New Deal For Young People: Evaluation Of Unemployment Flows

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1. Introduction

The New Deal for Young People (NDYP) was introduced in Great Britain in January 1998 as one of the key parts of the government's welfare to work strategy. The aims of the programme were to help the young unemployed people into work and increase their employability. NDYP is for 18-24 year-olds who have been claiming Jobseeker's Allowance (JSA) for six months or more (including those getting NI credits only). It provides opportunities to work, get new skills and/or get work experience in the voluntary and environmental sectors of the economy.

NDYP starts with a period known as the Gateway. On the Gateway participants receive up to four months of intensive, personalised help and support, initially designed to help find an unsubsidised job. If the participant does not get a job straight away, they will be directed towards one of four New Deal Options. The Options available are subsidised work, full-time education and training, work in the voluntary sector or work with the Environment Task Force. The Options typically last for six months, after which participants enter a period known as Follow through, which provides similar support to that available under the Gateway. NDYP is a mandatory programme, there is no option to not participate and continue to claim JSA.

The aim of this paper is to derive estimates of the extent to which outcomes for individual participants in NDYP were changed by participation in the programme, by comparison with what would have happened to them without the programme. Evaluating the separate effects of the Options is *not* an aim of this paper. A separate evaluation study, using a different approach, was commissioned to assess the effectiveness of the Options relative to one another (see Bonjour et al., 2001).

The structure of the report is as follows. The next section discusses the methods used in the evaluation. Section Three introduces the data to be used in the analysis and provides some basic descriptive information that highlights the method of analysis. Section Four presents estimated results prior to the introduction of NDYP, this analysis is used to choose the appropriate baseline period against which NDYP is to be assessed. Section Five presents the estimated results for the impact of NDYP on the probability of being unemployed after entering the programme. Section Six

considers pre-programme effects. Section Seven considers the destinations upon leaving unemployment. Section Eight concludes.

2. Methods

Neither an experimental control group nor a matched comparison group of non-participants is available with the design of NDYP, hence a concurrent survey of individuals cannot perform its usual function of assessing the deadweight or net gain from the programme for participants as a whole. The analysis described here provides an alternative method for estimating these "net of dead-weight" programme estimates.

Eligibility for NDYP is determined, broadly speaking, by age and by duration of unemployment related benefit claim[1]. Those having the necessary characteristics are referred to as the **"target group"**, for periods before as well as during NDYP. The analytical approach is a before and after comparison of various outcome measures for the target group and groups of individuals who were not eligible for NDYP the **"comparison group"**. The estimator applied in this work is generally known as the difference-in-difference estimator (Heckman et. al, 1999).

The difference-in-difference method is based on comparing differences between the target group (people eligible for NDYP i.e. aged 18-24 reaching six months unemployment duration) and comparison group (in this case people aged 30-39 reaching six months unemployment duration) both before and after the programme. The underlying assumption is that other changes over time, apart from the programme, do not affect the differences between the target and comparison groups. The validity of this assumption is assessed by considering the stability of differences in outcome measures between the target and comparison group prior to the introduction of NDYP.

As well as assessing the direct impact of the introduction of NDYP on unemployment transitions for people that have a spell of unemployment that lasts six months, the effect of NDYP on people who do not have unemployment spells that reach six months duration are considered.

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[1] A small number of participants are also eligible for NDYP due to their age and certain special characteristics other than duration of claimant unemployment.

There are essentially two types of people in these circumstances who would be affected by the programme. The first are people who before the introduction of NDYP would continue claiming unemployment related benefit for more than six months, but because of the mandatory nature of NDYP they terminate their unemployment claim in order not to participate in the programme.

The second group of people are those who before the introduction of NDYP would have left unemployment before their spell lasted six months, but because of the services available from NDYP they continue their claim in order to participate in the programme and thus hope to benefit from the services available.

NDYP has an indirect effect on these people, changing their behaviour before they could even participate in the programme. These pre-programme effects of NDYP are calculated in the same way as the main programme effect using the difference-in-difference approach.

3. Definitions and Data Description

In this section the data to be used in the evaluation are introduced and some simple descriptive analysis is presented to highlight the mechanics of the evaluation technique.

3.1 The data

The data used in this paper is from the Joint Unemployment and Vacancies Operating System, (JUVOS), and covers the period up to February 2001, 32 months after the start of the national programme. This allows us to follow for 18 months all those individuals that entered NDYP in the first 12 months of the programme. We present estimates of unemployment transitions before and after the introduction of NDYP and consider what constitutes a suitable baseline period against which NDYP can be evaluated.

The JUVOS cohort contains details of all unemployment spells from 1982 onwards for a five per cent sample of claimants. The same five per cent of National Insurance numbers are used each month so individuals can be tracked in and out of periods of unemployment. Further details about the data are given in Ward and Bird (1995).

3.2 The pseudo New Deal entry date

In order to exploit the time series element of JUVOS the data is broken into annual samples from April to March starting in April 1990[2]. To be in a particular annual sample an individual must reach six months claimant unemployment duration, the qualifying period for NDYP, in that particular year. The date six months after the start of the claim we call the **"pseudo New Deal entry date**" and the analysis presented below typically relates to a period of months after this date. For the post April 1998 data this may not necessarily coincide with the actual point of entry into NDYP for a number of administrative reasons. However, the value of the pseudo New Deal entry definition is that relevant qualifying unemployment spells can be consistently defined before and after the introduction of NDYP.

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[2] In some of the analysis we consider six monthly or quarterly periods to get a better understanding of the impact of JSA on our outcome measures and also to assess the evolving impact of NDYP.

3.3 Entrants with longer unemployment spells

It is important to point out that the analysis in this paper is not concerned with people who, in the initial year of NDYP, entered the programme as claimants with more than six months of unemployment in their current spell. When the programme was introduced the stock of young unemployed people who had been claiming benefit for more than six months should have entered the programme in the first six months of the programme, that is at the six month anniversary of starting their claim. Thus the impact of NDYP for people entering the programme with an unemployment spell of more than six months will be a one-off impact.

It is, however, necessary to consider how the existence of these longer duration claimants may have affected the operation of the programme. They may influence estimates of the impact of NDYP through their influence on the comparison group. For example, anyone entering NDYP after a 12 month unemployment spell between April and September 1998 will be included in the comparison sample for 1997/98 because they reached six months unemployment duration between October 1997 and March 1998. In general, these people should be excluded by careful selection of the baseline comparison period. This is investigated further in Section Four.

3.4 Pathfinder and Pilot areas

NDYP began in 12 *Pathfinder areas* in January 1998, three months before the national introduction. These Pathfinder areas represented roughly ten per cent of claims in the period under consideration. The descriptive analysis that follows in this section excludes claimants in the Pathfinder areas. This makes little difference to the analysis presented here, but differences between the Pathfinder areas and national areas are allowed for in the regression models presented later in the paper.

In addition to NDYP, New Deal for Long Term Unemployed (NDLTU) was introduced in June 1998 for people aged 25 and over. In most areas of the country NDLTU initially applied to people who claimed JSA continuously for two years. This limited the follow up period to about 18 months because NDLTU would apply to the comparison group once they reach 24 months unemployment. There were further complications related to NDLTU because in 28 areas of the country Pilot schemes were introduced where people aged 25 and over would enter NDLTU after either 12

or 18 months unemployment dependent on which Pilot scheme operated in their area. Again this would affect some members of the comparison group, hence these Pilot areas were excluded from the descriptive analysis presented in this section, but they are considered in the regression models presented later in the paper. For an evaluation of NDLTU in Pilot and national areas see Lissenburgh (2000).

3.5 Sample sizes

Table 1 gives the number of claimants, excluding those in the Pathfinder and Pilot areas, with six-months unemployment duration from the JUVOS five per cent cohort in the target (aged 18-24) and comparison (aged 30-39) group by year. The numbers reflect the fluctuating state of the labour market, with over 20,000 young people in the sample reaching six-months unemployment between 1991 and 1993 compared to a little below 10,000 in 1997 and 1998. The comparison group follows a similar pattern, but with an overall smaller sample size in each year.

Table 1 Sample Sizes by Age and Year

	Treatment Group Aged 18-24	Comparison Group Aged 30-39
1990	12178	7764
1991	20147	13042
1992	21922	13974
1993	20137	13423
1994	17468	12230
1995	15847	11501
1996	12831	9683
1997	9015	7468
1998	8300	7672

1. These numbers exclude claimants in Pathfinder areas.

3.6 Definitions

The remainder of this section plots differences in each month between the target and comparison groups for selected outcome measures up to 18 months after the pseudo New Deal entry date. The three measures used are described as follows:

- The first is the proportion of unemployment "**stayers**"; those that are still unemployed in the same unemployment spell up to 18 months after reaching the

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pseudo New Deal entry date (note "**leavers**" are just those individuals that are not stayers).

- The second measure is termed "**returners**"; this group of individuals will have left unemployment after the pseudo New Deal entry date, but returned to unemployment in the 18 month follow up period.

- The final measure is termed "**unemployed**"; this is anyone that is unemployed at any given point in time after reaching the pseudo New Deal entry date.

In each of the series of graphs that follows, month 0 is the pseudo New Deal entry date, and months 1 through to month 18 is the follow up period.

3.7 Outcomes for 18-24 Year Olds

Figures 1a-1c give the proportion of *stayers*, *returners* and *unemployed* up to 18 months after their pseudo New Deal entry date for the *target* group, individuals aged 18 to 24 reaching six months unemployment duration between April 1990 and March 1999. The graphs all include one line for each year, except for 1997/98, which is split into the first half and second half of the year. This split is necessary to identify differences in the proportion of stayers for a period of time that is likely to include a significant number of young people who entered NDYP after 12 months unemployment in the first half of 1998/99.

Entrants or pseudo-entrants to NDYP with even longer unemployment durations constituted a relatively small share of the overall sample for any particular period. Furthermore examination of the first half of 1997/98 typically indicates little effect from these entrants on the outcome measures. Thus in general we only need to consider differences between the first and second half of 1997/98 when deriving the impact of NDYP on unemployment transitions.

3.7.1 Young stayers

From three months after the pseudo New Deal entry date onwards, the proportion of young *stayers* was lowest in 1998/99. The next lowest stayer proportions were found

in the preceding two years, 1996/97 and 1997/98, followed by a slightly higher proportion of stayers between 1993/94 and 1995/96, and the highest proportion of stayers was between 1990/91 and 1992/93.

This time series pattern of successively lower proportions of stayers over time may be due to cyclical or structural factors. With economic recovery, from 1993 onwards, the proportion of individuals staying in long-term unemployment may have fallen as more job opportunities become available. They may also have fallen due to a tightening of benefits policy or improved efficacy of job search over the period under consideration.

Figure 1a Proportion of 18-24 year-olds still unemployed in the same spell up to 18 months after pseudo new deal entry date
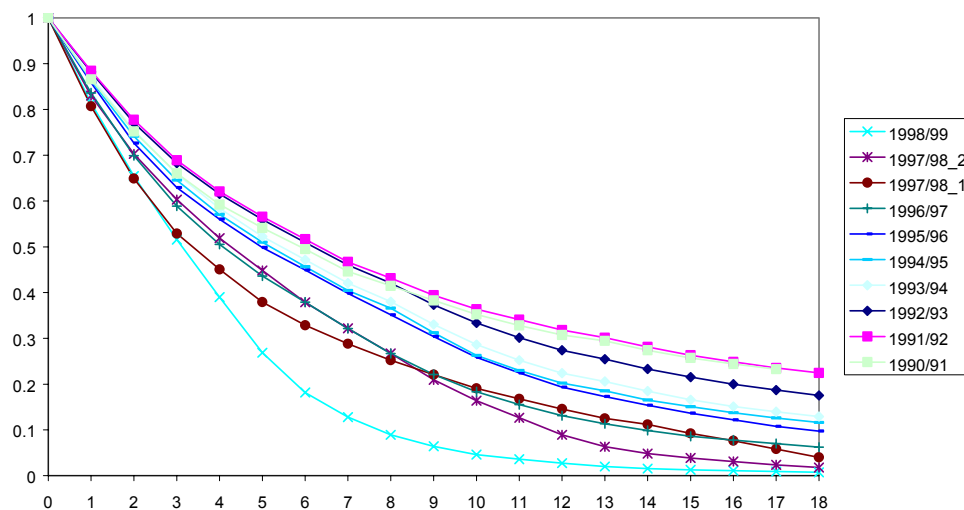
The large drop in the proportion of stayers in 1998/99 from three months after the pseudo New Deal entry date onwards may be interpreted as moves off the NDYP Gateway into NDYP Options over this period. People undertaking this transition would terminate their unemployment claim and this will be recorded in the JUVOS data.

It is also worth noting that the line for the second half of 1997/98 drops below the line for the preceding six month period after month nine. This is consistent with a number of these people being 12 month unemployment duration NDYP entrants and hence moving onto NDYP Options after three months on the programme.

NDYP was designed with the intention that there should be no stayers beyond the four-month Gateway period. So, allowing for small timing differences between the JUVOS data and the information used to administer NDYP it would be expected to see very few stayers beyond four months in 1998/99. However, there is evidence that there was often a delay before entering the Gateway[3] and that time spent on the Gateway was often not limited to four months[4]. In combination, this evidence explains why at six months after the pseudo New Deal entry date in 1998/99 roughly 20 per cent of individuals were still unemployed in the same spell that qualified them for NDYP.

This finding has significant implications for the analysis in terms of the follow up period under consideration. If large numbers of NDYP participants remain on the Gateway up to six months after entering the programme, then typically they will not finish a NDYP Option until 12 months after entering the programme (in the case of the full-time education and training option, this may extend to 18 months). An 18-month follow up period may not be sufficient for these people. However, because many of the non-target group will become eligible for NDLTU after unemployment spells lasting two years, the follow up period can not be extended beyond this time. This suggests the possibility that the total effect of NDYP on participants may be under-estimated.

3.7.2 Young returners
Moving on to 18-24 year-old *returners*, Figure 1b indicates a relatively stable pattern between 1990/91 and 1995/96. The following three years show a successively higher proportion of returners. This suggests an increasing degree of labour market churning with more individuals in the late 1990s flowing back into unemployment after their pseudo New Deal qualifying unemployment spell than was the case in the first half of the decade. After six months follow up the line for 1998/99 is above all the others possibly indicating that NDYP has added to the increasing trend towards more labour

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[3] PSI analysis of the New Deal Evaluation Database (NDED) indicates that 30 per cent of NDYP eligible individuals have a period in excess of 3 weeks before entering the Gateway, and 5 per cent of individuals do not enter the Gateway until at least 12 weeks after starting on NDYP.
[4] PSI analysis of NDED indicates that 16 per cent of individuals spent 32 or more weeks on the Gateway, whilst a further 23 per cent spent 20 to 32 weeks on the Gateway.

market churning for young people. NDYP participants who did not immediately secure employment after a period on an Option would typically return to JSA for the NDYP follow through and this would be recorded on JUVOS as a new unemployment spell.

Figure 1b Proportion of 18-24 year-olds that have left and returned to unemployment up to 18 months after pseudo new deal entry date
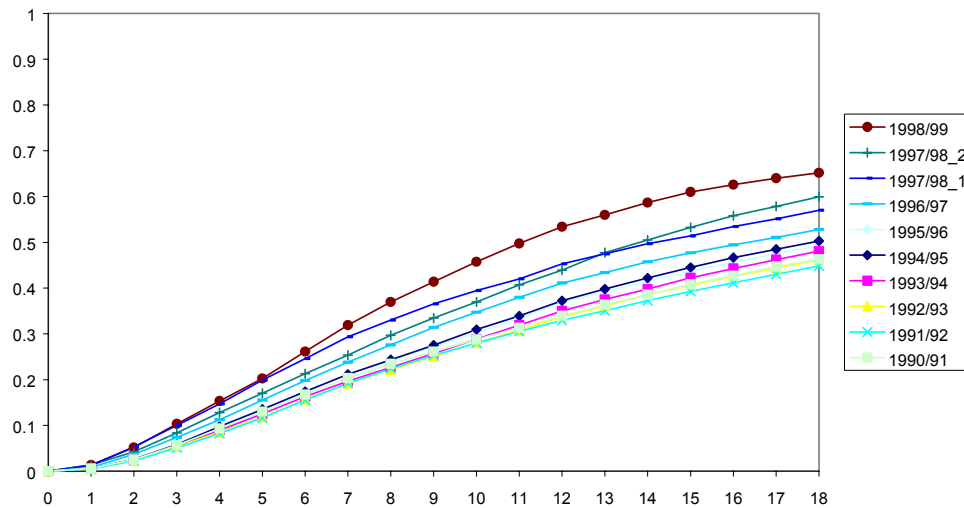

3.7.3 Young unemployed

As explained above, the measure of unemployment is a combination of *stayers* and *returners* so Figure 1c reflects the combination of the patterns indicated in Figures 1a and 1b. In 1998/99 there was a lower proportion of young people unemployed between four and 12 months after the pseudo New Deal entry date than for earlier years. However, between months 13 and 18 after the pseudo New Deal entry date there was very little difference between the proportion of young people unemployed in 1998/99 and in 1997/98. This reflects an increase in unemployment leavers from NDYP Gateway into Options after month three, but also reflects an increase in returning to unemployment after NDYP Options after month six.

**Figure 1c Proportion of 18-24 year-olds unemployed up to 18 months after pseudo new deal entry date**
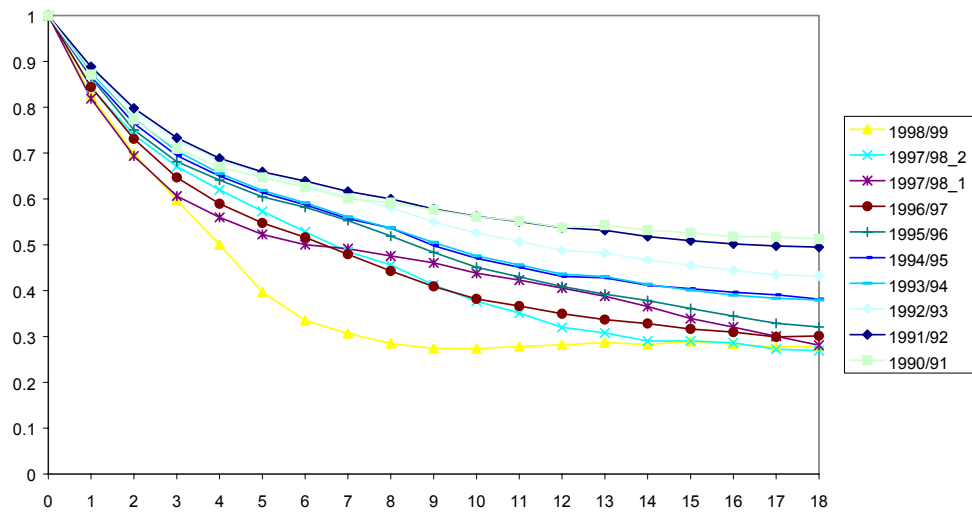
3.8 Differences between the target and comparison group

Figures 2a-2c show the difference in each of the outcome measures between the 18-24 and 30-39 years age groups.

There was a higher proportion of older *stayers* in each year, hence in all cases the *target* group minus *comparison* group difference was negative. The differences in the proportion of stayers shown in Figure 2a were similar in all years up to 1997/98 for the first six-months follow up, and with the exception of the second half of 1997/98 remained small for the full 18-month follow up.

There was a significant difference between the first and second halves of 1997/98. From 6-12 months after the pseudo New Deal entry date the proportion of 18-24 year-old stayers in the second half of 1997/98 fell relative to the older age group, shown by the drift down of this line. This was due to NDYP entrants after 12 months unemployment duration moving into Options. This finding has strong implications for the choice of comparison period against which to evaluate NDYP. It is undesirable to include the second half of 1997/98 in the comparison period when considering outcome measures that relate to more than six months after the pseudo New Deal entry date.

Figure 2a (18 to 24) – (30 to 39) Difference in Stayers
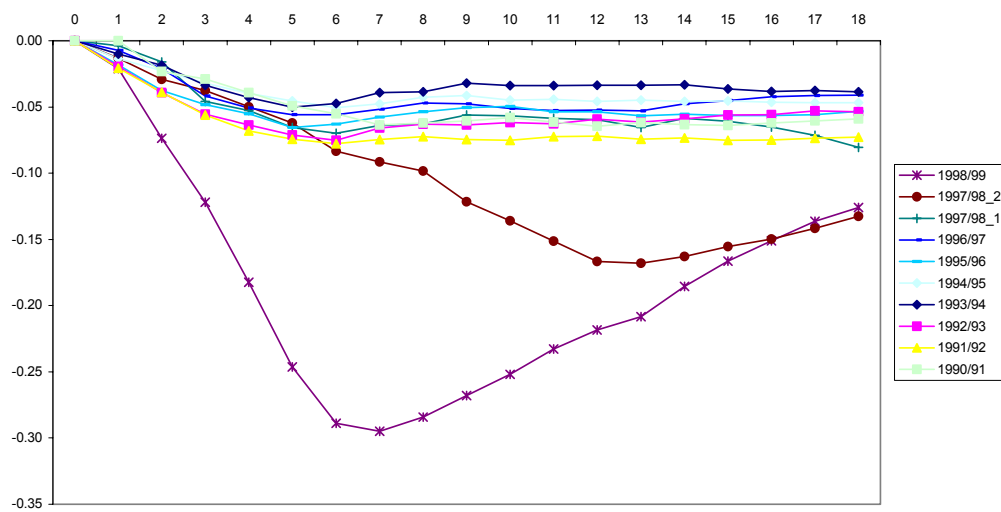
The line for 1998/99 shows a very clear fall in the difference in the proportion of *stayers* in each age group. The difference relative to earlier years reaches a maximum of around -0.23 six-months after the pseudo New Deal entry date before falling back to around -0.08 18 months after the pseudo New Deal entry date. This indicates that NDYP has accelerated departure from unemployment.

Figure 2b gives the difference in returners between the age groups. There was a higher proportion of younger returners, hence the differences are all positive. In 1998/99 compared to other years there was a particularly high proportion of young returners from three months after the pseudo New Deal entry date onwards. This represents the higher proportion of NDYP participants returning to unemployment after a spell on NDYP Options. There was relatively little difference in any of the years up to 1997/98, and no difference between the first and second half of 1997/98 until month 12 when there was an increase in the proportion of young returners among NDYP pseudo entrants in the second half of 1997/98.

Figure 2b (18 to 24) – (30 to 39) Difference in Returners
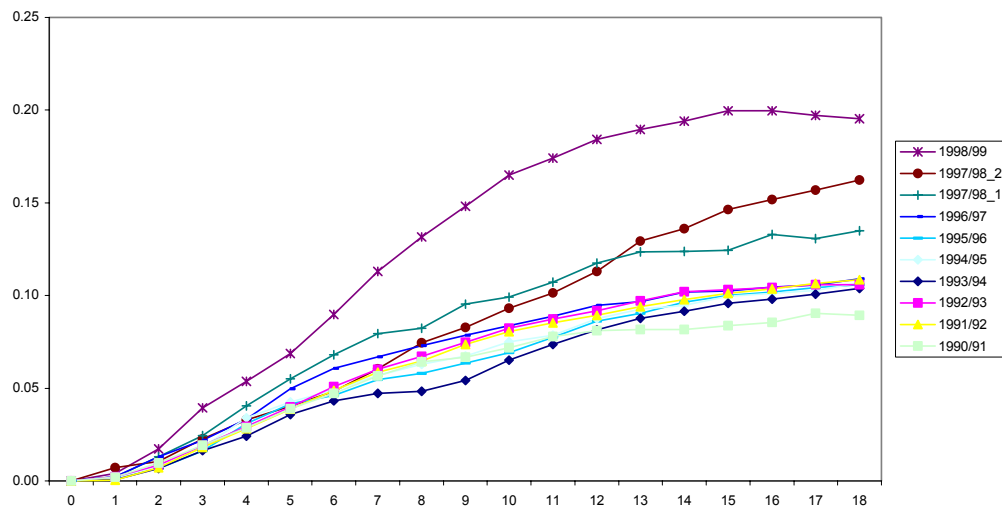
The combined effect on the proportion being *unemployed* after the pseudo New Deal entry date is generally small. The negative *stayers* difference slightly outweighed the positive *returners* difference in most cases, meaning that there was a slightly higher proportion of *unemployed* 30-39 year-olds than *unemployed* 18 to 24 year-olds. The pattern was relatively stable up to the first half of 1997/98, whilst for the second half of 1997/98 NDYP exits to Options starts to have an effect after six months follow up. From this point the difference increases up to about -0.12 at month 14 before falling back to about -0.09 at month 18. For 1998/99 the impact was more immediate with the difference between young and older unemployed increasing up to about -0.27 by month seven before again falling back to -0.08 at month 18.

Figure 2c (18 to 24) – (30 to 39) Difference in Unemployed
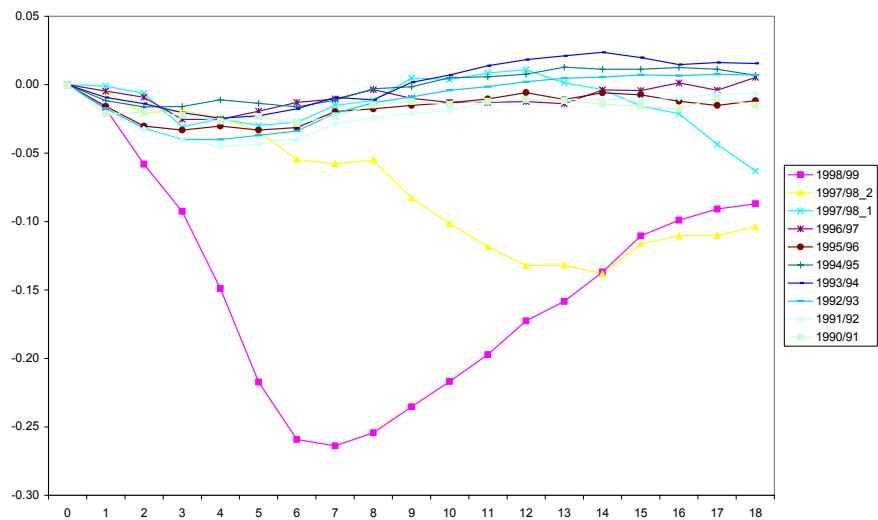
4. Difference in Differences Models – The Baseline Period

In this section models are presented that allow for a careful selection of the appropriate baseline period against which the impact of NDYP can be estimated. Up to this point the results presented have taken no account of possible changes in the characteristics of unemployed groups over time. Here regression adjustments are introduced to take account of such potential variations. The models estimate the probability of being a *stayer* or *unemployed* at six, 12 and 18 months after the pseudo New Deal entry date. The stayer models allow for consideration of whether NDYP increased unemployment outflows, whilst the unemployment models allow for consideration of an overall NDYP effect on unemployment.

We estimate models separately for men and women and include as control variables: marital status, proportion of time unemployed since age 16, usual occupation, region, whether in a Pathfinder area, whether in a NDLTU Pilot area, dummy variables for age and time period. In addition we include time period and age group interaction terms that measure the difference-in-differences in which we are interested. We estimate both linear probability models and logistic models, although the results from both specifications are broadly similar. The results reported here are just for the linear probability models. When calculating the impact of NDYP in the next section we look at the different effects implied by the different specifications.

Tables 2a to 2e present the estimated coefficients and t-statistics from models for each time period and age group interaction term for the period before the introduction of NDYP. The coefficients are considered to assess the stability of the relationship between the two age groups prior to the introduction of NDYP. For models six months after the pseudo New Deal entry date the year before the introduction of NDYP is set as the reference category, which means that the estimated coefficients are all relative to 1997/98. For other models, the reference category varies. If the estimated co-efficient is not significant for a particular time period, it can be inferred that the impact of the difference between the two age groups on the outcome measure is the same in that time period as for the reference period. Further significance tests

were used to assess comparisons involving two or more years, these are discussed, where appropriate, in the text.

This approach is complicated a little by the results from the preceding section, which suggested that for outcome measures looking at a point beyond six months after the pseudo New Deal entry date, the six months immediately prior to the introduction of NDYP probably should not be included in the comparison period. This was because NDYP effects are evident from people entering the programme after spells of unemployment lasting 12 months who had reached six months unemployment in the six month period directly before the introduction of NDYP. This is why in the models with a longer follow up period, the reference period does not correspond to the year before the introduction of NDYP.

4.1 Six-month Male Stayers

In the case of six-month male *stayers* presented in Table 2a, the first column indicates that the coefficients from 1994/95 to 1996/97 were positive and significant indicating that in these years the target group relative to the comparison group were more likely to stay unemployed compared to in 1997/98.

JSA was introduced in October 1996 and it is possible that its' introduction may have had a differential effect by age group on all of the outcome measures. The impact of the introduction of JSA was investigated by considering quarterly age and time period interaction terms for 1996. The second column of Table 2a presents the results from this estimation for a model estimated on data from April 1996 onwards. This indicated two positive coefficients for the two quarters immediately after the introduction of JSA whilst the coefficients in the two preceding quarters were not significantly different from zero. This confirms the view that the introduction of JSA had a different impact for 18-24 year old men than 30-39 year-old men and suggests that 1996 could also be used as part of the baseline period, provided the two quarters after the introduction of JSA are excluded. This can be done in the final models by including dummy variables for these two quarters.

The appropriate comparison period was investigated further by extending back the estimation period a year at a time to see if the additional years were significantly

different from the reference year. Estimating a model from April 1995 onwards produced a non-significant coefficient for 1995/96 (column three). Furthermore, a joint test of the 1995/96 coefficient together with the two coefficients from 1996 that preceded the introduction of JSA was also non-significant (F 3,46563=0.9, p=0.45)[5]. Hence, it can be argued that 1995/96 should be included in the baseline period.

Table 2a Difference in difference estimates (18 to 24) relative to (30 to 39) year-olds: Six month Stayers, Men.

	Basic Model	1996 Model with quarterly dummies Coefficient (t-stat)	1995 Model	1994 Model
Reference Year: 1997/98				
1996/97	0.032 (2.8)			
Jan-Mar 97		0.055 (2.4)	0.028 (1.5)	0.035 (1.9)
Oct-Dec 96		0.039 (1.7)	0.044 (2.2)	0.044 (2.3)
Jul-Sep 96		0.010 (0.4)	0.011 (0.6)	0.001 (0.1)
Apr-Jun 96		-0.028 (1.4)	-0.012 (0.7)	-0.004 (0.3)
1995/96	0.029 (2.7)		0.012 (1.1)	0.013 (1.3)
1994/95	0.040 (3.7)			0.033 (3.2)
1993/94	0.013 (1.3)			
1992/93	-0.018 (1.8)			
1991/92	-0.018 (1.8)			
1990/91	-0.024 (2.1)			

Linear probability model estimates

Extending the estimation period back to April 1994, however, does not appear justified. The coefficient for 1994/95 is positive and significant and a joint test for the coefficients between April 1994 and September 1996 is statistically significant (F 4, 62554=3.6, p=0.01). Thus the baseline period for this outcome measure is restricted to run from April 1995 to March 1998 excluding the six months after the introduction of JSA in October 1996.

4.2 Six-month Female Stayers

Table 3b shows the same information for women. The results in the first column indicate that that the 1995/96 and 1996/97 estimates were not significantly different from the reference year, whilst the estimate for 1994/95 was very close to being significant.

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[5] The p value indicates the level of significance of the test. A value below 0.05 would indicate significance at the standard five per cent confidence level.

Looking at quarterly variables for 1996 (column two), when JSA was introduced, fails to identify any differences. All the quarterly coefficients were non significant. This indicates that was no different effect from the introduction of JSA across the two age groups for women.

Extending the estimation period back to April 1995 produced a significant coefficient for 1995/96 (column three). Furthermore, a joint significance test for the 1995/96 and 1996/97 coefficients is on the borderline of significance (F 2,17538=3.0, p=0.05). Given these results the baseline period was selected to cover the period from April 1996 to March 1998.

Table 2b Difference in difference estimates (18 to 24) relative to (30 to 39) year-olds: Six month Stayers, Women.

	Basic Model	1996 Model with quarterly dummies	1995 Model
		Coefficient (t-stat)	
Reference Year: 1997/98			
1996/97	0.008 (0.4)		-0.006 (0.3)
Jan-Mar 97		-0.002 (0.1)	
Oct-Dec 96		-0.002 (0.1)	
Jul-Sep 96		0.007 (0.3)	
Apr-Jun 96		0.027 (1.2)	
1995/96	-0.027 (1.4)		-0.039 (2.1)
1994/95	-0.034 (1.9)		
1993/94	-0.042 (2.4)		
1992/93	-0.079 (4.4)		
1991/92	-0.072 (3.9)		
1990/91	-0.082 (4.1)		

Linear probability model estimates

4.3 The Probability of being unemployed

Looking at the probability of being unemployed, similar patterns to those described for stayers are found. For six-month male unemployed, the first column of Table 3c again shows a positive significant 1996 coefficient. When quarterly variables are introduced, this significant effect is again limited to the two quarters after the introduction of JSA.

When a model is estimated using data from 1995 onwards the 1995 coefficient is not significantly different when compared with the reference year. However, a model

using data from 1994 onwards produces a positive and borderline significant coefficient for 1994/95 (Table 2c, column two). It could thus be argued that the baseline period for these models could include 1994/95. However, for consistency with the stayers models the baseline period is chosen to cover from April 1995 to March 1998 excluding the period from October 1996 to March 1997.

Table 2c Difference in difference estimates (18 to 24) relative to (30 to 39) year-olds: Six month Unemployed, Men and Women

	Men		Women	
	Basic Model	1994 Model	Basic Model	1995 Model
		Coefficient (t-stat)		
Reference Year: 1997/98				
1996/97	0.025 (2.2)		0.028 (1.4)	0.015 (0.8)
Jan-Mar 97		0.041 (2.2)		
Oct-Dec 96		0.036 (1.9)		
Jul-Sep 96		-0.000 (0.0)		
Apr-Jun 96		-0.012 (0.7)		
1995/96	0.012 (1.1)	-0.001 (0.1)	-0.024 (1.3)	-0.035 (1.9)
1994/95	0.025 (2.4)	0.019 (1.8)	-0.033 (1.8)	
1993/94	0.006 (0.6)		-0.030 (1.6)	
1992/93	-0.017 (1.8)		-0.068 (3.7)	
1991/92	-0.024 (2.4)		-0.072 (3.8)	
1990/91	-0.034 (3.0)		-0.075 (3.7)	

Linear probability model estimates

For women, the estimates from the unemployed models are also similar to those for stayers. With a model estimated using data from April 1990 onwards the estimated coefficients for 1996/97 and 1995/96 are both not significantly different from the reference year (Table 2c, column three). No evidence was found of any differential effect between the two age groups at the time JSA was introduced. When the estimation period started in April 1995, however, the 1995/96 coefficient becomes significant. Thus in line with models for six-month stayers, the baseline period for six month unemployed women was chosen to run from April 1996 to March 1998.

4.4 Longer follow up periods

Following on from these models for six months after the pseudo New Deal entry date models 12 and 18 months after the pseudo New Deal entry date were considered. Here it is inappropriate to estimate models for *stayers* because by this time there are

very few young *stayers* in the NDYP era. This is because most NDYP participants moved off the Gateway and on to Options and typically ceased their JSA claim.

In 1998 just three percent of young people were *stayers* 12 months after their pseudo New Deal date and by 18 months this has fallen to less than one per cent. However, models can be estimated for the probability of being unemployed where roughly 30 per cent of young men and roughly 20 per cent of young women were unemployed 12 and 18 months after the pseudo New Deal date.

From the preceding section, for models looking at outcomes 12 months after the pseudo New Deal entry date, the second half of 1997/98 should not be in the comparison period, because many young people reaching six months duration in this period enter NDYP six months later. Similarly for models looking at outcomes 18 months after the pseudo New Deal entry date, the whole of 1997/98 should not be in the comparison period.

In all of these models, no differential effects between the two age groups were found at the time of introduction of JSA. Thus the estimation results and choice of baseline period is somewhat simplified.

Table 2d Difference in difference estimates (18 to 24) relative to (30 to 39) year-olds: 12 and 18 month Unemployed, Men.

	12 Month Unemployed		
	1996 Model	1995 Model	1994 Model
	Coefficient (t-stat)		
Reference period: Apr-Sep1997			
1996/97	-0.018 (1.2)	-0.002 (0.2)	0.004 (0.3)
1995/96		0.014 (1.1)	0.012 (0.9)
1994/95			0.028 (2.3)
	18 Month Unemployed		
Reference Year: 1996/1997			
1995/96		-0.015 (1.6)	-0.010 (1.1)
1994/95			-0.021 (2.3)

Linear probability model estimates

Table 2d presents the results for men. For the 12 month unemployed models the reference period is limited to April to September 1997. The top panel of Table 2d shows that for a model estimated using data only from April 1996 onwards, the

coefficient for 1996/97 is not significantly different from the reference period. Similarly, extending the estimation period back to April 1995 produces non-significant coefficients for 1995/96 and 1996/97. However, extending the estimation period back to April 1994 yields a positive significant coefficient for 1994/95. A test of the joint significance of the coefficients between April 1994 and March 1997 also gives a positive result (F 3,60636=3.1, p=0.02). Thus for the 12 month unemployed model for men the baseline period is chosen to run from April 1995 to March 1997.

For 18 month unemployed models the reference period is April 1996 to March 1997. Thus we start by estimating models using data from April 1995 to March 1997. The bottom panel of Table 2d shows that for such a model the coefficient for 1995/96 is not significantly different from the reference year. However, extending the estimation period back to April 1994 produces a positive significant coefficient. This time the joint test for the coefficients between April 1994 and March 1996 yields a result that is not quite significant at the five per cent confidence level (F 2,54628=2.6, p=0.07). However, because of the significant coefficient for 1994/95 and to maintain consistency with other models for men, the baseline period was chosen to cover from April 1995 to March 1997.

Table 2e Difference in difference estimates (18 to 24) relative to (30 to 39) year-olds: 12 and 18 month Unemployed, Women.

	12 Month Unemployed		
	1996 Model	1995 Model	1994 Model
	Coefficient (t-stat)		
Reference period: Apr-Sep1997			
1996/97	0.030 (1.3)	0.006 (0.3)	0.004 (0.5)
1995/96		0.008 (0.4)	0.004 (0.2)
1994/95			0.009 (0.2)
	18 Month Unemployed		
Reference Year: 1996/1997			
1995/96		-0.004 (0.3)	-0.004 (0.3)
1994/95			0.018 (1.3)

Linear probability model estimates

Table 2e includes the same information as Table 2d, but for women. Here all the estimated coefficients going back to April 1994 are not significantly different from the reference period. This is true for 12 month and 18 month models. In fact, in each case, the estimation period could be extended back to April 1992. However, to ensure

some consistency with the models for men, and so as not to choose a vastly different baseline period for the 12 and 18 month relative to the six month models, the baseline period in each case is chosen to begin in April 1995.

4.5 The final choice of the baseline

To summarise the results of these models; for men six months after their pseudo New Deal entry date there is some evidence of a differential impact of JSA on the target and comparison groups. For women this is not the case. For men there was stability in the estimated coefficients back to April 1995, such that when evaluating NDYP for men all models can be estimated with data back to April 1995. For women the start point of the estimation period depends on the outcome measure. For the six-month models the comparison period can only begin in April 1996, but for the models with longer follow-up the start period can be extended back as far as 1992. For the sake of consistency, it was decide to limit the estimation period to start in April 1995 for these models. The chosen baseline periods are summarised in Table 3.

Table 3 Choice of Baseline Period

	Baseline period
Men	
Six-month stayers	April 1995 – September 1996, April 1997 – March 1998
Six-month unemployed	April 1995 – September 1996, April 1997 – March 1998
12-month unemployed	April 1995 – September 1997
18-month unemployed	April 1995 – March 1997
Women	
Six-month stayers	April 1996 – March 1998
Six-month unemployed	April 1996 – March 1998
12-month unemployed	April 1995 – September 1997
18-month unemployed	April 1995 – March 1997

5. The estimated NDYP effects

Using the baseline periods outlined in the previous section, the impact of NDYP can be estimated. To monitor the evolution of NDYP, dummy variables were included for each quarter after the introduction of NDYP. These are shown in the first four rows of the tables. In addition, an overall annual estimate is given in the bottom row. Table 4a presents results for men and Table 4b for women.

5.1 Results for Men

For men, all bar one of the quarterly coefficients were negative and statistically significant. The first column indicates the reduction in probability of staying unemployed for six months after the pseudo New Deal entry date, in the same unemployment spell, for 18-24 year-olds relative to 30-39 year-olds, after the introduction of NDYP relative to the baseline period. The figures range from –0.20 to –0.27, with an annual coefficient of –0.22. This indicates a sizable NDYP effect lowering the probability of staying unemployed by over twenty percent.

Table 4a NDYP impacts for Men.

	Six Month Stayers	Six Month Unemployed	12 Month Unemployed	18 Month Unemployed
		Coefficient (t-stat)		
Apr-Jun 1998	-0.21 (12.0)	-0.21 (11.5)	-0.17 (8.4)	-0.05 (2.4)
Jul-Sep 98	-0.21 (11.2)	-0.20 (10.4)	-0.12 (5.8)	-0.07 (3.1)
Oct-Dec 98	-0.27 (13.2)	-0.26 (12.4)	-0.18 (8.1)	-0.12 (5.1)
Jan-Mar 99	-0.20 (10.5)	-0.18 (9.0)	-0.08 (3.9)	0.01 (0.4)
1998/99	-0.22 (23.4)	-0.21 (21.6)	-0.14 (13.0)	-0.05 (5.1)

Linear probability model estimates

The next column gives the corresponding coefficients for the probability of being unemployed six months after the pseudo New Deal entry date. The numbers here are broadly comparable to the stayer numbers ranging from –0.18 to –0.26, with an overall estimate of –0.21. The six-month follow up period broadly corresponds to the length of the Gateway period, so these estimates may be thought of as the reduction in unemployment resulting from the Gateway. However, it is important to note that at the end of the Gateway participants enter NDYP Options and typically cease their JSA claim.

Extending the horizon forward to 12 and 18 months produces a reduction in the estimates. 12 months after the pseudo New Deal entry date the estimates range from –0.08 to –0.18 (overall –0.14), and six months after that they range from 0 to –0.12 (overall –0.05).

5.2 Results for Women

For women, all of the coefficients were negative and statistically significant. The figures for six months after the pseudo New Deal entry date range from -0.12 to –0.24 in the stayers model with an overall estimate of –0.16. There was a similar range from the unemployed model with a slightly higher overall estimate at –0.19. Overall, the impact of NDYP at this point in time is slightly lower for women than for men.

Extending the horizon forward for women also reduces the size of the estimated coefficients, but not by as much as for men. Here the range 12 months after the pseudo New Deal entry date goes from –0.12 to –0.17 (overall –0.15), and six months after that there was a very narrow range from -0.08 to –0.10 (overall –0.09).

Table 4b NDYP impacts for Women.

	Six Month Stayers	Six Month Unemployed	12 Month Unemployed	18 Month Unemployed
		Coefficient (t-stat)		
Apr-Jun 1998	-0.12 (3.6)	-0.14 (3.9)	-0.16 (4.4)	-0.09 (2.5)
Jul-Sep 98	-0.12 (3.6)	-0.15 (4.2)	-0.17 (4.9)	-0.08 (2.4)
Oct-Dec 98	-0.24 (6.3)	-0.24 (6.1)	-0.12 (3.1)	-0.10 (2.8)
Jan-Mar 99	-0.17 (4.8)	-0.22 (5.9)	-0.14 (3.9)	-0.09 (2.4)
1998/99	-0.16 (9.1)	-0.19 (9.9)	-0.15 (8.2)	-0.09 (5.1)

Linear probability model estimates

It is also worth noting that all these estimates are not dissimilar to the differences between 1998/99 and earlier years shown in Figures 2a and 2c, so that including regression based controls in to the difference-in-difference approach has had a small effect on the estimated differences.

5.3 Interpreting the impact of NDYP

The next step of the analysis is to use these estimates to calculate how much unemployment has been reduced over the period under consideration. The first

column of Table 5 gives the difference in difference estimates for men for each of our models for the first year after the introduction of the national NDYP programme, both for linear probability models and logistic models. The estimates are broadly similar for each type of model, although the logistic models tend to produce marginally higher estimates. The second column gives the change in unemployment implied by these estimates. Columns three and four provide the same information for women.

The interpretation of the numbers in the table is as follows. For men according to the linear probability model, the probability of the target group staying in the same unemployment spell six months after reaching their pseudo NDYP entry date was 0.22 lower after the introduction of NDYP compared to the pre NDYP period relative to the comparison group. There were 6,727 men from the JUVOS five per cent cohort in the NDYP period covered in our analysis, which translates to roughly 135,000 in the population. Therefore, applying the lower probability of being a *stayer* for these individuals means that six months after the pseudo New Deal entry date there were around 29,000 fewer men that were *stayers* than if NDYP had not been introduced. The estimates from the logistic model were very similar at 24 per cent and 32,000.

Table 5. Estimates of the impact of NDYP on the probability of being unemployed

| | Men | | Women | |
	Estimated change in the mean probability of being unemployed	Change in Unemployment (thousands)	Estimated change in the mean probability of being unemployed	Change in Unemployment (thousands)
Model		**6 month stayers**		
Linear	-0.22	-29	-0.16	-8
Logistic	-0.24	-32	-0.18	-9
		6 month unemployed		
Linear	-0.21	-29	-0.19	-10
Logistic	-0.24	-32	-0.20	-11
		12 month unemployed		
Linear	-0.14	-19	-0.15	-8
Logistic	-0.17	-23	-0.16	-8
		18 month unemployed		
Linear	-0.05	-7	-0.09	-5
Logistic	-0.09	-11	-0.09	-5

The estimated effects on the probability of being *unemployed* were broadly similar to the *stayer* probabilities so the effect of NDYP on the reduction in the number of young men unemployed six months after the pseudo New Deal entry date was also around 30,000.

However, as the follow up period increases the reduction in the number of unemployed fell to roughly 20,000 at one year after the pseudo New Deal entry date and to about ten thousand 18 months after the pseudo New Deal entry date.

The NDYP sample consisted of 2,609 women, which translates to roughly 52,000 in the population. The estimated effect on the probability of being a *stayer* six months after the pseudo New Deal entry date was a reduction of 0.16 or 0.18 in the NDYP period. This means that six months after the pseudo New Deal date there were roughly eight or nine thousand fewer women that were *stayers* than if NDYP had not been introduced.

The estimated probability changes were marginally higher for women being *unemployed* resulting in an unemployment reduction of around ten or 11 thousand six months after the pseudo New Deal entry date. However, as for men this reduction fell with a longer follow up time so that 12 months after the pseudo New Deal entry date there were 8,000 fewer unemployed young women than if there had been no NDYP. At 18 months from the pseudo New Deal entry date there were 5,000 fewer unemployed young women than if NDYP had not been introduced.

These estimates indicate that for the first year of NDYP, 18 months after entering the programme unemployment was lowered by roughly 10,000-15,000. However, the design of NDYP and the fact that many young people have delayed Gateway entry and extended Gateway experiences means that many participants are still likely to be in the follow through phase even 18 months after entering the programme. If the follow through phase is successful in placing people in jobs then the impact of NDYP could be greater than the 10-15,000 indicated above. One limitation of the approach adopted here is that our follow up period can not be extended any further to consider fully the follow through phase of NDYP because our comparison group will enter NDLTU after 24 months unemployment.

It is also worth noting that these figures are all estimated from a point in time after entry into NDYP. To calculate a point in time estimate we would need to take into consideration the fact that at any point in time all NDYP participants are at a different

point relative to their entry to NDYP.

6. Pre-programme Effects

Having considered the impact of participation in NDYP the focus of this section of the paper is on pre-programme effects to see if the possibility of participation in NDYP affected claimant behaviour. Here the outcome measure is the probability of leaving unemployment in the first six months of an unemployment spell before and after the introduction of NDYP. The previous analysis has already considered people that have a pseudo NDYP qualifying unemployment spell followed by shorter unemployment spells. Here anyone that has previously had an unemployment spell that reached six months is excluded, thereby allowing consideration of those people that would not have previously qualified for NDYP. The approach is identical to that adopted elsewhere in the paper.

6.1 Target Group Stayers

Figure 3a gives the proportion of the target group in each year that were still unemployed up to six months after entering unemployment. The bottom line is for 1998/99 indicating that in this year there was the lowest proportion of *stayers* in the first six-months of unemployment spells. There was a small difference in the proportion of the target group remaining unemployed for six months in 1997/98 and 1998/99 with 26 per cent of the target group that started an unemployment spell in 1998/99 being still unemployed six months later compared to 28 per cent in 1997/98. However, if we look at 1996/97 36 per cent of the target group remained unemployed for six months and in earlier years the numbers are even higher. The one exception to this pattern is in 1990/91 when 31 per cent of the target group that started an unemployment spell were still unemployed six months later. From this graph it seems that the choice of baseline period will be crucial in determining pre-programme effects; this will be considered in some detail in Section 6.4.
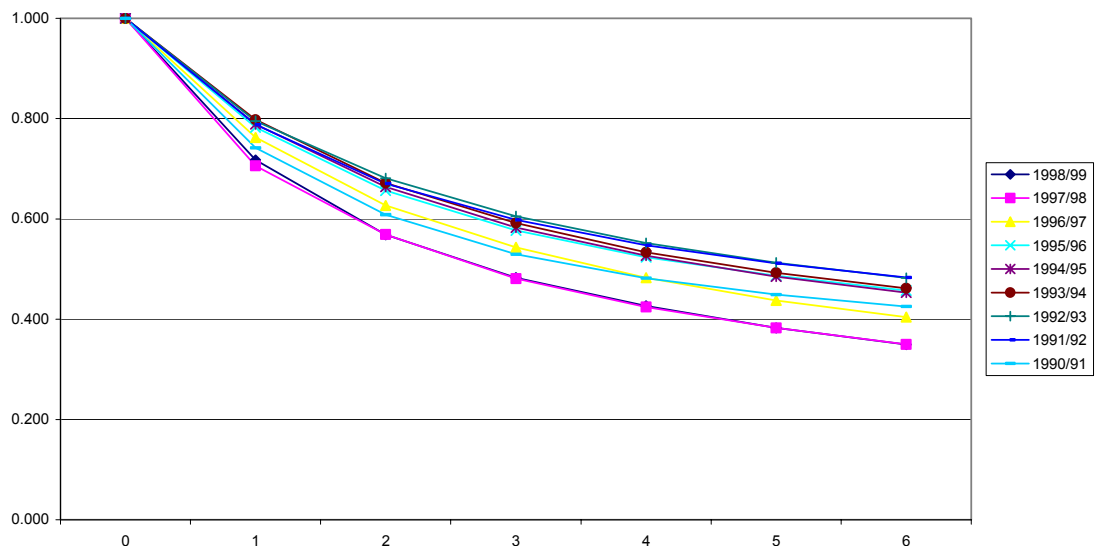
Figure 3a Proportion of people aged 18-24 still unemployed up to six months after entering unemployment
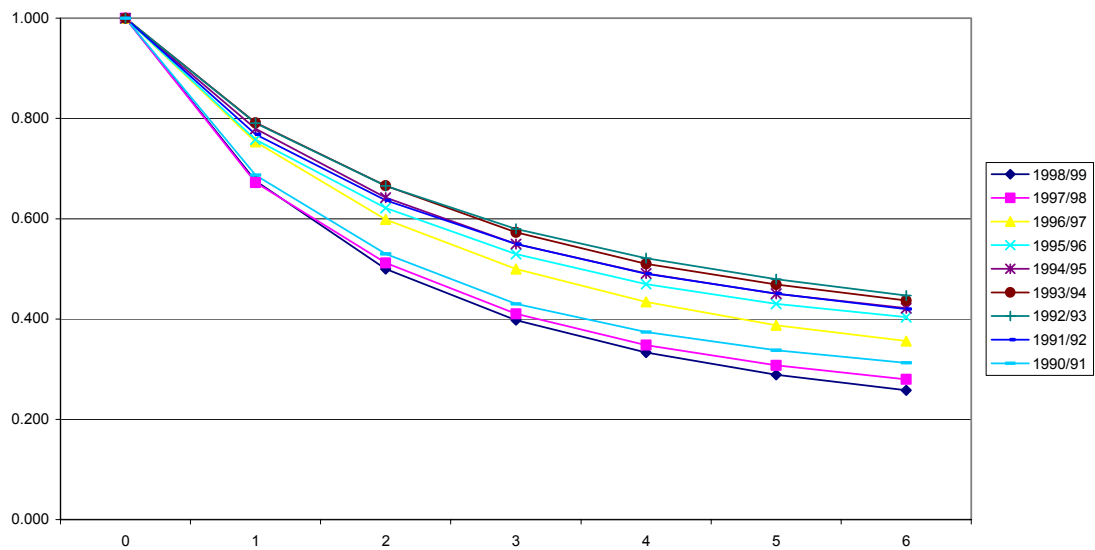
6.2 Comparison Group Stayers

Figure 3b shows the same information for the comparison group. The pattern is similar across the years to that for the target group. The bottom two lines are again for 1997/98 and 1998/99, although here there is little difference between the two years. 35 per cent of the comparison group who started an unemployment spell in 1997/98 or 1998/99 remained unemployed for six months. The proportion remaining unemployed for six months was higher at around 40 per cent in 1996/97 and higher still for all earlier years.

Figure 3b Proportion of people aged 30-39 still unemployed up to six months after entering unemployment

6.3 The difference in Stayers

Figure 3c plots the difference between the target and comparison groups of the proportion of people still unemployed up to six months after entering unemployment. Here we find that for each month after entering unemployment the points are all negative indicating that the target group were less likely to remain unemployed than the comparison group.

The line for 1998/99 is below the lines for all other years except for 1990/91, indicating that compared to all years except 1990/91 the target group relative to the comparison group were less likely to stay unemployed for the first six months of their spell in 1998/99 than other years. This provides some evidence of a pre-programme effect for NDYP.

Comparing 1998/99 with the immediately preceding years we find that relative to 1997/98 the difference between target and comparison group was small. In 1998/99 the difference in the percentage of people from each age group that stayed unemployed for six months was roughly nine per cent. In 1997/98 the difference was seven per cent and in 1996/97 and 1995/96 it was just five per cent. Thus considering the difference over time in these differences, 1998/99 relative to 1997/98 yields a difference in difference of roughly two per cent whilst 1998/99 relative to 1996/97 and 1995/96 yields a difference in difference of roughly four per cent.

Figure 3c Difference in proportion of people aged 18-24 and aged 30-39 still unemployed up to six months after entering unemployment
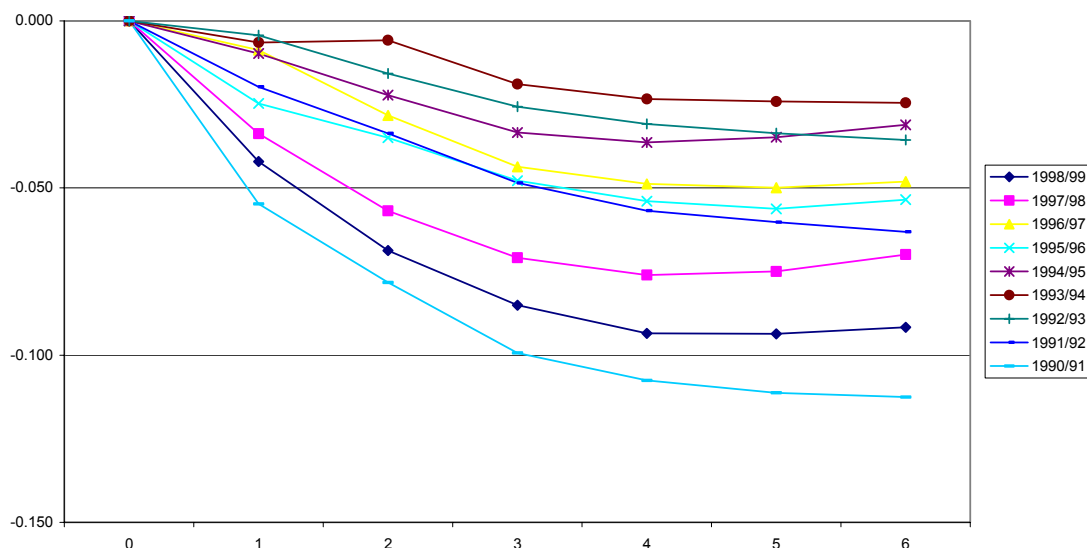
6.4 Models of pre-programme effects

In the same way that the main NDYP effect was estimated in Section Five, pre-programme effects were estimated using difference-in-difference models. This allows us to consider the impact of demographic changes in the composition of unemployment over time and also provides the opportunity for a more robust examination of the appropriate baseline period.

To assess the appropriate baseline period the probability of remaining unemployed for six months just including data prior to the introduction of NDYP was estimated separately for men and women with the same set of control variables as for other models.

The results, not presented here, indicated that a model including data from April 1996 to March 1998 yielded no significant difference in coefficients across the time period so that this period could be included in the baseline. However, when the estimation period was extended back to April 1995, the coefficients for 1995/96 were significantly different to the later years. This was true both for men and women. Thus the baseline period for these models was restricted to run from April 1996 to March 1998.

Table 6 reports results from models including the baseline period and the NDYP period. The coefficients presented give the change in the probability of a member of the target group relative to a member of the comparison group being unemployed for six months in 1998/99 compared with the baseline period.

For men, the probability was reduced by 0.05 according to the linear probability model, or 0.06 according to the logistic model. The sample for these models was any unemployment spell excluding those that follow a NDYP qualifying spell. There were 22,393 men starting such an unemployment spell in 1998/99. This translates to a little under 450,000 spells for the male population. Applying the reduced probability of being unemployed means that there were 21,000 fewer men unemployed six months later according to the linear probability model and 27,000 fewer men unemployed according to the logistic model. For women the impact of NDYP was very small and

none of the estimates were statistically significant, so it can be concluded that NDYP

had no pre-programme effect for women.

Table 6. Estimates of the pre-programme impact of NDYP on the probability of being unemployed

	Men		Women	
Model	Estimated change in the mean probability of being unemployed	Change in Unemployment (thousands)	Estimated change in the mean probability of being unemployed	Change in Unemployment (thousands)
Linear	-0.05	-21	0.01*	0
Logistic	-0.06	-27	0.004*	0

* indicates the estimates are not significantly different from zero.

7. Destinations

The final piece of analysis considered in this paper looks at the destination of individuals upon leaving unemployment. Full details of the possible destinations that are reported in JUVOS are given in Sweeney (1996). Here the focus was mainly on leavers to work and to government supported training, which broadly relate to the employment and full-time education and training NDYP Options. Information on these destinations was only available from 1996 onwards. Analysis was limited to the annual time periods because there was too much volatility in quarterly time periods to provide a meaningful analysis. In addition it must be born in mind that when we make comparisons from 12 months after the pseudo New Deal date onwards 1997/98 may not be a robust comparison period because of the large numbers of young people entering NDYP after 12 months unemployment duration.

There were large numbers of unemployment leavers who did not provide any information on their exit destination. 27 per cent of young people who left unemployment between April 1996 and March 1999 were recorded as having an unknown exit destination. There was a big fall in this percentage between 1996/97 and 1997/98. In 1996/97, 33 per cent of young people recorded an unknown destination compared to 23 per cent in 1997/98. Following that period, 21 per cent of people were recorded as having an unknown destination in 1998/99.

For the comparison age group the pattern is similar. 23 per cent of the total sample there had an unknown destination recorded, with a figure of 29 per cent in 1996/97 and 18 per cent in 1997/98 and 1998/99.

The result of these changes over time is that if we consider all unemployment leavers we are likely to find a higher proportion of leavers to work and training in 1997/98 and 1998/99 compared to 1996/97. Given this, the descriptive analysis below only considers destinations to those with a known destination. For a robust analysis of exit destinations over time we need to assume that the type of people that report an exit destination in 1997/98 and 1998/99 but not 1996/97 are similar in terms of the destinations they report to those that were reporting an exit destination in all years.

This assumption may not be true, so comparisons just with 1997/98 may be particularly revealing.

The first piece of analysis concentrates on first exit destination upon leaving the pseudo NDYP qualifying unemployment spell. Young people leaving the NDYP Gateway either to go into work or onto an NDYP Option will report an end to their unemployment claim. Hence this analysis can be thought of as being primarily about the Gateway effect of NDYP. Later in this section any unemployment exit that occurs after the pseudo NDYP qualifying unemployment spell is considered.

7.1 18 to 24 year-old Leavers to Work

Figure 4a shows the proportion of 18-24 year-olds that left their qualifying unemployment spell to go into work up to 18 months after their pseudo New Deal entry date. Up to month nine the proportion of exits to work was slightly higher for 1998/99 than for 1997/98 and considerably higher than for 1996/97. After this point, in the NDYP period the proportion of exits to work remained fairly constant whilst the proportion in the preceding two years continued to increase. The result is that by 18 months after the pseudo New Deal entry date there was a higher proportion of exits to work in 1997/98 than 1998/99 whilst the numbers for 1996/97 and 1998/99 were roughly the same.

This means that exits to work accelerated under NDYP, but after 18 months follow-up there was no larger proportion exiting unemployment to work than prior to NDYP. Accelerated exits from unemployment to work were in line with findings from Bonjour et al (2001) who showed that NDYP participants going into the NDYP Employment Option typically have a shorter time period before going into this Option, than for all the other Options. This may be because a number of NDYP participants only consider the other Options once they have been unable to find a place on an Employment Option.

Figure 4a Proportion of 18-24 year-old Unemployment Leavers that left to go into work up to 18 months after pseudo New Deal entry date.
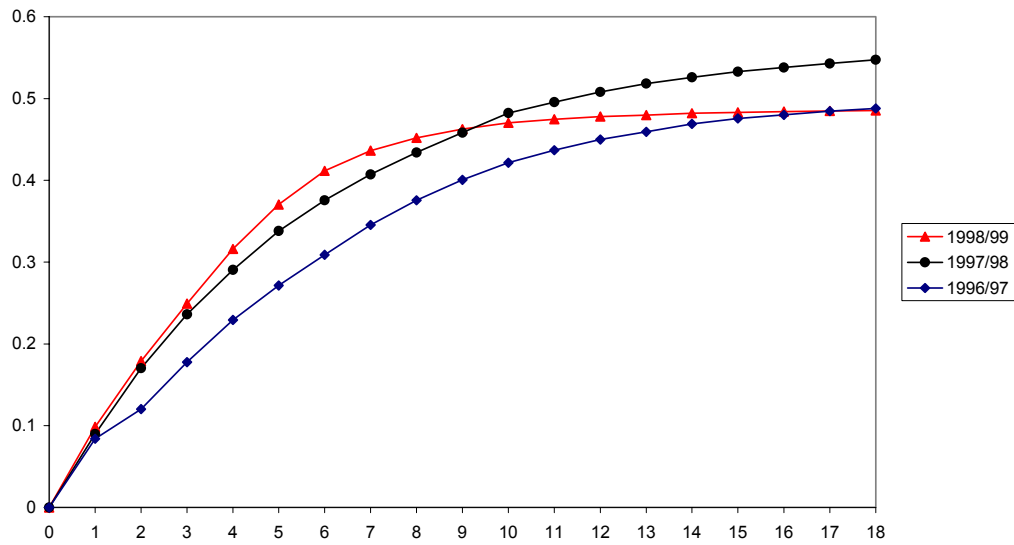

Figure 4b shows the percentage of 18-24 year-olds returning to unemployment after leaving a previous unemployment spell to go into work. Throughout the follow-up period there was a higher proportion of returners in 1998/99 compared to 1996/97. However, compared with 1997/98 there was little difference for the first six months of the follow-up before the higher proportion of returners became evident for the remainder of the follow-up period.

Figure 4b Percentage of 18-24 year-old Unemployment Leavers to work that returned to unemployment up to 18 months after pseudo New Deal entry date.
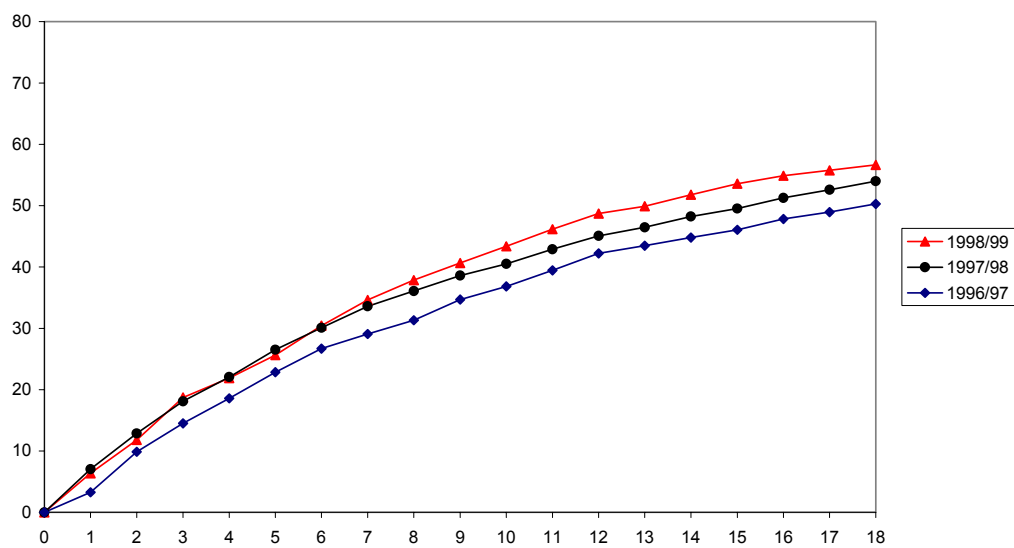
Turning to the proportion of unemployment leavers to work that are unemployed up to 18 months after the pseudo New Deal entry date (Figure 4c). Throughout the follow-up period a higher proportion of young people remained unemployed from entrants in 1997/98 than in 1996/97. Here we find that the line for the NDYP period is nestled between the two preceding years. For the first six months there was no difference between the probability of being unemployed in 1998/99 and 1997/98. However, from this point onwards, young people were less likely to be unemployed in 1998/99 than in 1997/98. Conversely, for the first 13 months young people were more likely to be unemployed in 1998/99 than in 1996/97, but after this point the differences disappear.

Figure 4c Proportion of 18-24 year-old Unemployment Leavers to work that are unemployed up to 18 months after pseudo New Deal entry date.
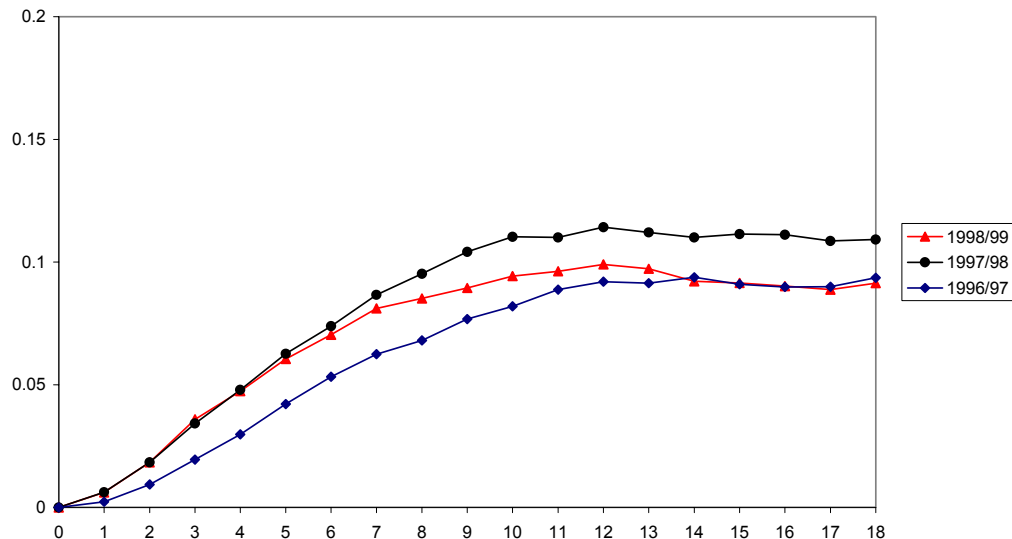
7.2 18 to 24 year-old Leavers to Government Supported Training

Turning to those leaving unemployment to go into Government Supported Training, GST, Figure 4d shows a higher proportion of unemployment leavers went into GST in 1998/99 than the previous two years. This difference increased predominantly between three and six months after the pseudo New Deal entry date, the time when young people would leave the NDYP Gateway to go into NDYP Options, and remains fairly steady thereafter.

Figure 4d Proportion of 18-24 year-old Unemployment Leavers that left to go into GST up to 18 months after pseudo New Deal entry date.
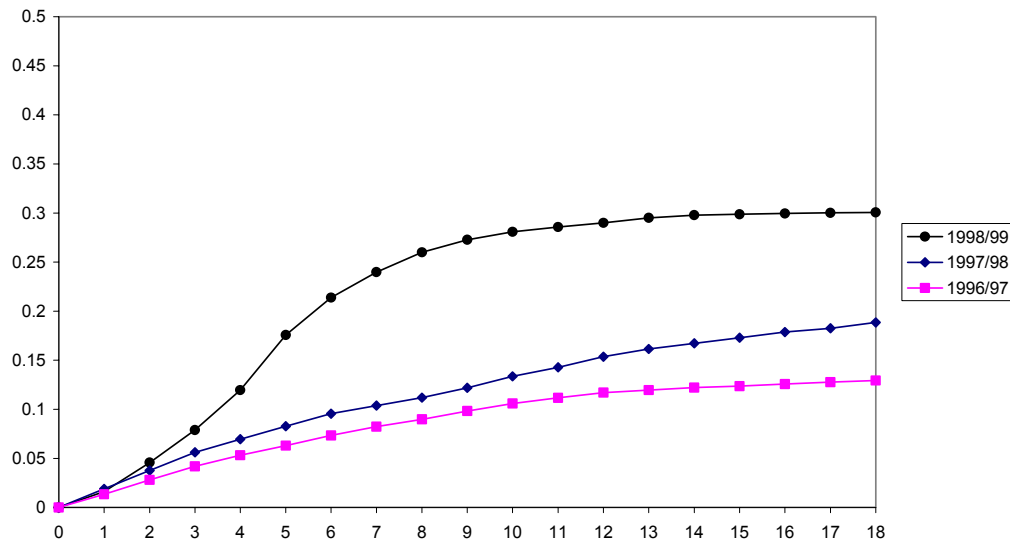

Figure 4e shows that in 1998/99 in the first ten months after the pseudo New Deal entry date young people who had previously left unemployment to go into GST were less likely to return unemployment than in the two preceding years. This roughly coincides with when they are on their New Deal Option. However, from ten months after the pseudo New Deal entry date, they were more likely to return to unemployment in 1998/99 than in the two preceding years. These young people will typically have been on a Training Option that has ended and then have returned to the NDYP Follow through.

Figure 4e Percentage of 18-24 year-old Unemployment Leavers to GST that returned to unemployment up to 18 months after pseudo New Deal entry date.
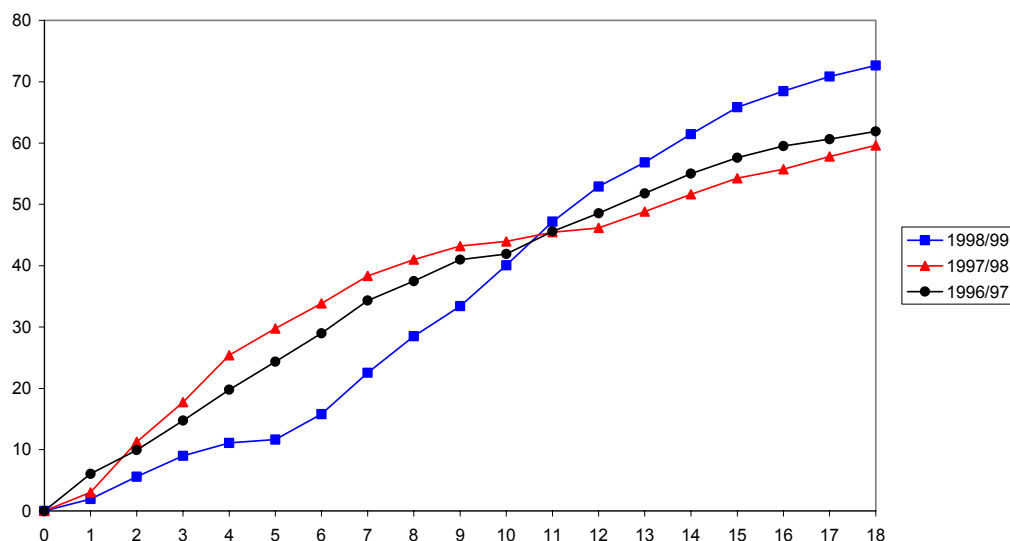
Figure 4f plots the proportion of unemployment leavers to GST who were subsequently unemployed up to 18 months after their pseudo New Deal entry date. Here we find that from six months after the pseudo New Deal entry date onwards there was a higher proportion of young people that were unemployed in 1998/99 than in the previous two years.

Figure 4f Percentage of 18-24 year-old Unemployment Leavers to GST that are unemployed up to 18 months after pseudo New Deal entry date.
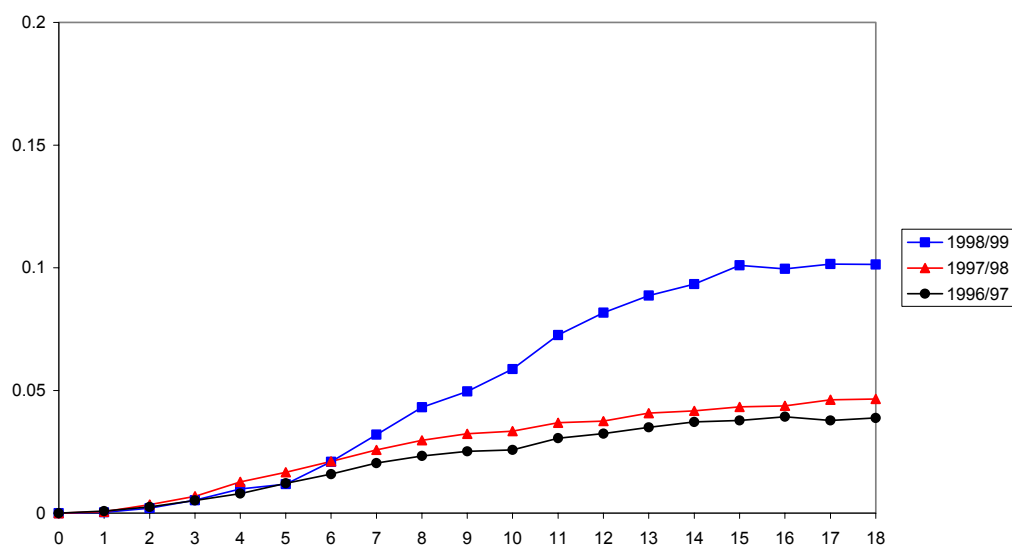
*7.3 Comparisons with older leavers to work*

Turning to comparisons with 30-39 year-olds, Figures 5a-5f plot differences between the two age groups in the proportions in each of our outcome measures over time. In most cases the patterns for older people are steady over time so most of the trends evident in Figures 4a-4f also come through in Figures 5a-5f.

The positive numbers in Figure 5a indicate that young people were more likely to exit unemployment to work than 30 to 39 year-olds. Prior to NDYP the difference between the age groups increased for the first seven months then remained steady at about eight percentage points in 1997/98 and five percentage points in 1996/97.

For the NDYP year the difference between the two age groups also increased for the first six months after the pseudo New Deal entry date up to a difference of about 13 percentage points, but thereafter fell steadily to just three percentage points 18 months

after the pseudo New Deal date. This means that in terms of the difference in differences, for the first 11 months after their pseudo New Deal entry date young people relative to older people were more likely to leave unemployment to go into work in the NDYP period than before NDYP. However, after this period the difference depends on the comparison period. For 1998/99 relative to 1997/98 young people relative to older people were less likely to leave to work for all months after month 11, but relative to 1996/97 the converse is true up to month 16.

Figure 5a (18 to 24) – (30 to 39) year-old difference in unemployment leavers that left to go into work up to 18 months after pseudo New Deal entry date.
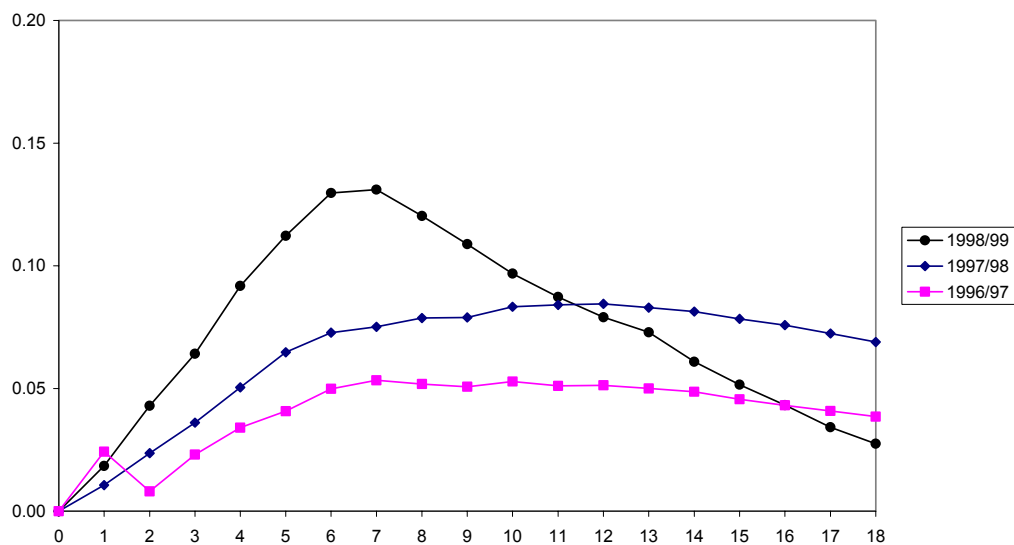
The pattern for returners, shown in Figure 5b, is less clear. The percentage differences we re again all positive indicating that young people were more likely than older people to return to unemployment having previously left unemployment to go into work. For the first six months after the pseudo New Deal entry date the percentage difference in returners in 1998/99 was quite volatile. Thereafter the percentage difference moves from being close to the 1997/98 numbers up to about month nine to being close to the 1996/97 numbers from month ten onwards.

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Figure 5b (18 to 24) – (30 to 39) year-old difference in unemployment leavers to work that returned to unemployment up to 18 months after pseudo New Deal entry date.
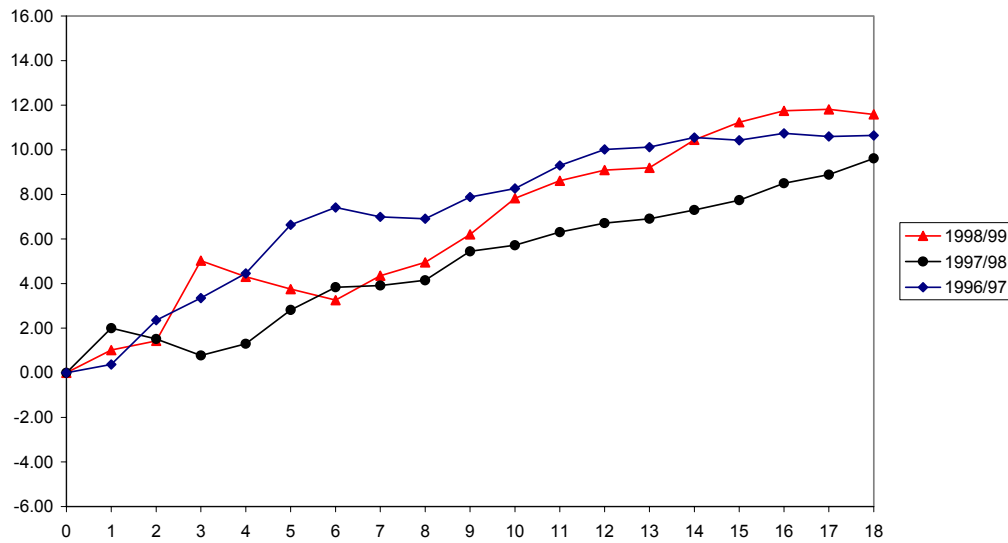

Figure 5c shows the difference between the two age groups in the proportion of people that were unemployed up to 18 months after the pseudo New Deal date given that they had previously left unemployment to go into work. Here there is little difference between any of the years indicating that NDYP had very little impact on the probability of a young person being unemployed after exiting unemployment to go into work. The numbers are nearly all positive indicating that young people were more likely to be unemployed than older people. However, they were all less than 0.03 so the difference between the two ages was always less than three per cent.

When comparing the different years we find that young people relative to older people in 1998/99 compared with the previous two years were more likely to be unemployed in months two to four after their pseudo New Deal entry date. However, from month six onwards, young people relative to older people in 1998/99 compared to the previous two years were less likely to be unemployed. The differences between the years were extremely small at roughly one percentage point.

Figure 5c (18 to 24) – (30 to 39) year-old difference in unemployment leavers to work that are unemployed up to 18 months after pseudo New Deal entry date.
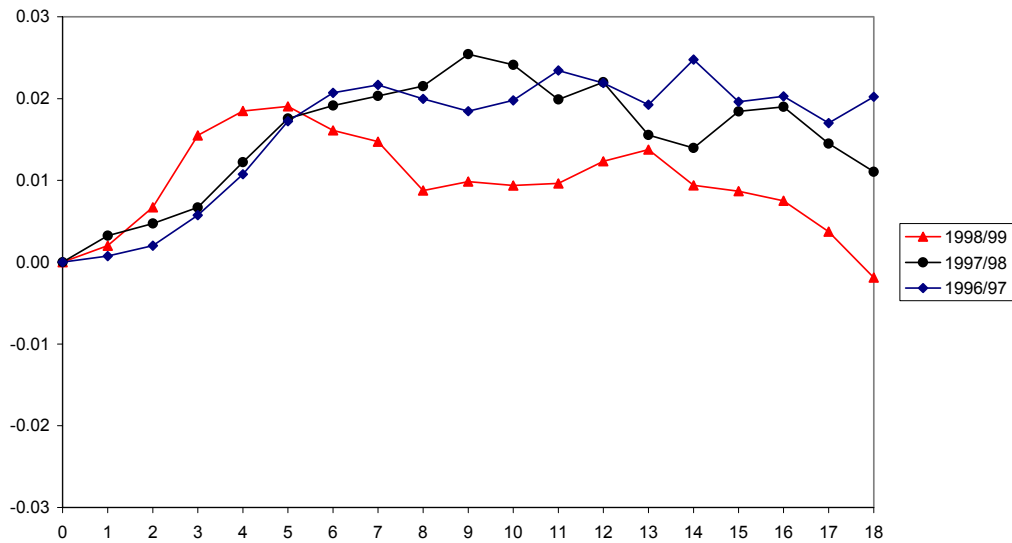
7.4 Comparisons with older leavers to Government Supported Training

Figures 5d-5f present the same information as Figures 5a-5c for people that left unemployment to go into GST. The strong patterns for young people shown in Figures 4d-4f also come through here. In 1998/99 there was a much higher proportion of young relative to older leavers to training than in the preceding two years (Figure 5d).

Figure 5d (18 to 24) – (30 to 39) year-old difference in unemployment leavers that left to go into GST up to 18 months after pseudo New Deal entry date.
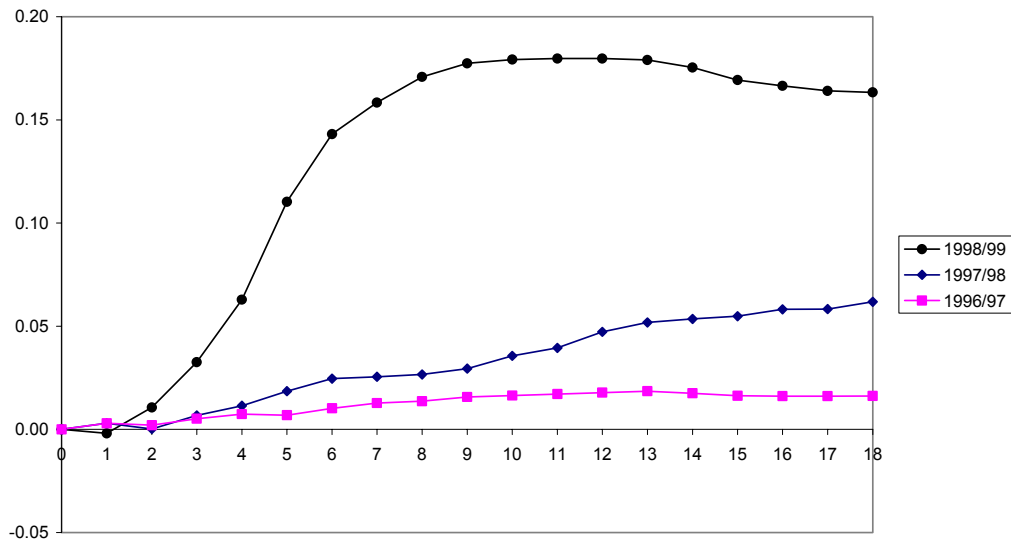

Figure 5e shows that for 1998/99 during the first six months of the follow-up period there were a decreasing percentage of young people returning to unemployment from training relative to older people, such that, at six months after the pseudo New Deal entry date, roughly 23 per cent more older people returned to unemployment from training than young people. From six months onwards this trend reversed and by the end of our follow-up more young people had returned to unemployment from training than older people. The pattern for the two previous years was much more stable with slightly more older people returning to unemployment from training throughout the follow-up period.

Figure 5e (18 to 24) – (30 to 39) year-old difference in unemployment leavers to GST that returned to unemployment up to 18 months after pseudo New Deal entry date.
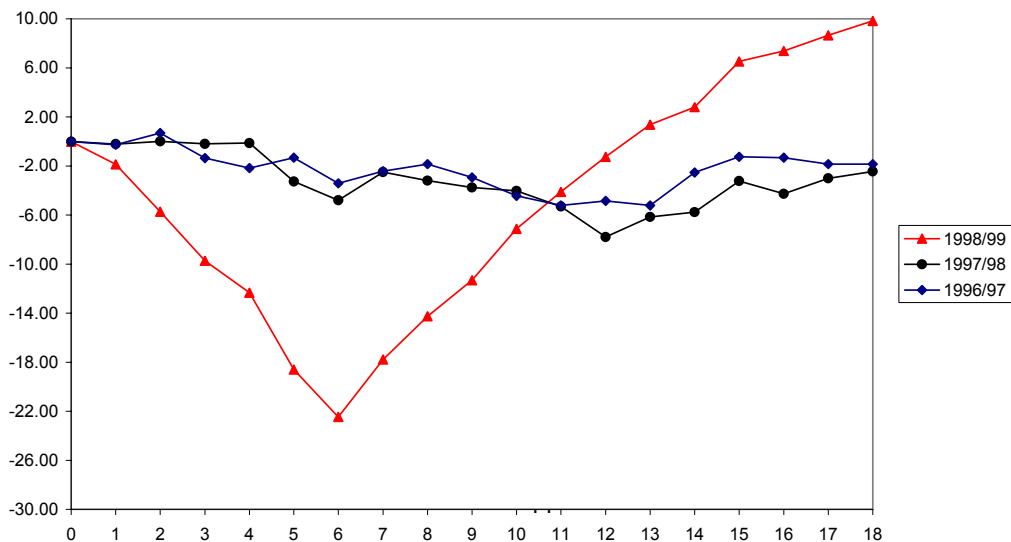
The pattern displayed in Figure 5f is similar to that for Figure 4f. For the first six months after the pseudo New Deal entry date there was little difference in the proportion of young people and older people that were unemployed in each of the years. Thereafter, the proportion of young people relative to older people that were unemployed increased in 1998/99 whilst there was little difference between the ages in 1996/97 and 1997/98. The result was that 18 months after the pseudo New Deal entry date the difference between the age groups in the percentage of people that were unemployed having previously left unemployment to go into GST was five percentage points in 1998/99 compared to zero in the other years.

Figure 5f (18 to 24) – (30 to 39) year-old difference in unemployment leavers to GST that are unemployed up to 18 months after pseudo New Deal entry date.
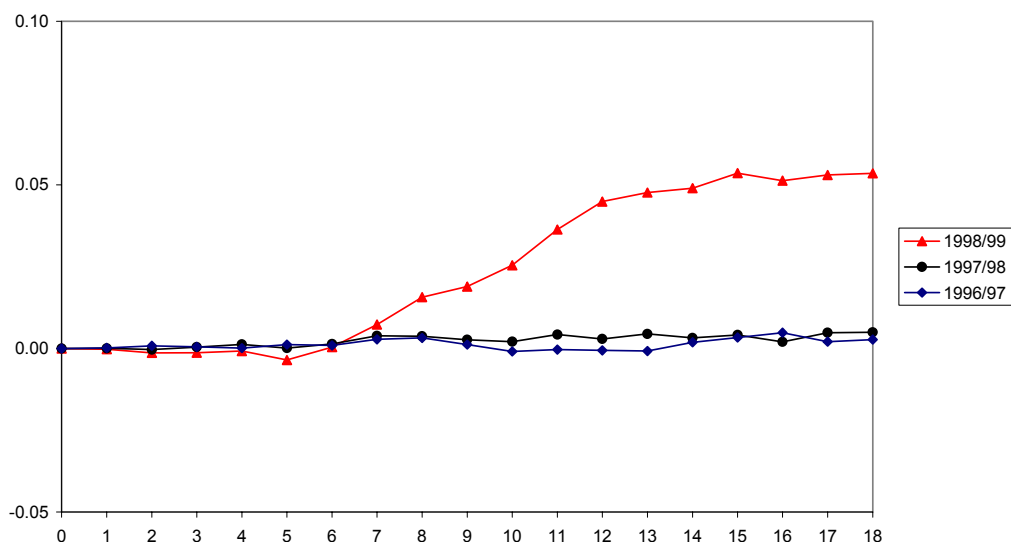
7.5 Difference-in-Difference Models

The above figures capture the patterns of destinations upon leaving unemployment and the propensity to return to unemployment. In line with previous sections we turn to difference-in-difference models to assess the impact of NDYP. Here we are concerned with the probability of exiting unemployment to work, GST and other destinations and remaining not unemployed. In these models we use the same control variables that were used in earlier models. The baseline period in all models runs from April 1996 to March 1998. No tests were carried out on the appropriate period, but data is only available back to April 1996 and in all previous models a baseline extending back to April 1996 has been used.

Table 7 reports the impact of NDYP on the probability of being not unemployed by first exit destination when leaving unemployment. These estimates will capture any changes to exit destinations as well as the probability of not returning to unemployment. The idea is to assume some permanence in the exit destination if unemployment has not recurred. This is all the information that was available. There may be later transitions from the first exit destinations, but unless they were a return to unemployment these transitions were not captured in the data.

The estimates indicated that six months after the pseudo New Deal entry date the probability of leaving unemployment to go into work and then not returning to unemployment had increased for young men by 0.06 relative to older men and the pre NDYP period. If we assume that this represents an increase in employment then these figures translate to an increase of 8,000. This may be interpreted as a Gateway effect together with the effect of the Subsidised Employment Option. Reading across the first row the estimates longer in the follow-up period are not significant implying that any increase in employment for men is not sustained.

For GST, the pattern is different. Throughout the follow-up period there was an increase in exits of young people to GST who did not subsequently return to unemployment. It is possible that the positive estimates found here will subsequently lead to more employment because we know the NDYP training Option is finite in duration. Thus these people will have subsequent transitions. The result that many more young people are not returning to unemployment leads to two conclusions. First the follow-up period is insufficient to capture some post-training transitions with some young people still participating in training 18 months after the pseudo New Deal entry date. Second, the follow-up period does, in fact, capture post-training transitions and these are not to unemployment, hence are quite likely to be transitions to employment. It is not possible to say from this analysis which effect was dominant.

The estimates of exits to other destinations and subsequent recurrence of unemployment are much smaller than the employment and GST estimates for men at six months. They also decline over the follow-up period and after 18 months are not significant.

For women the pattern is different. Throughout the follow up period the impact of NDYP on exits to work and GST are both sustained over the whole follow-up period. This suggests that employment for women has probably increased as a result of NDYP, although the magnitude of the impact is quite small at around 3,000. There is no evidence in Table 7 of any impact for women on exits to other destinations.

Table 7. Estimates of the probability of being not unemployed by first exit destination

	Six Months		12 Months		18 Months	
	(1)	(2)	(1)	(2)	(1)	(2)
Men						
Destination						
Work	0.06***	8	0.01		-0.01	
GST	0.10***	13	0.08***	11	0.06***	8
Other	0.03***	4	0.03***	3	0.01	
Women						
Destination						
Work	0.06***	3	0.05***	3	0.05**	3
GST	0.11***	6	0.09***	5	0.08***	4
Other	0.03*	1	0.02		-0.01	

1. Estimated change in the mean probability of being in each state.
2. Implied change in numbers of people (in thousands) unemployed or exiting unemployment to each destination.
3. The change in the numbers of people in columns (2) is calculated by applying the change in the probabilities given in columns (1) by the number of people in the sample in the year after the introduction of NDYP. For men this is roughly 135,000 and for women roughly 52,000.
- indicates significant at 10% level, ** indicates significant at 5% level, *** indicates significant at 1% level.

7.6 The effect of including subsequent unemployment exit destinations

The work exits analysis described above maybe thought of as a NDYP Gateway effect because the focus is on only the initial exit destination. However, in discussion of the results for GST the fact that unemployment tends not to recur may be evidence of a NDYP Options effect. This can be considered by looking at individuals who have exited to work from any unemployment spell. This will not capture moves directly from Options to work, but hopefully will capture some moves from the NDYP post Option follow through to work.

Figure 6a plots the difference between the two age groups in the proportion of people that have exited unemployment to go into work at some point after having a pseudo New Deal qualifying spell. The equivalent graph for first exit destinations is Figure

5a. Here there is a similar pattern. For 1996/97 and 1997/98 the lines have an upward trend throughout the follow-up period whilst for 1998/99 the proportion increases for the first six months then falls. The main difference between the two graphs is that in Figure 5a the 1998/99 line falls below the 1996/97 line by the end of the follow-up period, but in Figure 6a this is not the case.

Figure 6a (18 to 24) – (30 to 39) year-old difference in unemployment leavers that left to go into work from any unemployment spell up to 18 months after pseudo New Deal entry date.
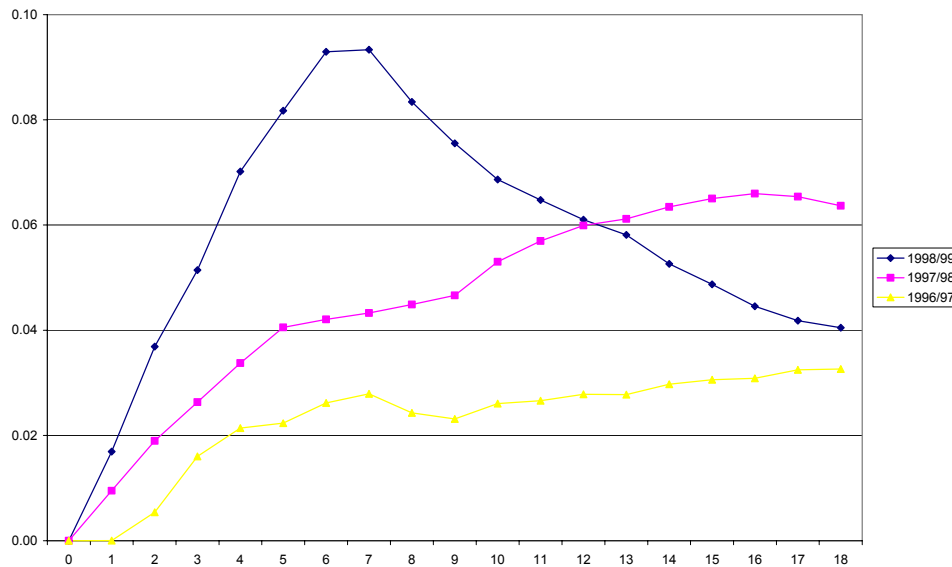
It is much harder to assess subsequent unemployment for unemployment spells that occur frequently at the end of the follow-up period, so here we limit the analysis to look just at exits. In line with the approach throughout the paper difference-in-difference models were estimated on the probability of experiencing an exit to work at any time during the follow-up period. The estimates in Table 8 are remarkably similar to those in Table 7. Here the results indicate for men a 0.06 increase in the probability of exiting any unemployment spell to go into work during the first six months of the follow up, whilst later in the follow-up period there is no impact on exits to work.

For women there was also an increase in the probability of exiting unemployment to work of roughly 0.06 after six months that declines slightly over the follow-up period, but remains at around 0.05 twelve months later. The implied effect in terms of additional exits works out to be around 3,000.

Table 8. Estimates of the probability of any unemployment exit to work

	Six Months		12 Months		18 Months	
	(1)	(2)	(1)	(2)	(1)	(2)
Men	0.06***	8	0.01		-0.01	
Women	0.06***	3	0.05***	3	0.05**	2

1. Estimated change in the mean probability of being in each state.
2. Implied change in numbers of people (in thousands) unemployed or exiting unemployment to each destination.
3. The change in the numbers of people in columns (2) is calculated by applying the change in the probabilities given in columns (1) by the number of people in the sample in the year after the introduction of NDYP. For men this is roughly 135,000 and for women roughly 52,000.

- indicates significant at 10% level, ** indicates significant at 5% level, *** indicates significant at 1% level.

8. Conclusions

This paper has presented a series of analyses to assess the impact of NDYP on the probability that young people exit unemployment and the probability of the recurrence of unemployment over a period of 18 months after having an unemployment spell that would qualify them for NDYP.

A difference-in-difference approach was used comparing over time people aged 18-24 with people aged 30-39. The appropriate baseline time period was considered in some detail and in general it was decided to compare the NDYP period with data from April 1995 onwards.

Estimates of the impact of NDYP on the probability of being unemployed six months after reaching the qualifying time for NDYP entry indicate for men a reduction in unemployment of around 30,000 and for women a reduction of around 9,000. This length of follow-up period broadly coincides with movements from the NDYP Gateway into Options when unemployment claims terminate.

A longer follow-up period produces a lower reduction in the probability of being unemployed. 12 months after New Deal entry unemployment was roughly 20,000 lower for men and around 8,000 lower for women. Six months after this the unemployment reduction was around 10,000 for men and 5,000 for women. These longer follow-up periods cover at least part of the period when NDYP participants were leaving Options. At this time some NDYP participants would have returned to claim JSA during the NDYP Follow through.

Pre-programme effects were also estimated. These indicated that roughly 25,000 fewer young unemployed people remained unemployed for six months than in the year after the introduction of NDYP than in the preceding two years.

Estimates for the destination of people on leaving unemployment after a spell lasting six months or more showed for men an increase in exits to work in the first six months after qualifying for NDYP that disappeared over the following next 12 months. This suggests that NDYP has led to more rapid unemployment exit for men,

but has had no overall effect on the proportion of men leaving unemployment to work. For women, the impact on exits to work is also positive and holds across the whole follow-up period implying an increase in employment of around 3,000.

A larger impact was found when considering exits to GST for both men and women. Here the effects last throughout the follow-up period and indicate that young people were more likely to leave unemployment to go into GST during NDYP than before NDYP. The results imply that 18 months after qualifying for NDYP roughly 8,000 more men and 4,000 more women have left unemployment to go into GST and not returned to unemployment.

There was some evidence looking at subsequent unemployment exits that young people were more likely to leave unemployment for work from their second or third spell after qualifying for NDYP, but these estimates were small.

Adding together the pre-programme effects of NDYP and the estimates from 18 months after qualifying for NDYP we conclude that NDYP has reduced unemployment by 30-40,000 with a significant part of the impact coming from young people who no longer claim unemployment benefit for six months and hence do not qualify for NDYP. For those that did participate in the programme, the largest effect is an increase in the proportion of young people who left unemployment to go into GST.

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