

Assessing the net impact of Basic Skills mandation

Natalie Wiggin

October 2008

Background

1. In order to improve adult literacy and numeracy amongst benefit claimants, the Basic Skills programme was implemented nationally in April 2001. Under this programme, jobseekers who had been unemployed for at least 6 months or were entering New Deal (after 18 months) were screened for a basic skills need. If a need was confirmed following a further Independent Assessment (IA), the customer was referred to a basic skills training course. The screening was also open to inactive benefit claimants – those in receipt of incapacity benefit or income support – however, if they failed to attend their IA, they were not subject to possible sanctions as JSA customers were.
2. In order to explore the impact of sanctions on the people taking up and completing the basic skills training, a mandatory training pilot scheme ran from 1 April 2004 to 31 March 2005. There were 12 mandatory basic skills pilot districts in total and they were: Bedfordshire; Berkshire; Bolton and Bury; Calderdale and Kirklees; Cheshire and Warrington; Dorset; Durham; Hull and East Riding; Kent; Lincolnshire and Rutland; South London; and Wolverhampton and Walsall.
3. The main premise of the mandatory pilot was that customers claiming JSA in the 12 districts may be subject to benefit sanctions if they were referred to provision and either did not attend training or they ended provision without completing it (for any reason other than for entering employment). In practice it was thought that few customers would actually be sanctioned; rather it was thought the fear of being sanctioned might modify customer behaviour.
4. British Market Research Bureau (BMRB) and the Policy Studies Institute (PSI) evaluated the impact of the pilot in 2006¹. As part of this, they looked at the impact on the likelihood of obtaining a job relative to claimants in national comparator areas not participating in the pilot. Using a differences-in-differences approach, they found a negative impact on the probability of getting a job in pilot areas compared to national areas. The key finding was that participants in pilot areas were 3% less likely to get a job than those in comparator areas and this impact was statistically significant.
5. Their explanation was that the pilot had moved some claimants into training who would have otherwise have found work. They hypothesised that a longer follow up period would allow claimants more time to complete their training and find work, and so there may be a positive impact in the longer term. The purpose of this paper is to test this theory, looking at impact on employment over the 3 year period since starting on the pilot.

¹ Research Report no 385 “Evaluation of Basic Skills mandatory training pilot: synthesis report” Joyce, L., Kasparova, D., & Wilkinson. D. <http://www.dwp.gov.uk/asd/asd5/rports2005-2006/rrep385.pdf>

Methodology

6. The methodological approach applied in this paper differs from that used by PSI. While it still uses a differences-in-differences approach, the selection of a suitable control group by which to estimate the impact of the pilot differs. Here, the control group is selected using the statistical technique of Propensity Score Matching (PSM). This process selects individuals from the non-pilot areas who most closely match the characteristics of those people in the pilot (or treatment) group, and these people form a control group. It does this by assigning a 'propensity score' to each individual between the values of 0 and 1. The closer the score is to 1, the more likely that person is to be a member of the treatment group. The process aims to make the size of the control group as large as possible by applying weights to each individual depending on how closely they match the propensity scores of individuals in the treatment group.

7. The 'treatment group' refers to a 15,000 random sample of all those living in pilot areas and referred to Basic Skills between 1 April 2004 and 31 March 2005. This sample was taken directly from the Basic Skills database, which records all starts on the programme since 2001 to the present day.

8. The control group were selected by matching individuals on the following characteristics:
 - Age (and age squared);
 - Gender;
 - Ethnicity;
 - Whether or not a parent;
 - Whether or not disabled;
 - Statistical group² when referred to Basic Skills provision;
 - Local unemployment rate at the point of starting the provision;
 - Change in unemployment rate in the months leading up to starting the provision;
 - Local population density;
 - Month at which started on the basic skills programme;
 - Number of previous basic skills spells;
 - Number of previous benefit spells;
 - Employment history for the 12 quarters (3 years) prior to joining the programme;
 - Benefit history for the 12 quarters (3 years) prior to joining the programme.

² 'Statistical group' is a classification system applied to all benefit claimants by the Department for Work and Pensions, and forms the basis of their quarterly statistical publication. The group is assigned in an hierarchical order depending on the benefit an individual is in receipt of, or other characteristics such as age or whether a lone parent.

9. The control group and variables used to perform the matching were extracted from the Work and Pensions Longitudinal Study (WPLS), the main administrative data source in the Department for Work and Pensions. The WPLS contains longitudinal information on all current and former benefit recipients, and also incorporates P45 (end of year) data from Her Majesty's Revenue and Customs (HMRC), which when merged with a sample of provides the employment history of all those in the sample³.
10. Macroeconomic variables such as local unemployment rate and population density were extracted from The Office for National Statistics labour market tabulation tool, NOMIS⁴.
11. The selection of the variables was informed by previous work by Thomas (2008) and Selby (2008)⁵. It is a more statistically robust method than simply selecting comparator areas as it controls not only for geographical and economic factors which may influence a job outcome, but also individual demographic factors and employment/benefit history.
12. The size of the control group initially had a total of 30,000 records. Following PSM, this reduced to 28,394. Observations dropped related to those outside the 'region of common support' – that is, ones who had extreme propensity scores. This means that these people fell outside the range of scores of the treatment group; in other words they did not match the treatment group well in terms of their characteristics and it would not be valid to use them as controls.
13. Alongside looking at the impact of mandation on job outcomes, this paper also looks at the impact on future benefit receipt. This is partly to enable us to validate any employment effects we find, since a positive impact on employment should be mirrored by a negative impact on benefit receipt.

³ It is relevant to note here that employment which falls below the threshold for repayment of tax does not appear on the P45 dataset. There are also some quality issues with this data source, which have been taken into account when cleaning the data ready for analysis.

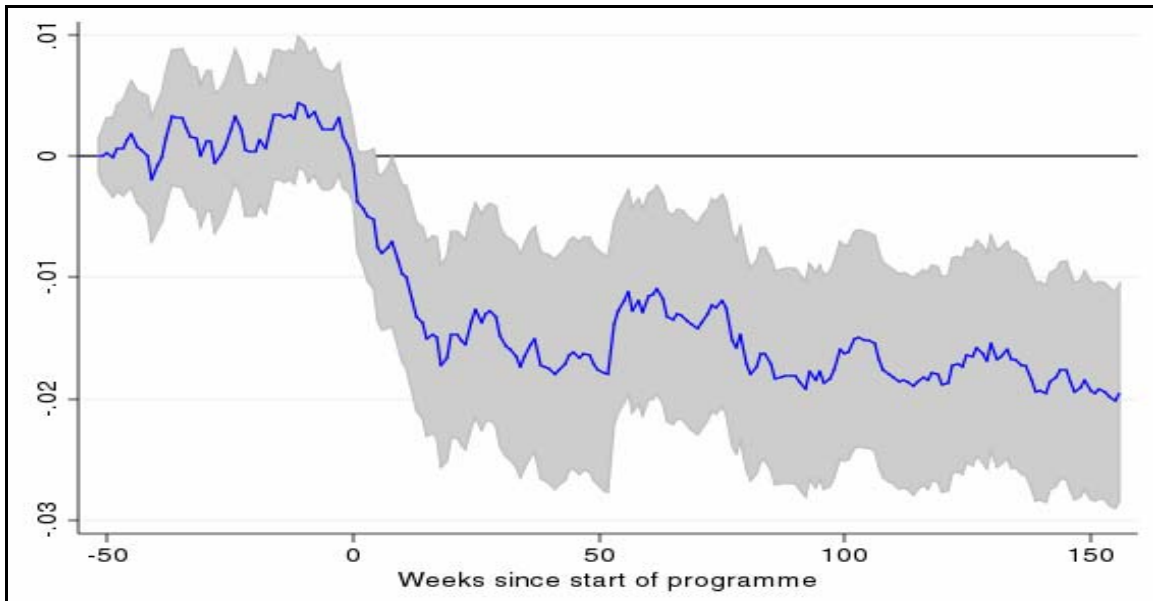
⁴ <https://www.nomisweb.co.uk/Default.asp>

⁵ -Selby (2008): "Net impact evaluation of the Department for Work and Pensions Working Neighbourhood Pilot" Department for Work and Pensions Working Paper No 51; <http://research.dwp.gov.uk/asd/asd5/WP51.pdf>
-Thomas (2008): "Evaluating the econometric evaluations of active labour market programmes using administrative data: evidence from Jobseeker's Allowance pilots". Department for Work and Pensions Working Paper No 50; <http://research.dwp.gov.uk/asd/asd5/WP50.pdf>

Results

Impact on employment

Figure 1: Impact of mandation on employment for 3 years following start on Basic Skills programme

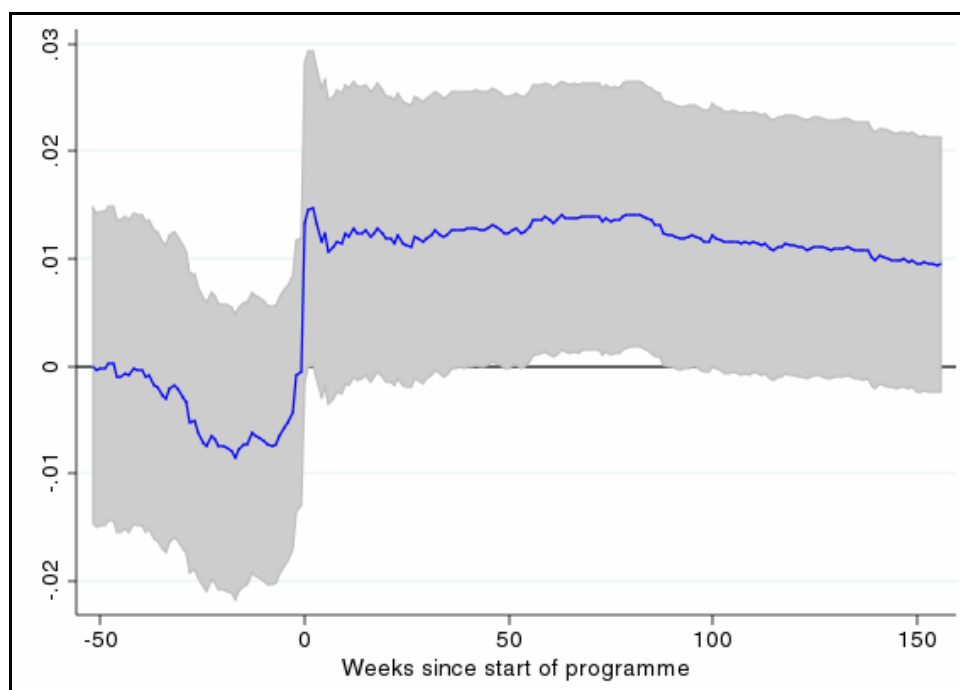


14. The above chart shows the net impact on **employment** after controlling for any remaining differences between the treatment and control group in the year prior to starting on the programme (financial year 2003/04). As can be seen, the difference between the groups is close to 0 in the weeks prior to the programme starting. However, thereafter there is a rapid fall off in the employment rate after the spell on the programme starts. Note that the y axis (vertical) is interpreted in percentage terms – the impact of mandation on employment has fallen to around -1.8% by the 20 week point, and seems to persist at this level for the entire 3 year period, reaching -2% after 3 years.
15. Put into real world figures, this equated to the mandated group spending 6.5 days less in employment in 2007/08 compared to the control group. The impact is significant at the 5% level. This means that there is only a 5% chance that there is, in reality, no difference between the employment outcomes of the two groups, or alternatively, if we were to perform the analysis 100 times with 100 different samples, we would only find no difference in less than 5 of the samples. So it is unlikely that these results arose purely through chance.
16. A confidence interval is used to convert an estimate of the impact into an estimated range of values in which the 'true' difference between the groups is likely to occur. In the chart above it is shown by the grey shaded region either side of the central estimate (the blue line). Because the value zero does not

feature in the 95% confidence interval surrounding the point estimate over the entire period, the negative impact on employment is significant across all three financial years. If the value zero was included at any time point, we would need to conclude that there was no difference between the two groups at that particular point in time.

Impact on Benefit Receipt

Figure 2: Impact of mandate on out-of-work benefit receipt for 3 years following start on Basic Skills programme



17. Figure 2 shows the net impact on **benefit receipt** after controlling for differences between the treatment and control group in the year prior to starting on the programme (financial year 2003/04). Supporting the negative impact on employment we found above, there is a positive impact on benefit receipt amongst those mandated to basic skills provision. This impact persists at around the +1% level following the programme start right until the 3 year point.

18. However, put into figures, this equates to only 2 additional days spent on the benefits system in 2007/08. This is not statistically significant and is marginally significant for between 12-18 months after starting the programme, as shown by the confidence intervals. Therefore we must conclude that there is no difference between the mandate and control groups in terms of their future benefit receipt.

Conclusions

19. The findings detailed here support those of PSI – that is, that Basic Skills mandation has a significant negative net impact on future employment patterns. This negative impact is evident from the early stages of starting on the programme, right through to three years afterwards⁶. This finding is supported by a non-significant positive effect on future receipt of out of work benefits.

20. Taken together, the findings suggest that mandation – and hence completion of training – does not have the desired impact on later employment relative to a matched control group. It is difficult to explain these findings, but we cannot rule out that it could be due to the presence of unobserved individual effects between the two groups. For example, those who were not mandated to the programme may have been more motivated to attain a job compared to those who were mandated to the programme. We have also been unable to control for any differing skills/ qualifications levels between the two groups.

⁶ Estimates of the net impact presented here differ slightly from those presented by PSI due to adopting a different methodology (meaning the control and treatment groups were better matched)