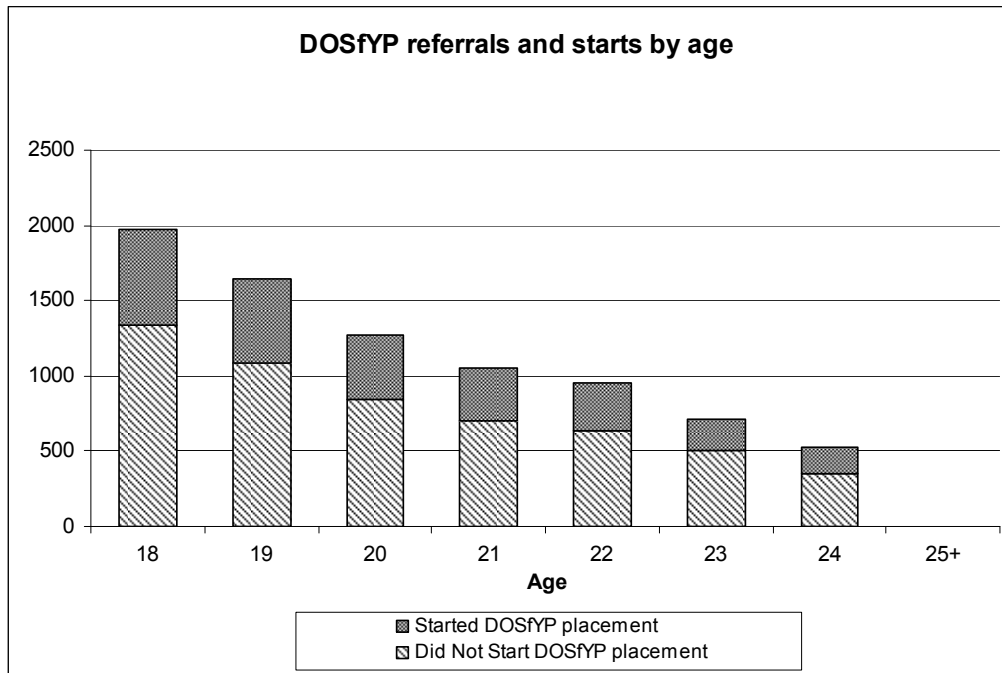


Figure 2 – Volume of referrals and starts to DOSfYP, by age.

The proportion of referrals that result in a successful start of a DOSfYP placement (approximately one-third) remains relatively constant with age. Whilst older jobseekers are proportionally less represented in the DOSfYP cohort, those older jobseekers that are referred due to not having the required six months work history are as likely to attend a placement as the younger claimants.

2.3.4 Gender of DOSfYP participants

Of the 8200 individuals referred to DOSfYP, 5010 (62 per cent) were male and 3190 (38 per cent) were female. By comparison, the 18-24 JSA inflows in the DOSfYP period / districts were 61 per cent male and 39 per cent female. The gender balance of the cohort referred to DOSfYP is thus approximately as expected.

Once referred, females were more likely to start a DOSfYP placement than males: 36 per cent of referred females started a placement, compared to 31 per cent of referred males.

2.3.5 Family status of DOSfYP participants

Of the 8200 individuals referred to DOSfYP, 280 (3 per cent) were known lone parents, 71 (1 per cent) were joint claims and 6,710 (82 per cent) were not a parent. The status was unknown for 14 per cent of people.

There was little variation in likelihood of starting DOSfYP placements between groups, with the ‘non parents’ marginally more likely than average to start a placement (33 per cent of referrals resulting in a start) compared to lone parents (31 per cent).

2.3.6 Ethnicity of DOSfYP participants

Table 4 shows the ethnicity of individuals referred to DOSfYP. Claimants of white ethnicity made up nearly half those referred. There was some variation in the proportion of claimants who started starting DOSfYP placements, with ‘Black or Black British’ ethnic group slightly more likely to start than the other known ethnic groups.

	Did not start DOSfYP placement		Started DOSfYP placement		Percentage starting
	Count	Percentage	Count	Percentage	
White	2,590	47%	1,230	46%	32%
Black or Black British	1,260	23%	650	24%	34%
Asian or Asian British	380	7%	190	7%	33%
Mixed	380	7%	140	5%	28%
Other	310	6%	170	6%	35%
Unknown	580	10%	320	12%	35%

Table 4 - Referrals and starts of DOSfYP placements by ethnicity.

3. Methodology

3.1 Difference-in-differences estimation

We estimated the average impacts of DOSfYP on the labour market outcomes of those who were potentially eligible to participate. This group (the 'treatment' group) is the population of 18-24 year olds that claimed JSA within the DOSfYP period in the trailblazer districts. In evaluation terminology, the estimated impacts are *Average Treatment Effects (ATE)*.

It is not possible to simultaneously observe (i) the labour market outcomes of DOSfYP participants and (ii) the (hypothetical) outcomes that those individuals would have experienced had they not been subject to the DOSfYP intervention. We therefore compared the observed labour market outcomes of the treatment group with an estimate of their 'counterfactual' outcome (i.e., their expected outcomes in the absence of DOSfYP) from the 18-24 year old population of jobseekers in nearby East and West London (i.e. 'control') JCP districts.

A *Difference-in-differences* estimation was used to estimate average DOSfYP impacts. This is based on the assumption that the any underlying (i.e. non-DOSfYP related) variation in the labour market measures (i.e., JSA claimant count, JSA inflows, and subsequent on-JSA rates and in-employment rates in the 26 weeks following the starts of a JSA claim) observed in the control group would also be expected to be observed in the DOSfYP treatment group.

We took the difference in the level of these measures between the pre-DOSfYP period (i.e. 1st January 2009 - 25 November 2012) and the DOSfYP period (26 November 2012 - 26 July 2013), for both the control and treatment groups. Subtracting the control group differences from the treatment group differences gave the difference-in-differences estimates. Any common signal was thus removed, leaving an estimate of the DOSfYP impact on the outcome measure.

We used generalised linear models (Panel data regression for the claimant count and inflows; logistic regression for subsequent on-JSA and in-employment rates) to estimate the difference-in-differences impact as an interaction term between a treatment / control group binary variable and a treatment/pre-treatment binary variable. Additional variables were added to account for seasonality and cohort compositional changes that might affect the outcome of interest (e.g. age and gender).

The *difference-in-differences* estimation approach is a widely used econometric evaluation method. A more formal description can be found in Card and Krueger (1994)⁵.

3.2 Limitations and sensitivity testing

The difference-in-differences approach can only estimate the combined effect of any relative changes that occur in the labour markets of the control and treatment districts. For our estimate to isolate purely the impact of DOSfYP, it must be true that there are no other interventions or shocks that affect the relative labour market outcomes of the treatment and comparison districts. The four London districts are geographically close, and are expected to be broadly subject to the same macro-economic trends. Additionally it was verified that there were no other regional or local labour market interventions being trialled in these districts. There is no explicit link of the observed impacts to the DOSfYP intervention, other than the known treatment date used in the calculation of the first differences. To increase confidence that the estimated 'impacts' are indeed a result of the DOSfYP intervention, we performed two sensitivity tests for each outcome measure.

First, we estimated impacts with fabricated 'treatment dates' 3 and 6 months forwards and backwards from the actual DOSfYP introduction date. For each of the labour market measures, the maximum 'impact' was observed when the treatment date in the estimation was close to the actual start date of the DOSfYP pilot. This provides significant reassurance that we are measuring a DOSfYP effect.

Secondly, we performed the same difference-in-differences estimation on the populations of 25-29 year old jobseekers from each district. Since this age-group was not targeted by the DOSfYP intervention, if the observed 'impacts' were truly DOSfYP related then no 'impact' would be expected to be seen for these tests. In general, as expected, negligible 'impacts' were seen for this age group. The results from these tests are included below. There are additional assumptions made in this test that any positive employment impacts of DOSfYP on the target age group do not 'spill-over' into the next age-group, for example by reducing the number of jobs available to the older age group. Similarly, we have throughout assumed there is no spill-over of impacts between the control and treatment districts. These effects are considered small.

It is emphasised that a rigorous estimate of the *Average Treatment Effect on the Treated* (ATT) impacts of DOSfYP is not undertaken here. Also, the ATE impacts estimated are for the whole population of 18-24 year old jobseekers, and are not restricted to the sub-group actually referred to DOSfYP. As noted in section 2.3.1, a quarter of the population of young job seekers in the

⁵ Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania (David Card and Alan Krueger, *The American Economic Review*, Vol. 84, No. 4. (Sep., 1994), pp. 772-793)

DOSfYP districts were referred to DOSfYP, of which only a third actually started a placement. The estimated impacts are therefore smaller than they would be if they were restricted to the impact on the *referred* population. The rationale for considering the whole population is that, in the absence of matching of individuals characteristics, we do not have an estimate of the counterfactual of *referred* individuals. Also, since DOSfYP potentially has an impact that extends beyond those referred (e.g. some people might not initiate a claim to JSA due to the existence of DOSfYP) it seems reasonable to average the effects over a wider population.

It is possible that ATT impacts could be obtained by careful matching of individuals between the treatment and control districts, with the impacts on individual labour market outcomes estimated using a Propensity Score Matching (PSM) approach⁶. There is potential for such PSM analysis to be carried out for DOSfYP as a separate study, although there would be unique challenges in such an undertaking. Unlike the other impact assessments where PSM has been used, in the case of DOSfYP there is by definition significantly less benefit and employment history to use to match upon, and the relatively small sample sizes poses additional challenges.

3.3 Data

The three principle datasets used in the difference-in-differences impact analysis are:

- National Benefits Database (NBD) – A DWP administrative dataset, containing information on JSA spells, including start and end dates.
- HMRC P45 dataset – contains information on employment spells.
- Publicly available ONS datasets containing data on JSA claimant count, inflows and off-flows (from NOMIS).

We believe that the DWP recording of JSA start and end dates to be accurate. The P45 data on employment is, however, known to have shortcomings and is not, we think, reliable enough to use to provide meaningful information on absolute numbers moving into employment. Comparing the dataset with the JSA spells, there are significant occurrences where individuals are apparently simultaneously in employment and in receipt of out of employment benefits. The dataset was cleaned with a set of assumptions, to correct employment end dates. The issues around the cleaning of the employment dataset are discussed in a previous DWP impact assessment⁷.

⁶ (e.g. Future Jobs Fund Impact Assessment, DWP, 2012
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/223120/impact_s_costs_benefits_ffj.pdf)

⁷ Support for the very long term unemployed trailblazer (DWP, 2013,
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265931/svltu-dec-13-adhoc.pdf)

We can however use it to look at the impact of DOSfYP in our difference-in-differences analysis, where it is a reasonable assumption to assume that problems with the data affect both treatment and control groups equally. The employment data should improve in the near future as HMRC's Real Time Information (RTI) data becomes available.

Overall, as in previous studies (e.g. MWA, 2012) we believe the estimates for the impact of DOSfYP on JSA receipt to be more reliable than employment impacts.

4. Impacts of DOSfYP

As noted previously, estimates of the average effect of the DOSfYP programme on participants (the *Average Treatment Effect, ATE*) are presented in this report. A logistic regression model is used to estimate the difference-in-differences impacts. The ATE of DOSfYP is considered in terms of several labour market measures: (i) claimant count (ii) JSA inflows (iii) Subsequent 'on-JSA' rates and 'in-employment' rates in the 26 weeks following start of JSA claim.

All statistical significance tests or bounds refer to a 95 per cent confidence level. All plots that are not included below can be seen in Appendix 2.

4.1 DOSfYP impact on the 18-24 JSA claimant count

The JSA claimant count for the 18-24 and 25-29 age groups and for the treatment (i.e. DOSfYP) and control districts is plotted in Figure 3 for the period from 1st January 2009 to 31st December 2014.

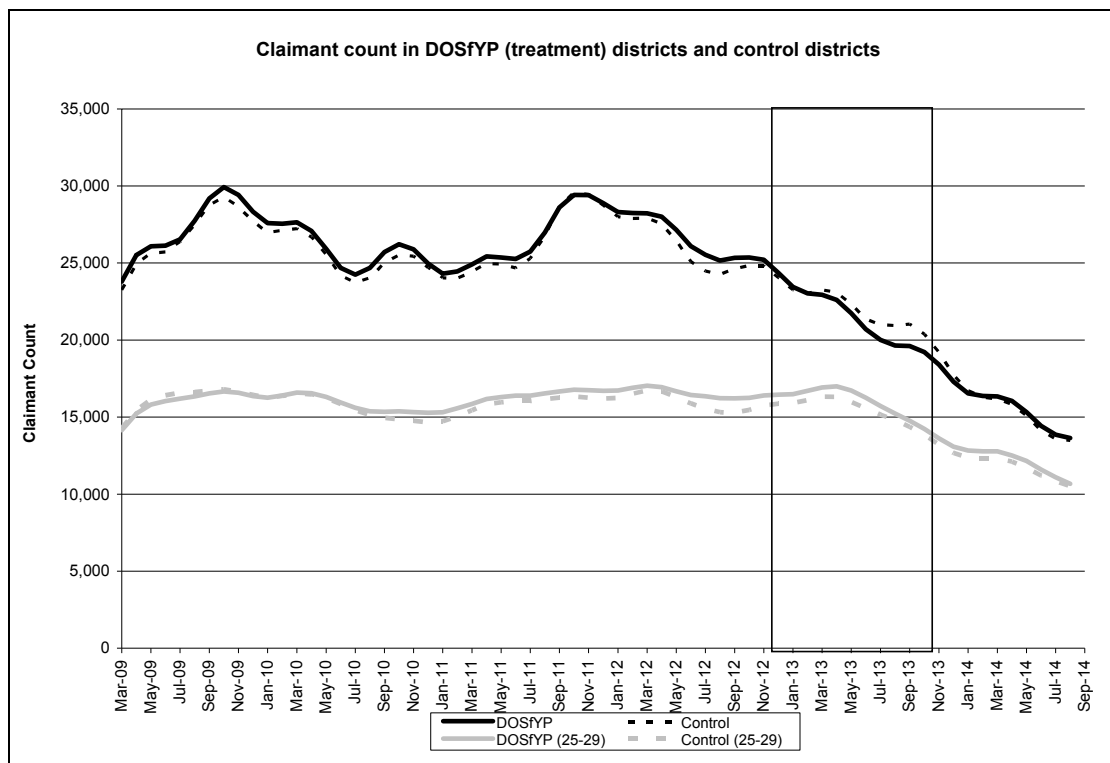


Figure 3 – Claimant count in DOSfYP (solid) and 'control' (dashed) districts for 18-24 year olds (black) and 25-29 year olds (grey)(3-month moving average). The 11-month DOSfYP period is shaded.

Figure 4 shows the difference in the claimant counts between the treatment and control districts

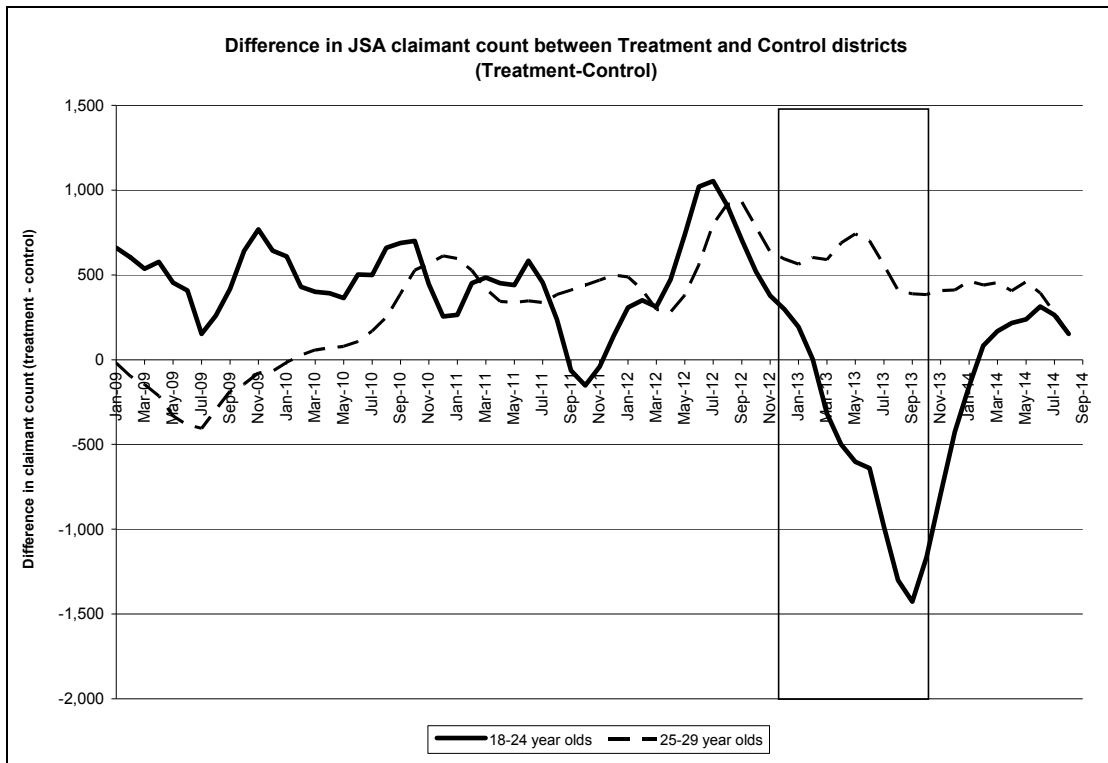


Figure 4 – Difference in claimant count between ‘Treatment’ and ‘Control’ districts (3-month moving average). The whole 11-month DOSfYP period is shaded.

In the years preceding the start of the trial, the claimant count is almost always higher in the treatment districts. There is a relative fall in the 18-24 year old JSA claimant count in the DOSfYP treatment districts that corresponds closely to the DOSfYP referral period. We estimated the scale of the difference using a simple cross sectional panel data model using the following formula:

$$Y_{dt} = \beta_0 + \beta_1.treat_d + \beta_2.period_t + \beta_3.(treat_d * period_t) + \epsilon_{dt}$$

Where:

- Y is the claimant count
- d is the district
- t is the time (month)

such that:

Y_{dt} is the claimant count in a given district in a given month

treat is a dummy variable to indicate whether the district received the treatment or not: coded 1 for ‘treatment’ (North and South London), 0 for ‘control’ (East and West London)

period is a dummy to indicate the treatment period

$(treat*period)$ is the therefore interaction between treatment period and treatment group with coefficient β_3 being the difference-in-difference estimate

ε_{dt} is the error term

The model also included controls for the population of 18-24 year olds in the district (population increase/decrease can have a knock on impact on the claimant count) and month of year (to account for seasonal effects)

The magnitude of the decrease is estimated as 11 per cent (with upper and lower 95 per cent confidence limits of 8.1 per cent and 13.8 per cent). There a small significant increase in the relative claimant count observed for the 25-29 age group of 2.7 per cent. This suggests that perhaps not all of the estimated difference-in-differences for 18-24 year olds can be attributed to DOSfYP as other unobservable factors could be differentially impacting the treatment and control districts. Furthermore, repeating the analysis with a pseudo treatment period of June 2012 to November 2012 yields an estimated impact on 18-24 year olds of -4.8 per cent. However, given the difference in the scale of the differences estimated for 18-24 year olds and 25-29, and the difference for 18-24 year olds in the actual and pseudo treatment periods, it is reasonable to conclude that DOSfYP led to a reduction in the 18-24 year old claimant count in the treatment districts during the trial period. It is interesting to note that shortly following the end of the trail, the claimant count in the treatment districts increased to levels above those in the control districts once more.

The subsequent sections explore separately whether the change in the claimant count was driven predominantly by fewer young people making claims for JSA (inflows) or by young people leaving JSA faster (off-flows) in the treatment districts.

4.2 DOSfYP impact on 18-24 year old JSA inflows

The relative difference in the JSA inflows between treatment and control districts are shown in Figure 5, for 18-24 year olds and for 25-29 year olds. There is a relative decrease in 18-24 year old inflows to JSA in the treatment district that corresponds closely to the DOSfYP period. It is notable that the date of the return of the relative difference in the inflows to the pre-DOSfYP level corresponds closely to the end of the DOSfYP referral period.

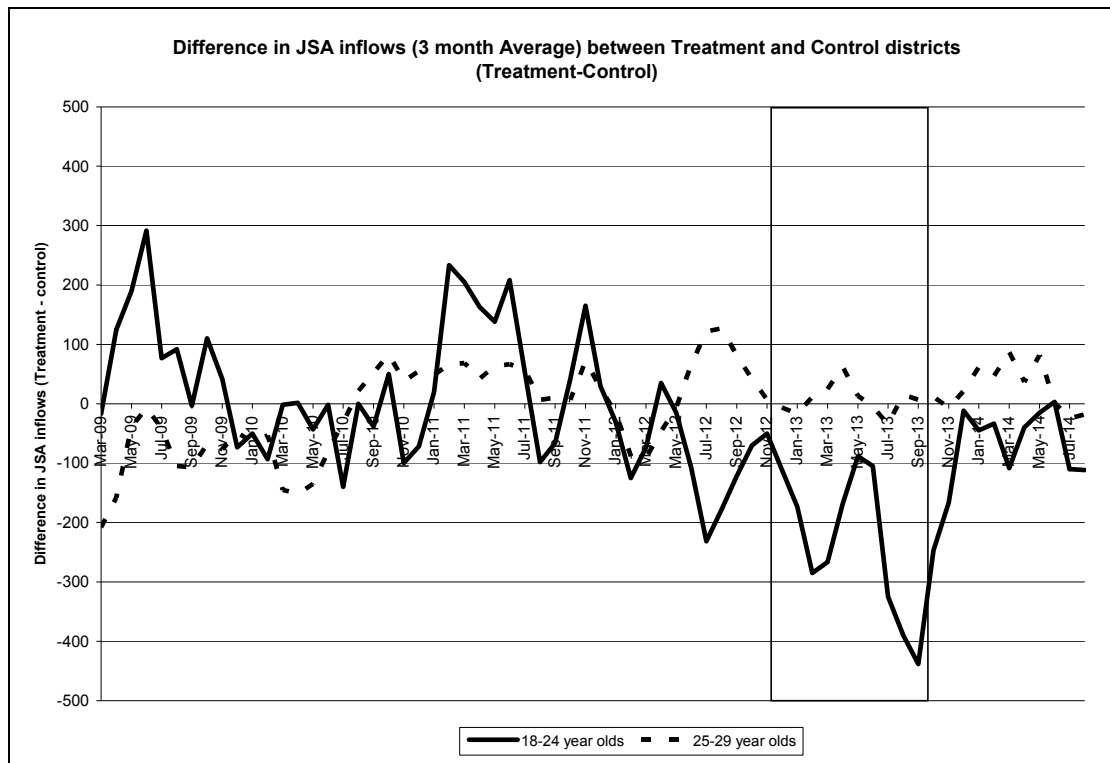


Figure 5 – Difference in JSA inflows between Treatment and Control districts (3-month moving average) for 18-24 year olds (solid) and 25-29 year olds (dashed). The whole 11-month DOSfYP period is shaded.

The difference-in-differences impact was estimated in the same way as for the claimant count in the preceding section, although in this case the dependant variable was the volume of inflows in each district in each month. The central estimate of the reduction in the inflow in the treatment districts compared to the inflow that would have been expected in the absence of DOSfYP is 5 per cent, with a 95 per cent confidence that this decrease is between 0.3 per cent and 9.7 per cent.

Over the same period there was no statistically significant change in the 25-29 JSA inflows. Moreover, when the analysis was repeated using a pseudo treatment period of June 2012 to November 2012, the difference-in-differences estimator was not significant (p value = 0.16). The relative decrease in the JSA inflows in the DOSfYP target age group / district is evidence that DOSfYP had the effect of reducing people’s likelihood to claim JSA, as discussed in section 2.

4.3 DOSfYP impact on subsequent 18-24 'on-JSA' rates

The treatment-control difference in the average likelihood of 18-24 year old claimants being in receipt of JSA at 4,13 and 26 weeks after the start of their claim is plotted for monthly cohorts in Figure 6. There is a decrease in the likelihood of claimants being in receipt of JSA at each of 4, 13 and 26 weeks after the claim start for the monthly cohorts that start their claim within the DOSfYP period.

A logistic regression model was used to estimate the difference-in-differences impact, according to the following equation (e.g. for the 4-week impact):

$$\text{Logit}(JSA_4) = \beta_0 + \beta_1.treat + \beta_2.period + \beta_3.(treat*period) + \varepsilon$$

Where:

JSA_4 is the likelihood of an individual being 'on-JSA' at 4 weeks after the claim start

$\beta_0, \beta_1, \beta_2, \beta_3$ are the estimated regression coefficients. Coefficient β_3 is the *difference-in-differences estimator* – i.e., the interaction between treatment period and treatment group

$treat$ is a dummy variable to indicate whether the individual received the DOSfYP treatment or not: coded 1 for 'treatment', 0 for 'control'

$period$ is a dummy to indicate the treatment period: coded 1 for DOSfYP period, 0 for preceding period

ε is an error term

For example, 4 weeks after claiming, on average, 18-24 year old claimants in the DOSfYP district were estimated to have been 3.7 percentage points less likely to be in receipt of JSA than they would have been in the absence of the DOSfYP intervention. The equivalent plot for 25-29 year olds shows no such change in JSA off-flows for cohorts that start their claim in the DOSfYP period.

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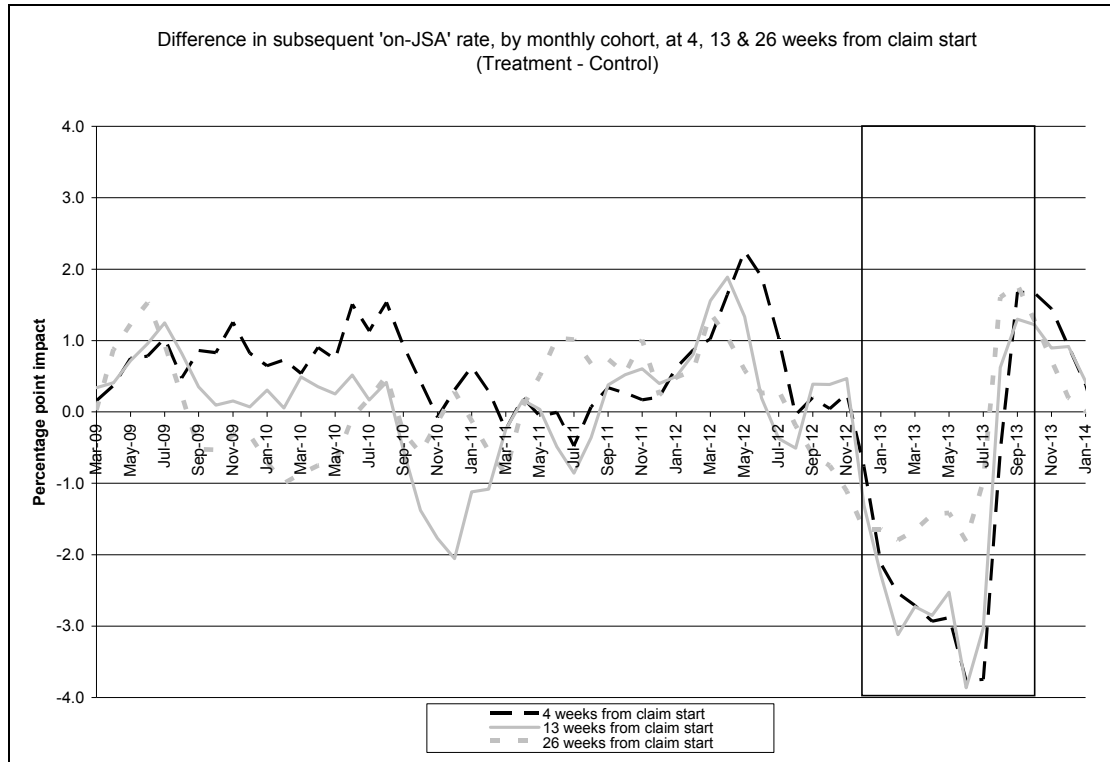


Figure 6 – Difference in 4 week, 13 week and 26 week ‘on-JSA’ rates between DOSYP Treatment and Control districts. The DOSYP referral period is shaded.

The difference-in-differences estimate of the 4, 13 and 26 week JSA impacts can be seen in Table 5. The impacts that are statistically significantly different from zero, at a 95 per cent confidence level, are in bold. There are no significant impacts for the 25-29 age group, as expected:

	4 week impact	13 week impact	26 week impact
18-24	-3.7 points	-3.0 points	-1.7 points
25-29	-0.5 points	-0.3 points	-0.4 points

Table 5 – Estimates of subsequent ‘On-JSA’ impacts. Significant impacts are in bold.

To assess whether the impact on JSA receipt is sustained, the difference-in-differences estimates of the JSA impact is plotted against the number of weeks from the start of the claim, for 18-24 year olds, in Figure 7.

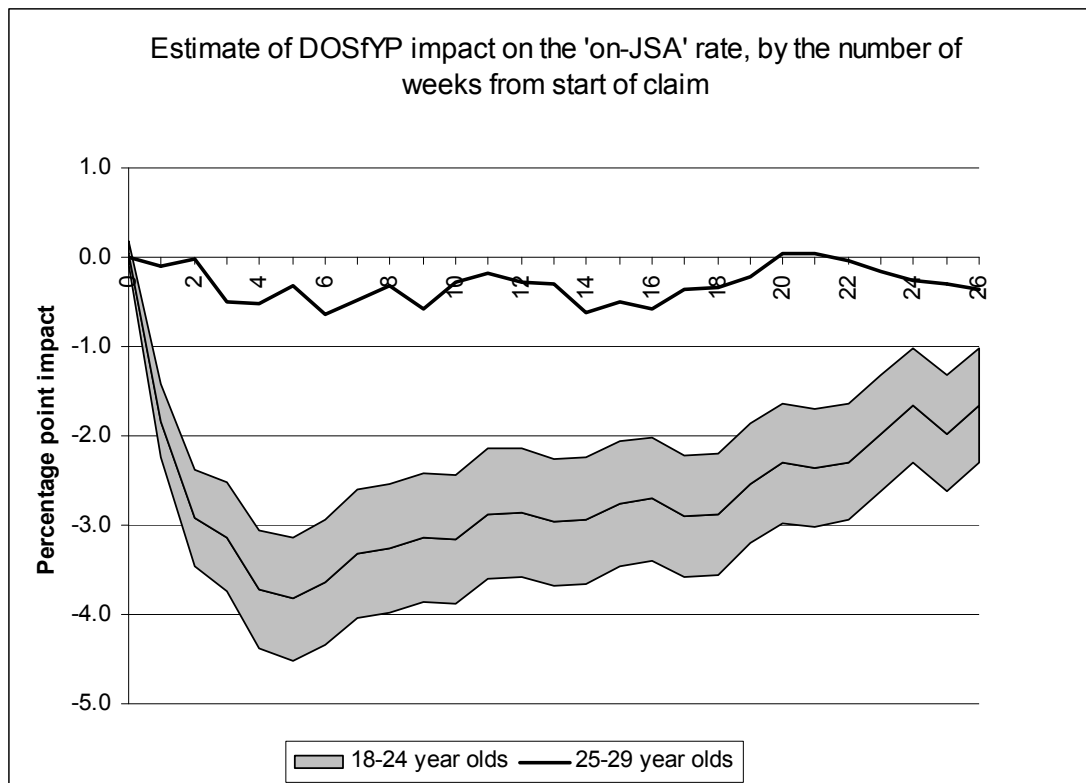


Figure 7 – Difference-in-differences estimate of DOSfYP impact on ‘on-JSA’ rate by week from start of claim for 18-24 year olds (central estimate and 95 per cent confidence bounds). The black line is the central estimate for 25-29 year olds.

The central estimate of the impact is largest at 4 weeks after the claim start, with a magnitude of -3.7 percentage points as observed. The magnitude of the benefit impact steadily decreases to -1.5 percentage points at 26 weeks after the claim start. It remains significant at a 95 per cent confidence level at all periods. The impact of DOSfYP on JSA off-flows thus appears to diminish with time, but remains significant at and beyond the 26 week point considered here.

The central estimate of ‘impacts’ for the 25-29 age group (black line) are not statistically significant at any point upto 26 weeks. This is expected given this is not the DOSfYP target age group.

Figure 8 shows the same information broken down into three age groups (18-19, 20-21 and 22-25). The impact is seen to be biggest for the youngest age group with the largest magnitude impact of -5.2 percentage points at 4 weeks after the claim start).

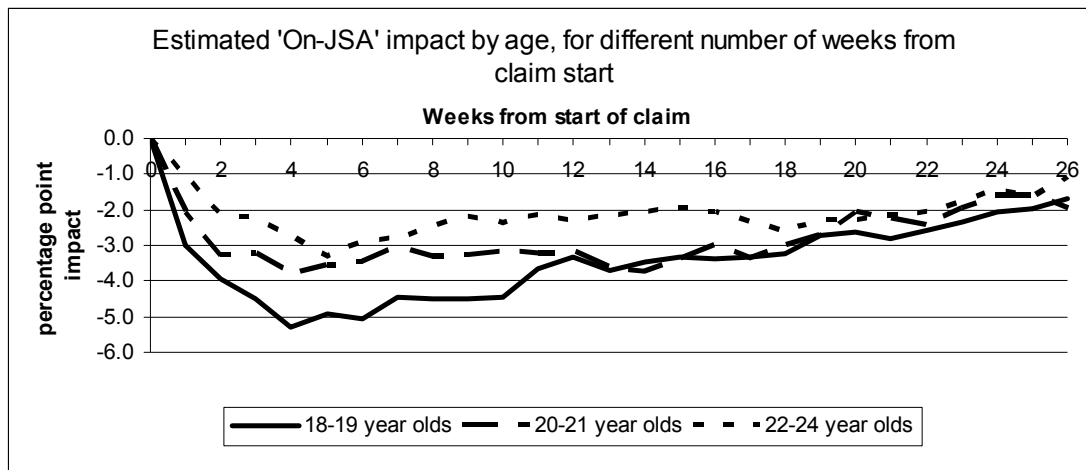


Figure 8 – Difference-in-differences estimate of DOSfYP impact on JSA receipt by week from start of claim, by age group.

4.4 DOSfYP impact subsequent 18-24 'in-employment' rates

The treatment-control difference in the average likelihoods of 18-24 year old claimants being in employment at 4, 13 and 26 weeks after the start of their claim are plotted for monthly cohorts in Figure 9. It is clear that there is more fluctuation in the employment impacts than the JSA impacts. There is however, an apparent increase in the likelihood of claimants in the DOSfYP treatment districts being in employment at 4 weeks after the claim start for the cohorts that start their claim within the DOSfYP period.

An analogous logistic regression model to that used in section 4.3 was used to obtain difference-in-differences estimates of the magnitude of the subsequent 'in-employment' impacts. The impact was estimated for weekly intervals upto 26 weeks from the start of the claim.

As an example, the average impact on the in-employment rate at 4 weeks from the start of claim is estimated as 0.8 percentage points (95 per cent confidence of being between +0.3 per cent and +1.2 per cent).

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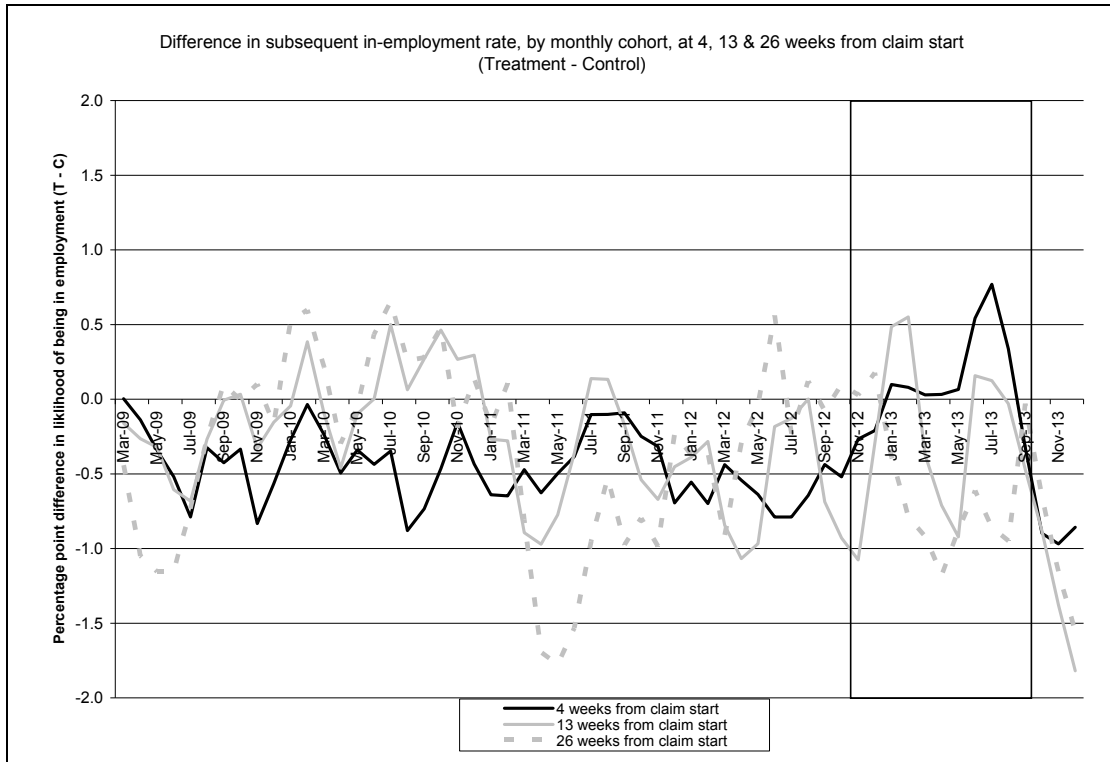


Figure 9 – Difference in 4 week, 13 week and 26 week ‘in-employment’ rates, between DOSfYP Treatment and Control districts. The whole 11 month DOSfYP period is shaded.

The employment impacts at 4, 13 and 26 weeks into the claim are in Table 6, with statistically significant impacts in bold.

	4 week employment impact	13 week employment impact	26 week employment impact
18-24	0.8 points	0.3 points	-0.5 points
25-29	-0.5 points	-0.3 points	-0.4 points

Table 6 - Estimates of subsequent ‘In-employment’ impacts. Significant impacts are in bold.

The difference-in-differences estimate of the employment impact is plotted against the number of weeks from the start of the claim, for 18-24 year olds, in Figure 10.

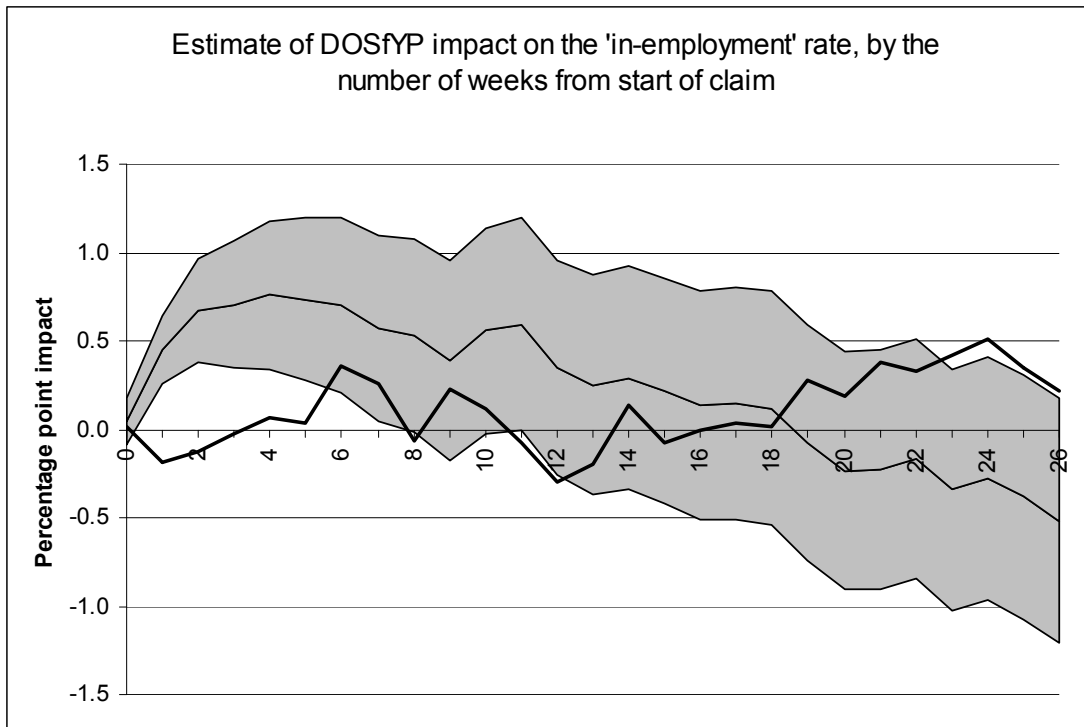


Figure 10 – Difference-difference estimate of DOSfYP impact on employment rate (18-24 year olds) by week from start of claim, with 95 per cent confidence bounds. The heavy black line is the central estimate for 25-29 year olds.

The central estimate of the impact is largest at 4 weeks after the claim start with a magnitude of 0.76 percentage points as noted above. The impact remains positive and significant (at 95 per cent confidence) to 8 weeks. At longer periods after the JSA claim start, upto 26 weeks, the impact is not statistically different from zero.

The central estimate of 'impacts' for the 25-29 age group (heavy black line) are not statistically significant at any point up-to and including 26 weeks after the claim start. This is again expected; given this is not the target age group and reinforces the conclusion that the short-term employment impact is DOSfYP related.

Finally, Figure 11 breaks this down into age bands of 18-19, 20-21 and 22-24. It is notable that the short-term positive employment impact is largest for the 20-21 year old age group, peaking at 4 weeks at 1.2 percentage points.

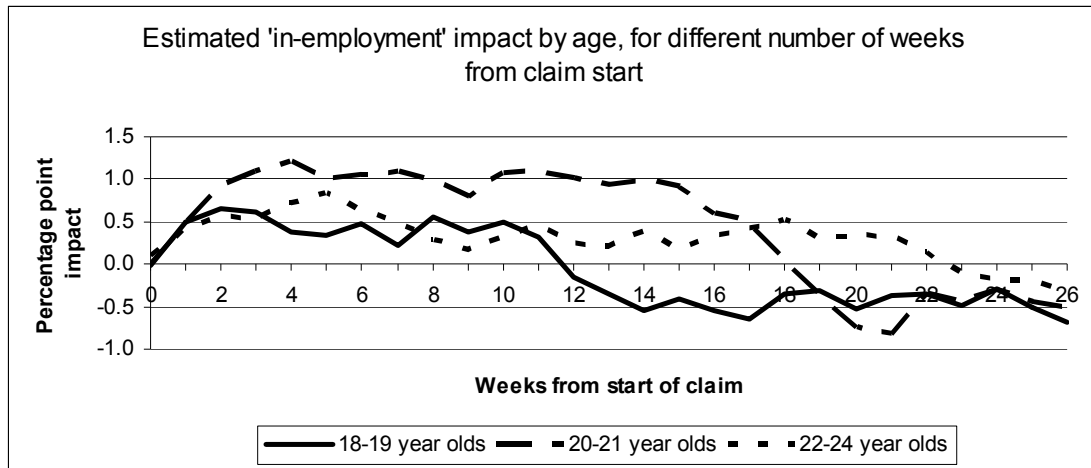


Figure 11 – Difference-difference estimate of DOSfYP impact on employment by week from start of claim (by age group)

5. Discussion and Conclusion

We have performed an impact analysis of work experience (DOSfYP) by comparing the benefit and employment outcomes of young jobseekers in the treatment district with those of job-seekers in neighbouring districts, as an estimate of the counterfactual. In evaluation terminology, the impact estimates are *Average Treatment Effects* (ATE).

The key JSA impacts of DOSfYP are:

- DOSfYP resulted in a statistically significant reduction in the 18-24 year old JSA claimant count. Our analysis suggests an impact of around 11 per cent, although sensitivity tests suggest that some of this difference may be due to other unobserved variables.
- During the period in which DOSfYP was running, JSA inflows for the 18-24 year old age group in the treatment districts fell by 5 per cent compared to the comparison districts.
- As a result of DOSfYP, claimants left JSA earlier than they would have done otherwise. The observed impact was largest at 4 weeks from the start of a claim. At this point of a claim, the likelihood of a jobseeker in the DOSfYP district being 'on-JSA' was 3.7 percentage points reduced compared to the control districts.
- The magnitude of the average 'on-JSA' impact decreased with increasing length of time from the start of a JSA claim, but remained significant beyond 26 weeks.

Estimated employment impacts of DOSfYP are:

- During the trailblazer, young people in the treatment districts moved into employment faster than we would have expected them to in the absence of DOSfYP. DOSfYP had a statistically significant short-term impact on the average subsequent 'in-employment' rate. At 4 weeks from the start of a JSA claim the likelihood of being in employment was 0.8 percentage points larger in the DOSfYP districts.
- The employment impact is statistically significant until 8 weeks, after which point there is no significant employment impact.

Average 'on-JSA' and 'in-employment' impacts of DOSfYP can be translated into approximate numbers of days off JSA and days in employment respectively:

- The estimated average 'on-JSA' impact translates approximately to a cumulative 5 days off JSA per individual, over the 26 week tracking period. The impact appears to continue beyond the 26 weeks considered, albeit decreasing, so the cumulative number of days spent off-JSA will likely increase with longer tracking periods.
- The average 'in-employment' impact translates approximately into an additional 0.5 day in employment per individual over the first 11 weeks following a JSA claim start. Between 11 weeks and 26 weeks from the claim start, the employment impact of DOSfYP is zero (i.e. it is statistically indistinguishable from zero). It is considered unlikely that DOSfYP will have any significant employment impact beyond the 26 weeks considered.

There were clear 'impacts' on the average labour market outcomes of the 18-24 year old population of jobseekers in the DOSfYP districts in the period of the DOSfYP trailblazer. We attribute the observed impacts to DOSfYP with a high degree of confidence, especially given the absence of 'impacts' seen for the non DOSfYP 25-29 age group.

We have a high level of confidence in the JSA benefit impacts. In common with other evaluations, the employment impacts are considered less robust, because the HMRC tax data does not capture all employment outcomes, and cannot always be matched to benefit records. This means the benefit and employment impacts cannot be directly compared, and the benefit impact is likely to be a more robust estimate. Nevertheless, given all the impacts are average effects on the whole population, we believe the statistically significant short-term employment impact is of real note. It should additionally be noted that the employment impacts are limited to the population of JSA claimants, and thus do not include any information on the employment outcomes of this group of people who are potentially impacted by the policy, but who never actually claim JSA.

Also of particular note is the impact (a reduction of 5 percent) on the volume of 18-24 year old JSA inflows in the DOSfYP treatment districts, showing that young people were less likely to initiate a claim to JSA where DOSfYP was provided. We do not have the evidence to explain why this may be the case, but potentially there were some young people who were more job ready or more likely to gain employment quickly who decided not to make a very short claim to JSA.

Evaluation of a policy like DOSfYP is complex and caution should be applied to the results presented here, least of all because this is a preliminary impact analysis, based purely on a difference-in-differences estimation of ATE. It is emphasised that no matching of individuals or propensity score matching (PSM) has been undertaken here and that all estimates of impacts are *average impacts on the whole population of jobseekers*. As noted in section 2.3.1, only a quarter of 18-24 year old job seekers were referred to DOSfYP, and of these only a third started their first placement, so the 'treated' are actually a small subset of the population considered.

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The fact that the impacts are significant, despite not being limited to the population of DOSfYP referrals again gives confidence that DOSfYP has real impacts on labour market outcomes of young people, and means that the average impacts on the outcomes of the 'treated' will in reality be larger. Because they are average impacts, they offer limited information on, for example the possible 'lock-in' effect mentioned in section 2.

Further work could undertake a rigorous matching of individuals between treatment and control districts. This is considered more challenging than for other similar Impact Assessments (e.g. DWP's Future Jobs Fund) since by definition, DOSfYP participants do not have significant amounts of employment or benefit history to match on. Potentially, survey data could be used to supplement the administrative datasets for a propensity score matching approach, although there would remain other challenges in such an approach due to the small sample size.

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